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Automated Report

Technical Report for

Arcadis

National Grid, Philly Coke, Philadelphia, PA

B0036790.0001.00002 30004026

SGS Job Number: JC96248

Sampling Date: 10/04/19

Report to:

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Total number of pages in report: 1356



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

A handwritten signature in black ink, appearing to read "Laura Degenhardt".

**Laura Degenhardt
General Manager**

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Certifications: NJ(12129), NY(10983), CA, CT, FL, IL, IN, KS, KY, LA, MA, MD, ME, MN, NC, OH VAP (CL0056), AK (UST-103), AZ (AZ0786), PA, RI, SC, TX, UT, VA, WV, DoD ELAP (ANAB L2248)

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Test results relate only to samples analyzed.

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Sample Summary

Arcadis

Job No: JC96248

National Grid, Philly Coke, Philadelphia, PA
Project No: B0036790.0001.00002 30004026

Sample Number	Collected Date	Time By	Matrix Received	Code Type	Client Sample ID
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This report contains results reported as ND = Not detected. The following applies:
Organics ND = Not detected above the MDL

JC96248-1	10/04/19	09:50	GB	10/04/19	AQ	Ground Water	MW-108
JC96248-1F	10/04/19	09:50	GB	10/04/19	AQ	Groundwater Filtered	MW-108
JC96248-2	10/04/19	10:05	GB	10/04/19	AQ	Ground Water	MW-109
JC96248-2F	10/04/19	10:05	GB	10/04/19	AQ	Groundwater Filtered	MW-109
JC96248-3	10/04/19	08:45	GB	10/04/19	AQ	Ground Water	MW-110
JC96248-3F	10/04/19	08:45	GB	10/04/19	AQ	Groundwater Filtered	MW-110
JC96248-4	10/04/19	11:35	GB	10/04/19	AQ	Ground Water	MW-111
JC96248-4D	10/04/19	11:35	GB	10/04/19	AQ	Water Dup/MSD	MW-111 MSD
JC96248-4F	10/04/19	11:35	GB	10/04/19	AQ	Groundwater Filtered	MW-111
JC96248-4FD	10/04/19	11:35	GB	10/04/19	AQ	Water Dup/MSD	MW-111 MSD
JC96248-4FS	10/04/19	11:35	GB	10/04/19	AQ	Water Matrix Spike	MW-111 MS
JC96248-4S	10/04/19	11:35	GB	10/04/19	AQ	Water Matrix Spike	MW-111 MS



Sample Summary (continued)

Arcadis

Job No: JC96248

**National Grid, Philly Coke, Philadelphia, PA
Project No: B0036790.0001.00002 30004026**

Sample Number	Collected		Received	Matrix		Client Sample ID
	Date	Time By		Code	Type	
JC96248-5	10/04/19	11:20 GB	10/04/19	AQ	Ground Water	MW-112
JC96248-5F	10/04/19	11:20 GB	10/04/19	AQ	Groundwater Filtered	MW-112
JC96248-6	10/04/19	12:45 GB	10/04/19	AQ	Ground Water	MW-113
JC96248-6F	10/04/19	12:45 GB	10/04/19	AQ	Groundwater Filtered	MW-113
JC96248-7	10/04/19	00:00 GB	10/04/19	AQ	Ground Water	DUP-100419
JC96248-7F	10/04/19	00:00 GB	10/04/19	AQ	Groundwater Filtered	DUP-100419
JC96248-8	10/04/19	12:30 GB	10/04/19	AQ	Field Blank Water	FB-100419
JC96248-8F	10/04/19	12:30 GB	10/04/19	AQ	Field Blank Filtered	FB-100419
JC96248-9	10/04/19	12:45 GB	10/04/19	AQ	Trip Blank Water	TRIP BLANK

CASE NARRATIVE / CONFORMANCE SUMMARY

2

Client: Arcadis

Job No JC96248

Site: National Grid, Philly Coke, Philadelphia, PA

Report Date 10/23/2019 12:56:35 P

On 10/04/2019, 7 Sample(s), 1 Trip Blank(s) and 2 Field Blank(s) were received at SGS North America Inc. at a maximum corrected temperature of 4.3 C. Samples were intact and chemically preserved, unless noted below. A SGS North America Inc. Job Number of JC96248 was assigned to the project. Laboratory sample ID, client sample ID and dates of sample collection are detailed in the report's Results Summary Section.

Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

Compounds qualified as out of range in the continuing calibration summary report are acceptable as per method requirements when there is a high bias but the sample result is non-detect.

MS Volatiles By Method SW846 8260C

Matrix: AQ

Batch ID: V2D7993

- All samples were analyzed within the recommended method holding time.
- Sample(s) JC96248-4MS, JC96248-4MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- Matrix Spike Recovery(s) for cis-1,3-Dichloropropene, Toluene are outside control limits. Outside control limits due to matrix interference.
- Matrix Spike /Matrix Spike Duplicate Recovery(s) for Benzene are outside control limits. Outside control limits due to high level in sample relative to spike amount.
- RPD(s) for MSD for Benzene are outside control limits for sample JC96248-4MSD. Outside control limits due to matrix interference.
- JC96248-2 for Dichlorodifluoromethane: Associated CCV outside of control limits high, sample was ND.
- JC96248-4 for Dichlorodifluoromethane: Associated CCV outside of control limits high, sample was ND.
- JC96248-1 for Dichlorodifluoromethane: Associated CCV outside of control limits high, sample was ND.
- JC96248-3 for Dichlorodifluoromethane: Associated CCV outside of control limits high, sample was ND.
- JC96248-5 for Dichlorodifluoromethane: Associated CCV outside of control limits high, sample was ND.
- JC96248-6 for Dichlorodifluoromethane: Associated CCV outside of control limits high, sample was ND.
- JC96248-7 for Dichlorodifluoromethane: Associated CCV outside of control limits high, sample was ND.

Matrix: AQ

Batch ID: V2D8000

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC96538-1MS, JC96552-2DUP were used as the QC samples indicated.
- JC96248-8 for Dichlorodifluoromethane: Associated CCV outside of control limits high, sample was ND.
- JC96248-9 for Dichlorodifluoromethane: Associated CCV outside of control limits high, sample was ND.

MS Semi-volatiles By Method SW846 8270D

Matrix: AQ

Batch ID: OP23204

- All samples were extracted within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- OP23204-BSD for Hexachlorocyclopentadiene: Outside of in house control limits.

Matrix: AQ

Batch ID: OP23230

- All samples were extracted within the recommended method holding time.
- Sample(s) JC96248-4MS, JC96248-4MSD were used as the QC samples indicated.
- Sample(s) JC96248-4, JC96248-6, JC96248-7 have compound(s) reported with a “B” qualifier, indicating analyte is found in the associated method blank.
- Matrix Spike Recovery(s) for 2,2'-Oxybis(1-chloropropane), 2-Methylnaphthalene, 3,3'-Dichlorobenzidine, 4-Nitrophenol, Benzo(a)anthracene, Chrysene, Fluoranthene, Pyrene are outside control limits. Outside control limits due to matrix interference.
- Matrix Spike Duplicate Recovery(s) for 3,3'-Dichlorobenzidine, 4-Chlorophenyl phenyl ether, 4-Nitrophenol, N-Nitroso-di-n-propylamine, Phenol are outside control limits. Outside control limits due to matrix interference.
- Matrix Spike Recovery(s) for 2,4-Dimethylphenol, 2-Methylphenol, 3&4-Methylphenol, Carbazole, Naphthalene, Phenanthrene are outside control limits. Outside control limits due to high level in sample relative to spike amount.
- RPD(s) for MSD for 2,4-Dimethylphenol, 2-Methylphenol, 3&4-Methylphenol, Atrazine, Benzo(a)anthracene, Benzo(b)fluoranthene, Chrysene, Fluoranthene, N-Nitroso-di-n-propylamine, Naphthalene, Phenol, Pyrene are outside control limits for sample OP23230-MSD. Analytical precision exceeds in-house control limits.
- JC96248-6 for 2,4-Dimethylphenol: Associated CCV outside of control limits high, sample was ND.
- JC96248-5 for 2,4-Dimethylphenol: Associated CCV outside of control limits high, sample was ND.
- JC96248-8 for 2,4-Dimethylphenol: Associated CCV outside of control limits high, sample was ND.
- JC96248-7 for 2,4-Dimethylphenol: Associated CCV outside of control limits high, sample was ND.
- Matrix Spike Duplicate Recovery(s) for 2,4-Dimethylphenol, 3&4-Methylphenol, Naphthalene are outside control limits. Outside control limits due to high level in sample relative to spike amount.

Matrix: AQ

Batch ID: OP23404

- The data for SW846 8270D meets quality control requirements.
- JC96248-7: Sample extracted outside the holding time. Confirmation run.
- JC96248-6: Sample extracted outside the holding time. Confirmation run.

Metals Analysis By Method SW846 6010D

Matrix: AQ

Batch ID: MP17762

- All samples were digested within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC96248-4FMS, JC96248-4FMSD, JC96248-4FSDL, JC96248-4MS, JC96248-4MSD, JC96248-4SDL were used as the QC samples for metals.
- RPD(s) for Serial Dilution for Antimony, Beryllium, Cadmium, Zinc, Antimony, Chromium, Copper, Nickel, Vanadium are outside control limits for sample MP17762-SD1, MP17762-SD2. Percent difference acceptable due to low initial sample concentration (< 50 times IDL).
- MP17762-MB2 for Lead: Lab filtered.
- MP17762-MB2 for Silver: Lab filtered.
- MP17762-MB2 for Magnesium: Lab filtered.
- MP17762-MB2 for Manganese: Lab filtered.
- MP17762-MB2 for Nickel: Lab filtered.
- MP17762-MB2 for Potassium: Lab filtered.
- MP17762-MB2 for Selenium: Lab filtered.
- MP17762-MB2 for Sodium: Lab filtered.
- MP17762-MB2 for Thallium: Lab filtered.
- MP17762-MB2 for Cobalt: Lab filtered.
- MP17762-SD1 for Zinc: Serial dilution indicates possible matrix interference.
- MP17762-MB2 for Chromium: Lab filtered.
- MP17762-MB2 for Zinc: Lab filtered.
- MP17762-MB2 for Calcium: Lab filtered.
- MP17762-MB2 for Vanadium: Lab filtered.
- MP17762-MB2 for Arsenic: Lab filtered.
- MP17762-MB2 for Cadmium: Lab filtered.
- MP17762-MB2 for Beryllium: Lab filtered.
- MP17762-MB2 for Barium: Lab filtered.
- MP17762-MB2 for Aluminum: Lab filtered.
- MP17762-MB2 for Iron: Lab filtered.
- MP17762-MB2 for Antimony: Lab filtered.
- MP17762-MB2 for Copper: Lab filtered.

Metals Analysis By Method SW846 7470A

Matrix: AQ

Batch ID: MP17766

- All samples were digested within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC96248-4FMS, JC96248-4FMSD, JC96248-4MS, JC96248-4MSD were used as the QC samples for metals.

General Chemistry By Method EPA 335.4/LACHAT

Matrix: AQ

Batch ID: GP24356

- All samples were prepared within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC96248-4DUP, JC96248-4FMS, JC96248-4MS were used as the QC samples for Cyanide.
- Matrix Spike Recovery(s) for Cyanide are outside control limits. Spike recovery indicates possible matrix interference.

Wednesday, October 23, 2019

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General Chemistry By Method SM2540 C-11

Matrix: AQ

Batch ID: GN1010

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC96248-4DUP were used as the QC samples for Solids, Total Dissolved.

SGS North America Inc. certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting the Quality System precision, accuracy and completeness objectives except as noted.

Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria.

SGS North America Inc. is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety. Data release is authorized by SGS North America Inc indicated via signature on the report cover

Wednesday, October 23, 2019

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Summary of Hits

Job Number: JC96248
 Account: Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA
 Collected: 10/04/19



Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
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JC96248-1 MW-108

Anthracene	0.37 J	1.0	0.21	ug/l	SW846 8270D
Carbazole	0.85 J	1.0	0.23	ug/l	SW846 8270D
Dibenzofuran	0.48 J	5.0	0.22	ug/l	SW846 8270D
Fluoranthene	0.36 J	1.0	0.17	ug/l	SW846 8270D
Fluorene	0.99 J	1.0	0.17	ug/l	SW846 8270D
2-Methylnaphthalene	0.77 J	1.0	0.21	ug/l	SW846 8270D
Naphthalene	7.2	1.0	0.23	ug/l	SW846 8270D
Phenanthrene	1.3	1.0	0.18	ug/l	SW846 8270D
Pyrene	0.22 J	1.0	0.22	ug/l	SW846 8270D
Calcium	186000	5000		ug/l	SW846 6010D
Iron	12500	100		ug/l	SW846 6010D
Lead	81.7	3.0		ug/l	SW846 6010D
Magnesium	80900	5000		ug/l	SW846 6010D
Manganese	719	15		ug/l	SW846 6010D
Potassium	17000	10000		ug/l	SW846 6010D
Sodium	20500	10000		ug/l	SW846 6010D
Cyanide	0.031	0.010		mg/l	EPA 335.4/LACHAT
Solids, Total Dissolved	908	10		mg/l	SM2540 C-11

JC96248-1F MW-108

Calcium	191000	5000		ug/l	SW846 6010D
Iron	224	100		ug/l	SW846 6010D
Magnesium	83000	5000		ug/l	SW846 6010D
Manganese	710	15		ug/l	SW846 6010D
Potassium	18500	10000		ug/l	SW846 6010D
Sodium	22000	10000		ug/l	SW846 6010D
Cyanide	0.039	0.010		mg/l	EPA 335.4/LACHAT

JC96248-2 MW-109

Acenaphthene	1.2	0.96	0.18	ug/l	SW846 8270D
Acenaphthylene	1.2	0.96	0.13	ug/l	SW846 8270D
Acetophenone	0.25 J	1.9	0.20	ug/l	SW846 8270D
Anthracene	1.1	0.96	0.20	ug/l	SW846 8270D
1,1'-Biphenyl	0.39 J	0.96	0.20	ug/l	SW846 8270D
Carbazole	2.2	0.96	0.22	ug/l	SW846 8270D
Dibenzofuran	2.0 J	4.8	0.21	ug/l	SW846 8270D
Fluoranthene	1.2	0.96	0.16	ug/l	SW846 8270D
Fluorene	4.2	0.96	0.16	ug/l	SW846 8270D
2-Methylnaphthalene	1.5	0.96	0.20	ug/l	SW846 8270D
Naphthalene	8.8	0.96	0.22	ug/l	SW846 8270D
Phenanthrene	7.7	0.96	0.17	ug/l	SW846 8270D

Summary of Hits

Job Number: JC96248
Account: Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA
Collected: 10/04/19



Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method	
		Pyrene	0.71 J	0.96	0.21	ug/l	SW846 8270D
		Calcium	149000	5000		ug/l	SW846 6010D
		Iron	28000	100		ug/l	SW846 6010D
		Magnesium	83300	5000		ug/l	SW846 6010D
		Manganese	1660	15		ug/l	SW846 6010D
		Potassium	17700	10000		ug/l	SW846 6010D
		Sodium	37900	10000		ug/l	SW846 6010D
		Cyanide	0.011	0.010		mg/l	EPA 335.4/LACHAT
JC96248-2F	MW-109						
		Calcium	144000	5000		ug/l	SW846 6010D
		Iron	1860	100		ug/l	SW846 6010D
		Magnesium	83700	5000		ug/l	SW846 6010D
		Manganese	1520	15		ug/l	SW846 6010D
		Potassium	17900	10000		ug/l	SW846 6010D
		Sodium	38100	10000		ug/l	SW846 6010D
		Cyanide	0.019	0.010		mg/l	EPA 335.4/LACHAT
JC96248-3	MW-110						
		Acenaphthene	0.19 J	0.95	0.18	ug/l	SW846 8270D
		Acenaphthylene	0.72 J	0.95	0.13	ug/l	SW846 8270D
		Anthracene	0.26 J	0.95	0.20	ug/l	SW846 8270D
		1,1'-Biphenyl	0.35 J	0.95	0.20	ug/l	SW846 8270D
		Carbazole	1.6	0.95	0.22	ug/l	SW846 8270D
		Dibenzofuran	0.85 J	4.8	0.21	ug/l	SW846 8270D
		Fluoranthene	0.25 J	0.95	0.16	ug/l	SW846 8270D
		Fluorene	0.96	0.95	0.16	ug/l	SW846 8270D
		2-Methylnaphthalene	1.2	0.95	0.20	ug/l	SW846 8270D
		Naphthalene	15.5	0.95	0.22	ug/l	SW846 8270D
		Arsenic	5.0	3.0		ug/l	SW846 6010D
		Calcium	178000	5000		ug/l	SW846 6010D
		Iron	18900	100		ug/l	SW846 6010D
		Magnesium	82100	5000		ug/l	SW846 6010D
		Manganese	1430	15		ug/l	SW846 6010D
		Potassium	16500	10000		ug/l	SW846 6010D
		Sodium	32800	10000		ug/l	SW846 6010D
		Cyanide	0.014	0.010		mg/l	EPA 335.4/LACHAT
JC96248-3F	MW-110						
		Calcium	179000	5000		ug/l	SW846 6010D
		Iron	2680	100		ug/l	SW846 6010D
		Magnesium	83700	5000		ug/l	SW846 6010D

Summary of Hits

Job Number: JC96248
 Account: Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA
 Collected: 10/04/19



Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
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Manganese		1390	15		ug/l	SW846 6010D
Potassium		16900	10000		ug/l	SW846 6010D
Sodium		33300	10000		ug/l	SW846 6010D
Cyanide		0.017	0.010		mg/l	EPA 335.4/LACHAT

JC96248-4 MW-111

Acetone		8.6 J	10	6.0	ug/l	SW846 8260C
Benzene		686	5.0	4.3	ug/l	SW846 8260C
Ethylbenzene		24.3	1.0	0.60	ug/l	SW846 8260C
Isopropylbenzene		1.2	1.0	0.65	ug/l	SW846 8260C
Styrene		9.4	1.0	0.70	ug/l	SW846 8260C
Toluene		90.4	1.0	0.53	ug/l	SW846 8260C
m,p-Xylene		72.9	1.0	0.78	ug/l	SW846 8260C
o-Xylene		36.5	1.0	0.59	ug/l	SW846 8260C
Xylene (total)		109	1.0	0.59	ug/l	SW846 8260C
2,4-Dimethylphenol		241	50	24	ug/l	SW846 8270D
2-Methylphenol		177	20	8.9	ug/l	SW846 8270D
3&4-Methylphenol		212	20	8.8	ug/l	SW846 8270D
Phenol		80.2	2.0	0.39	ug/l	SW846 8270D
Acenaphthene		87.7	1.0	0.19	ug/l	SW846 8270D
Acenaphthylene		80.2	1.0	0.14	ug/l	SW846 8270D
Acetophenone		2.1	2.0	0.21	ug/l	SW846 8270D
Anthracene		16.1	1.0	0.21	ug/l	SW846 8270D
Benzo(a)anthracene		3.6	1.0	0.20	ug/l	SW846 8270D
Benzo(a)pyrene		2.6	1.0	0.21	ug/l	SW846 8270D
Benzo(b)fluoranthene		2.9	1.0	0.21	ug/l	SW846 8270D
Benzo(g,h,i)perylene		1.4	1.0	0.34	ug/l	SW846 8270D
Benzo(k)fluoranthene		1.3	1.0	0.21	ug/l	SW846 8270D
1,1'-Biphenyl		20.7	1.0	0.21	ug/l	SW846 8270D
Carbazole		189	10	2.3	ug/l	SW846 8270D
Chrysene		3.2	1.0	0.18	ug/l	SW846 8270D
Dibenzo(a,h)anthracene		0.42 J	1.0	0.33	ug/l	SW846 8270D
Dibenzofuran		64.2	5.0	0.22	ug/l	SW846 8270D
Fluoranthene		22.9	1.0	0.17	ug/l	SW846 8270D
Fluorene		75.2	1.0	0.17	ug/l	SW846 8270D
Indeno(1,2,3-cd)pyrene		1.4	1.0	0.33	ug/l	SW846 8270D
2-Methylnaphthalene		97.8	1.0	0.21	ug/l	SW846 8270D
Naphthalene		973 B	10	2.3	ug/l	SW846 8270D
Phenanthrene		136	10	1.8	ug/l	SW846 8270D
Pyrene		15.5	1.0	0.22	ug/l	SW846 8270D
Aluminum		6890	200		ug/l	SW846 6010D
Arsenic		26.8	3.0		ug/l	SW846 6010D
Barium		250	200		ug/l	SW846 6010D
Calcium		72500	5000		ug/l	SW846 6010D

Summary of Hits

Job Number: JC96248
 Account: Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA
 Collected: 10/04/19



Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
		46.8	10		ug/l	SW846 6010D
		38.5	10		ug/l	SW846 6010D
		19200	100		ug/l	SW846 6010D
		87.9	3.0		ug/l	SW846 6010D
		38600	5000		ug/l	SW846 6010D
		958	15		ug/l	SW846 6010D
		0.42	0.20		ug/l	SW846 7470A
		11.5	10		ug/l	SW846 6010D
		20900	10000		ug/l	SW846 6010D
		110000	10000		ug/l	SW846 6010D
		173	20		ug/l	SW846 6010D
		0.14	0.010		mg/l	EPA 335.4/LACHAT
		710	10		mg/l	SM2540 C-11

JC96248-4F MW-111

		8.7	3.0		ug/l	SW846 6010D
		69100	5000		ug/l	SW846 6010D
		208	100		ug/l	SW846 6010D
		37300	5000		ug/l	SW846 6010D
		730	15		ug/l	SW846 6010D
		20400	10000		ug/l	SW846 6010D
		110000	10000		ug/l	SW846 6010D
		0.19	0.010		mg/l	EPA 335.4/LACHAT

JC96248-5 MW-112

		1.4	1.0	0.19	ug/l	SW846 8270D
		0.27 J	2.0	0.21	ug/l	SW846 8270D
		0.22 J	1.0	0.21	ug/l	SW846 8270D
		1.7 J	2.0	0.46	ug/l	SW846 8270D
		0.28 J	1.0	0.17	ug/l	SW846 8270D
		5.2	3.0		ug/l	SW846 6010D
		123000	5000		ug/l	SW846 6010D
		3630	100		ug/l	SW846 6010D
		73300	5000		ug/l	SW846 6010D
		5840	15		ug/l	SW846 6010D
		33600	10000		ug/l	SW846 6010D
		0.18	0.010		mg/l	EPA 335.4/LACHAT

JC96248-5F MW-112

		4.3	3.0		ug/l	SW846 6010D
		122000	5000		ug/l	SW846 6010D
		240	100		ug/l	SW846 6010D

Summary of Hits

Job Number: JC96248
 Account: Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA
 Collected: 10/04/19



Lab Sample ID	Client Sample ID	Result/ Analyte	RL	MDL	Units	Method
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Magnesium		72800	5000		ug/l	SW846 6010D
Manganese		5570	15		ug/l	SW846 6010D
Sodium		33300	10000		ug/l	SW846 6010D
Cyanide		0.14	0.010		mg/l	EPA 335.4/LACHAT

JC96248-6 MW-113

Anthracene		0.33 J	1.0	0.21	ug/l	SW846 8270D
Naphthalene		0.31 JB	1.0	0.23	ug/l	SW846 8270D
Phenanthrene		0.20 J	1.0	0.18	ug/l	SW846 8270D
Calcium		105000	5000		ug/l	SW846 6010D
Iron		25600	100		ug/l	SW846 6010D
Magnesium		29900	5000		ug/l	SW846 6010D
Manganese		1060	15		ug/l	SW846 6010D
Sodium		13200	10000		ug/l	SW846 6010D
Cyanide		0.38	0.010		mg/l	EPA 335.4/LACHAT

JC96248-6F MW-113

Calcium		104000	5000		ug/l	SW846 6010D
Iron		7660	100		ug/l	SW846 6010D
Magnesium		29700	5000		ug/l	SW846 6010D
Manganese		1010	15		ug/l	SW846 6010D
Sodium		13100	10000		ug/l	SW846 6010D
Cyanide		0.41	0.010		mg/l	EPA 335.4/LACHAT

JC96248-7 DUP-100419

Anthracene		0.43 J	1.0	0.21	ug/l	SW846 8270D
Carbazole		0.91 J	1.0	0.23	ug/l	SW846 8270D
Dibenzofuran		0.40 J	5.0	0.22	ug/l	SW846 8270D
Fluoranthene		0.26 J	1.0	0.17	ug/l	SW846 8270D
Fluorene		0.90 J	1.0	0.17	ug/l	SW846 8270D
2-Methylnaphthalene		0.67 J	1.0	0.21	ug/l	SW846 8270D
Naphthalene		5.8 B	1.0	0.23	ug/l	SW846 8270D
Phenanthrene		1.1	1.0	0.18	ug/l	SW846 8270D
Calcium		178000	5000		ug/l	SW846 6010D
Iron		12200	100		ug/l	SW846 6010D
Lead		82.7	3.0		ug/l	SW846 6010D
Magnesium		79100	5000		ug/l	SW846 6010D
Manganese		699	15		ug/l	SW846 6010D
Potassium		16600	10000		ug/l	SW846 6010D
Sodium		20000	10000		ug/l	SW846 6010D
Cyanide		0.034	0.010		mg/l	EPA 335.4/LACHAT
Solids, Total Dissolved		916	10		mg/l	SM2540 C-11

Summary of Hits

Job Number: JC96248
Account: Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA
Collected: 10/04/19



Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
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JC96248-7F DUP-100419

Calcium	189000	5000			ug/l	SW846 6010D
Iron	197	100			ug/l	SW846 6010D
Magnesium	82100	5000			ug/l	SW846 6010D
Manganese	701	15			ug/l	SW846 6010D
Potassium	18100	10000			ug/l	SW846 6010D
Sodium	21700	10000			ug/l	SW846 6010D
Cyanide	0.037	0.010			mg/l	EPA 335.4/LACHAT

JC96248-8 FB-100419

No hits reported in this sample.

JC96248-8F FB-100419

No hits reported in this sample.

JC96248-9 TRIP BLANK

No hits reported in this sample.

Sample Results

Report of Analysis

SGS North America Inc.

Report of Analysis

Page 1 of 2

Client Sample ID: MW-108	Date Sampled: 10/04/19
Lab Sample ID: JC96248-1	Date Received: 10/04/19
Matrix: AQ - Ground Water	Percent Solids: n/a
Method: SW846 8260C	
Project: National Grid, Philly Coke, Philadelphia, PA	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2D185874.D	1	10/11/19 23:32	ED	n/a	n/a	V2D7993
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	6.0	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.48	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.58	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	6.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.95	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane ^a	ND	2.0	1.4	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	1.9	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	

ND = Not detected

MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: MW-108		Date Sampled: 10/04/19
Lab Sample ID: JC96248-1		Date Received: 10/04/19
Matrix: AQ - Ground Water		Percent Solids: n/a
Method: SW846 8260C		
Project: National Grid, Philly Coke, Philadelphia, PA		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	
79-20-9	Methyl Acetate	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.70	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.84	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
	m,p-Xylene	ND	1.0	0.78	ug/l	
95-47-6	o-Xylene	ND	1.0	0.59	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	93%		80-120%
17060-07-0	1,2-Dichloroethane-D4	90%		81-124%
2037-26-5	Toluene-D8	96%		80-120%
460-00-4	4-Bromofluorobenzene	98%		80-120%

(a) Associated CCV outside of control limits high, sample was ND.

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
 RL = Reporting Limit B = Indicates analyte found in associated method blank
 E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Page 1 of 3

Client Sample ID: MW-108	Date Sampled: 10/04/19
Lab Sample ID: JC96248-1	Date Received: 10/04/19
Matrix: AQ - Ground Water	Percent Solids: n/a
Method: SW846 8270D SW846 3510C	
Project: National Grid, Philly Coke, Philadelphia, PA	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	M160297.D	1	10/13/19 13:43	HSS	10/10/19 21:00	OP23204	EM6783

Run #1	Initial Volume	Final Volume
Run #2	1000 ml	1.0 ml

ABN TCL List (SOM0 2.0)

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	5.0	0.82	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	5.0	0.89	ug/l	
120-83-2	2,4-Dichlorophenol	ND	2.0	1.3	ug/l	
105-67-9	2,4-Dimethylphenol	ND	5.0	2.4	ug/l	
51-28-5	2,4-Dinitrophenol	ND	5.0	1.6	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	5.0	1.3	ug/l	
95-48-7	2-Methylphenol	ND	2.0	0.89	ug/l	
	3&4-Methylphenol	ND	2.0	0.88	ug/l	
88-75-5	2-Nitrophenol	ND	5.0	0.96	ug/l	
100-02-7	4-Nitrophenol	ND	10	1.2	ug/l	
87-86-5	Pentachlorophenol	ND	4.0	1.4	ug/l	
108-95-2	Phenol	ND	2.0	0.39	ug/l	
58-90-2	2,3,4,6-Tetrachlorophenol	ND	5.0	1.5	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	5.0	1.3	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	5.0	0.92	ug/l	
83-32-9	Acenaphthene	ND	1.0	0.19	ug/l	
208-96-8	Acenaphthylene	ND	1.0	0.14	ug/l	
98-86-2	Acetophenone	ND	2.0	0.21	ug/l	
120-12-7	Anthracene	0.37	1.0	0.21	ug/l	J
1912-24-9	Atrazine	ND	2.0	0.45	ug/l	
100-52-7	Benzaldehyde	ND	5.0	0.29	ug/l	
56-55-3	Benzo(a)anthracene	ND	1.0	0.20	ug/l	
50-32-8	Benzo(a)pyrene	ND	1.0	0.21	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	1.0	0.21	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	1.0	0.34	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	1.0	0.21	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	2.0	0.40	ug/l	
85-68-7	Butyl benzyl phthalate	ND	2.0	0.46	ug/l	
92-52-4	1,1'-Biphenyl	ND	1.0	0.21	ug/l	
91-58-7	2-Chloronaphthalene	ND	2.0	0.24	ug/l	
106-47-8	4-Chloroaniline	ND	5.0	0.34	ug/l	
86-74-8	Carbazole	0.85	1.0	0.23	ug/l	J

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-108	Date Sampled:	10/04/19
Lab Sample ID:	JC96248-1	Date Received:	10/04/19
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8270D SW846 3510C		
Project:	National Grid, Philly Coke, Philadelphia, PA		

ABN TCL List (SOM0 2.0)

CAS No.	Compound	Result	RL	MDL	Units	Q
105-60-2	Caprolactam	ND	2.0	0.65	ug/l	
218-01-9	Chrysene	ND	1.0	0.18	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	2.0	0.28	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	2.0	0.25	ug/l	
108-60-1	2,2'-Oxybis(1-chloropropane)	ND	2.0	0.40	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	2.0	0.37	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	1.0	0.55	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	1.0	0.48	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	2.0	0.51	ug/l	
123-91-1	1,4-Dioxane	ND	1.0	0.66	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	1.0	0.33	ug/l	
132-64-9	Dibenzofuran	0.48	5.0	0.22	ug/l	J
84-74-2	Di-n-butyl phthalate	ND	2.0	0.50	ug/l	
117-84-0	Di-n-octyl phthalate	ND	2.0	0.23	ug/l	
84-66-2	Diethyl phthalate	ND	2.0	0.26	ug/l	
131-11-3	Dimethyl phthalate	ND	2.0	0.22	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.0	1.7	ug/l	
206-44-0	Fluoranthene	0.36	1.0	0.17	ug/l	J
86-73-7	Fluorene	0.99	1.0	0.17	ug/l	J
118-74-1	Hexachlorobenzene	ND	1.0	0.33	ug/l	
87-68-3	Hexachlorobutadiene	ND	1.0	0.49	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	10	2.8	ug/l	
67-72-1	Hexachloroethane	ND	2.0	0.39	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	1.0	0.33	ug/l	
78-59-1	Isophorone	ND	2.0	0.28	ug/l	
91-57-6	2-Methylnaphthalene	0.77	1.0	0.21	ug/l	J
88-74-4	2-Nitroaniline	ND	5.0	0.28	ug/l	
99-09-2	3-Nitroaniline	ND	5.0	0.39	ug/l	
100-01-6	4-Nitroaniline	ND	5.0	0.44	ug/l	
91-20-3	Naphthalene	7.2	1.0	0.23	ug/l	
98-95-3	Nitrobenzene	ND	2.0	0.64	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	2.0	0.48	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.0	0.22	ug/l	
85-01-8	Phenanthrene	1.3	1.0	0.18	ug/l	
129-00-0	Pyrene	0.22	1.0	0.22	ug/l	J
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	2.0	0.37	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	24%		10-110%

ND = Not detected

MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: MW-108		Date Sampled: 10/04/19
Lab Sample ID: JC96248-1		Date Received: 10/04/19
Matrix: AQ - Ground Water		Percent Solids: n/a
Method: SW846 8270D SW846 3510C		
Project: National Grid, Philly Coke, Philadelphia, PA		

ABN TCL List (SOM0 2.0)

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-62-2	Phenol-d5	17%		10-110%
118-79-6	2,4,6-Tribromophenol	81%		36-151%
4165-60-0	Nitrobenzene-d5	71%		34-128%
321-60-8	2-Fluorobiphenyl	77%		38-119%
1718-51-0	Terphenyl-d14	55%		26-129%

ND = Not detected MDL = Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

4.1
4

Report of Analysis

Client Sample ID: MW-108	Date Sampled: 10/04/19
Lab Sample ID: JC96248-1	Date Received: 10/04/19
Matrix: AQ - Ground Water	Percent Solids: n/a
Project: National Grid, Philly Coke, Philadelphia, PA	

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	< 200	200	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Antimony	< 6.0	6.0	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Arsenic	< 3.0	3.0	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Barium	< 200	200	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Beryllium	< 1.0	1.0	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Cadmium	< 3.0	3.0	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Calcium	186000	5000	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Chromium	< 10	10	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Cobalt	< 50	50	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Copper	< 10	10	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Iron	12500	100	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Lead	81.7	3.0	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Magnesium	80900	5000	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Manganese	719	15	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Mercury	< 0.20	0.20	ug/l	1	10/08/19	10/08/19	LL SW846 7470A ¹	SW846 7470A ⁴
Nickel	< 10	10	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Potassium	17000	10000	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Selenium	< 10	10	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Silver	< 10	10	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Sodium	20500	10000	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Thallium	< 10	10	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Vanadium	< 50	50	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Zinc	< 20	20	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³

(1) Instrument QC Batch: MA47587

(2) Instrument QC Batch: MA47598

(3) Prep QC Batch: MP17762

(4) Prep QC Batch: MP17766

RL = Reporting Limit

4.1
4

Report of Analysis

Client Sample ID: MW-108	Date Sampled: 10/04/19
Lab Sample ID: JC96248-1	Date Received: 10/04/19
Matrix: AQ - Ground Water	Percent Solids: n/a
Project: National Grid, Philly Coke, Philadelphia, PA	

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Cyanide	0.031	0.010	mg/l	1	10/15/19 15:37	KI	EPA 335.4/LACHAT
Solids, Total Dissolved	908	10	mg/l	1	10/10/19 16:33	RC	SM2540 C-11

RL = Reporting Limit

Report of Analysis

Client Sample ID: MW-108	Date Sampled: 10/04/19
Lab Sample ID: JC96248-1F	Date Received: 10/04/19
Matrix: AQ - Groundwater Filtered	Percent Solids: n/a
Project: National Grid, Philly Coke, Philadelphia, PA	

Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	< 200	200	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ⁴
Antimony	< 6.0	6.0	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ⁴
Arsenic	< 3.0	3.0	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ⁴
Barium	< 200	200	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ⁴
Beryllium	< 1.0	1.0	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ⁴
Cadmium	< 3.0	3.0	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ⁴
Calcium	191000	5000	ug/l	1	10/08/19	10/10/19	ND SW846 6010D ³	SW846 3010A ⁴
Chromium	< 10	10	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ⁴
Cobalt	< 50	50	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ⁴
Copper	< 10	10	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ⁴
Iron	224	100	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ⁴
Lead	< 3.0	3.0	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ⁴
Magnesium	83000	5000	ug/l	1	10/08/19	10/10/19	ND SW846 6010D ³	SW846 3010A ⁴
Manganese	710	15	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ⁴
Mercury	< 0.20	0.20	ug/l	1	10/08/19	10/08/19	LL SW846 7470A ¹	SW846 7470A ⁵
Nickel	< 10	10	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ⁴
Potassium	18500	10000	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ⁴
Selenium	< 10	10	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ⁴
Silver	< 10	10	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ⁴
Sodium	22000	10000	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ⁴
Thallium	< 10	10	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ⁴
Vanadium	< 50	50	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ⁴
Zinc	< 20	20	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ⁴

- (1) Instrument QC Batch: MA47587
- (2) Instrument QC Batch: MA47601
- (3) Instrument QC Batch: MA47607
- (4) Prep QC Batch: MP17762
- (5) Prep QC Batch: MP17766

RL = Reporting Limit

4.2
4

Report of Analysis

Client Sample ID: MW-108	Date Sampled: 10/04/19
Lab Sample ID: JC96248-1F	Date Received: 10/04/19
Matrix: AQ - Groundwater Filtered	Percent Solids: n/a
Project: National Grid, Philly Coke, Philadelphia, PA	

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Cyanide	0.039	0.010	mg/l	1	10/15/19 15:51	KI	EPA 335.4/LACHAT

RL = Reporting Limit

4.2
4

SGS North America Inc.

Report of Analysis

Page 1 of 2

Client Sample ID: MW-109	Date Sampled: 10/04/19
Lab Sample ID: JC96248-2	Date Received: 10/04/19
Matrix: AQ - Ground Water	Percent Solids: n/a
Method: SW846 8260C	
Project: National Grid, Philly Coke, Philadelphia, PA	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2D185875.D	1	10/12/19 00:01	ED	n/a	n/a	V2D7993
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	6.0	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.48	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.58	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	6.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.95	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane ^a	ND	2.0	1.4	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	1.9	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	

ND = Not detected

MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: MW-109		Date Sampled: 10/04/19
Lab Sample ID: JC96248-2		Date Received: 10/04/19
Matrix: AQ - Ground Water		Percent Solids: n/a
Method: SW846 8260C		
Project: National Grid, Philly Coke, Philadelphia, PA		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	
79-20-9	Methyl Acetate	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.70	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.84	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
	m,p-Xylene	ND	1.0	0.78	ug/l	
95-47-6	o-Xylene	ND	1.0	0.59	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	94%		80-120%
17060-07-0	1,2-Dichloroethane-D4	90%		81-124%
2037-26-5	Toluene-D8	96%		80-120%
460-00-4	4-Bromofluorobenzene	98%		80-120%

(a) Associated CCV outside of control limits high, sample was ND.

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
 RL = Reporting Limit B = Indicates analyte found in associated method blank
 E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

4.3
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SGS North America Inc.

Report of Analysis

Page 1 of 3

Client Sample ID: MW-109	Date Sampled: 10/04/19
Lab Sample ID: JC96248-2	Date Received: 10/04/19
Matrix: AQ - Ground Water	Percent Solids: n/a
Method: SW846 8270D SW846 3510C	
Project: National Grid, Philly Coke, Philadelphia, PA	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	M160298.D	1	10/13/19 14:11	HSS	10/10/19 21:00	OP23204	EM6783

Run #1	Initial Volume	Final Volume
Run #2	1040 ml	1.0 ml

ABN TCL List (SOM0 2.0)

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	4.8	0.79	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	4.8	0.86	ug/l	
120-83-2	2,4-Dichlorophenol	ND	1.9	1.2	ug/l	
105-67-9	2,4-Dimethylphenol	ND	4.8	2.3	ug/l	
51-28-5	2,4-Dinitrophenol	ND	4.8	1.5	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	4.8	1.2	ug/l	
95-48-7	2-Methylphenol	ND	1.9	0.85	ug/l	
	3&4-Methylphenol	ND	1.9	0.85	ug/l	
88-75-5	2-Nitrophenol	ND	4.8	0.92	ug/l	
100-02-7	4-Nitrophenol	ND	9.6	1.1	ug/l	
87-86-5	Pentachlorophenol	ND	3.8	1.3	ug/l	
108-95-2	Phenol	ND	1.9	0.38	ug/l	
58-90-2	2,3,4,6-Tetrachlorophenol	ND	4.8	1.4	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	4.8	1.3	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	4.8	0.89	ug/l	
83-32-9	Acenaphthene	1.2	0.96	0.18	ug/l	
208-96-8	Acenaphthylene	1.2	0.96	0.13	ug/l	
98-86-2	Acetophenone	0.25	1.9	0.20	ug/l	J
120-12-7	Anthracene	1.1	0.96	0.20	ug/l	
1912-24-9	Atrazine	ND	1.9	0.43	ug/l	
100-52-7	Benzaldehyde	ND	4.8	0.28	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.96	0.20	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.96	0.20	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.96	0.20	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.96	0.33	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.96	0.20	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	1.9	0.39	ug/l	
85-68-7	Butyl benzyl phthalate	ND	1.9	0.44	ug/l	
92-52-4	1,1'-Biphenyl	0.39	0.96	0.20	ug/l	J
91-58-7	2-Chloronaphthalene	ND	1.9	0.23	ug/l	
106-47-8	4-Chloroaniline	ND	4.8	0.33	ug/l	
86-74-8	Carbazole	2.2	0.96	0.22	ug/l	

ND = Not detected

MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: MW-109		Date Sampled: 10/04/19
Lab Sample ID: JC96248-2		Date Received: 10/04/19
Matrix: AQ - Ground Water		Percent Solids: n/a
Method: SW846 8270D SW846 3510C		
Project: National Grid, Philly Coke, Philadelphia, PA		

ABN TCL List (SOM0 2.0)

CAS No.	Compound	Result	RL	MDL	Units	Q
105-60-2	Caprolactam	ND	1.9	0.62	ug/l	
218-01-9	Chrysene	ND	0.96	0.17	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	1.9	0.27	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	1.9	0.24	ug/l	
108-60-1	2,2'-Oxybis(1-chloropropane)	ND	1.9	0.39	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	1.9	0.35	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	0.96	0.53	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	0.96	0.46	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	1.9	0.49	ug/l	
123-91-1	1,4-Dioxane	ND	0.96	0.63	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.96	0.32	ug/l	
132-64-9	Dibenzofuran	2.0	4.8	0.21	ug/l	J
84-74-2	Di-n-butyl phthalate	ND	1.9	0.48	ug/l	
117-84-0	Di-n-octyl phthalate	ND	1.9	0.22	ug/l	
84-66-2	Diethyl phthalate	ND	1.9	0.25	ug/l	
131-11-3	Dimethyl phthalate	ND	1.9	0.21	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	1.9	1.6	ug/l	
206-44-0	Fluoranthene	1.2	0.96	0.16	ug/l	
86-73-7	Fluorene	4.2	0.96	0.16	ug/l	
118-74-1	Hexachlorobenzene	ND	0.96	0.31	ug/l	
87-68-3	Hexachlorobutadiene	ND	0.96	0.47	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	9.6	2.7	ug/l	
67-72-1	Hexachloroethane	ND	1.9	0.37	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.96	0.32	ug/l	
78-59-1	Isophorone	ND	1.9	0.27	ug/l	
91-57-6	2-Methylnaphthalene	1.5	0.96	0.20	ug/l	
88-74-4	2-Nitroaniline	ND	4.8	0.27	ug/l	
99-09-2	3-Nitroaniline	ND	4.8	0.37	ug/l	
100-01-6	4-Nitroaniline	ND	4.8	0.42	ug/l	
91-20-3	Naphthalene	8.8	0.96	0.22	ug/l	
98-95-3	Nitrobenzene	ND	1.9	0.62	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	1.9	0.46	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	4.8	0.21	ug/l	
85-01-8	Phenanthrene	7.7	0.96	0.17	ug/l	
129-00-0	Pyrene	0.71	0.96	0.21	ug/l	J
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	1.9	0.36	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	26%		10-110%

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
 RL = Reporting Limit B = Indicates analyte found in associated method blank
 E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

4.3
4

Report of Analysis

Client Sample ID: MW-109		Date Sampled: 10/04/19
Lab Sample ID: JC96248-2		Date Received: 10/04/19
Matrix: AQ - Ground Water		Percent Solids: n/a
Method: SW846 8270D SW846 3510C		
Project: National Grid, Philly Coke, Philadelphia, PA		

ABN TCL List (SOM0 2.0)

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-62-2	Phenol-d5	18%		10-110%
118-79-6	2,4,6-Tribromophenol	79%		36-151%
4165-60-0	Nitrobenzene-d5	73%		34-128%
321-60-8	2-Fluorobiphenyl	75%		38-119%
1718-51-0	Terphenyl-d14	47%		26-129%

ND = Not detected MDL = Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: MW-109	Date Sampled: 10/04/19
Lab Sample ID: JC96248-2	Date Received: 10/04/19
Matrix: AQ - Ground Water	Percent Solids: n/a
Project: National Grid, Philly Coke, Philadelphia, PA	

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	< 200	200	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Antimony	< 6.0	6.0	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Arsenic	< 3.0	3.0	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Barium	< 200	200	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Beryllium	< 1.0	1.0	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Cadmium	< 3.0	3.0	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Calcium	149000	5000	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Chromium	< 10	10	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Cobalt	< 50	50	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Copper	< 10	10	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Iron	28000	100	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Lead	< 3.0	3.0	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Magnesium	83300	5000	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Manganese	1660	15	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Mercury	< 0.20	0.20	ug/l	1	10/08/19	10/08/19	LL SW846 7470A ¹	SW846 7470A ⁴
Nickel	< 10	10	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Potassium	17700	10000	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Selenium	< 10	10	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Silver	< 10	10	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Sodium	37900	10000	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Thallium	< 10	10	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Vanadium	< 50	50	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Zinc	< 20	20	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³

(1) Instrument QC Batch: MA47587

(2) Instrument QC Batch: MA47598

(3) Prep QC Batch: MP17762

(4) Prep QC Batch: MP17766

RL = Reporting Limit

4.3
4

Report of Analysis

Client Sample ID: MW-109	Date Sampled: 10/04/19
Lab Sample ID: JC96248-2	Date Received: 10/04/19
Matrix: AQ - Ground Water	Percent Solids: n/a
Project: National Grid, Philly Coke, Philadelphia, PA	

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Cyanide	0.011	0.010	mg/l	1	10/15/19 15:38	KI	EPA 335.4/LACHAT

RL = Reporting Limit

4.3
4

Report of Analysis

Client Sample ID: MW-109 Lab Sample ID: JC96248-2F Matrix: AQ - Groundwater Filtered Project: National Grid, Philly Coke, Philadelphia, PA	Date Sampled: 10/04/19 Date Received: 10/04/19 Percent Solids: n/a
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Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	< 200	200	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Antimony	< 6.0	6.0	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Arsenic	< 3.0	3.0	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Barium	< 200	200	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Beryllium	< 1.0	1.0	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Cadmium	< 3.0	3.0	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Calcium	144000	5000	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Chromium	< 10	10	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Cobalt	< 50	50	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Copper	< 10	10	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Iron	1860	100	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Lead	< 3.0	3.0	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Magnesium	83700	5000	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Manganese	1520	15	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Mercury	< 0.20	0.20	ug/l	1	10/08/19	10/08/19	LL SW846 7470A ¹	SW846 7470A ⁴
Nickel	< 10	10	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Potassium	17900	10000	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Selenium	< 10	10	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Silver	< 10	10	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Sodium	38100	10000	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Thallium	< 10	10	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Vanadium	< 50	50	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Zinc	< 20	20	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³

(1) Instrument QC Batch: MA47587

(2) Instrument QC Batch: MA47601

(3) Prep QC Batch: MP17762

(4) Prep QC Batch: MP17766

RL = Reporting Limit

4.4
4

Report of Analysis

Client Sample ID: MW-109	Date Sampled: 10/04/19
Lab Sample ID: JC96248-2F	Date Received: 10/04/19
Matrix: AQ - Groundwater Filtered	Percent Solids: n/a
Project: National Grid, Philly Coke, Philadelphia, PA	

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Cyanide	0.019	0.010	mg/l	1	10/15/19 15:52	KI	EPA 335.4/LACHAT

RL = Reporting Limit

4.4
4

SGS North America Inc.

Report of Analysis

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Client Sample ID: MW-110	Date Sampled: 10/04/19
Lab Sample ID: JC96248-3	Date Received: 10/04/19
Matrix: AQ - Ground Water	Percent Solids: n/a
Method: SW846 8260C	
Project: National Grid, Philly Coke, Philadelphia, PA	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2D185876.D	1	10/12/19 00:31	ED	n/a	n/a	V2D7993
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	6.0	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.48	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.58	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	6.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.95	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane ^a	ND	2.0	1.4	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	1.9	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	

ND = Not detected

MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: MW-110	Date Sampled: 10/04/19
Lab Sample ID: JC96248-3	Date Received: 10/04/19
Matrix: AQ - Ground Water	Percent Solids: n/a
Method: SW846 8260C	
Project: National Grid, Philly Coke, Philadelphia, PA	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	
79-20-9	Methyl Acetate	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.70	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.84	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
	m,p-Xylene	ND	1.0	0.78	ug/l	
95-47-6	o-Xylene	ND	1.0	0.59	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	94%		80-120%
17060-07-0	1,2-Dichloroethane-D4	90%		81-124%
2037-26-5	Toluene-D8	97%		80-120%
460-00-4	4-Bromofluorobenzene	97%		80-120%

(a) Associated CCV outside of control limits high, sample was ND.

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
 RL = Reporting Limit B = Indicates analyte found in associated method blank
 E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

4.5
4

SGS North America Inc.

Report of Analysis

Page 1 of 3

Client Sample ID:	MW-110	Date Sampled:	10/04/19
Lab Sample ID:	JC96248-3	Date Received:	10/04/19
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8270D SW846 3510C		
Project:	National Grid, Philly Coke, Philadelphia, PA		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M160299.D	1	10/13/19 14:39	HSS	10/10/19 21:00	OP23204	EM6783
Run #2							

Run #	Initial Volume	Final Volume
Run #1	1050 ml	1.0 ml
Run #2		

ABN TCL List (SOM0 2.0)

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	4.8	0.78	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	4.8	0.85	ug/l	
120-83-2	2,4-Dichlorophenol	ND	1.9	1.2	ug/l	
105-67-9	2,4-Dimethylphenol	ND	4.8	2.3	ug/l	
51-28-5	2,4-Dinitrophenol	ND	4.8	1.5	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	4.8	1.2	ug/l	
95-48-7	2-Methylphenol	ND	1.9	0.85	ug/l	
	3&4-Methylphenol	ND	1.9	0.84	ug/l	
88-75-5	2-Nitrophenol	ND	4.8	0.91	ug/l	
100-02-7	4-Nitrophenol	ND	9.5	1.1	ug/l	
87-86-5	Pentachlorophenol	ND	3.8	1.3	ug/l	
108-95-2	Phenol	ND	1.9	0.37	ug/l	
58-90-2	2,3,4,6-Tetrachlorophenol	ND	4.8	1.4	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	4.8	1.3	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	4.8	0.88	ug/l	
83-32-9	Acenaphthene	0.19	0.95	0.18	ug/l	J
208-96-8	Acenaphthylene	0.72	0.95	0.13	ug/l	J
98-86-2	Acetophenone	ND	1.9	0.20	ug/l	
120-12-7	Anthracene	0.26	0.95	0.20	ug/l	J
1912-24-9	Atrazine	ND	1.9	0.43	ug/l	
100-52-7	Benzaldehyde	ND	4.8	0.28	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.95	0.19	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.95	0.20	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.95	0.20	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.95	0.32	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.95	0.20	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	1.9	0.38	ug/l	
85-68-7	Butyl benzyl phthalate	ND	1.9	0.44	ug/l	
92-52-4	1,1'-Biphenyl	0.35	0.95	0.20	ug/l	J
91-58-7	2-Chloronaphthalene	ND	1.9	0.22	ug/l	
106-47-8	4-Chloroaniline	ND	4.8	0.32	ug/l	
86-74-8	Carbazole	1.6	0.95	0.22	ug/l	

ND = Not detected

MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-110	Date Sampled:	10/04/19
Lab Sample ID:	JC96248-3	Date Received:	10/04/19
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8270D SW846 3510C		
Project:	National Grid, Philly Coke, Philadelphia, PA		

ABN TCL List (SOM0 2.0)

CAS No.	Compound	Result	RL	MDL	Units	Q
105-60-2	Caprolactam	ND	1.9	0.62	ug/l	
218-01-9	Chrysene	ND	0.95	0.17	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	1.9	0.26	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	1.9	0.24	ug/l	
108-60-1	2,2'-Oxybis(1-chloropropane)	ND	1.9	0.38	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	1.9	0.35	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	0.95	0.53	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	0.95	0.45	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	1.9	0.48	ug/l	
123-91-1	1,4-Dioxane	ND	0.95	0.63	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.95	0.32	ug/l	
132-64-9	Dibenzofuran	0.85	4.8	0.21	ug/l	J
84-74-2	Di-n-butyl phthalate	ND	1.9	0.47	ug/l	
117-84-0	Di-n-octyl phthalate	ND	1.9	0.22	ug/l	
84-66-2	Diethyl phthalate	ND	1.9	0.25	ug/l	
131-11-3	Dimethyl phthalate	ND	1.9	0.21	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	1.9	1.6	ug/l	
206-44-0	Fluoranthene	0.25	0.95	0.16	ug/l	J
86-73-7	Fluorene	0.96	0.95	0.16	ug/l	
118-74-1	Hexachlorobenzene	ND	0.95	0.31	ug/l	
87-68-3	Hexachlorobutadiene	ND	0.95	0.47	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	9.5	2.6	ug/l	
67-72-1	Hexachloroethane	ND	1.9	0.37	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.95	0.32	ug/l	
78-59-1	Isophorone	ND	1.9	0.26	ug/l	
91-57-6	2-Methylnaphthalene	1.2	0.95	0.20	ug/l	
88-74-4	2-Nitroaniline	ND	4.8	0.26	ug/l	
99-09-2	3-Nitroaniline	ND	4.8	0.37	ug/l	
100-01-6	4-Nitroaniline	ND	4.8	0.42	ug/l	
91-20-3	Naphthalene	15.5	0.95	0.22	ug/l	
98-95-3	Nitrobenzene	ND	1.9	0.61	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	1.9	0.46	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	4.8	0.21	ug/l	
85-01-8	Phenanthrene	ND	0.95	0.17	ug/l	
129-00-0	Pyrene	ND	0.95	0.21	ug/l	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	1.9	0.35	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	22%		10-110%

ND = Not detected

MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: MW-110		Date Sampled: 10/04/19
Lab Sample ID: JC96248-3		Date Received: 10/04/19
Matrix: AQ - Ground Water		Percent Solids: n/a
Method: SW846 8270D SW846 3510C		
Project: National Grid, Philly Coke, Philadelphia, PA		

ABN TCL List (SOM0 2.0)

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-62-2	Phenol-d5	15%		10-110%
118-79-6	2,4,6-Tribromophenol	76%		36-151%
4165-60-0	Nitrobenzene-d5	73%		34-128%
321-60-8	2-Fluorobiphenyl	80%		38-119%
1718-51-0	Terphenyl-d14	50%		26-129%

ND = Not detected MDL = Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: MW-110	Date Sampled: 10/04/19
Lab Sample ID: JC96248-3	Date Received: 10/04/19
Matrix: AQ - Ground Water	Percent Solids: n/a
Project: National Grid, Philly Coke, Philadelphia, PA	

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	< 200	200	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Antimony	< 6.0	6.0	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Arsenic	5.0	3.0	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Barium	< 200	200	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Beryllium	< 1.0	1.0	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Cadmium	< 3.0	3.0	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Calcium	178000	5000	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Chromium	< 10	10	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Cobalt	< 50	50	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Copper	< 10	10	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Iron	18900	100	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Lead	< 3.0	3.0	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Magnesium	82100	5000	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Manganese	1430	15	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Mercury	< 0.20	0.20	ug/l	1	10/08/19	10/08/19	LL SW846 7470A ¹	SW846 7470A ⁴
Nickel	< 10	10	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Potassium	16500	10000	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Selenium	< 10	10	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Silver	< 10	10	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Sodium	32800	10000	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Thallium	< 10	10	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Vanadium	< 50	50	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Zinc	< 20	20	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³

(1) Instrument QC Batch: MA47587

(2) Instrument QC Batch: MA47598

(3) Prep QC Batch: MP17762

(4) Prep QC Batch: MP17766

RL = Reporting Limit

Report of Analysis

Client Sample ID: MW-110	Date Sampled: 10/04/19
Lab Sample ID: JC96248-3	Date Received: 10/04/19
Matrix: AQ - Ground Water	Percent Solids: n/a
Project: National Grid, Philly Coke, Philadelphia, PA	

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Cyanide	0.014	0.010	mg/l	1	10/15/19 15:40	KI	EPA 335.4/LACHAT

RL = Reporting Limit

Report of Analysis

Client Sample ID: MW-110 Lab Sample ID: JC96248-3F Matrix: AQ - Groundwater Filtered Project: National Grid, Philly Coke, Philadelphia, PA	Date Sampled: 10/04/19 Date Received: 10/04/19 Percent Solids: n/a
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Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	< 200	200	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Antimony	< 6.0	6.0	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Arsenic	< 3.0	3.0	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Barium	< 200	200	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Beryllium	< 1.0	1.0	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Cadmium	< 3.0	3.0	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Calcium	179000	5000	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Chromium	< 10	10	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Cobalt	< 50	50	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Copper	< 10	10	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Iron	2680	100	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Lead	< 3.0	3.0	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Magnesium	83700	5000	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Manganese	1390	15	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Mercury	< 0.20	0.20	ug/l	1	10/08/19	10/08/19	LL SW846 7470A ¹	SW846 7470A ⁴
Nickel	< 10	10	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Potassium	16900	10000	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Selenium	< 10	10	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Silver	< 10	10	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Sodium	33300	10000	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Thallium	< 10	10	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Vanadium	< 50	50	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Zinc	< 20	20	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³

(1) Instrument QC Batch: MA47587

(2) Instrument QC Batch: MA47601

(3) Prep QC Batch: MP17762

(4) Prep QC Batch: MP17766

RL = Reporting Limit

4.6
4

Report of Analysis

Client Sample ID: MW-110	Date Sampled: 10/04/19
Lab Sample ID: JC96248-3F	Date Received: 10/04/19
Matrix: AQ - Groundwater Filtered	Percent Solids: n/a
Project: National Grid, Philly Coke, Philadelphia, PA	

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Cyanide	0.017	0.010	mg/l	1	10/15/19 15:53	KI	EPA 335.4/LACHAT

RL = Reporting Limit

4.6
4

SGS North America Inc.

Report of Analysis

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Client Sample ID:	MW-111	Date Sampled:	10/04/19
Lab Sample ID:	JC96248-4	Date Received:	10/04/19
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260C		
Project:	National Grid, Philly Coke, Philadelphia, PA		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2D185862.D	1	10/11/19 17:40	ED	n/a	n/a	V2D7993
Run #2	2D185865.D	10	10/11/19 19:07	ED	n/a	n/a	V2D7993

Run #	Purge Volume
Run #1	5.0 ml
Run #2	5.0 ml

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	8.6	10	6.0	ug/l	J
71-43-2	Benzene	686 ^a	5.0	4.3	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.48	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.58	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	6.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.95	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane ^b	ND	2.0	1.4	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	24.3	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	1.9	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	

ND = Not detected

MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: MW-111	Date Sampled: 10/04/19
Lab Sample ID: JC96248-4	Date Received: 10/04/19
Matrix: AQ - Ground Water	Percent Solids: n/a
Method: SW846 8260C	
Project: National Grid, Philly Coke, Philadelphia, PA	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
98-82-8	Isopropylbenzene	1.2	1.0	0.65	ug/l	
79-20-9	Methyl Acetate	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	9.4	1.0	0.70	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	90.4	1.0	0.53	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.84	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
	m,p-Xylene	72.9	1.0	0.78	ug/l	
95-47-6	o-Xylene	36.5	1.0	0.59	ug/l	
1330-20-7	Xylene (total)	109	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	95%	88%	80-120%
17060-07-0	1,2-Dichloroethane-D4	96%	87%	81-124%
2037-26-5	Toluene-D8	93%	95%	80-120%
460-00-4	4-Bromofluorobenzene	92%	94%	80-120%

- (a) Result is from Run# 2
- (b) Associated CCV outside of control limits high, sample was ND.

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
 RL = Reporting Limit B = Indicates analyte found in associated method blank
 E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

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SGS North America Inc.

Report of Analysis

Page 1 of 3

Client Sample ID:	MW-111	Date Sampled:	10/04/19
Lab Sample ID:	JC96248-4	Date Received:	10/04/19
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8270D SW846 3510C		
Project:	National Grid, Philly Coke, Philadelphia, PA		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M160249.D	1	10/11/19 19:47	HSS	10/09/19 22:00	OP23230	EM6781
Run #2	M160281.D	10	10/13/19 02:02	JC	10/09/19 22:00	OP23230	EM6782

Run #	Initial Volume	Final Volume
Run #1	1000 ml	1.0 ml
Run #2	1000 ml	1.0 ml

ABN TCL List (SOM0 2.0)

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	5.0	0.82	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	5.0	0.89	ug/l	
120-83-2	2,4-Dichlorophenol	ND	2.0	1.3	ug/l	
105-67-9	2,4-Dimethylphenol	241 ^a	50	24	ug/l	
51-28-5	2,4-Dinitrophenol	ND	5.0	1.6	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	5.0	1.3	ug/l	
95-48-7	2-Methylphenol	177 ^a	20	8.9	ug/l	
	3&4-Methylphenol	212 ^a	20	8.8	ug/l	
88-75-5	2-Nitrophenol	ND	5.0	0.96	ug/l	
100-02-7	4-Nitrophenol	ND	10	1.2	ug/l	
87-86-5	Pentachlorophenol	ND	4.0	1.4	ug/l	
108-95-2	Phenol	80.2	2.0	0.39	ug/l	
58-90-2	2,3,4,6-Tetrachlorophenol	ND	5.0	1.5	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	5.0	1.3	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	5.0	0.92	ug/l	
83-32-9	Acenaphthene	87.7	1.0	0.19	ug/l	
208-96-8	Acenaphthylene	80.2	1.0	0.14	ug/l	
98-86-2	Acetophenone	2.1	2.0	0.21	ug/l	
120-12-7	Anthracene	16.1	1.0	0.21	ug/l	
1912-24-9	Atrazine	ND	2.0	0.45	ug/l	
100-52-7	Benzaldehyde	ND	5.0	0.29	ug/l	
56-55-3	Benzo(a)anthracene	3.6	1.0	0.20	ug/l	
50-32-8	Benzo(a)pyrene	2.6	1.0	0.21	ug/l	
205-99-2	Benzo(b)fluoranthene	2.9	1.0	0.21	ug/l	
191-24-2	Benzo(g,h,i)perylene	1.4	1.0	0.34	ug/l	
207-08-9	Benzo(k)fluoranthene	1.3	1.0	0.21	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	2.0	0.40	ug/l	
85-68-7	Butyl benzyl phthalate	ND	2.0	0.46	ug/l	
92-52-4	1,1'-Biphenyl	20.7	1.0	0.21	ug/l	
91-58-7	2-Chloronaphthalene	ND	2.0	0.24	ug/l	
106-47-8	4-Chloroaniline	ND	5.0	0.34	ug/l	
86-74-8	Carbazole	189 ^a	10	2.3	ug/l	

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-111	Date Sampled:	10/04/19
Lab Sample ID:	JC96248-4	Date Received:	10/04/19
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8270D SW846 3510C		
Project:	National Grid, Philly Coke, Philadelphia, PA		

ABN TCL List (SOM0 2.0)

CAS No.	Compound	Result	RL	MDL	Units	Q
105-60-2	Caprolactam	ND	2.0	0.65	ug/l	
218-01-9	Chrysene	3.2	1.0	0.18	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	2.0	0.28	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	2.0	0.25	ug/l	
108-60-1	2,2'-Oxybis(1-chloropropane)	ND	2.0	0.40	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	2.0	0.37	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	1.0	0.55	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	1.0	0.48	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	2.0	0.51	ug/l	
123-91-1	1,4-Dioxane	ND	1.0	0.66	ug/l	
53-70-3	Dibenzo(a,h)anthracene	0.42	1.0	0.33	ug/l	J
132-64-9	Dibenzofuran	64.2	5.0	0.22	ug/l	
84-74-2	Di-n-butyl phthalate	ND	2.0	0.50	ug/l	
117-84-0	Di-n-octyl phthalate	ND	2.0	0.23	ug/l	
84-66-2	Diethyl phthalate	ND	2.0	0.26	ug/l	
131-11-3	Dimethyl phthalate	ND	2.0	0.22	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.0	1.7	ug/l	
206-44-0	Fluoranthene	22.9	1.0	0.17	ug/l	
86-73-7	Fluorene	75.2	1.0	0.17	ug/l	
118-74-1	Hexachlorobenzene	ND	1.0	0.33	ug/l	
87-68-3	Hexachlorobutadiene	ND	1.0	0.49	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	10	2.8	ug/l	
67-72-1	Hexachloroethane	ND	2.0	0.39	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	1.4	1.0	0.33	ug/l	
78-59-1	Isophorone	ND	2.0	0.28	ug/l	
91-57-6	2-Methylnaphthalene	97.8	1.0	0.21	ug/l	
88-74-4	2-Nitroaniline	ND	5.0	0.28	ug/l	
99-09-2	3-Nitroaniline	ND	5.0	0.39	ug/l	
100-01-6	4-Nitroaniline	ND	5.0	0.44	ug/l	
91-20-3	Naphthalene	973 ^a	10	2.3	ug/l	B
98-95-3	Nitrobenzene	ND	2.0	0.64	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	2.0	0.48	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.0	0.22	ug/l	
85-01-8	Phenanthrene	136 ^a	10	1.8	ug/l	
129-00-0	Pyrene	15.5	1.0	0.22	ug/l	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	2.0	0.37	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	23%	24%	10-110%

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
 RL = Reporting Limit B = Indicates analyte found in associated method blank
 E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

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 4

Report of Analysis

Client Sample ID: MW-111		Date Sampled: 10/04/19
Lab Sample ID: JC96248-4		Date Received: 10/04/19
Matrix: AQ - Ground Water		Percent Solids: n/a
Method: SW846 8270D SW846 3510C		
Project: National Grid, Philly Coke, Philadelphia, PA		

ABN TCL List (SOM0 2.0)

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-62-2	Phenol-d5	17%	19%	10-110%
118-79-6	2,4,6-Tribromophenol	68%	77%	36-151%
4165-60-0	Nitrobenzene-d5	69%	71%	34-128%
321-60-8	2-Fluorobiphenyl	64%	73%	38-119%
1718-51-0	Terphenyl-d14	38%	42%	26-129%

(a) Result is from Run# 2

ND = Not detected MDL = Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

4.7
4

Report of Analysis

Client Sample ID: MW-111 Lab Sample ID: JC96248-4 Matrix: AQ - Ground Water Project: National Grid, Philly Coke, Philadelphia, PA	Date Sampled: 10/04/19 Date Received: 10/04/19 Percent Solids: n/a
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Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	6890	200	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Antimony	< 6.0	6.0	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Arsenic	26.8	3.0	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Barium	250	200	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Beryllium	< 1.0	1.0	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Cadmium	< 3.0	3.0	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Calcium	72500	5000	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Chromium	46.8	10	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Cobalt	< 50	50	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Copper	38.5	10	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Iron	19200	100	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Lead	87.9	3.0	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Magnesium	38600	5000	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Manganese	958	15	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Mercury	0.42	0.20	ug/l	1	10/08/19	10/08/19	LL SW846 7470A ¹	SW846 7470A ⁴
Nickel	11.5	10	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Potassium	20900	10000	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Selenium	< 10	10	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Silver	< 10	10	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Sodium	110000	10000	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Thallium	< 10	10	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Vanadium	< 50	50	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Zinc	173	20	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³

(1) Instrument QC Batch: MA47587

(2) Instrument QC Batch: MA47598

(3) Prep QC Batch: MP17762

(4) Prep QC Batch: MP17766

RL = Reporting Limit

4.7
4

Report of Analysis

Client Sample ID: MW-111	Date Sampled: 10/04/19
Lab Sample ID: JC96248-4	Date Received: 10/04/19
Matrix: AQ - Ground Water	Percent Solids: n/a
Project: National Grid, Philly Coke, Philadelphia, PA	

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Cyanide	0.14	0.010	mg/l	1	10/15/19 15:41	KI	EPA 335.4/LACHAT
Solids, Total Dissolved	710	10	mg/l	1	10/10/19 16:33	RC	SM2540 C-11

RL = Reporting Limit

4.7
4

Report of Analysis

Client Sample ID: MW-111 Lab Sample ID: JC96248-4F Matrix: AQ - Groundwater Filtered Project: National Grid, Philly Coke, Philadelphia, PA	Date Sampled: 10/04/19 Date Received: 10/04/19 Percent Solids: n/a
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Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	< 200	200	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Antimony	< 6.0	6.0	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Arsenic	8.7	3.0	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Barium	< 200	200	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Beryllium	< 1.0	1.0	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Cadmium	< 3.0	3.0	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Calcium	69100	5000	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Chromium	< 10	10	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Cobalt	< 50	50	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Copper	< 10	10	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Iron	208	100	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Lead	< 3.0	3.0	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Magnesium	37300	5000	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Manganese	730	15	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Mercury	< 0.20	0.20	ug/l	1	10/08/19	10/08/19	LL SW846 7470A ¹	SW846 7470A ⁴
Nickel	< 10	10	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Potassium	20400	10000	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Selenium	< 10	10	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Silver	< 10	10	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Sodium	110000	10000	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Thallium	< 10	10	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Vanadium	< 50	50	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Zinc	< 20	20	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³

(1) Instrument QC Batch: MA47587

(2) Instrument QC Batch: MA47598

(3) Prep QC Batch: MP17762

(4) Prep QC Batch: MP17766

RL = Reporting Limit

4.8
4

Report of Analysis

Client Sample ID: MW-111	Date Sampled: 10/04/19
Lab Sample ID: JC96248-4F	Date Received: 10/04/19
Matrix: AQ - Groundwater Filtered	Percent Solids: n/a
Project: National Grid, Philly Coke, Philadelphia, PA	

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Cyanide	0.19	0.010	mg/l	1	10/15/19 15:55	KI	EPA 335.4/LACHAT

RL = Reporting Limit

4.8
4

SGS North America Inc.

Report of Analysis

Page 1 of 2

Client Sample ID: MW-112	Date Sampled: 10/04/19
Lab Sample ID: JC96248-5	Date Received: 10/04/19
Matrix: AQ - Ground Water	Percent Solids: n/a
Method: SW846 8260C	
Project: National Grid, Philly Coke, Philadelphia, PA	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2D185877.D	1	10/12/19 01:00	ED	n/a	n/a	V2D7993
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	6.0	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.48	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.58	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	6.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.95	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane ^a	ND	2.0	1.4	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	1.9	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	

ND = Not detected

MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: MW-112 Lab Sample ID: JC96248-5 Matrix: AQ - Ground Water Method: SW846 8260C Project: National Grid, Philly Coke, Philadelphia, PA	Date Sampled: 10/04/19 Date Received: 10/04/19 Percent Solids: n/a
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VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	
79-20-9	Methyl Acetate	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.70	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.84	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
	m,p-Xylene	ND	1.0	0.78	ug/l	
95-47-6	o-Xylene	ND	1.0	0.59	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	94%		80-120%
17060-07-0	1,2-Dichloroethane-D4	90%		81-124%
2037-26-5	Toluene-D8	97%		80-120%
460-00-4	4-Bromofluorobenzene	98%		80-120%

(a) Associated CCV outside of control limits high, sample was ND.

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
 RL = Reporting Limit B = Indicates analyte found in associated method blank
 E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

4.9
4

SGS North America Inc.

Report of Analysis

Page 1 of 3

Client Sample ID:	MW-112	Date Sampled:	10/04/19
Lab Sample ID:	JC96248-5	Date Received:	10/04/19
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8270D SW846 3510C		
Project:	National Grid, Philly Coke, Philadelphia, PA		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M160245.D	1	10/11/19 17:55	HSS	10/09/19 22:00	OP23230	EM6781
Run #2							

Run #	Initial Volume	Final Volume
Run #1	1000 ml	1.0 ml
Run #2		

ABN TCL List (SOM0 2.0)

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	5.0	0.82	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	5.0	0.89	ug/l	
120-83-2	2,4-Dichlorophenol	ND	2.0	1.3	ug/l	
105-67-9	2,4-Dimethylphenol ^a	ND	5.0	2.4	ug/l	
51-28-5	2,4-Dinitrophenol	ND	5.0	1.6	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	5.0	1.3	ug/l	
95-48-7	2-Methylphenol	ND	2.0	0.89	ug/l	
	3&4-Methylphenol	ND	2.0	0.88	ug/l	
88-75-5	2-Nitrophenol	ND	5.0	0.96	ug/l	
100-02-7	4-Nitrophenol	ND	10	1.2	ug/l	
87-86-5	Pentachlorophenol	ND	4.0	1.4	ug/l	
108-95-2	Phenol	ND	2.0	0.39	ug/l	
58-90-2	2,3,4,6-Tetrachlorophenol	ND	5.0	1.5	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	5.0	1.3	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	5.0	0.92	ug/l	
83-32-9	Acenaphthene	1.4	1.0	0.19	ug/l	
208-96-8	Acenaphthylene	ND	1.0	0.14	ug/l	
98-86-2	Acetophenone	0.27	2.0	0.21	ug/l	J
120-12-7	Anthracene	0.22	1.0	0.21	ug/l	J
1912-24-9	Atrazine	ND	2.0	0.45	ug/l	
100-52-7	Benzaldehyde	ND	5.0	0.29	ug/l	
56-55-3	Benzo(a)anthracene	ND	1.0	0.20	ug/l	
50-32-8	Benzo(a)pyrene	ND	1.0	0.21	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	1.0	0.21	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	1.0	0.34	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	1.0	0.21	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	2.0	0.40	ug/l	
85-68-7	Butyl benzyl phthalate	1.7	2.0	0.46	ug/l	J
92-52-4	1,1'-Biphenyl	ND	1.0	0.21	ug/l	
91-58-7	2-Chloronaphthalene	ND	2.0	0.24	ug/l	
106-47-8	4-Chloroaniline	ND	5.0	0.34	ug/l	
86-74-8	Carbazole	ND	1.0	0.23	ug/l	

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-112	Date Sampled:	10/04/19
Lab Sample ID:	JC96248-5	Date Received:	10/04/19
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8270D SW846 3510C		
Project:	National Grid, Philly Coke, Philadelphia, PA		

ABN TCL List (SOM0 2.0)

CAS No.	Compound	Result	RL	MDL	Units	Q
105-60-2	Caprolactam	ND	2.0	0.65	ug/l	
218-01-9	Chrysene	ND	1.0	0.18	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	2.0	0.28	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	2.0	0.25	ug/l	
108-60-1	2,2'-Oxybis(1-chloropropane)	ND	2.0	0.40	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	2.0	0.37	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	1.0	0.55	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	1.0	0.48	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	2.0	0.51	ug/l	
123-91-1	1,4-Dioxane	ND	1.0	0.66	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	1.0	0.33	ug/l	
132-64-9	Dibenzofuran	ND	5.0	0.22	ug/l	
84-74-2	Di-n-butyl phthalate	ND	2.0	0.50	ug/l	
117-84-0	Di-n-octyl phthalate	ND	2.0	0.23	ug/l	
84-66-2	Diethyl phthalate	ND	2.0	0.26	ug/l	
131-11-3	Dimethyl phthalate	ND	2.0	0.22	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.0	1.7	ug/l	
206-44-0	Fluoranthene	ND	1.0	0.17	ug/l	
86-73-7	Fluorene	0.28	1.0	0.17	ug/l	J
118-74-1	Hexachlorobenzene	ND	1.0	0.33	ug/l	
87-68-3	Hexachlorobutadiene	ND	1.0	0.49	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	10	2.8	ug/l	
67-72-1	Hexachloroethane	ND	2.0	0.39	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	1.0	0.33	ug/l	
78-59-1	Isophorone	ND	2.0	0.28	ug/l	
91-57-6	2-Methylnaphthalene	ND	1.0	0.21	ug/l	
88-74-4	2-Nitroaniline	ND	5.0	0.28	ug/l	
99-09-2	3-Nitroaniline	ND	5.0	0.39	ug/l	
100-01-6	4-Nitroaniline	ND	5.0	0.44	ug/l	
91-20-3	Naphthalene	ND	1.0	0.23	ug/l	
98-95-3	Nitrobenzene	ND	2.0	0.64	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	2.0	0.48	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.0	0.22	ug/l	
85-01-8	Phenanthrene	ND	1.0	0.18	ug/l	
129-00-0	Pyrene	ND	1.0	0.22	ug/l	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	2.0	0.37	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	24%		10-110%

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
 RL = Reporting Limit B = Indicates analyte found in associated method blank
 E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

4.9
 4

Report of Analysis

Client Sample ID: MW-112		Date Sampled: 10/04/19
Lab Sample ID: JC96248-5		Date Received: 10/04/19
Matrix: AQ - Ground Water		Percent Solids: n/a
Method: SW846 8270D SW846 3510C		
Project: National Grid, Philly Coke, Philadelphia, PA		

ABN TCL List (SOM0 2.0)

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-62-2	Phenol-d5	17%		10-110%
118-79-6	2,4,6-Tribromophenol	77%		36-151%
4165-60-0	Nitrobenzene-d5	64%		34-128%
321-60-8	2-Fluorobiphenyl	65%		38-119%
1718-51-0	Terphenyl-d14	46%		26-129%

(a) Associated CCV outside of control limits high, sample was ND.

ND = Not detected MDL = Method Detection Limit
 RL = Reporting Limit

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: MW-112	Date Sampled: 10/04/19
Lab Sample ID: JC96248-5	Date Received: 10/04/19
Matrix: AQ - Ground Water	Percent Solids: n/a
Project: National Grid, Philly Coke, Philadelphia, PA	

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	< 200	200	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Antimony	< 6.0	6.0	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Arsenic	5.2	3.0	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Barium	< 200	200	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Beryllium	< 1.0	1.0	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Cadmium	< 3.0	3.0	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Calcium	123000	5000	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Chromium	< 10	10	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Cobalt	< 50	50	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Copper	< 10	10	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Iron	3630	100	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Lead	< 3.0	3.0	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Magnesium	73300	5000	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Manganese	5840	15	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Mercury	< 0.20	0.20	ug/l	1	10/08/19	10/08/19	LL SW846 7470A ¹	SW846 7470A ⁴
Nickel	< 10	10	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Potassium	< 10000	10000	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Selenium	< 10	10	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Silver	< 10	10	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Sodium	33600	10000	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Thallium	< 10	10	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Vanadium	< 50	50	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Zinc	< 20	20	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³

(1) Instrument QC Batch: MA47587

(2) Instrument QC Batch: MA47598

(3) Prep QC Batch: MP17762

(4) Prep QC Batch: MP17766

RL = Reporting Limit

Report of Analysis

Client Sample ID: MW-112	Date Sampled: 10/04/19
Lab Sample ID: JC96248-5	Date Received: 10/04/19
Matrix: AQ - Ground Water	Percent Solids: n/a
Project: National Grid, Philly Coke, Philadelphia, PA	

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Cyanide	0.18	0.010	mg/l	1	10/15/19 15:42	KI	EPA 335.4/LACHAT

RL = Reporting Limit

Report of Analysis

Client Sample ID: MW-112 Lab Sample ID: JC96248-5F Matrix: AQ - Groundwater Filtered Project: National Grid, Philly Coke, Philadelphia, PA	Date Sampled: 10/04/19 Date Received: 10/04/19 Percent Solids: n/a
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Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	< 200	200	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ⁴
Antimony	< 6.0	6.0	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ⁴
Arsenic	4.3	3.0	ug/l	1	10/08/19	10/10/19	ND SW846 6010D ³	SW846 3010A ⁴
Barium	< 200	200	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ⁴
Beryllium	< 1.0	1.0	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ⁴
Cadmium	< 3.0	3.0	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ⁴
Calcium	122000	5000	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ⁴
Chromium	< 10	10	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ⁴
Cobalt	< 50	50	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ⁴
Copper	< 10	10	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ⁴
Iron	240	100	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ⁴
Lead	< 3.0	3.0	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ⁴
Magnesium	72800	5000	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ⁴
Manganese	5570	15	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ⁴
Mercury	< 0.20	0.20	ug/l	1	10/08/19	10/08/19	LL SW846 7470A ¹	SW846 7470A ⁵
Nickel	< 10	10	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ⁴
Potassium	< 10000	10000	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ⁴
Selenium	< 10	10	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ⁴
Silver	< 10	10	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ⁴
Sodium	33300	10000	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ⁴
Thallium	< 10	10	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ⁴
Vanadium	< 50	50	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ⁴
Zinc	< 20	20	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ⁴

- (1) Instrument QC Batch: MA47587
- (2) Instrument QC Batch: MA47601
- (3) Instrument QC Batch: MA47607
- (4) Prep QC Batch: MP17762
- (5) Prep QC Batch: MP17766

RL = Reporting Limit

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Report of Analysis

Client Sample ID: MW-112	Date Sampled: 10/04/19
Lab Sample ID: JC96248-5F	Date Received: 10/04/19
Matrix: AQ - Groundwater Filtered	Percent Solids: n/a
Project: National Grid, Philly Coke, Philadelphia, PA	

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General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Cyanide	0.14	0.010	mg/l	1	10/15/19 15:56	KI	EPA 335.4/LACHAT

RL = Reporting Limit

SGS North America Inc.

Report of Analysis

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Client Sample ID: MW-113	Date Sampled: 10/04/19
Lab Sample ID: JC96248-6	Date Received: 10/04/19
Matrix: AQ - Ground Water	Percent Solids: n/a
Method: SW846 8260C	
Project: National Grid, Philly Coke, Philadelphia, PA	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2D185878.D	1	10/12/19 01:30	ED	n/a	n/a	V2D7993
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	6.0	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.48	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.58	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	6.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.95	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane ^a	ND	2.0	1.4	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	1.9	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	

ND = Not detected

MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: MW-113 Lab Sample ID: JC96248-6 Matrix: AQ - Ground Water Method: SW846 8260C Project: National Grid, Philly Coke, Philadelphia, PA	Date Sampled: 10/04/19 Date Received: 10/04/19 Percent Solids: n/a
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VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	
79-20-9	Methyl Acetate	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.70	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.84	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
	m,p-Xylene	ND	1.0	0.78	ug/l	
95-47-6	o-Xylene	ND	1.0	0.59	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	94%		80-120%
17060-07-0	1,2-Dichloroethane-D4	91%		81-124%
2037-26-5	Toluene-D8	96%		80-120%
460-00-4	4-Bromofluorobenzene	98%		80-120%

(a) Associated CCV outside of control limits high, sample was ND.

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
 RL = Reporting Limit B = Indicates analyte found in associated method blank
 E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

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SGS North America Inc.

Report of Analysis

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Client Sample ID:	MW-113	Date Sampled:	10/04/19
Lab Sample ID:	JC96248-6	Date Received:	10/04/19
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8270D SW846 3510C		
Project:	National Grid, Philly Coke, Philadelphia, PA		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M160246.D	1	10/11/19 18:23	HSS	10/09/19 22:00	OP23230	EM6781
Run #2 ^a	F187974.D	1	10/19/19 08:00	CS	10/18/19 08:00	OP23404	EF8099

Run #	Initial Volume	Final Volume
Run #1	1000 ml	1.0 ml
Run #2	1000 ml	1.0 ml

ABN TCL List (SOM0 2.0)

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	5.0	0.82	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	5.0	0.89	ug/l	
120-83-2	2,4-Dichlorophenol	ND	2.0	1.3	ug/l	
105-67-9	2,4-Dimethylphenol ^b	ND	5.0	2.4	ug/l	
51-28-5	2,4-Dinitrophenol	ND	5.0	1.6	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	5.0	1.3	ug/l	
95-48-7	2-Methylphenol	ND	2.0	0.89	ug/l	
	3&4-Methylphenol	ND	2.0	0.88	ug/l	
88-75-5	2-Nitrophenol	ND	5.0	0.96	ug/l	
100-02-7	4-Nitrophenol	ND	10	1.2	ug/l	
87-86-5	Pentachlorophenol	ND	4.0	1.4	ug/l	
108-95-2	Phenol	ND	2.0	0.39	ug/l	
58-90-2	2,3,4,6-Tetrachlorophenol	ND	5.0	1.5	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	5.0	1.3	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	5.0	0.92	ug/l	
83-32-9	Acenaphthene	ND	1.0	0.19	ug/l	
208-96-8	Acenaphthylene	ND	1.0	0.14	ug/l	
98-86-2	Acetophenone	ND	2.0	0.21	ug/l	
120-12-7	Anthracene	0.33	1.0	0.21	ug/l	J
1912-24-9	Atrazine	ND	2.0	0.45	ug/l	
100-52-7	Benzaldehyde	ND	5.0	0.29	ug/l	
56-55-3	Benzo(a)anthracene	ND	1.0	0.20	ug/l	
50-32-8	Benzo(a)pyrene	ND	1.0	0.21	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	1.0	0.21	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	1.0	0.34	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	1.0	0.21	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	2.0	0.40	ug/l	
85-68-7	Butyl benzyl phthalate	ND	2.0	0.46	ug/l	
92-52-4	1,1'-Biphenyl	ND	1.0	0.21	ug/l	
91-58-7	2-Chloronaphthalene	ND	2.0	0.24	ug/l	
106-47-8	4-Chloroaniline	ND	5.0	0.34	ug/l	
86-74-8	Carbazole	ND	1.0	0.23	ug/l	

ND = Not detected

MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-113	Date Sampled:	10/04/19
Lab Sample ID:	JC96248-6	Date Received:	10/04/19
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8270D SW846 3510C		
Project:	National Grid, Philly Coke, Philadelphia, PA		

ABN TCL List (SOM0 2.0)

CAS No.	Compound	Result	RL	MDL	Units	Q
105-60-2	Caprolactam	ND	2.0	0.65	ug/l	
218-01-9	Chrysene	ND	1.0	0.18	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	2.0	0.28	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	2.0	0.25	ug/l	
108-60-1	2,2'-Oxybis(1-chloropropane)	ND	2.0	0.40	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	2.0	0.37	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	1.0	0.55	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	1.0	0.48	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	2.0	0.51	ug/l	
123-91-1	1,4-Dioxane	ND	1.0	0.66	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	1.0	0.33	ug/l	
132-64-9	Dibenzofuran	ND	5.0	0.22	ug/l	
84-74-2	Di-n-butyl phthalate	ND	2.0	0.50	ug/l	
117-84-0	Di-n-octyl phthalate	ND	2.0	0.23	ug/l	
84-66-2	Diethyl phthalate	ND	2.0	0.26	ug/l	
131-11-3	Dimethyl phthalate	ND	2.0	0.22	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.0	1.7	ug/l	
206-44-0	Fluoranthene	ND	1.0	0.17	ug/l	
86-73-7	Fluorene	ND	1.0	0.17	ug/l	
118-74-1	Hexachlorobenzene	ND	1.0	0.33	ug/l	
87-68-3	Hexachlorobutadiene	ND	1.0	0.49	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	10	2.8	ug/l	
67-72-1	Hexachloroethane	ND	2.0	0.39	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	1.0	0.33	ug/l	
78-59-1	Isophorone	ND	2.0	0.28	ug/l	
91-57-6	2-Methylnaphthalene	ND	1.0	0.21	ug/l	
88-74-4	2-Nitroaniline	ND	5.0	0.28	ug/l	
99-09-2	3-Nitroaniline	ND	5.0	0.39	ug/l	
100-01-6	4-Nitroaniline	ND	5.0	0.44	ug/l	
91-20-3	Naphthalene	0.31	1.0	0.23	ug/l	JB
98-95-3	Nitrobenzene	ND	2.0	0.64	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	2.0	0.48	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.0	0.22	ug/l	
85-01-8	Phenanthrene	0.20	1.0	0.18	ug/l	J
129-00-0	Pyrene	ND	1.0	0.22	ug/l	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	2.0	0.37	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	26%	35%	10-110%

ND = Not detected

MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: MW-113		Date Sampled: 10/04/19
Lab Sample ID: JC96248-6		Date Received: 10/04/19
Matrix: AQ - Ground Water		Percent Solids: n/a
Method: SW846 8270D SW846 3510C		
Project: National Grid, Philly Coke, Philadelphia, PA		

ABN TCL List (SOM0 2.0)

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-62-2	Phenol-d5	19%	27%	10-110%
118-79-6	2,4,6-Tribromophenol	80%	98%	36-151%
4165-60-0	Nitrobenzene-d5	68%	91%	34-128%
321-60-8	2-Fluorobiphenyl	70%	74%	38-119%
1718-51-0	Terphenyl-d14	47%	85%	26-129%

- (a) Sample extracted outside the holding time. Confirmation run.
- (b) Associated CCV outside of control limits high, sample was ND.

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
 RL = Reporting Limit B = Indicates analyte found in associated method blank
 E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

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Report of Analysis

Client Sample ID: MW-113 Lab Sample ID: JC96248-6 Matrix: AQ - Ground Water Project: National Grid, Philly Coke, Philadelphia, PA	Date Sampled: 10/04/19 Date Received: 10/04/19 Percent Solids: n/a
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Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	< 200	200	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Antimony	< 6.0	6.0	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Arsenic	< 3.0	3.0	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Barium	< 200	200	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Beryllium	< 1.0	1.0	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Cadmium	< 3.0	3.0	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Calcium	105000	5000	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Chromium	< 10	10	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Cobalt	< 50	50	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Copper	< 10	10	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Iron	25600	100	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Lead	< 3.0	3.0	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Magnesium	29900	5000	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Manganese	1060	15	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Mercury	< 0.20	0.20	ug/l	1	10/08/19	10/08/19	LL SW846 7470A ¹	SW846 7470A ⁴
Nickel	< 10	10	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Potassium	< 10000	10000	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Selenium	< 10	10	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Silver	< 10	10	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Sodium	13200	10000	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Thallium	< 10	10	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Vanadium	< 50	50	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Zinc	< 20	20	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³

(1) Instrument QC Batch: MA47587

(2) Instrument QC Batch: MA47598

(3) Prep QC Batch: MP17762

(4) Prep QC Batch: MP17766

RL = Reporting Limit

4.11
4

Report of Analysis

Client Sample ID: MW-113	Date Sampled: 10/04/19
Lab Sample ID: JC96248-6	Date Received: 10/04/19
Matrix: AQ - Ground Water	Percent Solids: n/a
Project: National Grid, Philly Coke, Philadelphia, PA	

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Cyanide	0.38	0.010	mg/l	1	10/15/19 15:44	KI	EPA 335.4/LACHAT

RL = Reporting Limit

Report of Analysis

Client Sample ID: MW-113	Date Sampled: 10/04/19
Lab Sample ID: JC96248-6F	Date Received: 10/04/19
Matrix: AQ - Groundwater Filtered	Percent Solids: n/a
Project: National Grid, Philly Coke, Philadelphia, PA	

Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	< 200	200	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Antimony	< 6.0	6.0	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Arsenic	< 3.0	3.0	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Barium	< 200	200	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Beryllium	< 1.0	1.0	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Cadmium	< 3.0	3.0	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Calcium	104000	5000	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Chromium	< 10	10	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Cobalt	< 50	50	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Copper	< 10	10	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Iron	7660	100	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Lead	< 3.0	3.0	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Magnesium	29700	5000	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Manganese	1010	15	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Mercury	< 0.20	0.20	ug/l	1	10/08/19	10/08/19	LL SW846 7470A ¹	SW846 7470A ⁴
Nickel	< 10	10	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Potassium	< 10000	10000	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Selenium	< 10	10	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Silver	< 10	10	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Sodium	13100	10000	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Thallium	< 10	10	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Vanadium	< 50	50	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Zinc	< 20	20	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³

(1) Instrument QC Batch: MA47587

(2) Instrument QC Batch: MA47601

(3) Prep QC Batch: MP17762

(4) Prep QC Batch: MP17766

RL = Reporting Limit

4.12
4

Report of Analysis

Client Sample ID: MW-113	Date Sampled: 10/04/19
Lab Sample ID: JC96248-6F	Date Received: 10/04/19
Matrix: AQ - Groundwater Filtered	Percent Solids: n/a
Project: National Grid, Philly Coke, Philadelphia, PA	

4.12
4

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Cyanide	0.41	0.010	mg/l	1	10/15/19 15:57	KI	EPA 335.4/LACHAT

RL = Reporting Limit

SGS North America Inc.

Report of Analysis

Page 1 of 2

Client Sample ID: DUP-100419	Date Sampled: 10/04/19
Lab Sample ID: JC96248-7	Date Received: 10/04/19
Matrix: AQ - Ground Water	Percent Solids: n/a
Method: SW846 8260C	
Project: National Grid, Philly Coke, Philadelphia, PA	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	2D185879.D	1	10/12/19 01:59	ED	n/a	n/a	V2D7993

Run #1	Purge Volume
Run #2	5.0 ml

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	6.0	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.48	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.58	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	6.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.95	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane ^a	ND	2.0	1.4	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	1.9	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	

ND = Not detected

MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: DUP-100419		Date Sampled: 10/04/19
Lab Sample ID: JC96248-7		Date Received: 10/04/19
Matrix: AQ - Ground Water		Percent Solids: n/a
Method: SW846 8260C		
Project: National Grid, Philly Coke, Philadelphia, PA		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	
79-20-9	Methyl Acetate	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.70	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.84	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
	m,p-Xylene	ND	1.0	0.78	ug/l	
95-47-6	o-Xylene	ND	1.0	0.59	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	94%		80-120%
17060-07-0	1,2-Dichloroethane-D4	91%		81-124%
2037-26-5	Toluene-D8	97%		80-120%
460-00-4	4-Bromofluorobenzene	97%		80-120%

(a) Associated CCV outside of control limits high, sample was ND.

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
 RL = Reporting Limit B = Indicates analyte found in associated method blank
 E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

4.13
4

SGS North America Inc.

Report of Analysis

Page 1 of 3

Client Sample ID:	DUP-100419	Date Sampled:	10/04/19
Lab Sample ID:	JC96248-7	Date Received:	10/04/19
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8270D SW846 3510C		
Project:	National Grid, Philly Coke, Philadelphia, PA		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M160247.D	1	10/11/19 18:51	HSS	10/09/19 22:00	OP23230	EM6781
Run #2 ^a	F187975.D	1	10/19/19 08:29	CS	10/18/19 08:00	OP23404	EF8099

Run #	Initial Volume	Final Volume
Run #1	1000 ml	1.0 ml
Run #2	1000 ml	1.0 ml

ABN TCL List (SOM0 2.0)

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	5.0	0.82	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	5.0	0.89	ug/l	
120-83-2	2,4-Dichlorophenol	ND	2.0	1.3	ug/l	
105-67-9	2,4-Dimethylphenol ^b	ND	5.0	2.4	ug/l	
51-28-5	2,4-Dinitrophenol	ND	5.0	1.6	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	5.0	1.3	ug/l	
95-48-7	2-Methylphenol	ND	2.0	0.89	ug/l	
	3&4-Methylphenol	ND	2.0	0.88	ug/l	
88-75-5	2-Nitrophenol	ND	5.0	0.96	ug/l	
100-02-7	4-Nitrophenol	ND	10	1.2	ug/l	
87-86-5	Pentachlorophenol	ND	4.0	1.4	ug/l	
108-95-2	Phenol	ND	2.0	0.39	ug/l	
58-90-2	2,3,4,6-Tetrachlorophenol	ND	5.0	1.5	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	5.0	1.3	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	5.0	0.92	ug/l	
83-32-9	Acenaphthene	ND	1.0	0.19	ug/l	
208-96-8	Acenaphthylene	ND	1.0	0.14	ug/l	
98-86-2	Acetophenone	ND	2.0	0.21	ug/l	
120-12-7	Anthracene	0.43	1.0	0.21	ug/l	J
1912-24-9	Atrazine	ND	2.0	0.45	ug/l	
100-52-7	Benzaldehyde	ND	5.0	0.29	ug/l	
56-55-3	Benzo(a)anthracene	ND	1.0	0.20	ug/l	
50-32-8	Benzo(a)pyrene	ND	1.0	0.21	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	1.0	0.21	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	1.0	0.34	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	1.0	0.21	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	2.0	0.40	ug/l	
85-68-7	Butyl benzyl phthalate	ND	2.0	0.46	ug/l	
92-52-4	1,1'-Biphenyl	ND	1.0	0.21	ug/l	
91-58-7	2-Chloronaphthalene	ND	2.0	0.24	ug/l	
106-47-8	4-Chloroaniline	ND	5.0	0.34	ug/l	
86-74-8	Carbazole	0.91	1.0	0.23	ug/l	J

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	DUP-100419	Date Sampled:	10/04/19
Lab Sample ID:	JC96248-7	Date Received:	10/04/19
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8270D SW846 3510C		
Project:	National Grid, Philly Coke, Philadelphia, PA		

ABN TCL List (SOM0 2.0)

CAS No.	Compound	Result	RL	MDL	Units	Q
105-60-2	Caprolactam	ND	2.0	0.65	ug/l	
218-01-9	Chrysene	ND	1.0	0.18	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	2.0	0.28	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	2.0	0.25	ug/l	
108-60-1	2,2'-Oxybis(1-chloropropane)	ND	2.0	0.40	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	2.0	0.37	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	1.0	0.55	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	1.0	0.48	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	2.0	0.51	ug/l	
123-91-1	1,4-Dioxane	ND	1.0	0.66	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	1.0	0.33	ug/l	
132-64-9	Dibenzofuran	0.40	5.0	0.22	ug/l	J
84-74-2	Di-n-butyl phthalate	ND	2.0	0.50	ug/l	
117-84-0	Di-n-octyl phthalate	ND	2.0	0.23	ug/l	
84-66-2	Diethyl phthalate	ND	2.0	0.26	ug/l	
131-11-3	Dimethyl phthalate	ND	2.0	0.22	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.0	1.7	ug/l	
206-44-0	Fluoranthene	0.26	1.0	0.17	ug/l	J
86-73-7	Fluorene	0.90	1.0	0.17	ug/l	J
118-74-1	Hexachlorobenzene	ND	1.0	0.33	ug/l	
87-68-3	Hexachlorobutadiene	ND	1.0	0.49	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	10	2.8	ug/l	
67-72-1	Hexachloroethane	ND	2.0	0.39	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	1.0	0.33	ug/l	
78-59-1	Isophorone	ND	2.0	0.28	ug/l	
91-57-6	2-Methylnaphthalene	0.67	1.0	0.21	ug/l	J
88-74-4	2-Nitroaniline	ND	5.0	0.28	ug/l	
99-09-2	3-Nitroaniline	ND	5.0	0.39	ug/l	
100-01-6	4-Nitroaniline	ND	5.0	0.44	ug/l	
91-20-3	Naphthalene	5.8	1.0	0.23	ug/l	B
98-95-3	Nitrobenzene	ND	2.0	0.64	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	2.0	0.48	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.0	0.22	ug/l	
85-01-8	Phenanthrene	1.1	1.0	0.18	ug/l	
129-00-0	Pyrene	ND	1.0	0.22	ug/l	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	2.0	0.37	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	24%	35%	10-110%

ND = Not detected

MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: DUP-100419		Date Sampled: 10/04/19
Lab Sample ID: JC96248-7		Date Received: 10/04/19
Matrix: AQ - Ground Water		Percent Solids: n/a
Method: SW846 8270D SW846 3510C		
Project: National Grid, Philly Coke, Philadelphia, PA		

ABN TCL List (SOM0 2.0)

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-62-2	Phenol-d5	17%	27%	10-110%
118-79-6	2,4,6-Tribromophenol	81%	89%	36-151%
4165-60-0	Nitrobenzene-d5	63%	80%	34-128%
321-60-8	2-Fluorobiphenyl	64%	68%	38-119%
1718-51-0	Terphenyl-d14	52%	80%	26-129%

- (a) Sample extracted outside the holding time. Confirmation run.
- (b) Associated CCV outside of control limits high, sample was ND.

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
 RL = Reporting Limit B = Indicates analyte found in associated method blank
 E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

4.13
4

Report of Analysis

Client Sample ID: DUP-100419	Date Sampled: 10/04/19
Lab Sample ID: JC96248-7	Date Received: 10/04/19
Matrix: AQ - Ground Water	Percent Solids: n/a
Project: National Grid, Philly Coke, Philadelphia, PA	

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	< 200	200	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Antimony	< 6.0	6.0	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Arsenic	< 3.0	3.0	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Barium	< 200	200	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Beryllium	< 1.0	1.0	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Cadmium	< 3.0	3.0	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Calcium	178000	5000	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Chromium	< 10	10	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Cobalt	< 50	50	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Copper	< 10	10	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Iron	12200	100	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Lead	82.7	3.0	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Magnesium	79100	5000	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Manganese	699	15	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Mercury	< 0.20	0.20	ug/l	1	10/08/19	10/08/19	LL SW846 7470A ¹	SW846 7470A ⁴
Nickel	< 10	10	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Potassium	16600	10000	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Selenium	< 10	10	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Silver	< 10	10	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Sodium	20000	10000	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Thallium	< 10	10	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Vanadium	< 50	50	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Zinc	< 20	20	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³

(1) Instrument QC Batch: MA47587

(2) Instrument QC Batch: MA47598

(3) Prep QC Batch: MP17762

(4) Prep QC Batch: MP17766

RL = Reporting Limit

Report of Analysis

Client Sample ID: DUP-100419	Date Sampled: 10/04/19
Lab Sample ID: JC96248-7	Date Received: 10/04/19
Matrix: AQ - Ground Water	Percent Solids: n/a
Project: National Grid, Philly Coke, Philadelphia, PA	

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Cyanide	0.034	0.010	mg/l	1	10/15/19 15:45	KI	EPA 335.4/LACHAT
Solids, Total Dissolved	916	10	mg/l	1	10/10/19 16:33	RC	SM2540 C-11

RL = Reporting Limit

Report of Analysis

Client Sample ID: DUP-100419 Lab Sample ID: JC96248-7F Matrix: AQ - Groundwater Filtered Project: National Grid, Philly Coke, Philadelphia, PA	Date Sampled: 10/04/19 Date Received: 10/04/19 Percent Solids: n/a
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Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	< 200	200	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ⁴
Antimony	< 6.0	6.0	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ⁴
Arsenic	< 3.0	3.0	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ⁴
Barium	< 200	200	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ⁴
Beryllium	< 1.0	1.0	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ⁴
Cadmium	< 3.0	3.0	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ⁴
Calcium	189000	5000	ug/l	1	10/08/19	10/10/19	ND SW846 6010D ³	SW846 3010A ⁴
Chromium	< 10	10	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ⁴
Cobalt	< 50	50	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ⁴
Copper	< 10	10	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ⁴
Iron	197	100	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ⁴
Lead	< 3.0	3.0	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ⁴
Magnesium	82100	5000	ug/l	1	10/08/19	10/10/19	ND SW846 6010D ³	SW846 3010A ⁴
Manganese	701	15	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ⁴
Mercury	< 0.20	0.20	ug/l	1	10/08/19	10/08/19	LL SW846 7470A ¹	SW846 7470A ⁵
Nickel	< 10	10	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ⁴
Potassium	18100	10000	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ⁴
Selenium	< 10	10	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ⁴
Silver	< 10	10	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ⁴
Sodium	21700	10000	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ⁴
Thallium	< 10	10	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ⁴
Vanadium	< 50	50	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ⁴
Zinc	< 20	20	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ⁴

- (1) Instrument QC Batch: MA47587
- (2) Instrument QC Batch: MA47601
- (3) Instrument QC Batch: MA47607
- (4) Prep QC Batch: MP17762
- (5) Prep QC Batch: MP17766

RL = Reporting Limit

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Report of Analysis

Client Sample ID: DUP-100419	Date Sampled: 10/04/19
Lab Sample ID: JC96248-7F	Date Received: 10/04/19
Matrix: AQ - Groundwater Filtered	Percent Solids: n/a
Project: National Grid, Philly Coke, Philadelphia, PA	

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General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Cyanide	0.037	0.010	mg/l	1	10/15/19 15:59	KI	EPA 335.4/LACHAT

RL = Reporting Limit

SGS North America Inc.

Report of Analysis

Page 1 of 2

Client Sample ID: FB-100419	Date Sampled: 10/04/19
Lab Sample ID: JC96248-8	Date Received: 10/04/19
Matrix: AQ - Field Blank Water	Percent Solids: n/a
Method: SW846 8260C	
Project: National Grid, Philly Coke, Philadelphia, PA	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2D186009.D	1	10/17/19 10:34	KC	n/a	n/a	V2D8000
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	6.0	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.48	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.58	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	6.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.95	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane ^a	ND	2.0	1.4	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	1.9	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	

ND = Not detected

MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: FB-100419		Date Sampled: 10/04/19
Lab Sample ID: JC96248-8		Date Received: 10/04/19
Matrix: AQ - Field Blank Water		Percent Solids: n/a
Method: SW846 8260C		
Project: National Grid, Philly Coke, Philadelphia, PA		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	
79-20-9	Methyl Acetate	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.70	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.84	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
	m,p-Xylene	ND	1.0	0.78	ug/l	
95-47-6	o-Xylene	ND	1.0	0.59	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	93%		80-120%
17060-07-0	1,2-Dichloroethane-D4	91%		81-124%
2037-26-5	Toluene-D8	95%		80-120%
460-00-4	4-Bromofluorobenzene	99%		80-120%

(a) Associated CCV outside of control limits high, sample was ND.

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
 RL = Reporting Limit B = Indicates analyte found in associated method blank
 E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

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SGS North America Inc.

Report of Analysis

Page 1 of 3

Client Sample ID:	FB-100419	Date Sampled:	10/04/19
Lab Sample ID:	JC96248-8	Date Received:	10/04/19
Matrix:	AQ - Field Blank Water	Percent Solids:	n/a
Method:	SW846 8270D SW846 3510C		
Project:	National Grid, Philly Coke, Philadelphia, PA		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M160248.D	1	10/11/19 19:19	HSS	10/09/19 22:00	OP23230	EM6781
Run #2							

Run #	Initial Volume	Final Volume
Run #1	990 ml	1.0 ml
Run #2		

ABN TCL List (SOM0 2.0)

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	5.1	0.83	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	5.1	0.90	ug/l	
120-83-2	2,4-Dichlorophenol	ND	2.0	1.3	ug/l	
105-67-9	2,4-Dimethylphenol ^a	ND	5.1	2.5	ug/l	
51-28-5	2,4-Dinitrophenol	ND	5.1	1.6	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	5.1	1.3	ug/l	
95-48-7	2-Methylphenol	ND	2.0	0.90	ug/l	
	3&4-Methylphenol	ND	2.0	0.89	ug/l	
88-75-5	2-Nitrophenol	ND	5.1	0.97	ug/l	
100-02-7	4-Nitrophenol	ND	10	1.2	ug/l	
87-86-5	Pentachlorophenol	ND	4.0	1.4	ug/l	
108-95-2	Phenol	ND	2.0	0.40	ug/l	
58-90-2	2,3,4,6-Tetrachlorophenol	ND	5.1	1.5	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	5.1	1.3	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	5.1	0.93	ug/l	
83-32-9	Acenaphthene	ND	1.0	0.19	ug/l	
208-96-8	Acenaphthylene	ND	1.0	0.14	ug/l	
98-86-2	Acetophenone	ND	2.0	0.21	ug/l	
120-12-7	Anthracene	ND	1.0	0.21	ug/l	
1912-24-9	Atrazine	ND	2.0	0.45	ug/l	
100-52-7	Benzaldehyde	ND	5.1	0.29	ug/l	
56-55-3	Benzo(a)anthracene	ND	1.0	0.21	ug/l	
50-32-8	Benzo(a)pyrene	ND	1.0	0.22	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	1.0	0.21	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	1.0	0.34	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	1.0	0.21	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	2.0	0.41	ug/l	
85-68-7	Butyl benzyl phthalate	ND	2.0	0.46	ug/l	
92-52-4	1,1'-Biphenyl	ND	1.0	0.21	ug/l	
91-58-7	2-Chloronaphthalene	ND	2.0	0.24	ug/l	
106-47-8	4-Chloroaniline	ND	5.1	0.34	ug/l	
86-74-8	Carbazole	ND	1.0	0.23	ug/l	

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: FB-100419		Date Sampled: 10/04/19
Lab Sample ID: JC96248-8		Date Received: 10/04/19
Matrix: AQ - Field Blank Water		Percent Solids: n/a
Method: SW846 8270D SW846 3510C		
Project: National Grid, Philly Coke, Philadelphia, PA		

ABN TCL List (SOM0 2.0)

CAS No.	Compound	Result	RL	MDL	Units	Q
105-60-2	Caprolactam	ND	2.0	0.66	ug/l	
218-01-9	Chrysene	ND	1.0	0.18	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	2.0	0.28	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	2.0	0.25	ug/l	
108-60-1	2,2'-Oxybis(1-chloropropane)	ND	2.0	0.41	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	2.0	0.37	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	1.0	0.56	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	1.0	0.48	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	2.0	0.51	ug/l	
123-91-1	1,4-Dioxane	ND	1.0	0.66	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	1.0	0.33	ug/l	
132-64-9	Dibenzofuran	ND	5.1	0.22	ug/l	
84-74-2	Di-n-butyl phthalate	ND	2.0	0.50	ug/l	
117-84-0	Di-n-octyl phthalate	ND	2.0	0.24	ug/l	
84-66-2	Diethyl phthalate	ND	2.0	0.26	ug/l	
131-11-3	Dimethyl phthalate	ND	2.0	0.22	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.0	1.7	ug/l	
206-44-0	Fluoranthene	ND	1.0	0.17	ug/l	
86-73-7	Fluorene	ND	1.0	0.17	ug/l	
118-74-1	Hexachlorobenzene	ND	1.0	0.33	ug/l	
87-68-3	Hexachlorobutadiene	ND	1.0	0.50	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	10	2.8	ug/l	
67-72-1	Hexachloroethane	ND	2.0	0.39	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	1.0	0.34	ug/l	
78-59-1	Isophorone	ND	2.0	0.28	ug/l	
91-57-6	2-Methylnaphthalene	ND	1.0	0.21	ug/l	
88-74-4	2-Nitroaniline	ND	5.1	0.28	ug/l	
99-09-2	3-Nitroaniline	ND	5.1	0.39	ug/l	
100-01-6	4-Nitroaniline	ND	5.1	0.44	ug/l	
91-20-3	Naphthalene	ND	1.0	0.23	ug/l	
98-95-3	Nitrobenzene	ND	2.0	0.65	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	2.0	0.49	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.1	0.22	ug/l	
85-01-8	Phenanthrene	ND	1.0	0.18	ug/l	
129-00-0	Pyrene	ND	1.0	0.22	ug/l	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	2.0	0.37	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	25%		10-110%

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
 RL = Reporting Limit B = Indicates analyte found in associated method blank
 E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

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Report of Analysis

Client Sample ID: FB-100419 Lab Sample ID: JC96248-8 Matrix: AQ - Field Blank Water Method: SW846 8270D SW846 3510C Project: National Grid, Philly Coke, Philadelphia, PA	Date Sampled: 10/04/19 Date Received: 10/04/19 Percent Solids: n/a
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ABN TCL List (SOM0 2.0)

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-62-2	Phenol-d5	17%		10-110%
118-79-6	2,4,6-Tribromophenol	78%		36-151%
4165-60-0	Nitrobenzene-d5	66%		34-128%
321-60-8	2-Fluorobiphenyl	61%		38-119%
1718-51-0	Terphenyl-d14	63%		26-129%

(a) Associated CCV outside of control limits high, sample was ND.

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
 RL = Reporting Limit B = Indicates analyte found in associated method blank
 E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

4.15
4

Report of Analysis

Client Sample ID: FB-100419 Lab Sample ID: JC96248-8 Matrix: AQ - Field Blank Water Project: National Grid, Philly Coke, Philadelphia, PA	Date Sampled: 10/04/19 Date Received: 10/04/19 Percent Solids: n/a
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Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	< 200	200	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Antimony	< 6.0	6.0	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Arsenic	< 3.0	3.0	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Barium	< 200	200	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Beryllium	< 1.0	1.0	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Cadmium	< 3.0	3.0	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Calcium	< 5000	5000	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Chromium	< 10	10	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Cobalt	< 50	50	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Copper	< 10	10	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Iron	< 100	100	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Lead	< 3.0	3.0	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Magnesium	< 5000	5000	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Manganese	< 15	15	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Mercury	< 0.20	0.20	ug/l	1	10/08/19	10/08/19	LL SW846 7470A ¹	SW846 7470A ⁴
Nickel	< 10	10	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Potassium	< 10000	10000	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Selenium	< 10	10	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Silver	< 10	10	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Sodium	< 10000	10000	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Thallium	< 10	10	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Vanadium	< 50	50	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³
Zinc	< 20	20	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ³

(1) Instrument QC Batch: MA47587

(2) Instrument QC Batch: MA47601

(3) Prep QC Batch: MP17762

(4) Prep QC Batch: MP17766

RL = Reporting Limit

Report of Analysis

Client Sample ID: FB-100419	Date Sampled: 10/04/19
Lab Sample ID: JC96248-8	Date Received: 10/04/19
Matrix: AQ - Field Blank Water	Percent Solids: n/a
Project: National Grid, Philly Coke, Philadelphia, PA	

4.15
4

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Cyanide	< 0.010	0.010	mg/l	1	10/15/19 15:49	KI	EPA 335.4/LACHAT

RL = Reporting Limit

Report of Analysis

Client Sample ID: FB-100419 Lab Sample ID: JC96248-8F Matrix: AQ - Field Blank Filtered Project: National Grid, Philly Coke, Philadelphia, PA	Date Sampled: 10/04/19 Date Received: 10/04/19 Percent Solids: n/a
--	---

Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	< 200	200	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ⁴
Antimony	< 6.0	6.0	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ⁴
Arsenic	< 3.0	3.0	ug/l	1	10/08/19	10/10/19	ND SW846 6010D ³	SW846 3010A ⁴
Barium	< 200	200	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ⁴
Beryllium	< 1.0	1.0	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ⁴
Cadmium	< 3.0	3.0	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ⁴
Calcium	< 5000	5000	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ⁴
Chromium	< 10	10	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ⁴
Cobalt	< 50	50	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ⁴
Copper	< 10	10	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ⁴
Iron	< 100	100	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ⁴
Lead	< 3.0	3.0	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ⁴
Magnesium	< 5000	5000	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ⁴
Manganese	< 15	15	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ⁴
Mercury	< 0.20	0.20	ug/l	1	10/08/19	10/08/19	LL SW846 7470A ¹	SW846 7470A ⁵
Nickel	< 10	10	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ⁴
Potassium	< 10000	10000	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ⁴
Selenium	< 10	10	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ⁴
Silver	< 10	10	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ⁴
Sodium	< 10000	10000	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ⁴
Thallium	< 10	10	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ⁴
Vanadium	< 50	50	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ⁴
Zinc	< 20	20	ug/l	1	10/08/19	10/09/19	EAL SW846 6010D ²	SW846 3010A ⁴

- (1) Instrument QC Batch: MA47587
- (2) Instrument QC Batch: MA47601
- (3) Instrument QC Batch: MA47607
- (4) Prep QC Batch: MP17762
- (5) Prep QC Batch: MP17766

RL = Reporting Limit

4.16
4

Report of Analysis

Client Sample ID: FB-100419	Date Sampled: 10/04/19
Lab Sample ID: JC96248-8F	Date Received: 10/04/19
Matrix: AQ - Field Blank Filtered	Percent Solids: n/a
Project: National Grid, Philly Coke, Philadelphia, PA	

4.16
4

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Cyanide	< 0.010	0.010	mg/l	1	10/15/19 16:00	KI	EPA 335.4/LACHAT

RL = Reporting Limit

SGS North America Inc.

Report of Analysis

Page 1 of 2

Client Sample ID:	TRIP BLANK	Date Sampled:	10/04/19
Lab Sample ID:	JC96248-9	Date Received:	10/04/19
Matrix:	AQ - Trip Blank Water	Percent Solids:	n/a
Method:	SW846 8260C		
Project:	National Grid, Philly Coke, Philadelphia, PA		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2D186010.D	1	10/17/19 11:03	KC	n/a	n/a	V2D8000
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	6.0	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.48	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.58	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	6.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.95	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane ^a	ND	2.0	1.4	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	1.9	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	

ND = Not detected

MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TRIP BLANK	
Lab Sample ID:	JC96248-9	Date Sampled: 10/04/19
Matrix:	AQ - Trip Blank Water	Date Received: 10/04/19
Method:	SW846 8260C	Percent Solids: n/a
Project:	National Grid, Philly Coke, Philadelphia, PA	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	
79-20-9	Methyl Acetate	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.70	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.84	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
	m,p-Xylene	ND	1.0	0.78	ug/l	
95-47-6	o-Xylene	ND	1.0	0.59	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	93%		80-120%
17060-07-0	1,2-Dichloroethane-D4	90%		81-124%
2037-26-5	Toluene-D8	96%		80-120%
460-00-4	4-Bromofluorobenzene	99%		80-120%

(a) Associated CCV outside of control limits high, sample was ND.

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
 RL = Reporting Limit B = Indicates analyte found in associated method blank
 E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

4.17
4

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody
- Sample Tracking Chronicle
- Internal Chain of Custody



AW
FB
WLB

CHAIN OF CUSTODY

SGS North America Inc. - Dayton
2235 Route 130, Dayton, NJ 08810
TEL: 732-329-0200 FAX: 732-329-3489/3480
www.sgs.com/ehsusa

FED-EX Tracking #
Bottle Order Control #
SGS Quote #
SGS Job # **JC96248**

Client / Reporting Information		Project Information		Requested Analysis												Matrix Codes	
Company Name: Arcoadis		Project Name: Philly Coke														DW - Drinking Water GW - Ground Water WW - Water SW - Surface Water SO - Soil SL - Sludge SED - Sediment OI - Oil LIQ - Other Liquid AIR - Air SOL - Other Solid WP - Wipe FB - Field Blank EB - Equipment Blank RB - Rinse Blank TB - Trip Blank	
Street Address: 10 W Fayette St #300		Street: 4501 Richmond St															
City: Saratoga NY 13202		City: Philadelphia, PA															
State: NY		State: PA															
Billing Information (if different from Report to)		Company Name: Same															
Project Contact: Lawrence Healy @ Arcoadis.com		Project #: 30004025															
Phone #: 315-335-9495		Client Purchase Order #															
Sample(s) Name(s): G. Bushy / James Macle		Project Manager: John Brussl															
Phone #		Attention:															
SGS Sample #	Field ID / Point of Collection	MEQHD / Viol #	Date	Time	Sampled by	QAC (I) Comp (C)	Matrix	# of bottles	HPC	TRICH	PHOS	NO ₃ -N	NO ₂ -N	DI Nitrate	MEQHD	BIODIOP	LAB USE ONLY
1F	MW-10 8		6/4/19	0450			GW	10	X	X	X	X	X	X	X	X	E9
2F	MW-10 9			0845				9	X	X	X	X	X	X	X	X	A30
3F	MW-11 0			1135				10	X	X	X	X	X	X	X	X	C27
4F	MW-11 1			1135				10	X	X	X	X	X	X	X	X	B24
	MW-11 MSD	*		1135				9	X	X	X	X	X	X	X	X	6272
5F	MW-11 2			1245				9	X	X	X	X	X	X	X	X	V1173
6F	MW-11 3							9	X	X	X	X	X	X	X	X	
7F	DUP-100419							10	X	X	X	X	X	X	X	X	
8F	FB-100419			1230				9	X	X	X	X	X	X	X	X	
9	Trip Blank							2	X	X	X	X	X	X	X	X	

Turn Around Time (Business Days)

Approved By (SGS PM) / Date:

Deliverable:

Comments / Special Instructions: ***VDA OC**

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by: <i>[Signature]</i>	Date / Time: 10/4/19 15:15	Received By: <i>[Signature]</i>	Date / Time: 10-4-19	Received By: <i>[Signature]</i>
Relinquished by: <i>[Signature]</i>	Date / Time: 3	Received By: <i>[Signature]</i>	Date / Time: 4	Received By: <i>[Signature]</i>
Relinquished by: <i>[Signature]</i>	Date / Time: 5	Received By: <i>[Signature]</i>	Date / Time: 4	Received By: <i>[Signature]</i>

Initial Assessment: **4.0C**
Label Verification: **2.9C IP**

Handwritten notes: **3.7C IP**, **3.1C IP**, **4.4C IP**

EHSA-QAC-0023-02-FORM Dayton - Standard COC.docx

SGS Sample Receipt Summary

Job Number: JC96248

Client: ARCADIS U.S.

Project: NATIONAL GRID, PHILLY COKE, PHILADELPHI

Date / Time Received: 10/4/2019 5:10:00 PM

Delivery Method:

Airbill #'s:

Cooler Temps (Raw Measured) °C: Cooler 1: (4.0); Cooler 2: (3.7); Cooler 3: (3.1); Cooler 4: (4.4);

Cooler Temps (Corrected) °C: Cooler 1: (3.9); Cooler 2: (3.6); Cooler 3: (3.0); Cooler 4: (4.3);

<u>Cooler Security</u>	<u>Y or N</u>		<u>Y or N</u>	
1. Custody Seals Present:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	3. COC Present:	<input checked="" type="checkbox"/> <input type="checkbox"/>
2. Custody Seals Intact:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	4. Smpl Dates/Time OK	<input checked="" type="checkbox"/> <input type="checkbox"/>

<u>Cooler Temperature</u>	<u>Y or N</u>	
1. Temp criteria achieved:	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. Cooler temp verification:	IR Gun	
3. Cooler media:	Ice (Bag)	
4. No. Coolers:	4	

<u>Quality Control Preservation</u>	<u>Y</u>	<u>or</u>	<u>N</u>	<u>N/A</u>
1. Trip Blank present / cooler:	<input checked="" type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
2. Trip Blank listed on COC:	<input checked="" type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
3. Samples preserved properly:	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
4. VOCs headspace free:	<input checked="" type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>

<u>Sample Integrity - Documentation</u>	<u>Y or N</u>	
1. Sample labels present on bottles:	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. Container labeling complete:	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3. Sample container label / COC agree:	<input checked="" type="checkbox"/>	<input type="checkbox"/>

<u>Sample Integrity - Condition</u>	<u>Y or N</u>	
1. Sample recvd within HT:	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. All containers accounted for:	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3. Condition of sample:	Intact	

<u>Sample Integrity - Instructions</u>	<u>Y</u>	<u>or</u>	<u>N</u>	<u>N/A</u>
1. Analysis requested is clear:	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
2. Bottles received for unspecified tests	<input type="checkbox"/>		<input checked="" type="checkbox"/>	
3. Sufficient volume recvd for analysis:	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
4. Compositing instructions clear:	<input type="checkbox"/>		<input type="checkbox"/>	<input checked="" type="checkbox"/>
5. Filtering instructions clear:	<input type="checkbox"/>		<input type="checkbox"/>	<input checked="" type="checkbox"/>

Test Strip Lot #s:	pH 1-12: 229517	pH 12+: 208717	Other: (Specify) _____
--------------------	-----------------	----------------	------------------------

Comments

SM089-03
Rev. Date 12/7/17

JC96248: Chain of Custody

Page 2 of 2

5.1
5

Internal Sample Tracking Chronicle

Arcadis

Job No: JC96248

National Grid, Philly Coke, Philadelphia, PA
 Project No: B0036790.0001.00002 30004026

5.2
5

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
JC96248-1 Collected: 04-OCT-19 09:50 By: GB Received: 04-OCT-19 By: AS						
MW-108						
JC96248-1	SW846 7470A	08-OCT-19 13:30	LL	08-OCT-19 LL		HG
JC96248-1	SW846 6010D	09-OCT-19 16:53	EAL	08-OCT-19 TG		AG,AL,AS,BA,BE,CA,CD,CO,CR, CU,FE,K,MG,MN,NA,NI,PB,SB, SE,TL,V,ZN
JC96248-1	SM2540 C-11	10-OCT-19 16:33	RC			TDS
JC96248-1	SW846 8260C	11-OCT-19 23:32	ED			V8260TCL20
JC96248-1	SW846 8270D	13-OCT-19 13:43	HSS	10-OCT-19 JF		AB8270TCL20
JC96248-1	EPA 335.4/LACHAT	15-OCT-19 15:37	KI	15-OCT-19 KI		CN
JC96248-2 Collected: 04-OCT-19 10:05 By: GB Received: 04-OCT-19 By: AS						
MW-109						
JC96248-2	SW846 7470A	08-OCT-19 13:35	LL	08-OCT-19 LL		HG
JC96248-2	SW846 6010D	09-OCT-19 16:58	EAL	08-OCT-19 TG		AG,AL,AS,BA,BE,CA,CD,CO,CR, CU,FE,K,MG,MN,NA,NI,PB,SB, SE,TL,V,ZN
JC96248-2	SW846 8260C	12-OCT-19 00:01	ED			V8260TCL20
JC96248-2	SW846 8270D	13-OCT-19 14:11	HSS	10-OCT-19 JF		AB8270TCL20
JC96248-2	EPA 335.4/LACHAT	15-OCT-19 15:38	KI	15-OCT-19 KI		CN
JC96248-3 Collected: 04-OCT-19 08:45 By: GB Received: 04-OCT-19 By: AS						
MW-110						
JC96248-3	SW846 7470A	08-OCT-19 13:38	LL	08-OCT-19 LL		HG
JC96248-3	SW846 6010D	09-OCT-19 17:03	EAL	08-OCT-19 TG		AG,AL,AS,BA,BE,CA,CD,CO,CR, CU,FE,K,MG,MN,NA,NI,PB,SB, SE,TL,V,ZN
JC96248-3	SW846 8260C	12-OCT-19 00:31	ED			V8260TCL20
JC96248-3	SW846 8270D	13-OCT-19 14:39	HSS	10-OCT-19 JF		AB8270TCL20
JC96248-3	EPA 335.4/LACHAT	15-OCT-19 15:40	KI	15-OCT-19 KI		CN
JC96248-4 Collected: 04-OCT-19 11:35 By: GB Received: 04-OCT-19 By: AS						
MW-111						
JC96248-4	SW846 7470A	08-OCT-19 13:23	LL	08-OCT-19 LL		HG

Internal Sample Tracking Chronicle

Arcadis

Job No: JC96248

National Grid, Philly Coke, Philadelphia, PA
 Project No: B0036790.0001.00002 30004026

5.2
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Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
JC96248-4	SW846 6010D	09-OCT-19 16:12	EAL	08-OCT-19	TG	AG,AL,AS,BA,BE,CA,CD,CO,CR, CU,FE,K,MG,MN,NA,NI,PB,SB, SE,TL,V,ZN
JC96248-4	SM2540 C-11	10-OCT-19 16:33	RC			TDS
JC96248-4	SW846 8260C	11-OCT-19 17:40	ED			V8260TCL20
JC96248-4	SW846 8260C	11-OCT-19 19:07	ED			V8260TCL20
JC96248-4	SW846 8270D	11-OCT-19 19:47	HSS	09-OCT-19	JF	AB8270TCL20
JC96248-4	SW846 8270D	13-OCT-19 02:02	JC	09-OCT-19	JF	AB8270TCL20
JC96248-4	EPA 335.4/LACHAT	15-OCT-19 15:41	KI	15-OCT-19	KI	CN
JC96248-5 Collected: 04-OCT-19 11:20 By: GB Received: 04-OCT-19 By: AS						
MW-112						
JC96248-5	SW846 7470A	08-OCT-19 13:41	LL	08-OCT-19	LL	HG
JC96248-5	SW846 6010D	09-OCT-19 17:08	EAL	08-OCT-19	TG	AG,AL,AS,BA,BE,CA,CD,CO,CR, CU,FE,K,MG,MN,NA,NI,PB,SB, SE,TL,V,ZN
JC96248-5	SW846 8270D	11-OCT-19 17:55	HSS	09-OCT-19	JF	AB8270TCL20
JC96248-5	SW846 8260C	12-OCT-19 01:00	ED			V8260TCL20
JC96248-5	EPA 335.4/LACHAT	15-OCT-19 15:42	KI	15-OCT-19	KI	CN
JC96248-6 Collected: 04-OCT-19 12:45 By: GB Received: 04-OCT-19 By: AS						
MW-113						
JC96248-6	SW846 7470A	08-OCT-19 13:43	LL	08-OCT-19	LL	HG
JC96248-6	SW846 6010D	09-OCT-19 17:13	EAL	08-OCT-19	TG	AG,AL,AS,BA,BE,CA,CD,CO,CR, CU,FE,K,MG,MN,NA,NI,PB,SB, SE,TL,V,ZN
JC96248-6	SW846 8270D	11-OCT-19 18:23	HSS	09-OCT-19	JF	AB8270TCL20
JC96248-6	SW846 8260C	12-OCT-19 01:30	ED			V8260TCL20
JC96248-6	EPA 335.4/LACHAT	15-OCT-19 15:44	KI	15-OCT-19	KI	CN
JC96248-6	SW846 8270D	19-OCT-19 08:00	CS	18-OCT-19	VP	AB8270TCL20
JC96248-7 Collected: 04-OCT-19 00:00 By: GB Received: 04-OCT-19 By: AS						
DUP-100419						
JC96248-7	SW846 7470A	08-OCT-19 13:46	LL	08-OCT-19	LL	HG
JC96248-7	SW846 6010D	09-OCT-19 17:19	EAL	08-OCT-19	TG	AG,AL,AS,BA,BE,CA,CD,CO,CR, CU,FE,K,MG,MN,NA,NI,PB,SB, SE,TL,V,ZN

Internal Sample Tracking Chronicle

Arcadis

Job No: JC96248

National Grid, Philly Coke, Philadelphia, PA
 Project No: B0036790.0001.00002 30004026

5.2
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Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
JC96248-7	SM2540 C-11	10-OCT-19 16:33	RC			TDS
JC96248-7	SW846 8270D	11-OCT-19 18:51	HSS	09-OCT-19	JF	AB8270TCL20
JC96248-7	SW846 8260C	12-OCT-19 01:59	ED			V8260TCL20
JC96248-7	EPA 335.4/LACHAT	15-OCT-19 15:45	KI	15-OCT-19	KI	CN
JC96248-7	SW846 8270D	19-OCT-19 08:29	CS	18-OCT-19	VP	AB8270TCL20
JC96248-8 Collected: 04-OCT-19 12:30 By: GB Received: 04-OCT-19 By: AS						
FB-100419						
JC96248-8	SW846 7470A	08-OCT-19 13:52	LL	08-OCT-19	LL	HG
JC96248-8	SW846 6010D	09-OCT-19 20:46	EAL	08-OCT-19	TG	AG,AL,AS,BA,BE,CA,CD,CO,CR, CU,FE,K,MG,MN,NA,NI,PB,SB, SE,TL,V,ZN
JC96248-8	SW846 8270D	11-OCT-19 19:19	HSS	09-OCT-19	JF	AB8270TCL20
JC96248-8	EPA 335.4/LACHAT	15-OCT-19 15:49	KI	15-OCT-19	KI	CN
JC96248-8	SW846 8260C	17-OCT-19 10:34	KC			V8260TCL20
JC96248-9 Collected: 04-OCT-19 12:45 By: GB Received: 04-OCT-19 By: AS						
TRIP BLANK						
JC96248-9	SW846 8260C	17-OCT-19 11:03	KC			V8260TCL20
JC96248-1F Collected: 04-OCT-19 09:50 By: GB Received: 04-OCT-19 By: AS						
MW-108						
JC96248-1F	SW846 7470A	08-OCT-19 13:31	LL	08-OCT-19	LL	HG
JC96248-1F	SW846 6010D	09-OCT-19 20:51	EAL	08-OCT-19	TG	AG,AL,AS,BA,BE,CD,CO,CR, CU,FE,K,MN,NA,NI,PB,SB,SE,TL, V,ZN
JC96248-1F	SW846 6010D	10-OCT-19 13:12	ND	08-OCT-19	TG	CA,MG
JC96248-1F	EPA 335.4/LACHAT	15-OCT-19 15:51	KI	15-OCT-19	KI	CN
JC96248-2F Collected: 04-OCT-19 10:05 By: GB Received: 04-OCT-19 By: AS						
MW-109						
JC96248-2F	SW846 7470A	08-OCT-19 13:37	LL	08-OCT-19	LL	HG
JC96248-2F	SW846 6010D	09-OCT-19 20:56	EAL	08-OCT-19	TG	AG,AL,AS,BA,BE,CA,CD,CO,CR, CU,FE,K,MG,MN,NA,NI,PB,SB, SE,TL,V,ZN
JC96248-2F	EPA 335.4/LACHAT	15-OCT-19 15:52	KI	15-OCT-19	KI	CN

Internal Sample Tracking Chronicle

Arcadis

Job No: JC96248

National Grid, Philly Coke, Philadelphia, PA
 Project No: B0036790.0001.00002 30004026

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Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
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JC96248-3F Collected: 04-OCT-19 08:45 By: GB Received: 04-OCT-19 By: AS
 MW-110

JC96248-3F SW846 7470A		08-OCT-19 13:39	LL	08-OCT-19 LL		HG
JC96248-3F SW846 6010D		09-OCT-19 21:02	EAL	08-OCT-19 TG		AG,AL,AS,BA,BE,CA,CD,CO,CR, CU,FE,K,MG,MN,NA,NI,PB,SB, SE,TL,V,ZN
JC96248-3F EPA 335.4/LACHAT		15-OCT-19 15:53	KI	15-OCT-19 KI		CN

JC96248-4F Collected: 04-OCT-19 11:35 By: GB Received: 04-OCT-19 By: AS
 MW-111

JC96248-4F SW846 7470A		08-OCT-19 13:28	LL	08-OCT-19 LL		HG
JC96248-4F SW846 6010D		09-OCT-19 16:43	EAL	08-OCT-19 TG		AG,AL,AS,BA,BE,CA,CD,CO,CR, CU,FE,K,MG,MN,NA,NI,PB,SB, SE,TL,V,ZN
JC96248-4F EPA 335.4/LACHAT		15-OCT-19 15:55	KI	15-OCT-19 KI		CN

JC96248-5F Collected: 04-OCT-19 11:20 By: GB Received: 04-OCT-19 By: AS
 MW-112

JC96248-5F SW846 7470A		08-OCT-19 13:42	LL	08-OCT-19 LL		HG
JC96248-5F SW846 6010D		09-OCT-19 21:07	EAL	08-OCT-19 TG		AG,AL,BA,BE,CA,CD,CO,CR,CU, FE,K,MG,MN,NA,NI,PB,SB,SE, TL,V,ZN
JC96248-5F SW846 6010D		10-OCT-19 13:17	ND	08-OCT-19 TG		AS
JC96248-5F EPA 335.4/LACHAT		15-OCT-19 15:56	KI	15-OCT-19 KI		CN

JC96248-6F Collected: 04-OCT-19 12:45 By: GB Received: 04-OCT-19 By: AS
 MW-113

JC96248-6F SW846 7470A		08-OCT-19 13:45	LL	08-OCT-19 LL		HG
JC96248-6F SW846 6010D		09-OCT-19 21:12	EAL	08-OCT-19 TG		AG,AL,AS,BA,BE,CA,CD,CO,CR, CU,FE,K,MG,MN,NA,NI,PB,SB, SE,TL,V,ZN
JC96248-6F EPA 335.4/LACHAT		15-OCT-19 15:57	KI	15-OCT-19 KI		CN

Internal Sample Tracking Chronicle

Arcadis

Job No: JC96248

National Grid, Philly Coke, Philadelphia, PA
 Project No: B0036790.0001.00002 30004026

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
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JC96248-7F Collected: 04-OCT-19 00:00 By: GB Received: 04-OCT-19 By: AS
 DUP-100419

JC96248-7F SW846 7470A		08-OCT-19 13:50	LL	08-OCT-19 LL		HG
JC96248-7F SW846 6010D		09-OCT-19 21:17	EAL	08-OCT-19 TG		AG,AL,AS,BA,BE,CD,CO,CR,CU,FE,K,MN,NA,NI,PB,SB,SE,TL,V,ZN
JC96248-7F SW846 6010D		10-OCT-19 13:22	ND	08-OCT-19 TG		CA,MG
JC96248-7F EPA 335.4/LACHAT		15-OCT-19 15:59	KI	15-OCT-19 KI		CN

JC96248-8F Collected: 04-OCT-19 12:30 By: GB Received: 04-OCT-19 By: AS
 FB-100419

JC96248-8F SW846 7470A		08-OCT-19 13:53	LL	08-OCT-19 LL		HG
JC96248-8F SW846 6010D		09-OCT-19 21:22	EAL	08-OCT-19 TG		AG,AL,BA,BE,CA,CD,CO,CR,CU,FE,K,MG,MN,NA,NI,PB,SB,SE,TL,V,ZN
JC96248-8F SW846 6010D		10-OCT-19 13:06	ND	08-OCT-19 TG		AS
JC96248-8F EPA 335.4/LACHAT		15-OCT-19 16:00	KI	15-OCT-19 KI		CN

SGS Internal Chain of Custody

Job Number: JC96248
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA
 Received: 10/04/19

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC96248-1.2	Secured Storage	Todd Shoemaker	10/10/19 13:37	Retrieve from Storage
JC96248-1.2	Todd Shoemaker	Secured Staging Area	10/10/19 13:38	Return to Storage
JC96248-1.2	Secured Staging Area	Jonathon Ford	10/10/19 20:20	Retrieve from Storage
JC96248-1.2	Jonathon Ford		10/12/19 08:12	Depleted
JC96248-1.2.1	Jonathon Ford	Organics Prep	10/10/19 20:20	Extract from JC96248-1.2
JC96248-1.2.1	Organics Prep	Jonathon Ford	10/11/19 06:16	Extract from JC96248-1.2
JC96248-1.2.1	Jonathon Ford	Extract Storage	10/11/19 06:16	Return to Storage
JC96248-1.2.1	Extract Storage	Henny Salim	10/13/19 11:06	Retrieve from Storage
JC96248-1.2.1	Henny Salim	GCMSM	10/13/19 11:06	Load on Instrument
JC96248-1.2.1	GCMSM	Angela Rastelli	10/15/19 16:58	Unload from Instrument
JC96248-1.2.1	Angela Rastelli	Extract Freezer	10/15/19 16:58	Return to Storage
JC96248-1.3	Secured Storage	Matthew Robbins	10/07/19 16:36	Retrieve from Storage
JC96248-1.3	Matthew Robbins	Secured Staging Area	10/07/19 16:36	Return to Storage
JC96248-1.3	Secured Staging Area	Taylor Gorman	10/08/19 06:21	Retrieve from Storage
JC96248-1.3	Taylor Gorman	Lindsey Lee	10/08/19 08:47	Custody Transfer
JC96248-1.3	Lindsey Lee	Secured Storage	10/08/19 09:39	Return to Storage
JC96248-1.3.1	Taylor Gorman	Metals Digestion	10/08/19 08:32	Digestate from JC96248-1.3
JC96248-1.3.1	Metals Digestion	Taylor Gorman	10/08/19 08:33	Digestate from JC96248-1.3
JC96248-1.3.1	Taylor Gorman	Metals Digestate Storage	10/08/19 08:33	Return to Storage
JC96248-1.5	Secured Storage	Benjamin Gaines	10/09/19 08:52	Retrieve from Storage
JC96248-1.5	Benjamin Gaines	Secured Staging Area	10/09/19 08:52	Return to Storage
JC96248-1.5	Secured Staging Area	Ruchitaben Chauhan	10/09/19 09:22	Retrieve from Storage
JC96248-1.5	Ruchitaben Chauhan	Secured Storage	10/09/19 16:47	Return to Storage
JC96248-1.6	Secured Storage	Todd Shoemaker	10/15/19 09:06	Retrieve from Storage
JC96248-1.6	Todd Shoemaker	Secured Staging Area	10/15/19 09:06	Return to Storage
JC96248-1.6	Secured Staging Area	Kimberly Ignace	10/15/19 16:02	Retrieve from Storage
JC96248-1.6	Kimberly Ignace	Secured Storage	10/15/19 17:12	Return to Storage
JC96248-1.8	Secured Storage	Edward Durner	10/11/19 15:50	Retrieve from Storage
JC96248-1.8	Edward Durner	GCMS2D	10/11/19 15:50	Load on Instrument
JC96248-1.8	GCMS2D	Krizhka Cuenta	10/15/19 08:34	Unload from Instrument
JC96248-1.8	Krizhka Cuenta	Secured Storage	10/15/19 08:34	Return to Storage
JC96248-1F.4	Secured Storage	Sahara Feliciano	10/04/19 19:39	Retrieve from Storage
JC96248-1F.4	Sahara Feliciano	Secured Staging Area	10/04/19 19:39	Return to Storage
JC96248-1F.4	Secured Storage	Matthew Robbins	10/07/19 16:36	Retrieve from Storage
Bottle was returned to secure storage, but inadvertently not scanned.				
JC96248-1F.4	Matthew Robbins	Secured Staging Area	10/07/19 16:36	Return to Storage
JC96248-1F.4	Secured Staging Area	Taylor Gorman	10/08/19 06:21	Retrieve from Storage

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SGS Internal Chain of Custody

Job Number: JC96248
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA
 Received: 10/04/19

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC96248-1F.4	Taylor Gorman	Lindsey Lee	10/08/19 08:47	Custody Transfer
JC96248-1F.4	Lindsey Lee	Secured Storage	10/08/19 09:39	Return to Storage
JC96248-1F.4.1	Taylor Gorman	Metals Digestion	10/08/19 08:32	Digestate from JC96248-1F.4
JC96248-1F.4.1	Metals Digestion	Taylor Gorman	10/08/19 08:33	Digestate from JC96248-1F.4
JC96248-1F.4.1	Taylor Gorman	Metals Digestate Storage	10/08/19 08:33	Return to Storage
JC96248-1F.7	Secured Storage	Todd Shoemaker	10/15/19 09:06	Retrieve from Storage
JC96248-1F.7	Todd Shoemaker	Secured Staging Area	10/15/19 09:06	Return to Storage
JC96248-1F.7	Secured Staging Area	Kimberly Ignace	10/15/19 16:02	Retrieve from Storage
JC96248-1F.7	Kimberly Ignace	Secured Storage	10/15/19 17:12	Return to Storage
JC96248-2.1	Secured Storage	Todd Shoemaker	10/10/19 13:37	Retrieve from Storage
JC96248-2.1	Todd Shoemaker	Secured Staging Area	10/10/19 13:38	Return to Storage
JC96248-2.1	Secured Staging Area	Jonathon Ford	10/10/19 20:20	Retrieve from Storage
JC96248-2.1	Jonathon Ford		10/12/19 08:12	Depleted
JC96248-2.1.1	Jonathon Ford	Organics Prep	10/10/19 20:20	Extract from JC96248-2.1
JC96248-2.1.1	Organics Prep	Jonathon Ford	10/11/19 06:16	Extract from JC96248-2.1
JC96248-2.1.1	Jonathon Ford	Extract Storage	10/11/19 06:16	Return to Storage
JC96248-2.1.1	Extract Storage	Henny Salim	10/13/19 11:06	Retrieve from Storage
JC96248-2.1.1	Henny Salim	GCMSM	10/13/19 11:06	Load on Instrument
JC96248-2.1.1	GCMSM	Angela Rastelli	10/15/19 16:58	Unload from Instrument
JC96248-2.1.1	Angela Rastelli	Extract Freezer	10/15/19 16:58	Return to Storage
JC96248-2.3	Secured Storage	Matthew Robbins	10/07/19 16:36	Retrieve from Storage
JC96248-2.3	Matthew Robbins	Secured Staging Area	10/07/19 16:36	Return to Storage
JC96248-2.3	Secured Staging Area	Taylor Gorman	10/08/19 06:21	Retrieve from Storage
JC96248-2.3	Taylor Gorman	Lindsey Lee	10/08/19 08:47	Custody Transfer
JC96248-2.3	Lindsey Lee	Secured Storage	10/08/19 09:39	Return to Storage
JC96248-2.3.1	Taylor Gorman	Metals Digestion	10/08/19 08:32	Digestate from JC96248-2.3
JC96248-2.3.1	Metals Digestion	Taylor Gorman	10/08/19 08:33	Digestate from JC96248-2.3
JC96248-2.3.1	Taylor Gorman	Metals Digestate Storage	10/08/19 08:33	Return to Storage
JC96248-2.5	Secured Storage	Todd Shoemaker	10/15/19 09:06	Retrieve from Storage
JC96248-2.5	Todd Shoemaker	Secured Staging Area	10/15/19 09:06	Return to Storage
JC96248-2.5	Secured Staging Area	Kimberly Ignace	10/15/19 16:02	Retrieve from Storage
JC96248-2.5	Kimberly Ignace	Secured Storage	10/15/19 17:12	Return to Storage
JC96248-2.7	Secured Storage	Edward Durner	10/11/19 15:50	Retrieve from Storage
JC96248-2.7	Edward Durner	GCMS2D	10/11/19 15:50	Load on Instrument
JC96248-2.7	GCMS2D	Krizhka Cuenta	10/15/19 08:34	Unload from Instrument
JC96248-2.7	Krizhka Cuenta	Secured Storage	10/15/19 08:34	Return to Storage

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SGS Internal Chain of Custody

Job Number: JC96248
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA
 Received: 10/04/19

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC96248-2F.4	Secured Storage	Sahara Feliciano	10/04/19 19:39	Retrieve from Storage
JC96248-2F.4	Sahara Feliciano	Secured Staging Area	10/04/19 19:39	Return to Storage
JC96248-2F.4	Secured Storage	Matthew Robbins	10/07/19 16:36	Retrieve from Storage
Bottle was returned to secure storage, but inadvertently not scanned.				
JC96248-2F.4	Matthew Robbins	Secured Staging Area	10/07/19 16:36	Return to Storage
JC96248-2F.4	Secured Staging Area	Taylor Gorman	10/08/19 06:21	Retrieve from Storage
JC96248-2F.4	Taylor Gorman	Lindsey Lee	10/08/19 08:47	Custody Transfer
JC96248-2F.4	Lindsey Lee	Secured Storage	10/08/19 09:39	Return to Storage
JC96248-2F.4.1	Taylor Gorman	Metals Digestion	10/08/19 08:32	Digestate from JC96248-2F.4
JC96248-2F.4.1	Metals Digestion	Taylor Gorman	10/08/19 08:33	Digestate from JC96248-2F.4
JC96248-2F.4.1	Taylor Gorman	Metals Digestate Storage	10/08/19 08:33	Return to Storage
JC96248-2F.6	Secured Storage	Todd Shoemaker	10/15/19 09:06	Retrieve from Storage
JC96248-2F.6	Todd Shoemaker	Secured Staging Area	10/15/19 09:06	Return to Storage
JC96248-2F.6	Secured Staging Area	Kimberly Ignace	10/15/19 16:02	Retrieve from Storage
JC96248-2F.6	Kimberly Ignace	Secured Storage	10/15/19 17:12	Return to Storage
JC96248-3.1	Secured Storage	Todd Shoemaker	10/10/19 13:37	Retrieve from Storage
JC96248-3.1	Todd Shoemaker	Secured Staging Area	10/10/19 13:38	Return to Storage
JC96248-3.1	Secured Staging Area	Jonathon Ford	10/10/19 20:20	Retrieve from Storage
JC96248-3.1	Jonathon Ford		10/12/19 08:12	Depleted
JC96248-3.1.1	Jonathon Ford	Organics Prep	10/10/19 20:20	Extract from JC96248-3.1
JC96248-3.1.1	Organics Prep	Jonathon Ford	10/11/19 06:16	Extract from JC96248-3.1
JC96248-3.1.1	Jonathon Ford	Extract Storage	10/11/19 06:16	Return to Storage
JC96248-3.1.1	Extract Storage	Henny Salim	10/13/19 11:06	Retrieve from Storage
JC96248-3.1.1	Henny Salim	GCMSM	10/13/19 11:06	Load on Instrument
JC96248-3.1.1	GCMSM	Angela Rastelli	10/15/19 16:58	Unload from Instrument
JC96248-3.1.1	Angela Rastelli	Extract Freezer	10/15/19 16:58	Return to Storage
JC96248-3.3	Secured Storage	Matthew Robbins	10/07/19 16:36	Retrieve from Storage
JC96248-3.3	Matthew Robbins	Secured Staging Area	10/07/19 16:36	Return to Storage
JC96248-3.3	Secured Staging Area	Taylor Gorman	10/08/19 06:21	Retrieve from Storage
JC96248-3.3	Taylor Gorman	Lindsey Lee	10/08/19 08:47	Custody Transfer
JC96248-3.3	Lindsey Lee	Secured Storage	10/08/19 09:39	Return to Storage
JC96248-3.3.1	Taylor Gorman	Metals Digestion	10/08/19 08:32	Digestate from JC96248-3.3
JC96248-3.3.1	Metals Digestion	Taylor Gorman	10/08/19 08:33	Digestate from JC96248-3.3
JC96248-3.3.1	Taylor Gorman	Metals Digestate Storage	10/08/19 08:33	Return to Storage
JC96248-3.5	Secured Storage	Todd Shoemaker	10/15/19 09:06	Retrieve from Storage
JC96248-3.5	Todd Shoemaker	Secured Staging Area	10/15/19 09:06	Return to Storage

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SGS Internal Chain of Custody

Job Number: JC96248
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA
 Received: 10/04/19

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC96248-3.5	Secured Staging Area	Kimberly Ignace	10/15/19 16:02	Retrieve from Storage
JC96248-3.5	Kimberly Ignace	Secured Storage	10/15/19 17:12	Return to Storage
JC96248-3.7	Secured Storage	Edward Durner	10/11/19 15:50	Retrieve from Storage
JC96248-3.7	Edward Durner	GCMS2D	10/11/19 15:50	Load on Instrument
JC96248-3.7	GCMS2D	Krizhka Cuenta	10/15/19 08:34	Unload from Instrument
JC96248-3.7	Krizhka Cuenta	Secured Storage	10/15/19 08:34	Return to Storage
JC96248-3F.4	Secured Storage	Sahara Feliciano	10/04/19 19:39	Retrieve from Storage
JC96248-3F.4	Sahara Feliciano	Secured Staging Area	10/04/19 19:39	Return to Storage
JC96248-3F.4	Secured Storage	Matthew Robbins	10/07/19 16:36	Retrieve from Storage
Bottle was returned to secure storage, but inadvertently not scanned.				
JC96248-3F.4	Matthew Robbins	Secured Staging Area	10/07/19 16:36	Return to Storage
JC96248-3F.4	Secured Staging Area	Taylor Gorman	10/08/19 06:21	Retrieve from Storage
JC96248-3F.4	Taylor Gorman	Lindsey Lee	10/08/19 08:47	Custody Transfer
JC96248-3F.4	Lindsey Lee	Secured Storage	10/08/19 09:39	Return to Storage
JC96248-3F.4.1	Taylor Gorman	Metals Digestion	10/08/19 08:32	Digestate from JC96248-3F.4
JC96248-3F.4.1	Metals Digestion	Taylor Gorman	10/08/19 08:33	Digestate from JC96248-3F.4
JC96248-3F.4.1	Taylor Gorman	Metals Digestate Storage	10/08/19 08:33	Return to Storage
JC96248-3F.6	Secured Storage	Todd Shoemaker	10/15/19 09:06	Retrieve from Storage
JC96248-3F.6	Todd Shoemaker	Secured Staging Area	10/15/19 09:06	Return to Storage
JC96248-3F.6	Secured Staging Area	Kimberly Ignace	10/15/19 16:02	Retrieve from Storage
JC96248-3F.6	Kimberly Ignace	Secured Storage	10/15/19 17:12	Return to Storage
JC96248-4.1	Secured Storage	Dwayne Johnson	10/09/19 12:24	Retrieve from Storage
JC96248-4.1	Dwayne Johnson	Secured Staging Area	10/09/19 12:24	Return to Storage
JC96248-4.1	Secured Staging Area	Vikas Parikh	10/09/19 12:49	Retrieve from Storage
JC96248-4.1	Vikas Parikh		10/11/19 07:23	Depleted
JC96248-4.1.1	Vikas Parikh	Organics Prep	10/09/19 12:49	Extract from JC96248-4.1
JC96248-4.1.1	Organics Prep	Jonathon Ford	10/10/19 06:25	Extract from JC96248-4.1
JC96248-4.1.1	Jonathon Ford	Extract Storage	10/10/19 06:25	Return to Storage
JC96248-4.1.1	Extract Storage	Henny Salim	10/10/19 12:12	Retrieve from Storage
JC96248-4.1.1	Henny Salim	GCMSM	10/10/19 12:12	Load on Instrument
JC96248-4.1.1	GCMSM	Henny Salim	10/13/19 09:21	Unload from Instrument
JC96248-4.1.1	Henny Salim	Extract Freezer	10/13/19 09:21	Return to Storage
JC96248-4.2	Secured Storage	Dwayne Johnson	10/09/19 12:24	Retrieve from Storage
JC96248-4.2	Dwayne Johnson	Secured Staging Area	10/09/19 12:24	Return to Storage
JC96248-4.2	Secured Staging Area	Vikas Parikh	10/09/19 12:49	Retrieve from Storage
JC96248-4.2	Vikas Parikh		10/11/19 07:23	Depleted

5.3
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SGS Internal Chain of Custody

Job Number: JC96248
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA
 Received: 10/04/19

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC96248-4.2.1	Vikas Parikh	Organics Prep	10/09/19 12:49	Extract from JC96248-4.2
JC96248-4.2.1	Organics Prep	Jonathon Ford	10/10/19 06:25	Extract from JC96248-4.2
JC96248-4.2.1	Jonathon Ford	Extract Storage	10/10/19 06:25	Return to Storage
JC96248-4.2.1	Extract Storage	Henny Salim	10/10/19 12:12	Retrieve from Storage
JC96248-4.2.1	Henny Salim	GCMSM	10/10/19 12:12	Load on Instrument
JC96248-4.2.1	GCMSM	Henny Salim	10/13/19 09:21	Unload from Instrument
JC96248-4.2.1	Henny Salim	Extract Freezer	10/13/19 09:21	Return to Storage
JC96248-4.5	Secured Storage	Dwayne Johnson	10/09/19 12:24	Retrieve from Storage
JC96248-4.5	Dwayne Johnson	Secured Staging Area	10/09/19 12:24	Return to Storage
JC96248-4.5	Secured Staging Area	Vikas Parikh	10/09/19 12:49	Retrieve from Storage
JC96248-4.5	Vikas Parikh		10/11/19 07:23	Depleted
JC96248-4.5.1	Vikas Parikh	Organics Prep	10/09/19 12:49	Extract from JC96248-4.5
JC96248-4.5.1	Organics Prep	Jonathon Ford	10/10/19 06:25	Extract from JC96248-4.5
JC96248-4.5.1	Jonathon Ford	Extract Storage	10/10/19 06:25	Return to Storage
JC96248-4.5.1	Extract Storage	Henny Salim	10/10/19 12:12	Retrieve from Storage
JC96248-4.5.1	Henny Salim	GCMSM	10/10/19 12:12	Load on Instrument
JC96248-4.5.1	GCMSM	Henny Salim	10/13/19 09:21	Unload from Instrument
JC96248-4.5.1	Henny Salim	Extract Freezer	10/13/19 09:21	Return to Storage
JC96248-4.8	Secured Storage	Matthew Robbins	10/07/19 16:36	Retrieve from Storage
JC96248-4.8	Matthew Robbins	Secured Staging Area	10/07/19 16:36	Return to Storage
JC96248-4.8	Secured Staging Area	Taylor Gorman	10/08/19 06:21	Retrieve from Storage
JC96248-4.8	Taylor Gorman	Lindsey Lee	10/08/19 08:47	Custody Transfer
JC96248-4.8	Lindsey Lee	Secured Storage	10/08/19 09:39	Return to Storage
JC96248-4.8.1	Taylor Gorman	Metals Digestion	10/08/19 08:32	Digestate from JC96248-4.8
JC96248-4.8.1	Metals Digestion	Taylor Gorman	10/08/19 08:33	Digestate from JC96248-4.8
JC96248-4.8.1	Taylor Gorman	Metals Digestate Storage	10/08/19 08:33	Return to Storage
JC96248-4.13	Secured Storage	Benjamin Gaines	10/09/19 08:52	Retrieve from Storage
JC96248-4.13	Benjamin Gaines	Secured Staging Area	10/09/19 08:52	Return to Storage
JC96248-4.13	Secured Staging Area	Ruchitaben Chauhan	10/09/19 09:22	Retrieve from Storage
JC96248-4.13	Ruchitaben Chauhan	Secured Storage	10/09/19 16:47	Return to Storage
JC96248-4.14	Secured Storage	Benjamin Gaines	10/09/19 08:52	Retrieve from Storage
JC96248-4.14	Benjamin Gaines	Secured Staging Area	10/09/19 08:52	Return to Storage
JC96248-4.14	Secured Staging Area	Ruchitaben Chauhan	10/09/19 09:22	Retrieve from Storage
JC96248-4.14	Ruchitaben Chauhan	Secured Storage	10/09/19 16:47	Return to Storage
JC96248-4.15	Secured Storage	Todd Shoemaker	10/15/19 09:06	Retrieve from Storage
JC96248-4.15	Todd Shoemaker	Secured Staging Area	10/15/19 09:06	Return to Storage
JC96248-4.15	Secured Staging Area	Kimberly Ignace	10/15/19 16:02	Retrieve from Storage

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SGS Internal Chain of Custody

Job Number: JC96248
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA
 Received: 10/04/19

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC96248-4.15	Kimberly Ignace	Secured Storage	10/15/19 17:12	Return to Storage
JC96248-4.16	Secured Storage	Todd Shoemaker	10/15/19 09:06	Retrieve from Storage
JC96248-4.16	Todd Shoemaker	Secured Staging Area	10/15/19 09:06	Return to Storage
JC96248-4.16	Secured Staging Area	Kimberly Ignace	10/15/19 16:02	Retrieve from Storage
JC96248-4.16	Kimberly Ignace	Secured Storage	10/15/19 17:12	Return to Storage
JC96248-4.17	Secured Storage	Todd Shoemaker	10/15/19 09:06	Retrieve from Storage
JC96248-4.17	Todd Shoemaker	Secured Staging Area	10/15/19 09:06	Return to Storage
JC96248-4.17	Secured Staging Area	Kimberly Ignace	10/15/19 16:02	Retrieve from Storage
JC96248-4.17	Kimberly Ignace	Secured Storage	10/15/19 17:12	Return to Storage
JC96248-4.27	Secured Storage	Edward Durner	10/11/19 15:50	Retrieve from Storage
JC96248-4.27	Edward Durner	GCMS2D	10/11/19 15:50	Load on Instrument
JC96248-4.27	GCMS2D	Krizhka Cuenta	10/15/19 08:34	Unload from Instrument
JC96248-4.27	Krizhka Cuenta	Secured Storage	10/15/19 08:34	Return to Storage
JC96248-4.28	Secured Storage	Edward Durner	10/11/19 15:50	Retrieve from Storage
JC96248-4.28	Edward Durner	GCMS2D	10/11/19 15:50	Load on Instrument
JC96248-4.28	GCMS2D	Krizhka Cuenta	10/15/19 08:34	Unload from Instrument
JC96248-4.28	Krizhka Cuenta	Secured Storage	10/15/19 08:34	Return to Storage
JC96248-4.29	Secured Storage	Edward Durner	10/11/19 15:50	Retrieve from Storage
JC96248-4.29	Edward Durner	GCMS2D	10/11/19 15:50	Load on Instrument
JC96248-4.29	GCMS2D	Krizhka Cuenta	10/15/19 08:34	Unload from Instrument
JC96248-4.29	Krizhka Cuenta	Secured Storage	10/15/19 08:34	Return to Storage
JC96248-4F.10	Secured Storage	Sahara Feliciano	10/04/19 19:39	Retrieve from Storage
JC96248-4F.10	Sahara Feliciano	Secured Staging Area	10/04/19 19:39	Return to Storage
JC96248-4F.10	Secured Storage	Matthew Robbins	10/07/19 16:36	Retrieve from Storage
Bottle was returned to secure storage, but inadvertently not scanned.				
JC96248-4F.10	Matthew Robbins	Secured Staging Area	10/07/19 16:36	Return to Storage
JC96248-4F.10	Secured Staging Area	Taylor Gorman	10/08/19 06:21	Retrieve from Storage
JC96248-4F.10	Taylor Gorman	Lindsey Lee	10/08/19 08:47	Custody Transfer
JC96248-4F.10	Lindsey Lee	Secured Storage	10/08/19 09:39	Return to Storage
JC96248-4F.10.1	Taylor Gorman	Metals Digestion	10/08/19 08:32	Digestate from JC96248-4F.10
JC96248-4F.10.1	Metals Digestion	Taylor Gorman	10/08/19 08:33	Digestate from JC96248-4F.10
JC96248-4F.10.1	Taylor Gorman	Metals Digestate Storage	10/08/19 08:33	Return to Storage
JC96248-4F.11	Secured Storage	Sahara Feliciano	10/04/19 19:39	Retrieve from Storage
JC96248-4F.11	Sahara Feliciano	Secured Staging Area	10/04/19 19:39	Return to Storage
JC96248-4F.11	Secured Staging Area	Dave Hunkele	10/08/19 05:35	Retrieve from Storage
JC96248-4F.11	Dave Hunkele	Secured Storage	10/08/19 05:35	Return to Storage

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SGS Internal Chain of Custody

Job Number: JC96248
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA
 Received: 10/04/19

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC96248-4F.12	Secured Storage	Sahara Feliciano	10/04/19 19:39	Retrieve from Storage
JC96248-4F.12	Sahara Feliciano	Secured Staging Area	10/04/19 19:39	Return to Storage
JC96248-4F.12	Secured Staging Area	Dave Hunkele	10/08/19 05:35	Retrieve from Storage
JC96248-4F.12	Dave Hunkele	Secured Storage	10/08/19 05:35	Return to Storage
JC96248-4F.18	Secured Storage	Todd Shoemaker	10/15/19 09:06	Retrieve from Storage
JC96248-4F.18	Todd Shoemaker	Secured Staging Area	10/15/19 09:06	Return to Storage
JC96248-4F.18	Secured Staging Area	Kimberly Ignace	10/15/19 16:02	Retrieve from Storage
JC96248-4F.18	Kimberly Ignace	Secured Storage	10/15/19 17:12	Return to Storage
JC96248-4F.19	Secured Storage	Todd Shoemaker	10/15/19 09:06	Retrieve from Storage
JC96248-4F.19	Todd Shoemaker	Secured Staging Area	10/15/19 09:06	Return to Storage
JC96248-4F.19	Secured Staging Area	Kimberly Ignace	10/15/19 16:02	Retrieve from Storage
JC96248-4F.19	Kimberly Ignace	Secured Storage	10/15/19 17:12	Return to Storage
JC96248-4F.20	Secured Storage	Todd Shoemaker	10/15/19 09:06	Retrieve from Storage
JC96248-4F.20	Todd Shoemaker	Secured Staging Area	10/15/19 09:06	Return to Storage
JC96248-4F.20	Secured Staging Area	Kimberly Ignace	10/15/19 16:02	Retrieve from Storage
JC96248-4F.20	Kimberly Ignace	Secured Storage	10/15/19 17:12	Return to Storage
JC96248-5.1	Secured Storage	Dwayne Johnson	10/09/19 12:24	Retrieve from Storage
JC96248-5.1	Dwayne Johnson	Secured Staging Area	10/09/19 12:24	Return to Storage
JC96248-5.1	Secured Staging Area	Vikas Parikh	10/09/19 12:49	Retrieve from Storage
JC96248-5.1	Vikas Parikh		10/11/19 07:23	Depleted
JC96248-5.1.1	Vikas Parikh	Organics Prep	10/09/19 12:49	Extract from JC96248-5.1
JC96248-5.1.1	Organics Prep	Jonathon Ford	10/10/19 06:25	Extract from JC96248-5.1
JC96248-5.1.1	Jonathon Ford	Extract Storage	10/10/19 06:25	Return to Storage
JC96248-5.1.1	Extract Storage	Henny Salim	10/10/19 12:12	Retrieve from Storage
JC96248-5.1.1	Henny Salim	GCMSM	10/10/19 12:12	Load on Instrument
JC96248-5.1.1	GCMSM	Henny Salim	10/13/19 09:21	Unload from Instrument
JC96248-5.1.1	Henny Salim	Extract Freezer	10/13/19 09:21	Return to Storage
JC96248-5.3	Secured Storage	Matthew Robbins	10/07/19 16:36	Retrieve from Storage
JC96248-5.3	Matthew Robbins	Secured Staging Area	10/07/19 16:36	Return to Storage
JC96248-5.3	Secured Staging Area	Taylor Gorman	10/08/19 06:21	Retrieve from Storage
JC96248-5.3	Taylor Gorman	Lindsey Lee	10/08/19 08:47	Custody Transfer
JC96248-5.3	Lindsey Lee	Secured Storage	10/08/19 09:39	Return to Storage
JC96248-5.3.1	Taylor Gorman	Metals Digestion	10/08/19 08:32	Digestate from JC96248-5.3
JC96248-5.3.1	Metals Digestion	Taylor Gorman	10/08/19 08:33	Digestate from JC96248-5.3
JC96248-5.3.1	Taylor Gorman	Metals Digestate Storage	10/08/19 08:33	Return to Storage

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SGS Internal Chain of Custody

Job Number: JC96248
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA
 Received: 10/04/19

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC96248-5.5	Secured Storage	Todd Shoemaker	10/15/19 09:06	Retrieve from Storage
JC96248-5.5	Todd Shoemaker	Secured Staging Area	10/15/19 09:06	Return to Storage
JC96248-5.5	Secured Staging Area	Kimberly Ignace	10/15/19 16:02	Retrieve from Storage
JC96248-5.5	Kimberly Ignace	Secured Storage	10/15/19 17:12	Return to Storage
JC96248-5.7	Secured Storage	Edward Durner	10/11/19 15:50	Retrieve from Storage
JC96248-5.7	Edward Durner	GCMS2D	10/11/19 15:50	Load on Instrument
JC96248-5.7	GCMS2D	Krizhka Cuenta	10/15/19 08:34	Unload from Instrument
JC96248-5.7	Krizhka Cuenta	Secured Storage	10/15/19 08:34	Return to Storage
JC96248-5F.4	Secured Storage	Sahara Feliciano	10/04/19 19:39	Retrieve from Storage
JC96248-5F.4	Sahara Feliciano	Secured Staging Area	10/04/19 19:39	Return to Storage
JC96248-5F.4	Secured Storage	Matthew Robbins	10/07/19 16:36	Retrieve from Storage
Bottle was returned to secure storage, but inadvertently not scanned.				
JC96248-5F.4	Matthew Robbins	Secured Staging Area	10/07/19 16:36	Return to Storage
JC96248-5F.4	Secured Staging Area	Taylor Gorman	10/08/19 06:21	Retrieve from Storage
JC96248-5F.4	Taylor Gorman	Lindsey Lee	10/08/19 08:47	Custody Transfer
JC96248-5F.4	Lindsey Lee	Secured Storage	10/08/19 09:39	Return to Storage
JC96248-5F.4.1	Taylor Gorman	Metals Digestion	10/08/19 08:32	Digestate from JC96248-5F.4
JC96248-5F.4.1	Metals Digestion	Taylor Gorman	10/08/19 08:33	Digestate from JC96248-5F.4
JC96248-5F.4.1	Taylor Gorman	Metals Digestate Storage	10/08/19 08:33	Return to Storage
JC96248-5F.6	Secured Storage	Todd Shoemaker	10/15/19 09:06	Retrieve from Storage
JC96248-5F.6	Todd Shoemaker	Secured Staging Area	10/15/19 09:06	Return to Storage
JC96248-5F.6	Secured Staging Area	Kimberly Ignace	10/15/19 16:02	Retrieve from Storage
JC96248-5F.6	Kimberly Ignace	Secured Storage	10/15/19 17:12	Return to Storage
JC96248-6.1	Secured Storage	Dwayne Johnson	10/09/19 12:24	Retrieve from Storage
JC96248-6.1	Dwayne Johnson	Secured Staging Area	10/09/19 12:24	Return to Storage
JC96248-6.1	Secured Staging Area	Vikas Parikh	10/09/19 12:49	Retrieve from Storage
JC96248-6.1	Vikas Parikh		10/11/19 07:23	Depleted
JC96248-6.1.1	Vikas Parikh	Organics Prep	10/09/19 12:49	Extract from JC96248-6.1
JC96248-6.1.1	Organics Prep	Jonathon Ford	10/10/19 06:25	Extract from JC96248-6.1
JC96248-6.1.1	Jonathon Ford	Extract Storage	10/10/19 06:25	Return to Storage
JC96248-6.1.1	Extract Storage	Henny Salim	10/10/19 12:12	Retrieve from Storage
JC96248-6.1.1	Henny Salim	GCMSM	10/10/19 12:12	Load on Instrument
JC96248-6.1.1	GCMSM	Henny Salim	10/13/19 09:21	Unload from Instrument
JC96248-6.1.1	Henny Salim	Extract Freezer	10/13/19 09:21	Return to Storage
JC96248-6.2	Secured Storage	Matthew Robbins	10/17/19 20:54	Retrieve from Storage
JC96248-6.2	Matthew Robbins	Secured Staging Area	10/17/19 20:54	Return to Storage
JC96248-6.2	Secured Staging Area	Huachi Wu	10/18/19 07:46	Retrieve from Storage

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SGS Internal Chain of Custody

Job Number: JC96248
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA
 Received: 10/04/19

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC96248-6.2	Huachi Wu		10/18/19 09:34	Depleted
JC96248-6.2.1	Huachi Wu	Organics Prep	10/18/19 07:47	Extract from JC96248-6.2
JC96248-6.2.1	Organics Prep	Vikas Parikh	10/18/19 15:14	Extract from JC96248-6.2
JC96248-6.2.1	Vikas Parikh	Extract Storage	10/18/19 15:14	Return to Storage
JC96248-6.2.1	Extract Storage	Christopher Sowa	10/19/19 06:31	Retrieve from Storage
JC96248-6.2.1	Christopher Sowa	GCMSF	10/19/19 06:31	Load on Instrument
JC96248-6.2.1	GCMSF	Angela Rastelli	10/21/19 11:59	Unload from Instrument
JC96248-6.2.1	Angela Rastelli	Extract Freezer	10/21/19 11:59	Return to Storage
JC96248-6.3	Secured Storage	Matthew Robbins	10/07/19 16:36	Retrieve from Storage
JC96248-6.3	Matthew Robbins	Secured Staging Area	10/07/19 16:36	Return to Storage
JC96248-6.3	Secured Staging Area	Taylor Gorman	10/08/19 06:21	Retrieve from Storage
JC96248-6.3	Taylor Gorman	Lindsey Lee	10/08/19 08:47	Custody Transfer
JC96248-6.3	Lindsey Lee	Secured Storage	10/08/19 09:39	Return to Storage
JC96248-6.3.1	Taylor Gorman	Metals Digestion	10/08/19 08:32	Digestate from JC96248-6.3
JC96248-6.3.1	Metals Digestion	Taylor Gorman	10/08/19 08:33	Digestate from JC96248-6.3
JC96248-6.3.1	Taylor Gorman	Metals Digestate Storage	10/08/19 08:33	Return to Storage
JC96248-6.5	Secured Storage	Todd Shoemaker	10/15/19 09:06	Retrieve from Storage
JC96248-6.5	Todd Shoemaker	Secured Staging Area	10/15/19 09:06	Return to Storage
JC96248-6.5	Secured Staging Area	Kimberly Ignace	10/15/19 16:02	Retrieve from Storage
JC96248-6.5	Kimberly Ignace	Secured Storage	10/15/19 17:12	Return to Storage
JC96248-6.8	Secured Storage	Edward Durner	10/11/19 15:50	Retrieve from Storage
JC96248-6.8	Edward Durner	GCMS2D	10/11/19 15:50	Load on Instrument
JC96248-6.8	GCMS2D	Krizhka Cuenta	10/15/19 08:34	Unload from Instrument
JC96248-6.8	Krizhka Cuenta	Secured Storage	10/15/19 08:34	Return to Storage
JC96248-6F.4	Secured Storage	Sahara Feliciano	10/04/19 19:39	Retrieve from Storage
JC96248-6F.4	Sahara Feliciano	Secured Staging Area	10/04/19 19:39	Return to Storage
JC96248-6F.4	Secured Storage	Matthew Robbins	10/07/19 16:36	Retrieve from Storage
Bottle was returned to secure storage, but inadvertently not scanned.				
JC96248-6F.4	Matthew Robbins	Secured Staging Area	10/07/19 16:36	Return to Storage
JC96248-6F.4	Secured Staging Area	Taylor Gorman	10/08/19 06:21	Retrieve from Storage
JC96248-6F.4	Taylor Gorman	Lindsey Lee	10/08/19 08:47	Custody Transfer
JC96248-6F.4	Lindsey Lee	Secured Storage	10/08/19 09:39	Return to Storage
JC96248-6F.4.1	Taylor Gorman	Metals Digestion	10/08/19 08:32	Digestate from JC96248-6F.4
JC96248-6F.4.1	Metals Digestion	Taylor Gorman	10/08/19 08:33	Digestate from JC96248-6F.4
JC96248-6F.4.1	Taylor Gorman	Metals Digestate Storage	10/08/19 08:33	Return to Storage
JC96248-6F.6	Secured Storage	Todd Shoemaker	10/15/19 09:06	Retrieve from Storage

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SGS Internal Chain of Custody

Job Number: JC96248
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA
 Received: 10/04/19

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC96248-6F.6	Todd Shoemaker	Secured Staging Area	10/15/19 09:06	Return to Storage
JC96248-6F.6	Secured Staging Area	Kimberly Ignace	10/15/19 16:02	Retrieve from Storage
JC96248-6F.6	Kimberly Ignace	Secured Storage	10/15/19 17:12	Return to Storage
JC96248-7.1	Secured Storage	Dwayne Johnson	10/09/19 12:24	Retrieve from Storage
JC96248-7.1	Dwayne Johnson	Secured Staging Area	10/09/19 12:24	Return to Storage
JC96248-7.1	Secured Staging Area	Vikas Parikh	10/09/19 12:49	Retrieve from Storage
JC96248-7.1	Vikas Parikh		10/11/19 07:23	Depleted
JC96248-7.1.1	Vikas Parikh	Organics Prep	10/09/19 12:49	Extract from JC96248-7.1
JC96248-7.1.1	Organics Prep	Jonathon Ford	10/10/19 06:25	Extract from JC96248-7.1
JC96248-7.1.1	Jonathon Ford	Extract Storage	10/10/19 06:25	Return to Storage
JC96248-7.1.1	Extract Storage	Henny Salim	10/10/19 12:12	Retrieve from Storage
JC96248-7.1.1	Henny Salim	GCMSM	10/10/19 12:12	Load on Instrument
JC96248-7.1.1	GCMSM	Henny Salim	10/13/19 09:21	Unload from Instrument
JC96248-7.1.1	Henny Salim	Extract Freezer	10/13/19 09:21	Return to Storage
JC96248-7.2	Secured Storage	Matthew Robbins	10/17/19 20:54	Retrieve from Storage
JC96248-7.2	Matthew Robbins	Secured Staging Area	10/17/19 20:54	Return to Storage
JC96248-7.2	Secured Staging Area	Huachi Wu	10/18/19 07:46	Retrieve from Storage
JC96248-7.2	Huachi Wu		10/18/19 09:34	Depleted
JC96248-7.2.1	Huachi Wu	Organics Prep	10/18/19 07:47	Extract from JC96248-7.2
JC96248-7.2.1	Organics Prep	Vikas Parikh	10/18/19 15:14	Extract from JC96248-7.2
JC96248-7.2.1	Vikas Parikh	Extract Storage	10/18/19 15:14	Return to Storage
JC96248-7.2.1	Extract Storage	Christopher Sowa	10/19/19 06:31	Retrieve from Storage
JC96248-7.2.1	Christopher Sowa	GCMSF	10/19/19 06:31	Load on Instrument
JC96248-7.2.1	GCMSF	Angela Rastelli	10/21/19 11:59	Unload from Instrument
JC96248-7.2.1	Angela Rastelli	Extract Freezer	10/21/19 11:59	Return to Storage
JC96248-7.3	Secured Storage	Matthew Robbins	10/07/19 16:36	Retrieve from Storage
JC96248-7.3	Matthew Robbins	Secured Staging Area	10/07/19 16:36	Return to Storage
JC96248-7.3	Secured Staging Area	Taylor Gorman	10/08/19 06:21	Retrieve from Storage
JC96248-7.3	Taylor Gorman	Lindsey Lee	10/08/19 08:47	Custody Transfer
JC96248-7.3	Lindsey Lee	Secured Storage	10/08/19 09:39	Return to Storage
JC96248-7.3.1	Taylor Gorman	Metals Digestion	10/08/19 08:32	Digestate from JC96248-7.3
JC96248-7.3.1	Metals Digestion	Taylor Gorman	10/08/19 08:33	Digestate from JC96248-7.3
JC96248-7.3.1	Taylor Gorman	Metals Digestate Storage	10/08/19 08:33	Return to Storage
JC96248-7.5	Secured Storage	Benjamin Gaines	10/09/19 08:52	Retrieve from Storage
JC96248-7.5	Benjamin Gaines	Secured Staging Area	10/09/19 08:52	Return to Storage
JC96248-7.5	Secured Staging Area	Ruchitaben Chauhan	10/09/19 09:22	Retrieve from Storage
JC96248-7.5	Ruchitaben Chauhan	Secured Storage	10/09/19 16:47	Return to Storage

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SGS Internal Chain of Custody

Job Number: JC96248
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA
 Received: 10/04/19

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC96248-7.6	Secured Storage	Todd Shoemaker	10/15/19 09:06	Retrieve from Storage
JC96248-7.6	Todd Shoemaker	Secured Staging Area	10/15/19 09:06	Return to Storage
JC96248-7.6	Secured Staging Area	Kimberly Ignace	10/15/19 16:02	Retrieve from Storage
JC96248-7.6	Kimberly Ignace	Secured Storage	10/15/19 17:12	Return to Storage
JC96248-7.8	Secured Storage	Edward Durner	10/11/19 15:50	Retrieve from Storage
JC96248-7.8	Edward Durner	GCMS2D	10/11/19 15:50	Load on Instrument
JC96248-7.8	GCMS2D	Krizhka Cuenta	10/15/19 08:34	Unload from Instrument
JC96248-7.8	Krizhka Cuenta	Secured Storage	10/15/19 08:34	Return to Storage
JC96248-7F.4	Secured Storage	Sahara Feliciano	10/04/19 19:39	Retrieve from Storage
JC96248-7F.4	Sahara Feliciano	Secured Staging Area	10/04/19 19:39	Return to Storage
JC96248-7F.4	Secured Storage	Matthew Robbins	10/07/19 16:36	Retrieve from Storage
Bottle was returned to secure storage, but inadvertently not scanned.				
JC96248-7F.4	Matthew Robbins	Secured Staging Area	10/07/19 16:36	Return to Storage
JC96248-7F.4	Secured Staging Area	Taylor Gorman	10/08/19 06:21	Retrieve from Storage
JC96248-7F.4	Taylor Gorman	Lindsey Lee	10/08/19 08:47	Custody Transfer
JC96248-7F.4	Lindsey Lee	Secured Storage	10/08/19 09:39	Return to Storage
JC96248-7F.4.1	Taylor Gorman	Metals Digestion	10/08/19 08:32	Digestate from JC96248-7F.4
JC96248-7F.4.1	Metals Digestion	Taylor Gorman	10/08/19 08:33	Digestate from JC96248-7F.4
JC96248-7F.4.1	Taylor Gorman	Metals Digestate Storage	10/08/19 08:33	Return to Storage
JC96248-7F.7	Secured Storage	Todd Shoemaker	10/15/19 09:06	Retrieve from Storage
JC96248-7F.7	Todd Shoemaker	Secured Staging Area	10/15/19 09:06	Return to Storage
JC96248-7F.7	Secured Staging Area	Kimberly Ignace	10/15/19 16:02	Retrieve from Storage
JC96248-7F.7	Kimberly Ignace	Secured Storage	10/15/19 17:12	Return to Storage
JC96248-8.1	Secured Storage	Dwayne Johnson	10/09/19 12:24	Retrieve from Storage
JC96248-8.1	Dwayne Johnson	Secured Staging Area	10/09/19 12:24	Return to Storage
JC96248-8.1	Secured Staging Area	Vikas Parikh	10/09/19 12:49	Retrieve from Storage
JC96248-8.1	Vikas Parikh		10/11/19 07:23	Depleted
JC96248-8.1.1	Vikas Parikh	Organics Prep	10/09/19 12:49	Extract from JC96248-8.1
JC96248-8.1.1	Organics Prep	Jonathon Ford	10/10/19 06:25	Extract from JC96248-8.1
JC96248-8.1.1	Jonathon Ford	Extract Storage	10/10/19 06:25	Return to Storage
JC96248-8.1.1	Extract Storage	Henny Salim	10/10/19 12:12	Retrieve from Storage
JC96248-8.1.1	Henny Salim	GCMSM	10/10/19 12:12	Load on Instrument
JC96248-8.1.1	GCMSM	Henny Salim	10/13/19 09:21	Unload from Instrument
JC96248-8.1.1	Henny Salim	Extract Freezer	10/13/19 09:21	Return to Storage
JC96248-8.3	Secured Storage	Matthew Robbins	10/07/19 16:36	Retrieve from Storage
JC96248-8.3	Matthew Robbins	Secured Staging Area	10/07/19 16:36	Return to Storage

5.3
5

SGS Internal Chain of Custody

Job Number: JC96248
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA
 Received: 10/04/19

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC96248-8.3	Secured Staging Area	Taylor Gorman	10/08/19 06:21	Retrieve from Storage
JC96248-8.3	Taylor Gorman	Lindsey Lee	10/08/19 08:47	Custody Transfer
JC96248-8.3	Lindsey Lee	Secured Storage	10/08/19 09:39	Return to Storage
JC96248-8.3.1	Taylor Gorman	Metals Digestion	10/08/19 08:32	Digestate from JC96248-8.3
JC96248-8.3.1	Metals Digestion	Taylor Gorman	10/08/19 08:33	Digestate from JC96248-8.3
JC96248-8.3.1	Taylor Gorman	Metals Digestate Storage	10/08/19 08:33	Return to Storage
JC96248-8.5	Secured Storage	Todd Shoemaker	10/15/19 09:06	Retrieve from Storage
JC96248-8.5	Todd Shoemaker	Secured Staging Area	10/15/19 09:06	Return to Storage
JC96248-8.5	Secured Staging Area	Kimberly Ignace	10/15/19 16:02	Retrieve from Storage
JC96248-8.5	Kimberly Ignace	Secured Storage	10/15/19 17:12	Return to Storage
JC96248-8.8	Secured Storage	Krizhka Cuenta	10/17/19 10:21	Retrieve from Storage
JC96248-8.8	Krizhka Cuenta	GCMS2D	10/17/19 10:21	Load on Instrument
JC96248-8.8	GCMS2D	Krizhka Cuenta	10/18/19 08:25	Unload from Instrument
JC96248-8.8	Krizhka Cuenta	Secured Storage	10/18/19 08:25	Return to Storage
JC96248-8.9	Secured Storage	Edward Durner	10/11/19 15:50	Retrieve from Storage
JC96248-8.9	Edward Durner	GCMS2D	10/11/19 15:50	Load on Instrument
JC96248-8.9	GCMS2D	Krizhka Cuenta	10/15/19 08:34	Unload from Instrument
JC96248-8.9	Krizhka Cuenta	Secured Storage	10/15/19 08:34	Return to Storage
JC96248-8F.4	Secured Storage	Sahara Feliciano	10/04/19 19:39	Retrieve from Storage
JC96248-8F.4	Sahara Feliciano	Secured Staging Area	10/04/19 19:39	Return to Storage
JC96248-8F.4	Secured Storage	Matthew Robbins	10/07/19 16:36	Retrieve from Storage
Bottle was returned to secure storage, but inadvertently not scanned.				
JC96248-8F.4	Matthew Robbins	Secured Staging Area	10/07/19 16:36	Return to Storage
JC96248-8F.4	Secured Staging Area	Taylor Gorman	10/08/19 06:21	Retrieve from Storage
JC96248-8F.4	Taylor Gorman	Lindsey Lee	10/08/19 08:47	Custody Transfer
JC96248-8F.4	Lindsey Lee	Secured Storage	10/08/19 09:39	Return to Storage
JC96248-8F.4.1	Taylor Gorman	Metals Digestion	10/08/19 08:32	Digestate from JC96248-8F.4
JC96248-8F.4.1	Metals Digestion	Taylor Gorman	10/08/19 08:33	Digestate from JC96248-8F.4
JC96248-8F.4.1	Taylor Gorman	Metals Digestate Storage	10/08/19 08:33	Return to Storage
JC96248-8F.6	Secured Storage	Todd Shoemaker	10/15/19 09:06	Retrieve from Storage
JC96248-8F.6	Todd Shoemaker	Secured Staging Area	10/15/19 09:06	Return to Storage
JC96248-8F.6	Secured Staging Area	Kimberly Ignace	10/15/19 16:02	Retrieve from Storage
JC96248-8F.6	Kimberly Ignace	Secured Storage	10/15/19 17:12	Return to Storage
JC96248-9.1	Secured Storage	Krizhka Cuenta	10/17/19 10:21	Retrieve from Storage
JC96248-9.1	Krizhka Cuenta	GCMS2D	10/17/19 10:21	Load on Instrument
JC96248-9.1	GCMS2D	Krizhka Cuenta	10/18/19 08:25	Unload from Instrument

5.3
5

SGS Internal Chain of Custody

Job Number: JC96248
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA
Received: 10/04/19

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC96248-9.1	Krizhka Cuenta	Secured Storage	10/18/19 08:25	Return to Storage
JC96248-9.2	Secured Storage	Edward Durner	10/11/19 15:50	Retrieve from Storage
JC96248-9.2	Edward Durner	GCMS2D	10/11/19 15:50	Load on Instrument
JC96248-9.2	GCMS2D	Krizhka Cuenta	10/15/19 08:34	Unload from Instrument
JC96248-9.2	Krizhka Cuenta	Secured Storage	10/15/19 08:34	Return to Storage

5.3
5

MS Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Instrument Performance Checks (BFB)
- Internal Standard Area Summaries
- Surrogate Recovery Summaries
- Initial and Continuing Calibration Summaries
- Run Sequence Reports

Method Blank Summary

Job Number: JC96248
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2D7993-MB	2D185861.D	1	10/11/19	ED	n/a	n/a	V2D7993

The QC reported here applies to the following samples:

Method: SW846 8260C

JC96248-1, JC96248-2, JC96248-3, JC96248-4, JC96248-5, JC96248-6, JC96248-7

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	6.0	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.48	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.58	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	6.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.95	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.4	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	1.9	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	
79-20-9	Methyl Acetate	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	

Method Blank Summary

Job Number: JC96248
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2D7993-MB	2D185861.D	1	10/11/19	ED	n/a	n/a	V2D7993

The QC reported here applies to the following samples:

Method: SW846 8260C

JC96248-1, JC96248-2, JC96248-3, JC96248-4, JC96248-5, JC96248-6, JC96248-7

CAS No.	Compound	Result	RL	MDL	Units	Q
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.70	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.84	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
	m,p-Xylene	ND	1.0	0.78	ug/l	
95-47-6	o-Xylene	ND	1.0	0.59	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Limits
1868-53-7	Dibromofluoromethane	93% 80-120%
17060-07-0	1,2-Dichloroethane-D4	90% 81-124%
2037-26-5	Toluene-D8	97% 80-120%
460-00-4	4-Bromofluorobenzene	99% 80-120%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

Method Blank Summary

Job Number: JC96248
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2D8000-MB	2D186008.D	1	10/17/19	KC	n/a	n/a	V2D8000

The QC reported here applies to the following samples:

Method: SW846 8260C

JC96248-8, JC96248-9

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	6.0	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.48	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.58	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	6.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.95	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.4	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	1.9	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	
79-20-9	Methyl Acetate	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	

Method Blank Summary

Job Number: JC96248
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2D8000-MB	2D186008.D	1	10/17/19	KC	n/a	n/a	V2D8000

The QC reported here applies to the following samples:

Method: SW846 8260C

JC96248-8, JC96248-9

CAS No.	Compound	Result	RL	MDL	Units	Q
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.70	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.84	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
	m,p-Xylene	ND	1.0	0.78	ug/l	
95-47-6	o-Xylene	ND	1.0	0.59	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Limits
1868-53-7	Dibromofluoromethane	92% 80-120%
17060-07-0	1,2-Dichloroethane-D4	90% 81-124%
2037-26-5	Toluene-D8	95% 80-120%
460-00-4	4-Bromofluorobenzene	100% 80-120%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

6.1.2

6

Blank Spike Summary

Job Number: JC96248
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2D7993-BS	2D185859.D	1	10/11/19	ED	n/a	n/a	V2D7993

The QC reported here applies to the following samples:

Method: SW846 8260C

JC96248-1, JC96248-2, JC96248-3, JC96248-4, JC96248-5, JC96248-6, JC96248-7

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
67-64-1	Acetone	200	169	85	42-150
71-43-2	Benzene	50	47.8	96	80-120
74-97-5	Bromochloromethane	50	49.3	99	84-121
75-27-4	Bromodichloromethane	50	48.7	97	83-120
75-25-2	Bromoform	50	52.7	105	76-129
74-83-9	Bromomethane	50	43.6	87	57-138
78-93-3	2-Butanone (MEK)	200	192	96	64-137
75-15-0	Carbon disulfide	50	46.5	93	64-137
56-23-5	Carbon tetrachloride	50	51.3	103	75-135
108-90-7	Chlorobenzene	50	49.5	99	84-117
75-00-3	Chloroethane	50	45.2	90	63-132
67-66-3	Chloroform	50	45.0	90	80-119
74-87-3	Chloromethane	50	45.1	90	46-136
110-82-7	Cyclohexane	50	54.2	108	64-137
96-12-8	1,2-Dibromo-3-chloropropane	50	51.1	102	72-127
124-48-1	Dibromochloromethane	50	52.5	105	80-123
106-93-4	1,2-Dibromoethane	50	49.6	99	84-117
95-50-1	1,2-Dichlorobenzene	50	50.1	100	84-119
541-73-1	1,3-Dichlorobenzene	50	49.8	100	81-117
106-46-7	1,4-Dichlorobenzene	50	47.8	96	82-117
75-71-8	Dichlorodifluoromethane	50	65.0	130	36-149
75-34-3	1,1-Dichloroethane	50	47.8	96	79-120
107-06-2	1,2-Dichloroethane	50	40.4	81	78-126
75-35-4	1,1-Dichloroethene	50	47.0	94	69-126
156-59-2	cis-1,2-Dichloroethene	50	49.2	98	80-120
156-60-5	trans-1,2-Dichloroethene	50	50.8	102	76-120
78-87-5	1,2-Dichloropropane	50	48.2	96	82-121
10061-01-5	cis-1,3-Dichloropropene	50	53.2	106	83-120
10061-02-6	trans-1,3-Dichloropropene	50	50.7	101	82-121
100-41-4	Ethylbenzene	50	48.9	98	80-120
76-13-1	Freon 113	50	54.2	108	62-182
591-78-6	2-Hexanone	200	202	101	65-132
98-82-8	Isopropylbenzene	50	51.2	102	83-120
79-20-9	Methyl Acetate	50	42.3	85	67-129
108-87-2	Methylcyclohexane	50	57.3	115	71-134
1634-04-4	Methyl Tert Butyl Ether	50	47.5	95	80-119

* = Outside of Control Limits.

Blank Spike Summary

Job Number: JC96248
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2D7993-BS	2D185859.D	1	10/11/19	ED	n/a	n/a	V2D7993

The QC reported here applies to the following samples: Method: SW846 8260C

JC96248-1, JC96248-2, JC96248-3, JC96248-4, JC96248-5, JC96248-6, JC96248-7

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
108-10-1	4-Methyl-2-pentanone(MIBK)	200	201	101	71-131
75-09-2	Methylene chloride	50	46.7	93	77-120
100-42-5	Styrene	50	52.9	106	82-122
79-34-5	1,1,2,2-Tetrachloroethane	50	45.4	91	76-119
127-18-4	Tetrachloroethene	50	51.5	103	70-131
108-88-3	Toluene	50	48.0	96	80-120
87-61-6	1,2,3-Trichlorobenzene	50	53.6	107	76-134
120-82-1	1,2,4-Trichlorobenzene	50	56.7	113	79-132
71-55-6	1,1,1-Trichloroethane	50	47.9	96	81-128
79-00-5	1,1,2-Trichloroethane	50	47.8	96	83-118
79-01-6	Trichloroethene	50	52.0	104	80-120
75-69-4	Trichlorofluoromethane	50	50.2	100	64-136
75-01-4	Vinyl chloride	50	47.9	96	51-135
	m,p-Xylene	100	99.1	99	80-120
95-47-6	o-Xylene	50	52.0	104	80-120
1330-20-7	Xylene (total)	150	151	101	80-120

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	93%	80-120%
17060-07-0	1,2-Dichloroethane-D4	88%	81-124%
2037-26-5	Toluene-D8	94%	80-120%
460-00-4	4-Bromofluorobenzene	93%	80-120%

* = Outside of Control Limits.

Blank Spike Summary

Job Number: JC96248
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2D8000-BS	2D186006.D	1	10/17/19	KC	n/a	n/a	V2D8000

The QC reported here applies to the following samples:

Method: SW846 8260C

JC96248-8, JC96248-9

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
67-64-1	Acetone	200	174	87	42-150
71-43-2	Benzene	50	48.3	97	80-120
74-97-5	Bromochloromethane	50	50.5	101	84-121
75-27-4	Bromodichloromethane	50	48.8	98	83-120
75-25-2	Bromoform	50	55.9	112	76-129
74-83-9	Bromomethane	50	42.4	85	57-138
78-93-3	2-Butanone (MEK)	200	205	103	64-137
75-15-0	Carbon disulfide	50	50.7	101	64-137
56-23-5	Carbon tetrachloride	50	51.6	103	75-135
108-90-7	Chlorobenzene	50	50.4	101	84-117
75-00-3	Chloroethane	50	43.9	88	63-132
67-66-3	Chloroform	50	44.4	89	80-119
74-87-3	Chloromethane	50	43.1	86	46-136
110-82-7	Cyclohexane	50	52.1	104	64-137
96-12-8	1,2-Dibromo-3-chloropropane	50	56.7	113	72-127
124-48-1	Dibromochloromethane	50	53.3	107	80-123
106-93-4	1,2-Dibromoethane	50	52.6	105	84-117
95-50-1	1,2-Dichlorobenzene	50	51.0	102	84-119
541-73-1	1,3-Dichlorobenzene	50	50.4	101	81-117
106-46-7	1,4-Dichlorobenzene	50	48.5	97	82-117
75-71-8	Dichlorodifluoromethane	50	61.2	122	36-149
75-34-3	1,1-Dichloroethane	50	46.6	93	79-120
107-06-2	1,2-Dichloroethane	50	41.3	83	78-126
75-35-4	1,1-Dichloroethene	50	47.1	94	69-126
156-59-2	cis-1,2-Dichloroethene	50	49.6	99	80-120
156-60-5	trans-1,2-Dichloroethene	50	51.0	102	76-120
78-87-5	1,2-Dichloropropane	50	49.1	98	82-121
10061-01-5	cis-1,3-Dichloropropene	50	54.2	108	83-120
10061-02-6	trans-1,3-Dichloropropene	50	51.7	103	82-121
100-41-4	Ethylbenzene	50	49.7	99	80-120
76-13-1	Freon 113	50	54.3	109	62-182
591-78-6	2-Hexanone	200	219	110	65-132
98-82-8	Isopropylbenzene	50	51.9	104	83-120
79-20-9	Methyl Acetate	50	45.6	91	67-129
108-87-2	Methylcyclohexane	50	58.4	117	71-134
1634-04-4	Methyl Tert Butyl Ether	50	49.9	100	80-119

* = Outside of Control Limits.

Blank Spike Summary

Job Number: JC96248
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2D8000-BS	2D186006.D	1	10/17/19	KC	n/a	n/a	V2D8000

The QC reported here applies to the following samples:

Method: SW846 8260C

JC96248-8, JC96248-9

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
108-10-1	4-Methyl-2-pentanone(MIBK)	200	220	110	71-131
75-09-2	Methylene chloride	50	47.1	94	77-120
100-42-5	Styrene	50	53.9	108	82-122
79-34-5	1,1,2,2-Tetrachloroethane	50	49.3	99	76-119
127-18-4	Tetrachloroethene	50	52.3	105	70-131
108-88-3	Toluene	50	48.5	97	80-120
87-61-6	1,2,3-Trichlorobenzene	50	54.6	109	76-134
120-82-1	1,2,4-Trichlorobenzene	50	57.4	115	79-132
71-55-6	1,1,1-Trichloroethane	50	48.3	97	81-128
79-00-5	1,1,2-Trichloroethane	50	49.7	99	83-118
79-01-6	Trichloroethene	50	53.6	107	80-120
75-69-4	Trichlorofluoromethane	50	47.8	96	64-136
75-01-4	Vinyl chloride	50	46.3	93	51-135
	m,p-Xylene	100	101	101	80-120
95-47-6	o-Xylene	50	53.3	107	80-120
1330-20-7	Xylene (total)	150	154	103	80-120

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	91%	80-120%
17060-07-0	1,2-Dichloroethane-D4	87%	81-124%
2037-26-5	Toluene-D8	93%	80-120%
460-00-4	4-Bromofluorobenzene	93%	80-120%

* = Outside of Control Limits.

Matrix Spike Summary

Job Number: JC96248
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JC96538-1MS	2D186019.D	1	10/17/19	KC	n/a	n/a	V2D8000
JC96538-1	2D186011.D	1	10/17/19	KC	n/a	n/a	V2D8000

The QC reported here applies to the following samples:

Method: SW846 8260C

JC96248-8, JC96248-9

CAS No.	Compound	JC96538-1 ug/l	Spike Q	MS ug/l	MS %	Limits	
67-64-1	Acetone	ND		200	145	73	34-149
71-43-2	Benzene	ND		50	43.2	86	54-136
74-97-5	Bromochloromethane	ND		50	43.4	87	79-124
75-27-4	Bromodichloromethane	ND		50	43.7	87	79-124
75-25-2	Bromoform	ND		50	47.1	94	71-130
74-83-9	Bromomethane	ND		50	45.6	91	53-142
78-93-3	2-Butanone (MEK)	ND		200	174	87	54-142
75-15-0	Carbon disulfide	ND		50	40.3	81	59-145
56-23-5	Carbon tetrachloride	ND		50	46.8	94	70-143
108-90-7	Chlorobenzene	ND		50	45.0	90	78-123
75-00-3	Chloroethane	ND		50	48.2	96	57-141
67-66-3	Chloroform	1.4		50	41.3	80	76-123
74-87-3	Chloromethane	ND		50	45.5	91	43-141
110-82-7	Cyclohexane	0.83	J	50	56.5	111	51-155
96-12-8	1,2-Dibromo-3-chloropropane	ND		50	49.1	98	66-130
124-48-1	Dibromochloromethane	ND		50	46.2	92	76-125
106-93-4	1,2-Dibromoethane	ND		50	45.2	90	78-119
95-50-1	1,2-Dichlorobenzene	ND		50	45.1	90	77-123
541-73-1	1,3-Dichlorobenzene	ND		50	44.8	90	76-122
106-46-7	1,4-Dichlorobenzene	ND		50	43.0	86	76-122
75-71-8	Dichlorodifluoromethane	ND		50	63.3	127	31-159
75-34-3	1,1-Dichloroethane	ND		50	41.6	83	73-126
107-06-2	1,2-Dichloroethane	ND		50	36.3	73	72-131
75-35-4	1,1-Dichloroethene	ND		50	40.6	81	63-136
156-59-2	cis-1,2-Dichloroethene	ND		50	43.9	88	60-136
156-60-5	trans-1,2-Dichloroethene	ND		50	44.7	89	70-126
78-87-5	1,2-Dichloropropane	ND		50	43.5	87	78-124
10061-01-5	cis-1,3-Dichloropropene	ND		50	46.8	94	79-123
10061-02-6	trans-1,3-Dichloropropene	ND		50	44.4	89	77-123
100-41-4	Ethylbenzene	ND		50	44.8	90	51-140
76-13-1	Freon 113	ND		50	48.1	96	60-192
591-78-6	2-Hexanone	ND		200	191	96	56-139
98-82-8	Isopropylbenzene	ND		50	46.9	94	75-129
79-20-9	Methyl Acetate	ND		50	38.8	78	55-131
108-87-2	Methylcyclohexane	1.4	J	50	54.1	105	57-155
1634-04-4	Methyl Tert Butyl Ether	ND		50	41.0	82	72-123

* = Outside of Control Limits.

Matrix Spike Summary

Job Number: JC96248
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JC96538-1MS	2D186019.D	1	10/17/19	KC	n/a	n/a	V2D8000
JC96538-1	2D186011.D	1	10/17/19	KC	n/a	n/a	V2D8000

The QC reported here applies to the following samples:

Method: SW846 8260C

JC96248-8, JC96248-9

CAS No.	Compound	JC96538-1 ug/l	Spike Q	MS ug/l	MS %	Limits
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	200	197	99	66-136
75-09-2	Methylene chloride	ND	50	40.5	81	73-125
100-42-5	Styrene	ND	50	47.5	95	75-129
79-34-5	1,1,2,2-Tetrachloroethane	ND	50	42.2	84	71-122
127-18-4	Tetrachloroethene	ND	50	47.3	95	61-139
108-88-3	Toluene	ND	50	43.7	87	60-135
87-61-6	1,2,3-Trichlorobenzene	ND	50	50.3	101	70-138
120-82-1	1,2,4-Trichlorobenzene	ND	50	51.8	104	72-137
71-55-6	1,1,1-Trichloroethane	ND	50	43.7	87	74-138
79-00-5	1,1,2-Trichloroethane	ND	50	43.8	88	78-121
79-01-6	Trichloroethene	ND	50	47.5	95	62-141
75-69-4	Trichlorofluoromethane	ND	50	54.0	108	57-149
75-01-4	Vinyl chloride	ND	50	50.0	100	43-146
	m,p-Xylene	1.6	100	92.2	91	50-144
95-47-6	o-Xylene	1.2	50	48.3	94	63-134
1330-20-7	Xylene (total)	2.8	150	140	92	56-139

CAS No.	Surrogate Recoveries	MS	JC96538-1	Limits
1868-53-7	Dibromofluoromethane	92%	95%	80-120%
17060-07-0	1,2-Dichloroethane-D4	88%	91%	81-124%
2037-26-5	Toluene-D8	94%	96%	80-120%
460-00-4	4-Bromofluorobenzene	92%	92%	80-120%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JC96248
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JC96248-4MS	2D185863.D	1	10/11/19	ED	n/a	n/a	V2D7993
JC96248-4MSD	2D185864.D	1	10/11/19	ED	n/a	n/a	V2D7993
JC96248-4	2D185862.D	1	10/11/19	ED	n/a	n/a	V2D7993
JC96248-4	2D185865.D	10	10/11/19	ED	n/a	n/a	V2D7993

The QC reported here applies to the following samples:

Method: SW846 8260C

JC96248-1, JC96248-2, JC96248-3, JC96248-4, JC96248-5, JC96248-6, JC96248-7

CAS No.	Compound	JC96248-4		Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
		ug/l	Q								
67-64-1	Acetone	8.6	J	200	189	90	200	171	81	10	34-149/17
71-43-2	Benzene	686 ^c		50	705	144* ^a	50	634	2* ^a	11* ^b	54-136/10
74-97-5	Bromochloromethane	ND		50	56.9	114	50	53.1	106	7	79-124/11
75-27-4	Bromodichloromethane	ND		50	57.7	115	50	53.3	107	8	79-124/11
75-25-2	Bromoform	ND		50	60.6	121	50	57.2	114	6	71-130/11
74-83-9	Bromomethane	ND		50	49.9	100	50	44.5	89	11	53-142/14
78-93-3	2-Butanone (MEK)	ND		200	209	105	200	197	99	6	54-142/15
75-15-0	Carbon disulfide	ND		50	60.2	120	50	55.4	111	8	59-145/17
56-23-5	Carbon tetrachloride	ND		50	61.5	123	50	57.2	114	7	70-143/12
108-90-7	Chlorobenzene	ND		50	59.1	118	50	55.3	111	7	78-123/10
75-00-3	Chloroethane	ND		50	51.2	102	50	45.1	90	13	57-141/14
67-66-3	Chloroform	ND		50	52.1	104	50	48.7	97	7	76-123/11
74-87-3	Chloromethane	ND		50	51.3	103	50	45.3	91	12	43-141/16
110-82-7	Cyclohexane	ND		50	67.5	135	50	61.1	122	10	51-155/16
96-12-8	1,2-Dibromo-3-chloropropane	ND		50	62.2	124	50	58.8	118	6	66-130/13
124-48-1	Dibromochloromethane	ND		50	59.6	119	50	56.1	112	6	76-125/11
106-93-4	1,2-Dibromoethane	ND		50	57.3	115	50	54.0	108	6	78-119/11
95-50-1	1,2-Dichlorobenzene	ND		50	57.8	116	50	54.3	109	6	77-123/11
541-73-1	1,3-Dichlorobenzene	ND		50	59.0	118	50	55.4	111	6	76-122/11
106-46-7	1,4-Dichlorobenzene	ND		50	57.2	114	50	53.1	106	7	76-122/11
75-71-8	Dichlorodifluoromethane	ND		50	77.4	155	50	68.0	136	13	31-159/16
75-34-3	1,1-Dichloroethane	ND		50	55.4	111	50	51.2	102	8	73-126/11
107-06-2	1,2-Dichloroethane	ND		50	56.1	112	50	50.9	102	10	72-131/11
75-35-4	1,1-Dichloroethene	ND		50	57.3	115	50	55.7	111	3	63-136/14
156-59-2	cis-1,2-Dichloroethene	ND		50	58.0	116	50	54.1	108	7	60-136/11
156-60-5	trans-1,2-Dichloroethene	ND		50	60.2	120	50	55.8	112	8	70-126/11
78-87-5	1,2-Dichloropropane	ND		50	56.7	113	50	53.1	106	7	78-124/10
10061-01-5	cis-1,3-Dichloropropene	ND		50	62.9	126* ^b	50	58.7	117	7	79-123/11
10061-02-6	trans-1,3-Dichloropropene	ND		50	57.2	114	50	54.3	109	5	77-123/11
100-41-4	Ethylbenzene	24.3		50	85.7	123	50	79.4	110	8	51-140/20
76-13-1	Freon 113	ND		50	66.6	133	50	63.2	126	5	60-192/14
591-78-6	2-Hexanone	ND		200	242	121	200	224	112	8	56-139/14
98-82-8	Isopropylbenzene	1.2		50	63.0	124	50	59.0	116	7	75-129/11
79-20-9	Methyl Acetate	ND		50	46.5	93	50	42.5	85	9	55-131/15
108-87-2	Methylcyclohexane	ND		50	69.4	139	50	63.3	127	9	57-155/13
1634-04-4	Methyl Tert Butyl Ether	ND		50	52.9	106	50	49.6	99	6	72-123/11

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JC96248
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JC96248-4MS	2D185863.D	1	10/11/19	ED	n/a	n/a	V2D7993
JC96248-4MSD	2D185864.D	1	10/11/19	ED	n/a	n/a	V2D7993
JC96248-4	2D185862.D	1	10/11/19	ED	n/a	n/a	V2D7993
JC96248-4	2D185865.D	10	10/11/19	ED	n/a	n/a	V2D7993

The QC reported here applies to the following samples:

Method: SW846 8260C

JC96248-1, JC96248-2, JC96248-3, JC96248-4, JC96248-5, JC96248-6, JC96248-7

CAS No.	Compound	JC96248-4 ug/l	Spike Q ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	200	246	123	200	228	114	8	66-136/13
75-09-2	Methylene chloride	ND	50	53.2	106	50	49.5	99	7	73-125/13
100-42-5	Styrene	9.4	50	71.2	124	50	68.2	118	4	75-129/11
79-34-5	1,1,2,2-Tetrachloroethane	ND	50	53.4	107	50	49.6	99	7	71-122/11
127-18-4	Tetrachloroethene	ND	50	62.4	125	50	58.7	117	6	61-139/11
108-88-3	Toluene	90.4	50	159	137* b	50	147	113	8	60-135/10
87-61-6	1,2,3-Trichlorobenzene	ND	50	64.4	129	50	60.0	120	7	70-138/13
120-82-1	1,2,4-Trichlorobenzene	ND	50	67.1	134	50	62.3	125	7	72-137/13
71-55-6	1,1,1-Trichloroethane	ND	50	57.3	115	50	53.8	108	6	74-138/12
79-00-5	1,1,2-Trichloroethane	ND	50	54.6	109	50	51.1	102	7	78-121/11
79-01-6	Trichloroethene	ND	50	64.3	129	50	59.5	119	8	62-141/10
75-69-4	Trichlorofluoromethane	ND	50	60.5	121	50	53.2	106	13	57-149/14
75-01-4	Vinyl chloride	ND	50	55.1	110	50	49.1	98	12	43-146/15
	m,p-Xylene	72.9	100	194	121	100	181	108	7	50-144/20
95-47-6	o-Xylene	36.5	50	102	131	50	94.6	116	8	63-134/10
1330-20-7	Xylene (total)	109	150	297	125	150	276	111	7	56-139/20

CAS No.	Surrogate Recoveries	MS	MSD	JC96248-4	JC96248-4	Limits
1868-53-7	Dibromofluoromethane	91%	91%	95%	88%	80-120%
17060-07-0	1,2-Dichloroethane-D4	87%	86%	96%	87%	81-124%
2037-26-5	Toluene-D8	93%	93%	93%	95%	80-120%
460-00-4	4-Bromofluorobenzene	93%	93%	92%	94%	80-120%

- (a) Outside control limits due to high level in sample relative to spike amount.
- (b) Outside control limits due to matrix interference.
- (c) Result is from Run #2.

* = Outside of Control Limits.

Duplicate Summary

Job Number: JC96248
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JC96552-2DUP	2D186021.D	1	10/17/19	KC	n/a	n/a	V2D8000
JC96552-2	2D186013.D	1	10/17/19	KC	n/a	n/a	V2D8000

The QC reported here applies to the following samples:

Method: SW846 8260C

JC96248-8, JC96248-9

CAS No.	Compound	JC96552-2		Q	RPD	Limits
		ug/l	DUP ug/l			
67-64-1	Acetone	ND	ND		nc	20
71-43-2	Benzene	ND	ND		nc	20
74-97-5	Bromochloromethane	ND	ND		nc	20
75-27-4	Bromodichloromethane	ND	ND		nc	20
75-25-2	Bromoform	ND	ND		nc	20
74-83-9	Bromomethane	ND	ND		nc	20
78-93-3	2-Butanone (MEK)	ND	ND		nc	20
75-15-0	Carbon disulfide	ND	ND		nc	20
56-23-5	Carbon tetrachloride	ND	ND		nc	20
108-90-7	Chlorobenzene	ND	ND		nc	20
75-00-3	Chloroethane	ND	ND		nc	20
67-66-3	Chloroform	ND	ND		nc	20
74-87-3	Chloromethane	ND	ND		nc	20
110-82-7	Cyclohexane	ND	ND		nc	20
96-12-8	1,2-Dibromo-3-chloropropane	ND	ND		nc	20
124-48-1	Dibromochloromethane	ND	ND		nc	20
106-93-4	1,2-Dibromoethane	ND	ND		nc	20
95-50-1	1,2-Dichlorobenzene	ND	ND		nc	20
541-73-1	1,3-Dichlorobenzene	ND	ND		nc	20
106-46-7	1,4-Dichlorobenzene	ND	ND		nc	20
75-71-8	Dichlorodifluoromethane	ND	ND		nc	20
75-34-3	1,1-Dichloroethane	ND	ND		nc	20
107-06-2	1,2-Dichloroethane	ND	ND		nc	20
75-35-4	1,1-Dichloroethene	ND	ND		nc	20
156-59-2	cis-1,2-Dichloroethene	ND	ND		nc	20
156-60-5	trans-1,2-Dichloroethene	ND	ND		nc	20
78-87-5	1,2-Dichloropropane	ND	ND		nc	20
10061-01-5	cis-1,3-Dichloropropene	ND	ND		nc	20
10061-02-6	trans-1,3-Dichloropropene	ND	ND		nc	20
100-41-4	Ethylbenzene	ND	ND		nc	20
76-13-1	Freon 113	ND	ND		nc	20
591-78-6	2-Hexanone	ND	ND		nc	20
98-82-8	Isopropylbenzene	ND	ND		nc	20
79-20-9	Methyl Acetate	ND	ND		nc	20
108-87-2	Methylcyclohexane	ND	ND		nc	20
1634-04-4	Methyl Tert Butyl Ether	ND	ND		nc	20

* = Outside of Control Limits.

Duplicate Summary

Job Number: JC96248
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JC96552-2DUP	2D186021.D	1	10/17/19	KC	n/a	n/a	V2D8000
JC96552-2	2D186013.D	1	10/17/19	KC	n/a	n/a	V2D8000

The QC reported here applies to the following samples:

Method: SW846 8260C

JC96248-8, JC96248-9

CAS No.	Compound	JC96552-2		Q	RPD	Limits
		ug/l	DUP ug/l			
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	ND		nc	20
75-09-2	Methylene chloride	ND	ND		nc	20
100-42-5	Styrene	ND	ND		nc	20
79-34-5	1,1,2,2-Tetrachloroethane	ND	ND		nc	20
127-18-4	Tetrachloroethene	ND	ND		nc	20
108-88-3	Toluene	ND	ND		nc	20
87-61-6	1,2,3-Trichlorobenzene	ND	ND		nc	20
120-82-1	1,2,4-Trichlorobenzene	ND	ND		nc	20
71-55-6	1,1,1-Trichloroethane	ND	ND		nc	20
79-00-5	1,1,2-Trichloroethane	ND	ND		nc	20
79-01-6	Trichloroethene	ND	ND		nc	20
75-69-4	Trichlorofluoromethane	ND	ND		nc	20
75-01-4	Vinyl chloride	ND	ND		nc	20
	m,p-Xylene	ND	ND		nc	20
95-47-6	o-Xylene	ND	ND		nc	20
1330-20-7	Xylene (total)	ND	ND		nc	20

CAS No.	Surrogate Recoveries	DUP	JC96552-2	Limits
1868-53-7	Dibromofluoromethane	93%	93%	80-120%
17060-07-0	1,2-Dichloroethane-D4	90%	90%	81-124%
2037-26-5	Toluene-D8	96%	97%	80-120%
460-00-4	4-Bromofluorobenzene	98%	99%	80-120%

* = Outside of Control Limits.

Instrument Performance Check (BFB)

Job Number: JC96248
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: V2D7967-BFB	Injection Date: 09/25/19
Lab File ID: 2D185346.D	Injection Time: 18:09
Instrument ID: GCMS2D	

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
50	15.0 - 40.0% of mass 95	17497	19.7	Pass
75	30.0 - 60.0% of mass 95	43346	48.8	Pass
95	Base peak, 100% relative abundance	88912	100.0	Pass
96	5.0 - 9.0% of mass 95	5848	6.58	Pass
173	Less than 2.0% of mass 174	292	0.33 (0.35) ^a	Pass
174	50.0 - 120.0% of mass 95	83120	93.5	Pass
175	5.0 - 9.0% of mass 174	6238	7.02 (7.50) ^a	Pass
176	95.0 - 101.0% of mass 174	80325	90.3 (96.6) ^a	Pass
177	5.0 - 9.0% of mass 176	5295	5.96 (6.59) ^b	Pass

(a) Value is % of mass 174

(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V2D7967-IC7967	2D185347.D	09/25/19	18:56	00:47	Initial cal 0.2
V2D7967-IC7967	2D185348.D	09/25/19	19:25	01:16	Initial cal 0.5
V2D7967-IC7967	2D185349.D	09/25/19	19:55	01:46	Initial cal 1
V2D7967-IC7967	2D185350.D	09/25/19	20:24	02:15	Initial cal 2
V2D7967-IC7967	2D185351.D	09/25/19	20:54	02:45	Initial cal 4
V2D7967-IC7967	2D185352.D	09/25/19	21:23	03:14	Initial cal 8
V2D7967-IC7967	2D185353.D	09/25/19	21:53	03:44	Initial cal 20
V2D7967-ICC7967	2D185354.D	09/25/19	22:23	04:14	Initial cal 50
V2D7967-IC7967	2D185355.D	09/25/19	22:52	04:43	Initial cal 100
V2D7967-IC7967	2D185356.D	09/25/19	23:21	05:12	Initial cal 200
V2D7967-ICV7967	2D185359.D	09/26/19	00:50	06:41	Initial cal verification 50
V2D7967-ICV7967	2D185360.D	09/26/19	01:19	07:10	Initial cal verification 50

Instrument Performance Check (BFB)

Job Number: JC96248
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: V2D7993-BFB	Injection Date: 10/11/19
Lab File ID: 2D185857.D	Injection Time: 15:05
Instrument ID: GCMS2D	

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
50	15.0 - 40.0% of mass 95	14311	17.4	Pass
75	30.0 - 60.0% of mass 95	37677	45.9	Pass
95	Base peak, 100% relative abundance	82040	100.0	Pass
96	5.0 - 9.0% of mass 95	5311	6.47	Pass
173	Less than 2.0% of mass 174	0	0.00 (0.00) ^a	Pass
174	50.0 - 120.0% of mass 95	76589	93.4	Pass
175	5.0 - 9.0% of mass 174	5850	7.13 (7.64) ^a	Pass
176	95.0 - 101.0% of mass 174	75173	91.6 (98.2) ^a	Pass
177	5.0 - 9.0% of mass 176	5034	6.14 (6.70) ^b	Pass

(a) Value is % of mass 174

(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V2D7993-CC7967	2D185858.D	10/11/19	15:34	00:29	Continuing cal 20
V2D7993-BS	2D185859.D	10/11/19	16:12	01:07	Blank Spike
V2D7993-MB	2D185861.D	10/11/19	17:11	02:06	Method Blank
JC96248-4	2D185862.D	10/11/19	17:40	02:35	MW-111
JC96248-4MS	2D185863.D	10/11/19	18:09	03:04	Matrix Spike
JC96248-4MSD	2D185864.D	10/11/19	18:38	03:33	Matrix Spike Duplicate
JC96248-4	2D185865.D	10/11/19	19:07	04:02	MW-111
ZZZZZZ	2D185872.D	10/11/19	22:33	07:28	(unrelated sample)
ZZZZZZ	2D185873.D	10/11/19	23:03	07:58	(unrelated sample)
JC96248-1	2D185874.D	10/11/19	23:32	08:27	MW-108
JC96248-2	2D185875.D	10/12/19	00:01	08:56	MW-109
JC96248-3	2D185876.D	10/12/19	00:31	09:26	MW-110
JC96248-5	2D185877.D	10/12/19	01:00	09:55	MW-112
JC96248-6	2D185878.D	10/12/19	01:30	10:25	MW-113
JC96248-7	2D185879.D	10/12/19	01:59	10:54	DUP-100419

Instrument Performance Check (BFB)

Job Number: JC96248
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample:	V2D8000-BFB	Injection Date:	10/17/19
Lab File ID:	2D186005.D	Injection Time:	08:07
Instrument ID:	GCMS2D		

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
50	15.0 - 40.0% of mass 95	15102	16.7	Pass
75	30.0 - 60.0% of mass 95	40837	45.2	Pass
95	Base peak, 100% relative abundance	90315	100.0	Pass
96	5.0 - 9.0% of mass 95	5873	6.50	Pass
173	Less than 2.0% of mass 174	0	0.00 (0.00) ^a	Pass
174	50.0 - 120.0% of mass 95	87251	96.6	Pass
175	5.0 - 9.0% of mass 174	6430	7.12 (7.37) ^a	Pass
176	95.0 - 101.0% of mass 174	84709	93.8 (97.1) ^a	Pass
177	5.0 - 9.0% of mass 176	5623	6.23 (6.64) ^b	Pass

(a) Value is % of mass 174

(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V2D8000-CC7967	2D186005.D	10/17/19	08:07	00:00	Continuing cal 20
V2D8000-BS	2D186006.D	10/17/19	08:46	00:39	Blank Spike
V2D8000-MB	2D186008.D	10/17/19	09:54	01:47	Method Blank
JC96248-8	2D186009.D	10/17/19	10:34	02:27	FB-100419
JC96248-9	2D186010.D	10/17/19	11:03	02:56	TRIP BLANK
JC96538-1	2D186011.D	10/17/19	11:33	03:26	(used for QC only; not part of job JC96248)
ZZZZZZ	2D186012.D	10/17/19	12:02	03:55	(unrelated sample)
JC96552-2	2D186013.D	10/17/19	12:32	04:25	(used for QC only; not part of job JC96248)
ZZZZZZ	2D186014.D	10/17/19	13:01	04:54	(unrelated sample)
ZZZZZZ	2D186015.D	10/17/19	13:31	05:24	(unrelated sample)
ZZZZZZ	2D186016.D	10/17/19	14:00	05:53	(unrelated sample)
ZZZZZZ	2D186017.D	10/17/19	14:30	06:23	(unrelated sample)
ZZZZZZ	2D186018.D	10/17/19	14:59	06:52	(unrelated sample)
JC96538-1MS	2D186019.D	10/17/19	15:29	07:22	Matrix Spike
ZZZZZZ	2D186020.D	10/17/19	15:58	07:51	(unrelated sample)
JC96552-2DUP	2D186021.D	10/17/19	16:28	08:21	Duplicate
ZZZZZZ	2D186022.D	10/17/19	16:57	08:50	(unrelated sample)
ZZZZZZ	2D186023.D	10/17/19	17:27	09:20	(unrelated sample)
ZZZZZZ	2D186024.D	10/17/19	17:56	09:49	(unrelated sample)
ZZZZZZ	2D186025.D	10/17/19	18:25	10:18	(unrelated sample)
ZZZZZZ	2D186026.D	10/17/19	18:55	10:48	(unrelated sample)
ZZZZZZ	2D186027.D	10/17/19	19:24	11:17	(unrelated sample)

Internal Standard Area Summary

Job Number: JC96248
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Check Std:	V2D7993-CC7967	Injection Date:	10/11/19
Lab File ID:	2D185858.D	Injection Time:	15:34
Instrument ID:	GCMS2D	Method:	SW846 8260C

	IS 1		IS 2		IS 3		IS 4		IS 5	
	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT
Check Std	64580	7.24	239965	9.94	351580	11.08	335451	15.32	182007	18.14
Upper Limit ^a	129160	7.74	479930	10.44	703160	11.58	670902	15.82	364014	18.64
Lower Limit ^b	32290	6.74	119983	9.44	175790	10.58	167726	14.82	91004	17.64

Lab	IS 1		IS 2		IS 3		IS 4		IS 5	
Sample ID	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT
V2D7993-BS	69260	7.24	244022	9.94	358960	11.08	342862	15.32	187529	18.13
V2D7993-MB	64185	7.24	235242	9.94	347512	11.08	320447	15.32	160545	18.14
JC96248-4	72581	7.24	240251	9.94	340308	11.08	332139	15.32	184687	18.13
JC96248-4MS	58734	7.25	216169	9.94	310160	11.09	304660	15.32	167004	18.14
JC96248-4MSD	68464	7.25	240558	9.95	344294	11.08	335708	15.32	184307	18.14
JC96248-4	69451	7.24	255927	9.94	367125	11.09	345040	15.32	188332	18.14
ZZZZZZ	75512	7.24	250009	9.94	370526	11.08	349417	15.32	180931	18.14
ZZZZZZ	78451	7.24	268624	9.94	396524	11.08	371649	15.32	192676	18.14
JC96248-1	79843	7.25	266996	9.95	395986	11.09	368450	15.32	188791	18.14
JC96248-2	69081	7.24	248756	9.94	370733	11.09	342638	15.32	174653	18.14
JC96248-3	61862	7.24	233678	9.94	346818	11.09	321076	15.32	164716	18.14
JC96248-5	64517	7.25	242355	9.94	363169	11.09	332916	15.32	166046	18.14
JC96248-6	65343	7.25	245963	9.94	363268	11.09	338433	15.32	172849	18.14
JC96248-7	56443	7.24	217096	9.95	325410	11.09	301704	15.32	152342	18.14

- IS 1 = Tert Butyl Alcohol-D9
- IS 2 = Pentafluorobenzene
- IS 3 = 1,4-Difluorobenzene
- IS 4 = Chlorobenzene-D5
- IS 5 = 1,4-Dichlorobenzene-d4

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.

(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Internal Standard Area Summary

Job Number: JC96248
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Check Std:	V2D8000-CC7967	Injection Date:	10/17/19
Lab File ID:	2D186005.D	Injection Time:	08:07
Instrument ID:	GCMS2D	Method:	SW846 8260C

	IS 1		IS 2		IS 3		IS 4		IS 5	
	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT
Check Std	79511	7.26	245534	9.97	358101	11.12	346379	15.35	188568	18.16
Upper Limit ^a	159022	7.76	491068	10.47	716202	11.62	692758	15.85	377136	18.66
Lower Limit ^b	39756	6.76	122767	9.47	179051	10.62	173190	14.85	94284	17.66

Lab	IS 1		IS 2		IS 3		IS 4		IS 5	
Sample ID	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT
V2D8000-BS	77097	7.27	243645	9.98	354424	11.12	342879	15.35	188783	18.16
V2D8000-MB	78012	7.28	243784	9.97	358225	11.12	339008	15.35	167347	18.16
JC96248-8	82176	7.27	237948	9.97	351319	11.12	328755	15.35	162922	18.16
JC96248-9	75158	7.28	240232	9.98	356786	11.12	329658	15.35	161700	18.16
JC96538-1	72165	7.28	231773	9.98	338226	11.12	314092	15.35	171660	18.16
ZZZZZZ	74718	7.28	243994	9.98	360597	11.12	343912	15.35	174231	18.16
JC96552-2	79398	7.27	248406	9.98	368806	11.12	339651	15.35	168205	18.16
ZZZZZZ	74586	7.28	241056	9.98	355338	11.13	337323	15.35	164891	18.16
ZZZZZZ	73070	7.28	225452	9.98	333718	11.12	313796	15.35	160776	18.16
ZZZZZZ	70045	7.28	235946	9.98	347667	11.12	323203	15.35	160926	18.16
ZZZZZZ	76859	7.27	233353	9.98	343578	11.12	323352	15.35	160046	18.16
ZZZZZZ	71533	7.28	231142	9.98	340571	11.12	319936	15.35	160915	18.16
JC96538-1MS	72500	7.28	229218	9.97	332773	11.12	323581	15.34	177047	18.16
ZZZZZZ	74870	7.27	242873	9.97	354184	11.12	332371	15.35	168291	18.16
JC96552-2DUP	72875	7.27	235943	9.97	350706	11.12	324865	15.34	160762	18.16
ZZZZZZ	70786	7.28	224226	9.97	331559	11.12	315600	15.34	152132	18.16
ZZZZZZ	69979	7.27	231144	9.97	340863	11.12	319399	15.34	161496	18.16
ZZZZZZ	71848	7.27	229418	9.97	339165	11.12	315918	15.34	157619	18.16
ZZZZZZ	70828	7.27	229615	9.97	344274	11.12	320198	15.34	161559	18.16
ZZZZZZ	73914	7.27	231638	9.97	341257	11.11	329785	15.34	171035	18.16
ZZZZZZ	73853	7.27	227721	9.96	336424	11.11	313870	15.34	153777	18.15

- IS 1 = Tert Butyl Alcohol-D9
- IS 2 = Pentafluorobenzene
- IS 3 = 1,4-Difluorobenzene
- IS 4 = Chlorobenzene-D5
- IS 5 = 1,4-Dichlorobenzene-d4

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.
 (b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

6.7.2
6

Surrogate Recovery Summary

Job Number: JC96248
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Method: SW846 8260C	Matrix: AQ
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Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3	S4
JC96248-1	2D185874.D	93	90	96	98
JC96248-2	2D185875.D	94	90	96	98
JC96248-3	2D185876.D	94	90	97	97
JC96248-4	2D185865.D	88	87	95	94
JC96248-4	2D185862.D	95	96	93	92
JC96248-5	2D185877.D	94	90	97	98
JC96248-6	2D185878.D	94	91	96	98
JC96248-7	2D185879.D	94	91	97	97
JC96248-8	2D186009.D	93	91	95	99
JC96248-9	2D186010.D	93	90	96	99
JC96248-4MS	2D185863.D	91	87	93	93
JC96248-4MSD	2D185864.D	91	86	93	93
JC96538-1MS	2D186019.D	92	88	94	92
JC96552-2DUP	2D186021.D	93	90	96	98
V2D7993-BS	2D185859.D	93	88	94	93
V2D7993-MB	2D185861.D	93	90	97	99
V2D8000-BS	2D186006.D	91	87	93	93
V2D8000-MB	2D186008.D	92	90	95	100

Surrogate Compounds	Recovery Limits
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S1 = Dibromofluoromethane	80-120%
S2 = 1,2-Dichloroethane-D4	81-124%
S3 = Toluene-D8	80-120%
S4 = 4-Bromofluorobenzene	80-120%

6.8.1
6

Initial Calibration Summary

Job Number: JC96248
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA

Sample: V2D7967-ICC7967
Lab FileID: 2D185354.D

Response Factor Report MS2D

Method : C:\msdchem\1\METHODS\M2D7967.M (RTE Integrator)
 Title : SW-846 Method 8260C / EPA 624, DB624 60m x 0.25mm Thu Sep 26 10:58:10 2019
 Last Update : Thu Sep 26 10:58:10 2019
 Response via : Initial Calibration

Calibration Files

1 =2D185349.D 2 =2D185350.D 100 =2D185355.D 50 =2D185354.D
 20 =2D185353.D 200 =2D185356.D 4 =2D185351.D 0.5 =2D185348.D
 8 =2D185352.D 0.2 =2D185347.D = =

Compound	1	2	100	50	20	200	4	0.5	8	0.2	Avg	%RSD
1) I tert butyl alcohol-d9 -----ISTD-----												
2) tertiary butyl alcohol		0.872	1.039	1.005	0.966	1.003	0.960		0.939		0.969	5.63
3) ethanol		0.125	0.139	0.114	0.117	0.118	0.103	0.129	0.117		0.120	8.97
4) 1,4-dioxane			0.109	0.102	0.094	0.105	0.091		0.088		0.099	8.46
5) I pentafluorobenzene -----ISTD-----												
6) chlorodifluoromethane		0.585	0.555	0.591	0.559	0.545	0.575	0.522	0.462	0.540	0.548	7.13
7) dichlorodifluoromethane		0.395	0.459	0.443	0.434	0.460	0.416		0.442		0.436	5.34
8) chloromethane		0.670	0.656	0.639	0.627	0.625	0.606	0.660	0.722	0.631	0.649	5.23
9) vinyl chloride		0.600	0.609	0.631	0.611	0.595	0.606	0.637	0.582	0.608	0.621	2.69
10) 1,3-butadiene		0.374	0.392	0.419	0.400	0.394	0.401	0.376	0.376		0.391	3.99
11) bromomethane		0.435	0.439	0.409	0.392	0.394	0.363	0.436	0.503	0.403	0.419	9.56
12) chloroethane		0.300	0.297	0.310	0.299	0.298	0.283	0.310	0.261	0.298	0.295	5.10
13) trichlorofluoromethane		0.548	0.602	0.622	0.596	0.598	0.604	0.621	0.467	0.622	0.587	8.57
14) vinyl bromide		0.303	0.306	0.340	0.323	0.313	0.321	0.330	0.316		0.319	3.77
15) ethyl ether		0.221	0.215	0.223	0.218	0.218	0.221	0.200	0.208		0.216	3.55
16) acrolein			0.060	0.061	0.063	0.058	0.053		0.058		0.059	5.87
17) 1,1-dichloroethene		0.383	0.365	0.368	0.359	0.354	0.357	0.347	0.325	0.354	0.357	4.40
18) freon 113			0.264	0.297	0.290	0.281	0.296	0.248	0.268		0.278	6.61
19) 2-chloropropane		0.930	0.827	0.785	0.779	0.789	0.743	0.782	0.802		0.804	6.93
20) acetone		0.032	0.032	0.031	0.031	0.031	0.031	0.032	0.031		0.031	2.12
21) acetonitrile			0.046	0.048	0.047	0.046	0.048	0.048	0.046		0.047	2.15
22) iodomethane		0.519	0.514	0.563	0.529	0.511	0.555	0.493	0.503	0.508	0.522	4.47
23) carbon disulfide												

6.9.1
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Initial Calibration Summary

Job Number: JC96248
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: V2D7967-ICC7967
 Lab FileID: 2D185354.D

	1.108	1.019	1.082	1.029	0.996	1.035	0.955	1.109	0.983	1.035	5.27
24)	methylene chloride										
	0.481	0.412	0.428	0.413	0.408	0.415	0.401	0.516	0.404	0.431	9.29
25)	methyl acetate										
	0.271	0.293	0.284	0.286	0.295	0.280		0.275		0.283	3.08
26)	methyl tert butyl ether										
	0.974	0.988	1.080	1.039	0.992	1.068	0.949	0.955	0.971	0.884	5.97
27)	trans-1,2-dichloroethene										
	0.382	0.368	0.397	0.379	0.373	0.385	0.352	0.355	0.367	0.373	3.87
28)	hexane										
	0.461	0.480	0.535	0.516	0.512	0.528	0.446		0.477	0.494	6.63
29)	di-isopropyl ether										
	1.454	1.436	1.513	1.480	1.432	1.455	1.380	1.387	1.401	1.390	3.07
30)	2-butanone										
	0.025	0.037	0.036	0.034	0.039	0.031		0.032		0.033	14.02
31)	1,1-dichloroethane										
	0.774	0.754	0.780	0.756	0.742	0.750	0.724	0.740	0.730	0.685	3.63
32)	chloroprene										
	0.625	0.582	0.626	0.608	0.588	0.611	0.536	0.499	0.571	0.583	7.31
33)	acrylonitrile										
	0.140	0.135	0.132	0.142	0.114			0.127		0.132	7.77
34)	vinyl acetate										
	0.074	0.067	0.065	0.075				0.057		0.068	10.53
35)	ethyl tert-butyl ether										
	1.228	1.192	1.295	1.255	1.214	1.245	1.153	1.127	1.173	1.137	4.58
36)	ethyl acetate										
	0.055	0.053	0.059	0.055	0.045			0.048		0.052	9.46
37)	2,2-dichloropropane										
	0.587	0.541	0.556	0.533	0.523	0.537	0.498	0.491	0.520	0.532	5.47
38)	cis-1,2-dichloroethene										
	0.435	0.420	0.453	0.434	0.422	0.439	0.404	0.399	0.416	0.425	4.08
39)	propionitrile										
	0.042	0.044	0.050	0.050	0.048	0.051	0.045		0.046	0.047	7.43
40)	tert-butyl formate										
	0.302	0.294	0.378	0.343	0.334	0.370	0.303		0.311	0.329	9.76
41)	bromochloromethane										
	0.204	0.195	0.221	0.213	0.208	0.218	0.198		0.201	0.207	4.58
42)	tetrahydrofuran										
	0.105	0.103	0.103	0.101	0.107	0.097		0.102		0.103	2.98
43)	chloroform										
	0.824	0.751	0.741	0.724	0.710	0.718	0.712	0.831	0.711	0.747	6.42
44)	dibromofluoromethane (s)										
	0.475	0.476	0.467	0.474	0.471	0.461	0.471	0.477	0.476	0.478	1.11
45)	methacrylonitrile										
	0.104	0.147	0.143	0.138	0.151	0.124		0.126		0.133	12.55
46)	1,1,1-trichloroethane										
	0.654	0.576	0.623	0.594	0.575	0.608	0.558	0.573	0.571	0.592	5.19
47)	cyclohexane										
	0.453	0.491	0.531	0.503	0.505	0.525	0.512		0.516	0.504	4.84
48)	1,1-dichloropropene										
	0.554	0.521	0.557	0.535	0.520	0.545	0.491	0.510	0.516	0.528	4.15
49)	isobutyl alcohol										
	0.015	0.014	0.014	0.016	0.014			0.014		0.015	6.38
50)	carbon tetrachloride										
	0.510	0.487	0.540	0.506	0.487	0.528	0.457	0.478	0.478	0.497	5.30
51)	tert-amyl alcohol										
	0.016	0.015	0.014	0.018	0.013			0.013		0.015	11.84
52) I	1,4-difluorobenzene -----ISTD-----										
53)	1,2-dichloroethane-d4 (s)										

Initial Calibration Summary

Job Number: JC96248
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: V2D7967-ICC7967
 Lab FileID: 2D185354.D

	0.357	0.361	0.352	0.356	0.356	0.350	0.359	0.361	0.362	0.361	0.358	1.13
54) benzene	1.135	1.063	1.084	1.054	1.044	1.042	1.015	1.073	1.020	1.159	1.069	4.37
55) iso-octane	0.624	0.680	0.729	0.717	0.709	0.721	0.618		0.664		0.683	6.44
56) tert-amyl methyl ether	0.764	0.712	0.784	0.765	0.748	0.754	0.728	0.721	0.723	0.720	0.742	3.29
57) heptane	0.144	0.162	0.159	0.160	0.163	0.138			0.147		0.153	6.52
58) isopropyl acetate		0.052	0.049	0.046	0.053	0.044			0.043		0.048	8.72
59) 1,2-dichloroethane	0.439	0.397	0.398	0.385	0.381	0.389	0.388	0.512	0.374		0.407	10.70
60) n-butyl alcohol		0.007	0.006	0.006	0.007	0.005			0.005		0.006	12.79
61) ethyl acrylate	0.238	0.326	0.308	0.289	0.339	0.264			0.265		0.290	12.66
62) trichloroethene	0.280	0.253	0.280	0.266	0.261	0.280	0.244	0.226	0.256	0.230	0.258	7.72
63) 2-nitropropane		0.059	0.054	0.052	0.062	0.044			0.046		0.053	13.32
64) 2-chloroethyl vinyl ether	0.141	0.145	0.179	0.175	0.166	0.180	0.151	0.129	0.154		0.158	11.39
65) methyl methacrylate	0.126	0.166	0.159	0.152	0.172	0.134			0.141		0.150	11.34
66) 1,2-dichloropropane	0.287	0.276	0.303	0.292	0.287	0.293	0.282	0.263	0.279		0.285	4.06
67) dibromomethane	0.156	0.155	0.176	0.170	0.164	0.176	0.160	0.130	0.161		0.161	8.75
68) methylcyclohexane	0.347	0.367	0.414	0.397	0.377	0.414	0.327		0.364		0.376	8.24
69) bromodichloromethane	0.360	0.348	0.394	0.372	0.354	0.388	0.347	0.327	0.346		0.360	5.98
70) epichlorohydrin	0.017	0.023	0.022	0.021	0.024	0.019			0.019		0.021	11.54
71) cis-1,3-dichloropropene	0.412	0.390	0.476	0.451	0.427	0.471	0.387	0.371	0.404	0.366	0.415	9.58
72) 4-methyl-2-pentanone	0.076	0.079	0.096	0.092	0.089	0.099	0.083	0.066	0.084		0.085	12.40
73) 3-methyl-1-butanol	0.007	0.011	0.010	0.009	0.012	0.009			0.009		0.009	16.10
74) I chlorobenzene-d5	-----ISTD-----											
75) toluene-d8 (s)	1.268	1.270	1.229	1.243	1.260	1.206	1.271	1.264	1.269	1.268	1.255	1.75
76) toluene	0.734	0.688	0.711	0.683	0.675	0.689	0.658	0.729	0.677	0.708	0.695	3.52
77) trans-1,3-dichloropropene	0.372	0.365	0.453	0.430	0.409	0.452	0.375	0.333	0.379		0.397	10.55
78) ethyl methacrylate	0.271	0.279	0.359	0.340	0.324	0.364	0.287		0.298		0.315	11.60
79) 1,1,2-trichloroethane	0.204	0.207	0.226	0.222	0.215	0.224	0.214	0.194	0.213		0.213	4.78
80) tetrachloroethene	0.244	0.234	0.259	0.240	0.239	0.253	0.233	0.229	0.233		0.241	4.16
81) 1,3-dichloropropane	0.421	0.393	0.445	0.430	0.418	0.437	0.396	0.400	0.401		0.416	4.62
82) 2-hexanone	0.063	0.074	0.094	0.091	0.088	0.097	0.082		0.083		0.084	13.23
83) butyl acetate												

Initial Calibration Summary

Job Number: JC96248
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 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: V2D7967-ICC7967
 Lab FileID: 2D185354.D

	0.139	0.179	0.172	0.167	0.185	0.156		0.156	0.165	9.54
84) dibromochloromethane										
	0.257	0.260	0.317	0.297	0.279	0.316	0.255	0.222	0.272	11.33
85) 1,2-dibromoethane										
	0.260	0.262	0.306	0.292	0.280	0.304	0.275	0.262	0.275	6.34
86) n-butyl ether										
	1.152	1.109	1.311	1.253	1.231	1.258	1.115	1.084	1.169	1.092
87) chlorobenzene										
	0.826	0.785	0.837	0.799	0.781	0.818	0.768	0.723	0.761	0.831
88) 1,1,1,2-tetrachloroethane										
	0.255	0.263	0.314	0.295	0.282	0.306	0.270	0.246	0.274	0.278
89) ethylbenzene										
	1.352	1.282	1.376	1.322	1.306	1.313	1.244	1.302	1.283	1.428
90) m,p-xylene										
	1.010	0.974	1.075	1.032	1.025	1.022	0.950	0.956	0.987	0.989
91) o-xylene										
	0.470	0.462	0.541	0.515	0.497	0.523	0.472	0.441	0.485	0.414
92) styrene										
	0.762	0.743	0.919	0.872	0.853	0.885	0.758	0.674	0.800	0.807
93) butyl acrylate										
	0.428	0.608	0.574	0.532	0.622	0.450		0.473	0.527	14.78
94) n-amyl acetate										
	0.134	0.200	0.187	0.176	0.208	0.156		0.166	0.175	14.69
95) bromoform										
	0.157	0.165	0.220	0.202	0.189	0.226	0.167	0.174	0.188	13.99
96) isopropylbenzene										
	1.244	1.158	1.344	1.273	1.253	1.295	1.133	1.122	1.183	1.326
97) cis-1,4-dichloro-2-butene										
	0.118	0.112	0.101	0.125	0.081			0.088	0.104	16.49
98) I 1,4-dichlorobenzene-d -----ISTD-----										
99) 4-bromofluorobenzene (s)										
	0.917	0.917	0.893	0.902	0.896	0.888	0.915	0.912	0.903	0.912
100) bromobenzene										
	0.704	0.668	0.731	0.702	0.676	0.714	0.679	0.695	0.664	0.695
101) 1,1,2,2-tetrachloroethane										
	0.652	0.650	0.645	0.628	0.617	0.638	0.639	0.601	0.604	0.630
102) trans-1,4-dichloro-2-butene										
	0.170	0.161	0.153	0.175	0.141			0.140	0.157	9.26
103) 1,2,3-trichloropropane										
	0.147	0.164	0.159	0.156	0.167	0.157		0.156	0.158	4.03
104) n-propylbenzene										
	2.889	2.809	2.932	2.835	2.826	2.793	2.669	2.752	2.764	2.985
105) 2-chlorotoluene										
	0.621	0.600	0.652	0.620	0.610	0.638	0.596	0.548	0.592	0.509
106) 4-chlorotoluene										
	1.765	1.731	1.822	1.753	1.723	1.762	1.692	1.756	1.681	1.883
107) 1,3,5-trimethylbenzene										
	2.012	1.912	2.128	2.023	1.984	2.052	1.858	1.847	1.917	1.924
108) tert-butylbenzene										
	1.671	1.588	1.805	1.688	1.647	1.754	1.506	1.613	1.551	1.598
109) 1,2,4-trimethylbenzene										
	2.015	1.901	2.175	2.067	2.019	2.093	1.910	1.805	1.914	2.005
110) sec-butylbenzene										
	2.414	2.422	2.640	2.495	2.445	2.534	2.255	2.266	2.342	2.408
111) 1,3-dichlorobenzene										
	1.259	1.223	1.319	1.260	1.224	1.269	1.173	1.199	1.176	1.323
112) p-isopropyltoluene										
	1.939	1.924	2.293	2.146	2.068	2.216	1.860	1.846	1.937	2.022
113) 1,4-dichlorobenzene										

Initial Calibration Summary

Job Number: JC96248
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: V2D7967-ICC7967
 Lab FileID: 2D185354.D

	1.355	1.259	1.336	1.268	1.235	1.297	1.225	1.349	1.205	1.523	1.305	7.11
114)	1,2-dichlorobenzene											
	1.208	1.188	1.311	1.248	1.197	1.269	1.173	1.165	1.157	1.272	1.219	4.32
115)	benzyl chloride											
	0.835	1.134	1.071	0.951	1.154	0.828		0.852		0.975	14.71	
116)	n-butylbenzene											
	0.964	0.955	1.139	1.062	1.027	1.111	0.916	0.935	0.954		1.007	8.03
117)	1,2-dibromo-3-chloropropane											
	0.087	0.137	0.126	0.115	0.145	0.104		0.108		0.117	17.12	
118)	nitrobenzene											
	This compound does not meet initial calibration criteria											
	0.021	0.017	0.011	0.028				0.009		0.017	45.11	
119)	1,3,5-trichlorobenzene											
	0.801	0.813	1.062	0.976	0.909	1.049	0.835	0.808	0.840		0.899	11.65
120)	hexachlorobutadiene											
	0.379	0.407	0.476	0.441	0.409	0.469	0.392	0.365	0.400		0.415	9.30
121)	naphthalene											
	1.258	1.852	1.729	1.542	1.904	1.309		1.350		1.563	17.13	
122)	2-ethylhexyl acrylate											
	0.478	0.376	0.279	0.529				0.215		0.375	35.00	
	---- Linear regression ---- Coefficient = 0.9909											
	Response Ratio = -0.01390 + 0.52144 *A											
123)	1,2,4-trichlorobenzene											
	0.631	0.619	0.929	0.847	0.745	0.937	0.660	0.673		0.755	17.45	
124)	1,2,3-trichlorobenzene											
	0.622	0.587	0.825	0.761	0.681	0.843	0.596	0.629		0.693	14.88	
125)	hexachloroethane											
	0.338	0.337	0.425	0.387	0.354	0.426	0.318	0.333		0.365	11.63	
126)	2-methylnaphthalene											
	0.841	0.697	0.540	0.940				0.432		0.690	30.27	
	---- Linear regression ---- Coefficient = 0.9925											
	Response Ratio = -0.05549 + 0.92306 *A											
127)	bis(chloromethyl)ether											
										0.000	-1.00	
128)	ethylenimine											
										0.000	-1.00	

 (#) = Out of Range ### Number of calibration levels exceeded format ###

M2D7967.M Thu Sep 26 10:59:44 2019 GCMS2D

6.9.1

6

Initial Calibration Verification

Job Number: JC96248
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: V2D7967-ICV7967
 Lab FileID: 2D185359.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\V2D7967\2D185359.D Vial: 16
 Acq On : 26 Sep 2019 12:50 am Operator: brittank
 Sample : ICV7967-50 Inst : MS2D
 Misc : MS37556,V2D7967,5,,,,,1 Multiplr: 1.00
 MS Integration Params: rteint.p

Method : C:\msdchem\1\METHODS\M2D7967.M (RTE Integrator)
 Title : SW-846 Method 8260C / EPA 624, DB624 60m x 0.25mm Thu Sep 26 10:58:10 2019
 Last Update : Thu Sep 26 10:58:10 2019
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	tert butyl alcohol-d9	1.000	1.000	0.0	101	0.00	7.26
2	tertiary butyl alcohol	0.969	1.025	-5.8	103	0.00	7.38
3	ethanol	0.120	0.115	4.2	99	0.00	5.90
4	1,4-dioxane	0.099	0.106	-7.1	105	0.00	12.03
5 I	pentafluorobenzene	1.000	1.000	0.0	105	0.00	9.96
6	chlorodifluoromethane	0.548	0.529	3.5	99	0.00	3.85
7	dichlorodifluoromethane	0.436	0.528	-21.1	125	0.00	3.83
8	chloromethane	0.649	0.623	4.0	104	0.00	4.20
9	vinyl chloride	0.610	0.588	3.6	101	0.00	4.43
10	1,3-butadiene	0.391	0.442	-13.0	116	0.00	4.46
11	bromomethane	0.419	0.477	-13.8	127	0.00	5.05
12	chloroethane	0.295	0.271	8.1	95	0.00	5.20
13	trichlorofluoromethane	0.587	0.620	-5.6	109	0.00	5.68
14	vinyl bromide	0.319	0.336	-5.3	109	0.00	5.55
15	ethyl ether	0.216	0.210	2.8	101	0.00	6.10
16	acrolein	0.059	0.056	5.1	96	0.00	6.33
17	1,1-dichloroethene	0.357	0.328	8.1	96	0.00	6.52
18	freon 113	0.278	0.274	1.4	99	0.00	6.52
19 m	2-chloropropane	0.804	0.760	5.5	102	0.00	6.28
20	acetone	0.031	0.028	9.7	95	0.00	6.56
21	acetonitrile			-----NA-----			
22	iodomethane	0.522	0.664	-27.2	132	0.00	6.79
23	carbon disulfide	1.035	1.175	-13.5	120	0.00	6.93
24	methylene chloride	0.431	0.399	7.4	101	0.00	7.27
25	methyl acetate	0.283	0.252	11.0	93	0.00	7.08
26	methyl tert butyl ether	0.990	0.999	-0.9	101	0.00	7.70
27	trans-1,2-dichloroethene	0.373	0.366	1.9	101	0.00	7.71
28	hexane	0.494	0.499	-1.0	101	0.00	8.12
29	di-isopropyl ether	1.433	1.390	3.0	98	0.00	8.42
30	2-butanone	0.033	0.034	-3.0	99	0.00	9.23
31	1,1-dichloroethane	0.744	0.735	1.2	102	0.00	8.36
32	chloroprene	0.583	0.612	-5.0	106	0.00	8.51
33	acrylonitrile			-----NA-----			
34	vinyl acetate	0.068	0.064	5.9	100	0.00	8.38
35	ethyl tert-butyl ether	1.202	1.221	-1.6	102	0.00	8.97
36	ethyl acetate	0.052	0.053	-1.9	105	0.00	9.29
37	2,2-dichloropropane	0.532	0.489	8.1	96	0.00	9.28
38	cis-1,2-dichloroethene	0.425	0.413	2.8	100	0.00	9.25
39	propionitrile	0.047	0.048	-2.1	101	0.00	9.33
40	tert-butyl formate	0.329	0.244	25.8	74	0.00	9.79
41	bromochloromethane	0.207	0.207	0.0	102	0.00	9.62

Initial Calibration Verification

Job Number: JC96248
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: V2D7967-ICV7967
 Lab FileID: 2D185359.D

42	tetrahydrofuran	0.103	0.097	5.8	98	0.00	9.70
43	chloroform	0.747	0.705	5.6	102	0.00	9.71
44 S	dibromofluoromethane (s)	0.472	0.465	1.5	103	0.00	9.95
45	methacrylonitrile	0.133	0.138	-3.8	101	0.00	9.57
46	1,1,1-trichloroethane	0.592	0.571	3.5	101	0.00	10.04
47	cyclohexane	0.504	0.524	-4.0	109	0.00	10.15
48	1,1-dichloropropene	0.528	0.517	2.1	101	0.00	10.27
49	isobutyl alcohol	0.015	0.014	6.7	101	0.00	10.29
50	carbon tetrachloride	0.497	0.499	-0.4	103	0.00	10.30
51	tert-amyl alcohol	0.015	0.015	0.0	102	0.00	10.47
52 I	1,4-difluorobenzene	1.000	1.000	0.0	104	0.00	11.10
53 S	1,2-dichloroethane-d4 (s)	0.358	0.350	2.2	102	0.00	10.49
54	benzene	1.069	1.035	3.2	102	0.00	10.60
55	iso-octane	0.683	0.831	-21.7	120	0.00	10.68
56	tert-amyl methyl ether	0.742	0.742	0.0	101	0.00	10.70
57	heptane	0.153	0.186	-21.6	121	0.00	10.91
58	isopropyl acetate	0.048	0.045	6.3	95	0.00	10.57
59	1,2-dichloroethane	0.407	0.363	10.8	98	0.00	10.60
60	n-butyl alcohol	0.006	0.006	0.0	98	0.00	11.27
61	ethyl acrylate	0.290	0.293	-1.0	99	0.00	11.59
62	trichloroethene	0.258	0.264	-2.3	103	0.00	11.53
63	2-nitropropane	0.053	0.056	-5.7	108	0.00	12.57
64	2-chloroethyl vinyl ether	0.158	0.177	-12.0	105	0.00	12.64
65	methyl methacrylate	0.150	0.156	-4.0	102	0.00	11.94
66	1,2-dichloropropane	0.285	0.282	1.1	101	0.00	11.88
67	dibromomethane	0.161	0.160	0.6	98	0.00	12.06
68	methylcyclohexane	0.376	0.382	-1.6	100	0.00	11.85
69	bromodichloromethane	0.360	0.355	1.4	99	0.00	12.25
70	epichlorohydrin	0.021	0.022	-4.8	103	0.00	12.76
71	cis-1,3-dichloropropene	0.415	0.441	-6.3	102	0.00	12.90
72	4-methyl-2-pentanone	0.085	0.087	-2.4	98	0.00	13.07
73	3-methyl-1-butanol	0.009	0.009	0.0	96	0.00	13.10
74 I	chlorobenzene-d5	1.000	1.000	0.0	103	0.00	15.33
75 S	toluene-d8 (s)	1.255	1.245	0.8	104	0.00	13.31
76	toluene	0.695	0.675	2.9	102	0.00	13.40
77	trans-1,3-dichloropropene	0.397	0.427	-7.6	103	0.00	13.66
78	ethyl methacrylate	0.315	0.339	-7.6	103	0.00	13.73
79	1,1,2-trichloroethane	0.213	0.213	0.0	99	0.00	13.94
80	tetrachloroethene			-----NA-----			
81	1,3-dichloropropane	0.416	0.416	0.0	100	0.00	14.19
82	2-hexanone	0.084	0.085	-1.2	97	0.00	14.24
83	butyl acetate	0.165	0.164	0.6	99	0.00	14.38
84	dibromochloromethane	0.275	0.299	-8.7	104	0.00	14.52
85	1,2-dibromoethane	0.279	0.284	-1.8	101	0.00	14.72
86 m	n-butyl ether	1.177	1.253	-6.5	103	0.00	15.38
87	chlorobenzene	0.793	0.797	-0.5	103	0.00	15.37
88	1,1,1,2-tetrachloroethane	0.278	0.292	-5.0	102	0.00	15.45
89	ethylbenzene	1.321	1.303	1.4	102	0.00	15.48
90	m,p-xylene	1.002	1.008	-0.6	101	0.00	15.63
91	o-xylene	0.482	0.502	-4.1	101	0.00	16.17
92	styrene	0.807	0.859	-6.4	102	0.00	16.18
93	butyl acrylate	0.527	0.549	-4.2	99	0.00	16.01
94	n-amyl acetate	0.175	0.169	3.4	93	0.00	16.30
95	bromoform	0.188	0.209	-11.2	107	0.00	16.46
96	isopropylbenzene	1.233	1.245	-1.0	101	0.00	16.63
97	cis-1,4-dichloro-2-butene	0.104	0.105	-1.0	97	0.00	16.69
98 I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	103	0.00	18.14

6.9.2
6

Initial Calibration Verification

Job Number: JC96248
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: V2D7967-ICV7967
 Lab FileID: 2D185359.D

99 S	4-bromofluorobenzene (s)	0.905	0.904	0.1	103	0.00	16.84
100	bromobenzene	0.693	0.695	-0.3	102	0.00	17.05
101	1,1,2,2-tetrachloroethane	0.630	0.603	4.3	99	0.00	16.97
102	trans-1,4-dichloro-2-bute	0.157	0.155	1.3	99	0.00	17.03
103	1,2,3-trichloropropane	0.158	0.150	5.1	97	0.00	17.05
104	n-propylbenzene	2.826	2.818	0.3	102	0.00	17.12
105	2-chlorotoluene	0.599	0.607	-1.3	101	0.00	17.26
106	4-chlorotoluene	1.757	1.760	-0.2	103	0.00	17.38
107	1,3,5-trimethylbenzene	1.966	1.984	-0.9	101	0.00	17.31
108	tert-butylbenzene	1.642	1.671	-1.8	102	0.00	17.69
109	1,2,4-trimethylbenzene	1.990	2.081	-4.6	103	0.00	17.74
110	sec-butylbenzene	2.422	2.467	-1.9	102	0.00	17.92
111	1,3-dichlorobenzene	1.242	1.250	-0.6	102	0.00	18.08
112	p-isopropyltoluene	2.025	2.123	-4.8	102	0.00	18.06
113	1,4-dichlorobenzene	1.305	1.248	4.4	101	0.00	18.17
114	1,2-dichlorobenzene	1.219	1.215	0.3	100	0.00	18.56
115	benzyl chloride	0.975	1.188	-21.8	114	0.00	18.29
116	n-butylbenzene	1.007	1.037	-3.0	100	0.00	18.48
117	1,2-dibromo-3-chloropropa	0.117	0.117	0.0	95	0.00	19.28
118	nitrobenzene	0.017	0.016	5.9	97	0.00	19.47
119	1,3,5-trichlorobenzene	0.899	0.983	-9.3	104	0.00	19.47
120	hexachlorobutadiene	0.415	0.420	-1.2	98	0.00	20.16
121	naphthalene	1.563	1.638	-4.8	97	0.00	20.29
		----- True	Calc.	% Drift	-----		
122	2-ethylhexyl acrylate	10.000	8.837	11.6	107	0.00	20.06
		----- AvgRF	CCRF	% Dev	-----		
123	1,2,4-trichlorobenzene	0.755	0.794	-5.2	96	0.00	20.04
124 m	1,2,3-trichlorobenzene	0.693	0.722	-4.2	98	0.00	20.50
125	hexachloroethane	0.365	0.390	-6.8	104	0.00	18.82
		----- True	Calc.	% Drift	-----		
126	2-methylnaphthalene	25.000	21.602	13.6	101	0.00	21.33
		----- AvgRF	CCRF	% Dev	-----		
127	bis(chloromethyl)ether			-----NA-----			
128	ethylenimine			-----NA-----			

(#) = Out of Range SPCC's out = 0 CCC's out = 0
 2D185354.D M2D7967.M Thu Sep 26 10:59:29 2019 GCMS2D

6.9.2
 6

Initial Calibration Verification

Job Number: JC96248
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: V2D7967-ICV7967
 Lab FileID: 2D185360.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\V2D7967\2D185360.D Vial: 17
 Acq On : 26 Sep 2019 1:19 am Operator: brittank
 Sample : ICV7967-50 Inst : MS2D
 Misc : MS37556,V2D7967,5,,,,1 Multiplr: 1.00
 MS Integration Params: rteint.p

Method : C:\msdchem\1\METHODS\M2D7967.M (RTE Integrator)
 Title : SW-846 Method 8260C / EPA 624, DB624 60m x 0.25mm Thu Sep 26 10:58:10 2019
 Last Update : Thu Sep 26 10:58:10 2019
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	tert butyl alcohol-d9	1.000	1.000	0.0	105	-0.01	7.25
2	tertiary butyl alcohol			-----NA-----			
3	ethanol			-----NA-----			
4	1,4-dioxane			-----NA-----			
5 I	pentafluorobenzene	1.000	1.000	0.0	106	0.00	9.95
6	chlorodifluoromethane			-----NA-----			
7	dichlorodifluoromethane			-----NA-----			
8	chloromethane			-----NA-----			
9	vinyl chloride			-----NA-----			
10	1,3-butadiene			-----NA-----			
11	bromomethane			-----NA-----			
12	chloroethane			-----NA-----			
13	trichlorofluoromethane			-----NA-----			
14	vinyl bromide			-----NA-----			
15	ethyl ether			-----NA-----			
16	acrolein			-----NA-----			
17	1,1-dichloroethene			-----NA-----			
18	freon 113			-----NA-----			
19 m	2-chloropropane			-----NA-----			
20	acetone			-----NA-----			
21	acetonitrile	0.047	0.042	10.6	95	0.00	7.01
22	iodomethane			-----NA-----			
23	carbon disulfide			-----NA-----			
24	methylene chloride			-----NA-----			
25	methyl acetate			-----NA-----			
26	methyl tert butyl ether			-----NA-----			
27	trans-1,2-dichloroethene			-----NA-----			
28	hexane			-----NA-----			
29	di-isopropyl ether			-----NA-----			
30	2-butanone			-----NA-----			
31	1,1-dichloroethane			-----NA-----			
32	chloroprene			-----NA-----			
33	acrylonitrile	0.132	0.124	6.1	98	0.00	7.64
34	vinyl acetate			-----NA-----			
35	ethyl tert-butyl ether			-----NA-----			
36	ethyl acetate			-----NA-----			
37	2,2-dichloropropane			-----NA-----			
38	cis-1,2-dichloroethene			-----NA-----			
39	propionitrile			-----NA-----			
40	tert-butyl formate			-----NA-----			
41	bromochloromethane			-----NA-----			

Initial Calibration Verification

Job Number: JC96248
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: V2D7967-ICV7967
 Lab FileID: 2D185360.D

42	tetrahydrofuran								
43	chloroform								
44 S	dibromofluoromethane (s)	0.472	0.464	1.7	104	0.00	9.95		
45	methacrylonitrile								
46	1,1,1-trichloroethane								
47	cyclohexane								
48	1,1-dichloropropene								
49	isobutyl alcohol								
50	carbon tetrachloride								
51	tert-amyl alcohol								
52 I	1,4-difluorobenzene	1.000	1.000	0.0	105	0.00	11.10		
53 S	1,2-dichloroethane-d4 (s)	0.358	0.351	2.0	103	0.00	10.48		
54	benzene								
55	iso-octane								
56	tert-amyl methyl ether								
57	heptane								
58	isopropyl acetate								
59	1,2-dichloroethane								
60	n-butyl alcohol								
61	ethyl acrylate								
62	trichloroethene								
63	2-nitropropane								
64	2-chloroethyl vinyl ether								
65	methyl methacrylate								
66	1,2-dichloropropane								
67	dibromomethane								
68	methylcyclohexane								
69	bromodichloromethane								
70	epichlorohydrin								
71	cis-1,3-dichloropropene								
72	4-methyl-2-pentanone								
73	3-methyl-1-butanol								
74 I	chlorobenzene-d5	1.000	1.000	0.0	102	0.00	15.33		
75 S	toluene-d8 (s)	1.255	1.264	-0.7	104	0.00	13.31		
76	toluene								
77	trans-1,3-dichloropropene								
78	ethyl methacrylate								
79	1,1,2-trichloroethane								
80	tetrachloroethene	0.241	0.274	-13.7	117	0.00	14.19		
81	1,3-dichloropropane								
82	2-hexanone								
83	butyl acetate								
84	dibromochloromethane								
85	1,2-dibromoethane								
86 m	n-butyl ether								
87	chlorobenzene								
88	1,1,1,2-tetrachloroethane								
89	ethylbenzene								
90	m,p-xylene								
91	o-xylene								
92	styrene								
93	butyl acrylate								
94	n-amyl acetate								
95	bromoform								
96	isopropylbenzene								
97	cis-1,4-dichloro-2-butene								
98 I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	96	0.00	18.14		

6.9.3

6

Initial Calibration Verification

Job Number: JC96248
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: V2D7967-ICV7967
 Lab FileID: 2D185360.D

99 S	4-bromofluorobenzene (s)	0.905	0.943	-4.2	100	0.00	16.84
100	bromobenzene						-----NA-----
101	1,1,2,2-tetrachloroethane						-----NA-----
102	trans-1,4-dichloro-2-bute						-----NA-----
103	1,2,3-trichloropropane						-----NA-----
104	n-propylbenzene						-----NA-----
105	2-chlorotoluene						-----NA-----
106	4-chlorotoluene						-----NA-----
107	1,3,5-trimethylbenzene						-----NA-----
108	tert-butylbenzene						-----NA-----
109	1,2,4-trimethylbenzene						-----NA-----
110	sec-butylbenzene						-----NA-----
111	1,3-dichlorobenzene						-----NA-----
112	p-isopropyltoluene						-----NA-----
113	1,4-dichlorobenzene						-----NA-----
114	1,2-dichlorobenzene						-----NA-----
115	benzyl chloride						-----NA-----
116	n-butylbenzene						-----NA-----
117	1,2-dibromo-3-chloropropa						-----NA-----
118	nitrobenzene						-----NA-----
119	1,3,5-trichlorobenzene						-----NA-----
120	hexachlorobutadiene						-----NA-----
121	naphthalene						-----NA-----
		----- True	Calc.	% Drift			-----
122	2-ethylhexyl acrylate						-----NA-----
		----- AvgRF	CCRF	% Dev			-----
123	1,2,4-trichlorobenzene						-----NA-----
124 m	1,2,3-trichlorobenzene						-----NA-----
125	hexachloroethane						-----NA-----
		----- True	Calc.	% Drift			-----
126	2-methylnaphthalene						-----NA-----
		----- AvgRF	CCRF	% Dev			-----
127	bis(chloromethyl)ether						-----NA-----
128	ethylenimine						-----NA-----

(#) = Out of Range SPCC's out = 0 CCC's out = 0
 2D185354.D M2D7967.M Thu Sep 26 10:59:31 2019 GCMS2D

Continuing Calibration Summary

Job Number: JC96248
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: V2D7993-CC7967
 Lab FileID: 2D185858.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\ni...d7993-rush\2d185858.d Vial: 9
 Acq On : 11 Oct 2019 3:34 pm Operator: edwardd
 Sample : CC7967-20 Inst : MS2D
 Misc : MS38186,V2D7993,5,,,,1 Multiplr: 1.00
 MS Integration Params: rteint.p

Method : C:\msdchem\1\METHODS\M2D7967.M (RTE Integrator)
 Title : SW-846 Method 8260C / EPA 624, DB624 60m x 0.25mm Thu Sep 26 10:58:10 2019
 Last Update : Thu Sep 26 10:58:10 2019
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	tert butyl alcohol-d9	1.000	1.000	0.0	82	-0.02	7.24
2	tertiary butyl alcohol	0.969	1.085	-12.0	92	-0.02	7.37
3	ethanol	0.120	0.115	4.2	80	-0.03	5.87
4	1,4-dioxane	0.099	0.114	-15.2	99	-0.01	12.02
5 I	pentafluorobenzene	1.000	1.000	0.0	98	-0.02	9.94
6	chlorodifluoromethane	0.548	0.489	10.8	88	-0.01	3.85
7	dichlorodifluoromethane	0.436	0.504	-15.6	113	0.00	3.83
8	chloromethane	0.649	0.552	14.9	86	-0.01	4.20
9	vinyl chloride	0.610	0.540	11.5	89	0.00	4.42
10	1,3-butadiene	0.391	0.355	9.2	88	-0.01	4.45
11	bromomethane	0.419	0.361	13.8	89	0.00	5.04
12	chloroethane	0.295	0.257	12.9	84	0.00	5.19
13	trichlorofluoromethane	0.587	0.547	6.8	89	-0.01	5.67
14	vinyl bromide	0.319	0.297	6.9	93	0.00	5.55
15	ethyl ether	0.216	0.181	16.2	81	-0.02	6.08
16	acrolein	0.059	0.047	20.3#	72	-0.01	6.32
17	1,1-dichloroethene	0.357	0.308	13.7	85	0.00	6.51
18	freon 113	0.278	0.273	1.8	95	-0.02	6.50
19 m	2-chloropropane	0.804	0.586	27.1#	73	-0.02	6.27
20	acetone	0.031	0.026	16.1	82	-0.02	6.55
21	acetonitrile	0.047	0.043	8.5	91	-0.01	7.01
22	iodomethane	0.522	0.510	2.3	97	-0.01	6.78
23	carbon disulfide	1.035	0.956	7.6	94	-0.01	6.91
24	methylene chloride	0.431	0.392	9.0	94	0.00	7.27
25	methyl acetate	0.283	0.244	13.8	83	-0.01	7.07
26	methyl tert butyl ether	0.990	0.924	6.7	91	-0.02	7.68
27	trans-1,2-dichloroethene	0.373	0.355	4.8	93	-0.01	7.70
28	hexane	0.494	0.510	-3.2	97	-0.01	8.10
29	di-isopropyl ether	1.433	1.303	9.1	89	-0.02	8.40
30	2-butanone	0.033	0.032	3.0	90	-0.01	9.22
31	1,1-dichloroethane	0.744	0.671	9.8	88	-0.01	8.35
32	chloroprene	0.583	0.504	13.6	84	-0.01	8.49
33	acrylonitrile	0.132	0.119	9.8	88	-0.01	7.63
34	vinyl acetate	0.068	0.058	14.7	87	-0.01	8.37
35	ethyl tert-butyl ether	1.202	1.109	7.7	89	-0.02	8.96
36	ethyl acetate	0.052	0.046	11.5	77	0.00	9.28
37	2,2-dichloropropane	0.532	0.520	2.3	97	-0.02	9.26
38	cis-1,2-dichloroethene	0.425	0.401	5.6	93	-0.02	9.23
39	propionitrile	0.047	0.044	6.4	89	-0.02	9.31
40	tert-butyl formate	0.329	0.281	14.6	82	-0.02	9.78
41	bromochloromethane	0.207	0.197	4.8	92	-0.02	9.61

Continuing Calibration Summary

Job Number: JC96248
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: V2D7993-CC7967
 Lab FileID: 2D185858.D

42	tetrahydrofuran	0.103	0.085	17.5	82	-0.02	9.68
43	chloroform	0.747	0.647	13.4	89	-0.01	9.70
44 S	dibromofluoromethane (s)	0.472	0.432	8.5	90	-0.02	9.94
45	methacrylonitrile	0.133	0.121	9.0	86	-0.01	9.56
46	1,1,1-trichloroethane	0.592	0.541	8.6	92	-0.02	10.03
47	cyclohexane	0.504	0.496	1.6	96	-0.02	10.14
48	1,1-dichloropropene	0.528	0.471	10.8	88	-0.02	10.26
49	isobutyl alcohol	0.015	0.013	13.3	86	-0.01	10.28
50	carbon tetrachloride	0.497	0.469	5.6	94	-0.01	10.29
51	tert-amyl alcohol	0.015	0.013	13.3	86	-0.01	10.46
52 I	1,4-difluorobenzene	1.000	1.000	0.0	95	-0.02	11.08
53 S	1,2-dichloroethane-d4 (s)	0.358	0.314	12.3	84	-0.02	10.47
54	benzene	1.069	0.996	6.8	90	-0.02	10.58
55	iso-octane	0.683	0.707	-3.5	94	-0.02	10.66
56	tert-amyl methyl ether	0.742	0.717	3.4	91	-0.02	10.69
57	heptane	0.153	0.166	-8.5	98	-0.01	10.90
58	isopropyl acetate	0.048	0.044	8.3	91	-0.01	10.56
59	1,2-dichloroethane	0.407	0.337	17.2	84	-0.02	10.59
60	n-butyl alcohol	0.006	0.005	16.7	87	-0.01	11.26
61	ethyl acrylate	0.290	0.265	8.6	87	-0.01	11.58
62	trichloroethene	0.258	0.252	2.3	92	-0.01	11.52
63	2-nitropropane	0.053	0.041	22.6#	76	-0.01	12.56
64	2-chloroethyl vinyl ether	0.158	0.154	2.5	88	-0.01	12.63
65	methyl methacrylate	0.150	0.143	4.7	89	0.00	11.94
66	1,2-dichloropropane	0.285	0.275	3.5	91	-0.02	11.86
67	dibromomethane	0.161	0.158	1.9	91	-0.01	12.04
68	methylcyclohexane	0.376	0.387	-2.9	97	-0.01	11.84
69	bromodichloromethane	0.360	0.342	5.0	92	-0.02	12.24
70	epichlorohydrin	0.021	0.020	4.8	90	-0.01	12.75
71	cis-1,3-dichloropropene	0.415	0.424	-2.2	94	-0.01	12.89
72	4-methyl-2-pentanone	0.085	0.087	-2.4	92	-0.01	13.07
73	3-methyl-1-butanol	0.009	0.009	0.0	91	0.00	13.09
74 I	chlorobenzene-d5	1.000	1.000	0.0	98	-0.01	15.32
75 S	toluene-d8 (s)	1.255	1.194	4.9	93	-0.01	13.30
76	toluene	0.695	0.642	7.6	94	-0.02	13.39
77	trans-1,3-dichloropropene	0.397	0.386	2.8	93	-0.01	13.65
78	ethyl methacrylate	0.315	0.298	5.4	90	-0.01	13.72
79	1,1,2-trichloroethane	0.213	0.204	4.2	93	-0.01	13.93
80	tetrachloroethene	0.241	0.238	1.2	98	-0.01	14.18
81	1,3-dichloropropane	0.416	0.394	5.3	93	-0.01	14.18
82	2-hexanone	0.084	0.084	0.0	94	-0.01	14.23
83	butyl acetate	0.165	0.162	1.8	95	0.00	14.37
84	dibromochloromethane	0.275	0.278	-1.1	98	-0.01	14.51
85	1,2-dibromoethane	0.279	0.271	2.9	95	-0.01	14.71
86 m	n-butyl ether	1.177	1.171	0.5	94	-0.01	15.37
87	chlorobenzene	0.793	0.772	2.6	97	-0.01	15.36
88	1,1,1,2-tetrachloroethane	0.278	0.280	-0.7	98	-0.02	15.44
89	ethylbenzene	1.321	1.260	4.6	95	-0.01	15.47
90	m,p-xylene	1.002	0.980	2.2	94	-0.01	15.62
91	o-xylene	0.482	0.483	-0.2	95	-0.01	16.16
92	styrene	0.807	0.825	-2.2	95	-0.01	16.17
93	butyl acrylate	0.527	0.481	8.7	89	0.00	16.00
94	n-amyl acetate	0.175	0.173	1.1	96	-0.01	16.29
95	bromoform	0.188	0.189	-0.5	98	-0.01	16.45
96	isopropylbenzene	1.233	1.210	1.9	95	-0.01	16.62
97	cis-1,4-dichloro-2-butene	0.104	0.080	23.1#	77	-0.01	16.68
98 I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	100	0.00	18.14

Continuing Calibration Summary

Job Number: JC96248
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: V2D7993-CC7967
 Lab FileID: 2D185858.D

99 S	4-bromofluorobenzene (s)	0.905	0.853	5.7	95	0.00	16.83
100	bromobenzene	0.693	0.672	3.0	99	-0.01	17.05
101	1,1,2,2-tetrachloroethane	0.630	0.592	6.0	96	-0.01	16.96
102	trans-1,4-dichloro-2-bute	0.157	0.122	22.3#	79	-0.01	17.02
103	1,2,3-trichloropropane	0.158	0.151	4.4	96	0.00	17.04
104	n-propylbenzene	2.826	2.687	4.9	95	-0.01	17.11
105	2-chlorotoluene	0.599	0.595	0.7	98	-0.01	17.25
106	4-chlorotoluene	1.757	1.668	5.1	97	-0.01	17.37
107	1,3,5-trimethylbenzene	1.966	1.917	2.5	97	-0.01	17.30
108	tert-butylbenzene	1.642	1.591	3.1	97	-0.01	17.68
109	1,2,4-trimethylbenzene	1.990	1.963	1.4	97	-0.01	17.73
110	sec-butylbenzene	2.422	2.349	3.0	96	-0.01	17.92
111	1,3-dichlorobenzene	1.242	1.232	0.8	101	-0.01	18.07
112	p-isopropyltoluene	2.025	2.014	0.5	97	0.00	18.05
113	1,4-dichlorobenzene	1.305	1.236	5.3	100	0.00	18.16
114	1,2-dichlorobenzene	1.219	1.206	1.1	101	0.00	18.55
115	benzyl chloride	0.975	1.069	-9.6	112	-0.01	18.28
116	n-butylbenzene	1.007	0.984	2.3	96	-0.01	18.47
117	1,2-dibromo-3-chloropropa	0.117	0.112	4.3	97	-0.01	19.27
118	nitrobenzene	0.017	0.014	17.6	121	0.00	19.47
119	1,3,5-trichlorobenzene	0.899	0.944	-5.0	104	0.00	19.46
120	hexachlorobutadiene	0.415	0.428	-3.1	105	0.00	20.16
121	naphthalene	1.563	1.428	8.6	93	0.00	20.28
		----- True	Calc.	% Drift	-----		
122	2-ethylhexyl acrylate	4.000	2.426	39.3#	51	0.00	20.06
		----- AvgRF	CCRF	% Dev	-----		
123	1,2,4-trichlorobenzene	0.755	0.762	-0.9	102	0.00	20.03
124 m	1,2,3-trichlorobenzene	0.693	0.677	2.3	99	-0.01	20.50
125	hexachloroethane	0.365	0.374	-2.5	106	-0.01	18.81
		----- True	Calc.	% Drift	-----		
126	2-methylnaphthalene	10.000	7.343	26.6#	74	0.00	21.32
		----- AvgRF	CCRF	% Dev	-----		
127	bis(chloromethyl)ether			-----NA-----			
128	ethylenimine			-----NA-----			

(#) = Out of Range SPCC's out = 0 CCC's out = 0
 2D185353.D M2D7967.M Sun Oct 13 23:36:55 2019

6.9.4
6

Continuing Calibration Summary

Job Number: JC96248
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: V2D8000-CC7967
 Lab FileID: 2D186005.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\ja...19\v2d8000\2d186005.d Vial: 1
 Acq On : 17 Oct 2019 8:07 am Operator: deving
 Sample : CC7967-20 Inst : MS2D
 Misc : MS38297,V2D8000,5,,,,1 Multiplr: 1.00
 MS Integration Params: rteint.p

Method : C:\msdchem\1\METHODS\M2D7967.M (RTE Integrator)
 Title : SW-846 Method 8260C / EPA 624, DB624 60m x 0.25mm Thu Sep 26 10:58:10 2019
 Last Update : Thu Sep 26 10:58:10 2019
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	tert butyl alcohol-d9	1.000	1.000	0.0	101	0.00	7.26
2	tertiary butyl alcohol	0.969	1.040	-7.3	108	0.02	7.40
3	ethanol	0.120	0.100	16.7	85	0.00	5.90
4	1,4-dioxane	0.099	0.102	-3.0	109	0.03	12.06
5 I	pentafluorobenzene	1.000	1.000	0.0	100	0.02	9.97
6	chlorodifluoromethane	0.548	0.552	-0.7	101	0.01	3.87
7	dichlorodifluoromethane	0.436	0.555	-27.3#	128	0.02	3.85
8	chloromethane	0.649	0.605	6.8	97	0.01	4.22
9	vinyl chloride	0.610	0.609	0.2	102	0.02	4.44
10	1,3-butadiene	0.391	0.427	-9.2	108	0.01	4.47
11	bromomethane	0.419	0.396	5.5	100	0.02	5.06
12	chloroethane	0.295	0.287	2.7	96	0.03	5.22
13	trichlorofluoromethane	0.587	0.604	-2.9	101	0.02	5.70
14	vinyl bromide	0.319	0.323	-1.3	103	0.02	5.57
15	ethyl ether	0.216	0.198	8.3	91	0.02	6.11
16	acrolein	0.059	0.057	3.4	89	0.02	6.35
17	1,1-dichloroethene	0.357	0.363	-1.7	102	0.02	6.53
18	freon 113	0.278	0.319	-14.7	113	0.02	6.53
19 m	2-chloropropane	0.804	0.665	17.3	84	0.02	6.30
20	acetone	0.031	0.027	12.9	87	0.01	6.58
21	acetonitrile	0.047	0.043	8.5	93	0.01	7.03
22	iodomethane	0.522	0.554	-6.1	108	0.02	6.81
23	carbon disulfide	1.035	1.028	0.7	103	0.02	6.94
24	methylene chloride	0.431	0.435	-0.9	107	0.02	7.29
25	methyl acetate	0.283	0.254	10.2	89	0.02	7.09
26	methyl tert butyl ether	0.990	1.033	-4.3	104	0.02	7.72
27	trans-1,2-dichloroethene	0.373	0.405	-8.6	108	0.02	7.73
28	hexane	0.494	0.557	-12.8	109	0.02	8.13
29	di-isopropyl ether	1.433	1.373	4.2	96	0.02	8.43
30	2-butanone	0.033	0.035	-6.1	102	0.02	9.24
31	1,1-dichloroethane	0.744	0.743	0.1	100	0.02	8.38
32	chloroprene	0.583	0.573	1.7	97	0.02	8.53
33	acrylonitrile	0.132	0.136	-3.0	103	0.02	7.66
34	vinyl acetate	0.068	0.065	4.4	99	0.02	8.41
35	ethyl tert-butyl ether	1.202	1.199	0.2	99	0.02	8.99
36	ethyl acetate	0.052	0.053	-1.9	90	0.02	9.31
37	2,2-dichloropropane	0.532	0.590	-10.9	113	0.02	9.29
38	cis-1,2-dichloroethene	0.425	0.445	-4.7	105	0.02	9.27
39	propionitrile	0.047	0.049	-4.3	102	0.02	9.34
40	tert-butyl formate	0.329	0.275	16.4	82	0.02	9.82
41	bromochloromethane	0.207	0.220	-6.3	105	0.02	9.64

Continuing Calibration Summary

Job Number: JC96248
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: V2D8000-CC7967
 Lab FileID: 2D186005.D

42	tetrahydrofuran	0.103	0.096	6.8	95	0.02	9.71
43	chloroform	0.747	0.705	5.6	99	0.02	9.73
44 S	dibromofluoromethane (s)	0.472	0.432	8.5	92	0.02	9.97
45	methacrylonitrile	0.133	0.135	-1.5	98	0.02	9.59
46	1,1,1-trichloroethane	0.592	0.609	-2.9	106	0.02	10.06
47	cyclohexane	0.504	0.560	-11.1	111	0.02	10.17
48	1,1-dichloropropene	0.528	0.525	0.6	101	0.02	10.29
49	isobutyl alcohol	0.015	0.014	6.7	97	0.02	10.31
50	carbon tetrachloride	0.497	0.543	-9.3	111	0.02	10.32
51	tert-amyl alcohol	0.015	0.014	6.7	99	0.02	10.49
52 I	1,4-difluorobenzene	1.000	1.000	0.0	96	0.02	11.12
53 S	1,2-dichloroethane-d4 (s)	0.358	0.312	12.8	84	0.02	10.50
54	benzene	1.069	1.111	-3.9	103	0.02	10.62
55	iso-octane	0.683	0.791	-15.8	108	0.02	10.70
56	tert-amyl methyl ether	0.742	0.786	-5.9	101	0.02	10.72
57	heptane	0.153	0.181	-18.3	109	0.02	10.93
58	isopropyl acetate	0.048	0.052	-8.3	108	0.02	10.59
59	1,2-dichloroethane	0.407	0.359	11.8	91	0.02	10.62
60	n-butyl alcohol	0.006	0.006	0.0	101	0.02	11.29
61	ethyl acrylate	0.290	0.299	-3.1	100	0.02	11.61
62	trichloroethene	0.258	0.287	-11.2	106	0.02	11.55
63	2-nitropropane	0.053	0.046	13.2	86	0.02	12.58
64	2-chloroethyl vinyl ether	0.158	0.159	-0.6	92	0.02	12.66
65	methyl methacrylate	0.150	0.163	-8.7	103	0.03	11.97
66	1,2-dichloropropane	0.285	0.293	-2.8	98	0.02	11.90
67	dibromomethane	0.161	0.174	-8.1	102	0.02	12.08
68	methylcyclohexane	0.376	0.445	-18.4	114	0.02	11.87
69	bromodichloromethane	0.360	0.367	-1.9	100	0.02	12.27
70	epichlorohydrin	0.021	0.023	-9.5	102	0.02	12.78
71	cis-1,3-dichloropropene	0.415	0.456	-9.9	103	0.02	12.92
72	4-methyl-2-pentanone	0.085	0.099	-16.5	107	0.02	13.10
73	3-methyl-1-butanol	0.009	0.010	-11.1	103	0.03	13.12
74 I	chlorobenzene-d5	1.000	1.000	0.0	102	0.02	15.35
75 S	toluene-d8 (s)	1.255	1.183	5.7	95	0.02	13.32
76	toluene	0.695	0.713	-2.6	107	0.02	13.42
77	trans-1,3-dichloropropene	0.397	0.407	-2.5	101	0.02	13.69
78	ethyl methacrylate	0.315	0.331	-5.1	104	0.02	13.75
79	1,1,2-trichloroethane	0.213	0.224	-5.2	106	0.02	13.96
80	tetrachloroethene	0.241	0.270	-12.0	115	0.02	14.21
81	1,3-dichloropropane	0.416	0.429	-3.1	104	0.02	14.21
82	2-hexanone	0.084	0.092	-9.5	107	0.02	14.26
83	butyl acetate	0.165	0.178	-7.9	108	0.02	14.40
84	dibromochloromethane	0.275	0.295	-7.3	107	0.02	14.55
85	1,2-dibromoethane	0.279	0.305	-9.3	110	0.02	14.74
86 m	n-butyl ether	1.177	1.250	-6.2	103	0.02	15.41
87	chlorobenzene	0.793	0.849	-7.1	110	0.02	15.39
88	1,1,1,2-tetrachloroethane	0.278	0.305	-9.7	110	0.02	15.47
89	ethylbenzene	1.321	1.406	-6.4	109	0.02	15.50
90	m,p-xylene	1.002	1.089	-8.7	108	0.02	15.65
91	o-xylene	0.482	0.541	-12.2	110	0.02	16.19
92	styrene	0.807	0.894	-10.8	106	0.02	16.20
93	butyl acrylate	0.527	0.522	0.9	100	0.02	16.03
94	n-amyl acetate	0.175	0.192	-9.7	111	0.02	16.32
95	bromoform	0.188	0.209	-11.2	112	0.02	16.49
96	isopropylbenzene	1.233	1.366	-10.8	111	0.02	16.65
97	cis-1,4-dichloro-2-butene	0.104	0.083	20.2#	83	0.02	16.71
98 I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	104	0.02	18.16

Continuing Calibration Summary

Job Number: JC96248
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: V2D8000-CC7967
 Lab FileID: 2D186005.D

99 S	4-bromofluorobenzene (s)	0.905	0.841	7.1	97	0.02	16.86
100	bromobenzene	0.693	0.739	-6.6	113	0.02	17.07
101	1,1,2,2-tetrachloroethane	0.630	0.651	-3.3	109	0.02	16.98
102	trans-1,4-dichloro-2-bute	0.157	0.126	19.7	85	0.02	17.05
103	1,2,3-trichloropropane	0.158	0.168	-6.3	111	0.02	17.07
104	n-propylbenzene	2.826	3.002	-6.2	110	0.02	17.14
105	2-chlorotoluene	0.599	0.663	-10.7	113	0.02	17.28
106	4-chlorotoluene	1.757	1.823	-3.8	110	0.02	17.39
107	1,3,5-trimethylbenzene	1.966	2.132	-8.4	111	0.02	17.32
108	tert-butylbenzene	1.642	1.801	-9.7	113	0.02	17.71
109	1,2,4-trimethylbenzene	1.990	2.166	-8.8	111	0.02	17.75
110	sec-butylbenzene	2.422	2.667	-10.1	113	0.02	17.94
111	1,3-dichlorobenzene	1.242	1.325	-6.7	112	0.02	18.10
112	p-isopropyltoluene	2.025	2.284	-12.8	114	0.02	18.07
113	1,4-dichlorobenzene	1.305	1.337	-2.5	112	0.02	18.19
114	1,2-dichlorobenzene	1.219	1.316	-8.0	114	0.02	18.58
115	benzyl chloride	0.975	1.176	-20.6#	128	0.02	18.31
116	n-butylbenzene	1.007	1.099	-9.1	111	0.02	18.49
117	1,2-dibromo-3-chloropropa	0.117	0.129	-10.3	116	0.02	19.30
118	nitrobenzene	0.017	0.017	0.0	153	0.02	19.49
119	1,3,5-trichlorobenzene	0.899	1.033	-14.9	118	0.02	19.48
120	hexachlorobutadiene	0.415	0.481	-15.9	122	0.02	20.18
121	naphthalene	1.563	1.594	-2.0	107	0.02	20.31
		----- True	Calc.	% Drift	-----		
122	2-ethylhexyl acrylate	4.000	2.397	40.1#	52	0.02	20.08
		----- AvgRF	CCRF	% Dev	-----		
123	1,2,4-trichlorobenzene	0.755	0.821	-8.7	114	0.02	20.06
124 m	1,2,3-trichlorobenzene	0.693	0.730	-5.3	111	0.02	20.52
125	hexachloroethane	0.365	0.425	-16.4	124	0.02	18.83
		----- True	Calc.	% Drift	-----		
126	2-methylnaphthalene	10.000	7.773	22.3#	84	0.03	21.36
		----- AvgRF	CCRF	% Dev	-----		
127	bis(chloromethyl)ether			-----NA-----			
128	ethylenimine			-----NA-----			

(#) = Out of Range SPCC's out = 0 CCC's out = 0
 2D185353.D M2D7967.M Fri Oct 18 08:54:39 2019

6.9.5

6

Run Sequence Report

Job Number: JC96248
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Run ID: V2D7967	Method: SW846 8260C	Instrument ID: GCMS2D		
Lab Sample ID	Lab File ID	Date/Time Analyzed	Prep QC Batch	Client Sample ID
V2D7967-BFB	2D185346.D	09/25/19 18:09	n/a	BFB Tune
V2D7967-IC7967	2D185347.D	09/25/19 18:56	n/a	Initial cal 0.2
V2D7967-IC7967	2D185348.D	09/25/19 19:25	n/a	Initial cal 0.5
V2D7967-IC7967	2D185349.D	09/25/19 19:55	n/a	Initial cal 1
V2D7967-IC7967	2D185350.D	09/25/19 20:24	n/a	Initial cal 2
V2D7967-IC7967	2D185351.D	09/25/19 20:54	n/a	Initial cal 4
V2D7967-IC7967	2D185352.D	09/25/19 21:23	n/a	Initial cal 8
V2D7967-IC7967	2D185353.D	09/25/19 21:53	n/a	Initial cal 20
V2D7967-ICC7967	2D185354.D	09/25/19 22:23	n/a	Initial cal 50
V2D7967-IC7967	2D185355.D	09/25/19 22:52	n/a	Initial cal 100
V2D7967-IC7967	2D185356.D	09/25/19 23:21	n/a	Initial cal 200
V2D7967-ICV7967	2D185359.D	09/26/19 00:50	n/a	Initial cal verification 50
V2D7967-ICV7967	2D185360.D	09/26/19 01:19	n/a	Initial cal verification 50

Run Sequence Report

Job Number: JC96248
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Run ID: V2D7993	Method: SW846 8260C	Instrument ID: GCMS2D
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Lab Sample ID	Lab File ID	Date/Time Analyzed	Prep QC Batch	Client Sample ID
V2D7993-BFB	2D185857.D	10/11/19 15:05	n/a	BFB Tune
V2D7993-CC7967	2D185858.D	10/11/19 15:34	n/a	Continuing cal 20
V2D7993-BS	2D185859.D	10/11/19 16:12	n/a	Blank Spike
V2D7993-MB	2D185861.D	10/11/19 17:11	n/a	Method Blank
JC96248-4	2D185862.D	10/11/19 17:40	n/a	MW-111
JC96248-4MS	2D185863.D	10/11/19 18:09	n/a	Matrix Spike
JC96248-4MSD	2D185864.D	10/11/19 18:38	n/a	Matrix Spike Duplicate
JC96248-4	2D185865.D	10/11/19 19:07	n/a	MW-111
ZZZZZZ	2D185872.D	10/11/19 22:33	n/a	(unrelated sample)
ZZZZZZ	2D185873.D	10/11/19 23:03	n/a	(unrelated sample)
JC96248-1	2D185874.D	10/11/19 23:32	n/a	MW-108
JC96248-2	2D185875.D	10/12/19 00:01	n/a	MW-109
JC96248-3	2D185876.D	10/12/19 00:31	n/a	MW-110
JC96248-5	2D185877.D	10/12/19 01:00	n/a	MW-112
JC96248-6	2D185878.D	10/12/19 01:30	n/a	MW-113
JC96248-7	2D185879.D	10/12/19 01:59	n/a	DUP-100419

6.10.2

6

Run Sequence Report

Job Number: JC96248
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Run ID: V2D8000	Method: SW846 8260C	Instrument ID: GCMS2D		
Lab Sample ID	Lab File ID	Date/Time Analyzed	Prep QC Batch	Client Sample ID
V2D8000-BFB	2D186005.D	10/17/19 08:07	n/a	BFB Tune
V2D8000-CC7967	2D186005.D	10/17/19 08:07	n/a	Continuing cal 20
V2D8000-BS	2D186006.D	10/17/19 08:46	n/a	Blank Spike
V2D8000-MB	2D186008.D	10/17/19 09:54	n/a	Method Blank
JC96248-8	2D186009.D	10/17/19 10:34	n/a	FB-100419
JC96248-9	2D186010.D	10/17/19 11:03	n/a	TRIP BLANK
JC96538-1	2D186011.D	10/17/19 11:33	n/a	(used for QC only; not part of job JC96248)
ZZZZZZ	2D186012.D	10/17/19 12:02	n/a	(unrelated sample)
JC96552-2	2D186013.D	10/17/19 12:32	n/a	(used for QC only; not part of job JC96248)
ZZZZZZ	2D186014.D	10/17/19 13:01	n/a	(unrelated sample)
ZZZZZZ	2D186015.D	10/17/19 13:31	n/a	(unrelated sample)
ZZZZZZ	2D186016.D	10/17/19 14:00	n/a	(unrelated sample)
ZZZZZZ	2D186017.D	10/17/19 14:30	n/a	(unrelated sample)
ZZZZZZ	2D186018.D	10/17/19 14:59	n/a	(unrelated sample)
JC96538-1MS	2D186019.D	10/17/19 15:29	n/a	Matrix Spike
ZZZZZZ	2D186020.D	10/17/19 15:58	n/a	(unrelated sample)
JC96552-2DUP	2D186021.D	10/17/19 16:28	n/a	Duplicate
ZZZZZZ	2D186022.D	10/17/19 16:57	n/a	(unrelated sample)
ZZZZZZ	2D186023.D	10/17/19 17:27	n/a	(unrelated sample)
ZZZZZZ	2D186024.D	10/17/19 17:56	n/a	(unrelated sample)
ZZZZZZ	2D186025.D	10/17/19 18:25	n/a	(unrelated sample)
ZZZZZZ	2D186026.D	10/17/19 18:55	n/a	(unrelated sample)
ZZZZZZ	2D186027.D	10/17/19 19:24	n/a	(unrelated sample)

MS Volatiles

Raw Data

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\10-15-19\v2d7993\
 Data File : 2d185874.d
 Acq On : 11 Oct 2019 11:32 pm
 Operator : edwardd
 Sample : JC96248-1 Inst : MS2D
 Misc : MS38188,V2D7993,5,,,,,1
 ALS Vial : 25 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7967.M
 Quant Results File: M2D7967.RES
 Quant Time: Oct 15 00:57:56 2019
 Quant Title : SW-846 Method 8260C / EPA 624, DB624 60m x 0.25mm Thu Sep 26 10:58:10 2019
 QLast Update : Thu Sep 26 10:58:10 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.247	65	79843	500.00	ug/L	-0.01
5) pentafluorobenzene	9.947	168	266996	50.00	ug/L	-0.01
52) 1,4-difluorobenzene	11.090	114	395986	50.00	ug/L	-0.01
74) chlorobenzene-d5	15.316	117	368450	50.00	ug/L	-0.01
98) 1,4-dichlorobenzene-d4	18.137	152	188791	50.00	ug/L	0.00
System Monitoring Compounds						
44) dibromofluoromethane (s)	9.942	113	117732	46.66	ug/L	-0.01
Spiked Amount	50.000	Range	80 - 120	Recovery	=	93.32%
53) 1,2-dichloroethane-d4 (s)	10.471	65	127479	45.00	ug/L	-0.02
Spiked Amount	50.000	Range	81 - 124	Recovery	=	90.00%
75) toluene-d8 (s)	13.297	98	443895	48.01	ug/L	-0.01
Spiked Amount	50.000	Range	80 - 120	Recovery	=	96.02%
99) 4-bromofluorobenzene (s)	16.831	95	167603	49.02	ug/L	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	=	98.04%

Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

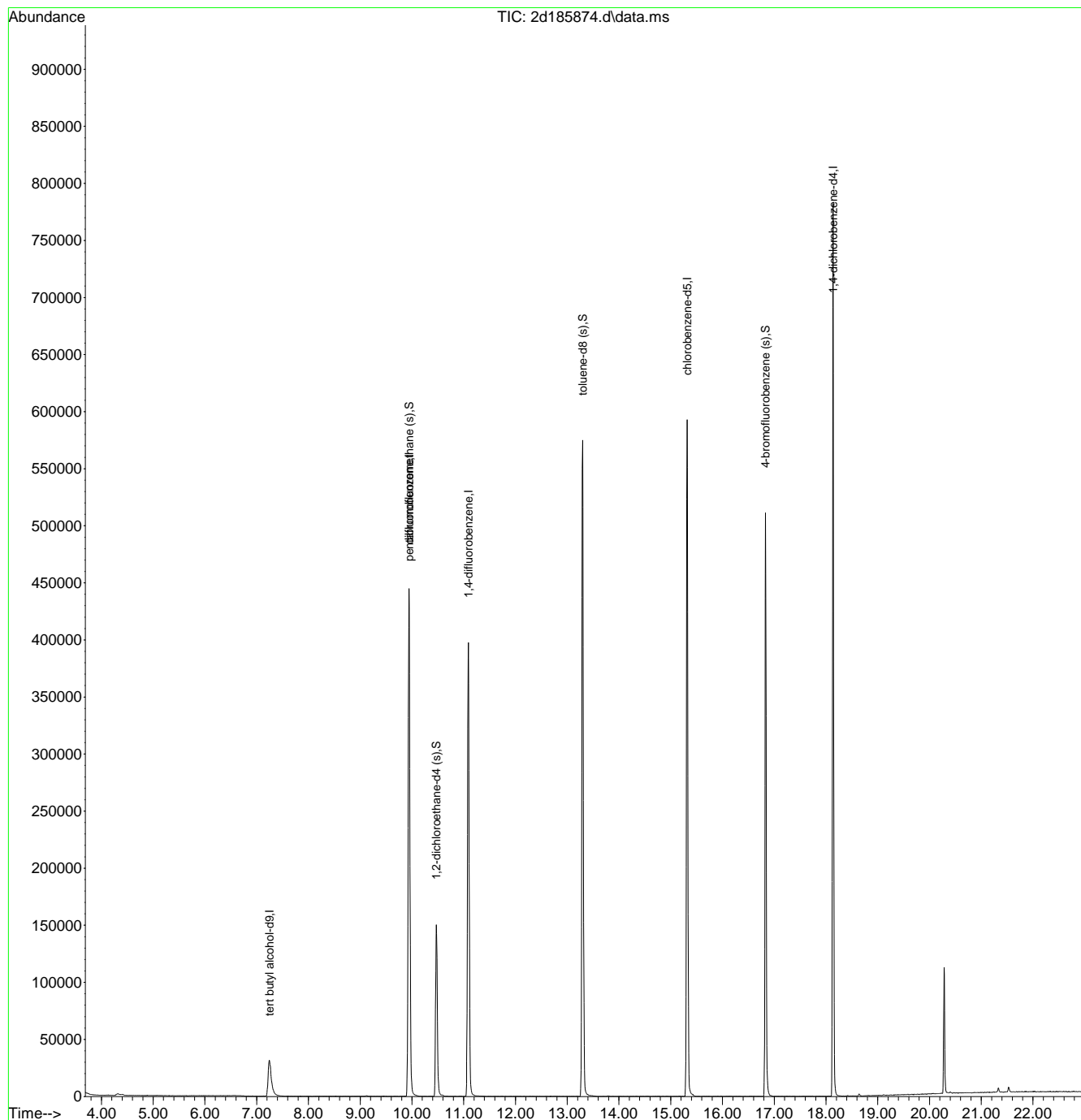
7.1.1
7



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\10-15-19\v2d7993\
Data File : 2d185874.d
Acq On : 11 Oct 2019 11:32 pm
Operator : edwardd
Sample : JC96248-1 Inst : MS2D
Misc : MS38188,V2D7993,5,,,,,1
ALS Vial : 25 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7967.M
Quant Results File: M2D7967.RES
Quant Time: Oct 15 00:57:56 2019
Quant Title : SW-846 Method 8260C / EPA 624, DB624 60m x 0.25mm Thu Sep 26 10:58:10 2019
QLast Update : Thu Sep 26 10:58:10 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\10-15-19\v2d7993\
 Data File : 2d185875.d
 Acq On : 12 Oct 2019 12:01 am
 Operator : edwardd
 Sample : JC96248-2 Inst : MS2D
 Misc : MS38188,V2D7993,5,,,,,1
 ALS Vial : 26 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7967.M
 Quant Results File: M2D7967.RES
 Quant Time: Oct 15 00:58:47 2019
 Quant Title : SW-846 Method 8260C / EPA 624, DB624 60m x 0.25mm Thu Sep 26 10:58:10 2019
 QLast Update : Thu Sep 26 10:58:10 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) tert butyl alcohol-d9	7.236	65	69081	500.00	ug/L	-0.02
5) pentafluorobenzene	9.942	168	248756	50.00	ug/L	-0.02
52) 1,4-difluorobenzene	11.090	114	370733	50.00	ug/L	-0.01
74) chlorobenzene-d5	15.316	117	342638	50.00	ug/L	-0.01
98) 1,4-dichlorobenzene-d4	18.137	152	174653	50.00	ug/L	0.00
System Monitoring Compounds						
44) dibromofluoromethane (s)	9.942	113	110178	46.87	ug/L	-0.01
Spiked Amount	50.000	Range	80 - 120	Recovery	=	93.74%
53) 1,2-dichloroethane-d4 (s)	10.471	65	119232	44.96	ug/L	-0.02
Spiked Amount	50.000	Range	81 - 124	Recovery	=	89.92%
75) toluene-d8 (s)	13.297	98	413411	48.08	ug/L	-0.01
Spiked Amount	50.000	Range	80 - 120	Recovery	=	96.16%
99) 4-bromofluorobenzene (s)	16.831	95	155020	49.01	ug/L	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	=	98.02%

Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

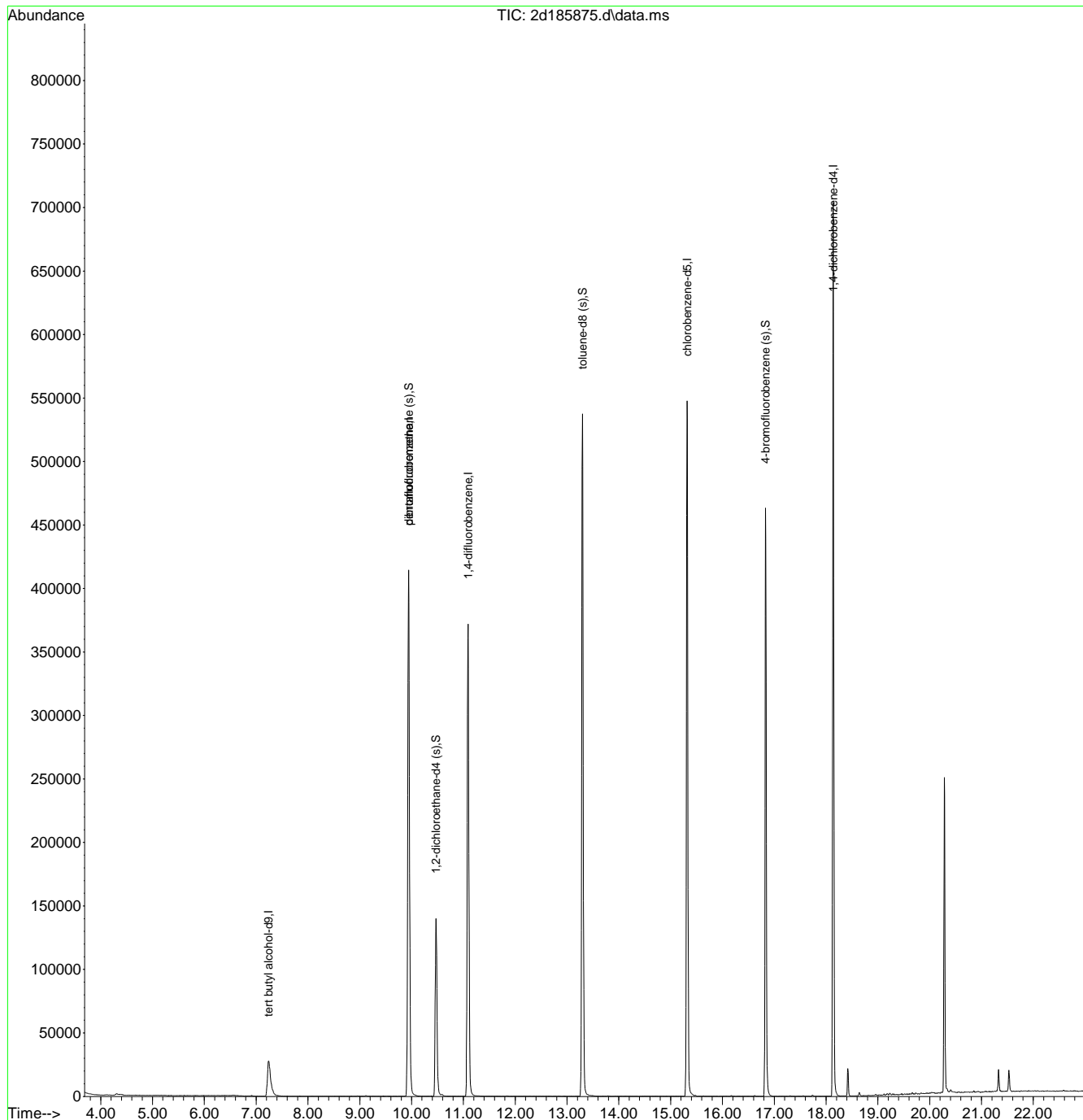
7.12
7



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\10-15-19\v2d7993\
 Data File : 2d185875.d
 Acq On : 12 Oct 2019 12:01 am
 Operator : edwardd
 Sample : JC96248-2 Inst : MS2D
 Misc : MS38188,V2D7993,5,,,,,1
 ALS Vial : 26 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7967.M
 Quant Results File: M2D7967.RES
 Quant Time: Oct 15 00:58:47 2019
 Quant Title : SW-846 Method 8260C / EPA 624, DB624 60m x 0.25mm Thu Sep 26 10:58:10 2019
 QLast Update : Thu Sep 26 10:58:10 2019
 Response via : Initial Calibration



7.1.2
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\10-15-19\v2d7993\
 Data File : 2d185876.d
 Acq On : 12 Oct 2019 12:31 am
 Operator : edwardd
 Sample : JC96248-3 Inst : MS2D
 Misc : MS38188,V2D7993,5,,,,,1
 ALS Vial : 27 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7967.M
 Quant Results File: M2D7967.RES
 Quant Time: Oct 15 00:59:31 2019
 Quant Title : SW-846 Method 8260C / EPA 624, DB624 60m x 0.25mm Thu Sep 26 10:58:10 2019
 QLast Update : Thu Sep 26 10:58:10 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

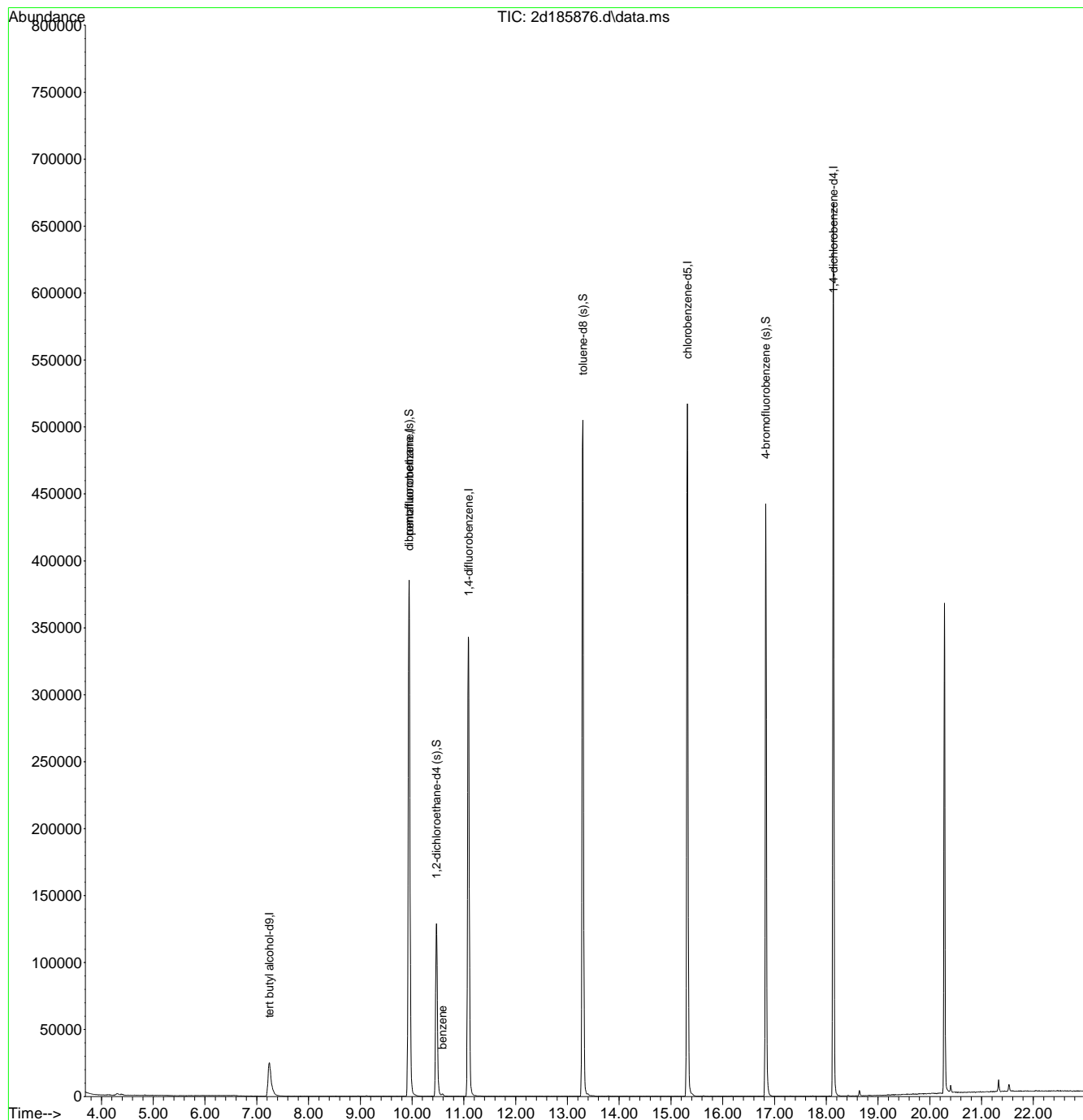
Internal Standards						
1) tert butyl alcohol-d9	7.242	65	61862	500.00	ug/L	-0.02
5) pentafluorobenzene	9.942	168	233678	50.00	ug/L	-0.02
52) 1,4-difluorobenzene	11.090	114	346818	50.00	ug/L	-0.01
74) chlorobenzene-d5	15.316	117	321076	50.00	ug/L	-0.01
98) 1,4-dichlorobenzene-d4	18.137	152	164716	50.00	ug/L	0.00
System Monitoring Compounds						
44) dibromofluoromethane (s)	9.937	113	103237	46.75	ug/L	-0.02
Spiked Amount	50.000	Range	80 - 120	Recovery	=	93.50%
53) 1,2-dichloroethane-d4 (s)	10.471	65	111884	45.10	ug/L	-0.02
Spiked Amount	50.000	Range	81 - 124	Recovery	=	90.20%
75) toluene-d8 (s)	13.297	98	389054	48.28	ug/L	-0.01
Spiked Amount	50.000	Range	80 - 120	Recovery	=	96.56%
99) 4-bromofluorobenzene (s)	16.831	95	144538	48.45	ug/L	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	=	96.90%
Target Compounds						
54) benzene	10.587	78	1600	0.22	ug/L	Qvalue 93

(#) = qualifier out of range (m) = manual integration (+) = signals summed

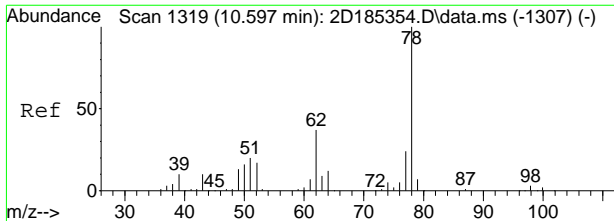
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\10-15-19\v2d7993\
 Data File : 2d185876.d
 Acq On : 12 Oct 2019 12:31 am
 Operator : edwardd
 Sample : JC96248-3 Inst : MS2D
 Misc : MS38188,V2D7993,5,,,,,1
 ALS Vial : 27 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7967.M
 Quant Results File: M2D7967.RES
 Quant Time: Oct 15 00:59:31 2019
 Quant Title : SW-846 Method 8260C / EPA 624, DB624 60m x 0.25mm Thu Sep 26 10:58:10 2019
 QLast Update : Thu Sep 26 10:58:10 2019
 Response via : Initial Calibration

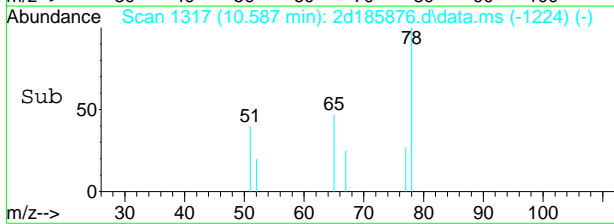
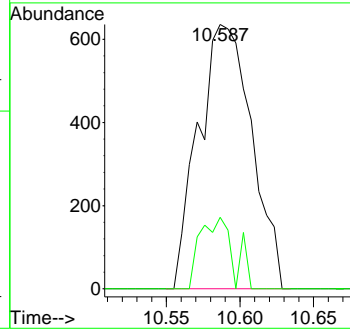
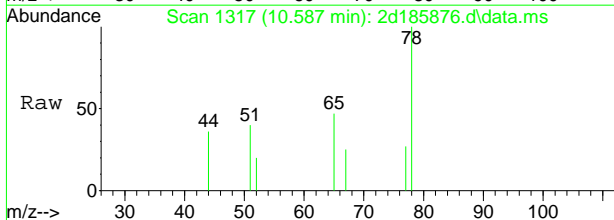


7.1.3
7



#54
 benzene
 Concen: 0.22 ug/L
 RT: 10.587 min Scan# 1317
 Delta R.T. -0.010 min
 Lab File: 2d185876.d
 Acq: 12 Oct 2019 12:31 am

Tgt Ion	Resp	Lower	Upper
78	1600		
77	27.0	0.0	53.5



7.1.3
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\nizele\10_oct\10-14-19\v2d7993-rush\
 Data File : 2d185862.d
 Acq On : 11 Oct 2019 5:40 pm
 Operator : edwardd
 Sample : JC96248-4 Inst : MS2D
 Misc : MS38188,V2D7993,5,,,,,1
 ALS Vial : 13 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7967.M
 Quant Results File: M2D7967.RES
 Quant Time: Oct 13 23:48:11 2019
 Quant Title : SW-846 Method 8260C / EPA 624, DB624 60m x 0.25mm Thu Sep 26 10:58:10 2019
 QLast Update : Thu Sep 26 10:58:10 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.242	65	72581	500.00	ug/L	-0.02
5) pentafluorobenzene	9.942	168	240251	50.00	ug/L	-0.02
52) 1,4-difluorobenzene	11.085	114	340308	50.00	ug/L	-0.02
74) chlorobenzene-d5	15.316	117	332139	50.00	ug/L	-0.01
98) 1,4-dichlorobenzene-d4	18.131	152	184687	50.00	ug/L	-0.01
System Monitoring Compounds						
44) dibromofluoromethane (s)	9.937	113	107910	47.53	ug/L	-0.02
Spiked Amount	50.000	Range	80 - 120	Recovery	=	95.06%
53) 1,2-dichloroethane-d4 (s)	10.471	65	117360	48.21	ug/L	-0.02
Spiked Amount	50.000	Range	81 - 124	Recovery	=	96.42%
75) toluene-d8 (s)	13.292	98	389321	46.71	ug/L	-0.02
Spiked Amount	50.000	Range	80 - 120	Recovery	=	93.42%
99) 4-bromofluorobenzene (s)	16.826	95	153998	46.04	ug/L	-0.01
Spiked Amount	50.000	Range	80 - 120	Recovery	=	92.08%
Target Compounds						
20) acetone	6.555	58	1293	8.60	ug/L	84
21) acetonitrile	7.006	41	1505	6.67	ug/L	75
54) benzene	10.581	78	4603517	632.76	ug/L	99
76) toluene	13.392	92	417513	90.43	ug/L	99
89) ethylbenzene	15.468	91	213406	24.32	ug/L	99
90) m,p-xylene	15.615	91	485051	72.87	ug/L	99
91) o-xylene	16.155	106	116745	36.47	ug/L	98
92) styrene	16.171	104	50526	9.42	ug/L	89
96) isopropylbenzene	16.616	105	9440	1.15	ug/L	96
104) n-propylbenzene	17.114	91	2331	0.22	ug/L	97
107) 1,3,5-trimethylbenzene	17.298	105	82577	11.37	ug/L	99
109) 1,2,4-trimethylbenzene	17.728	105	152774	20.78	ug/L	99
112) p-isopropyltoluene	18.048	119	30096	4.02	ug/L	70
121) naphthalene	20.292	128	13029817	2256.40	ug/L	96
126) 2-methylnaphthalene	21.319	142	1061517	314.34	ug/L	99

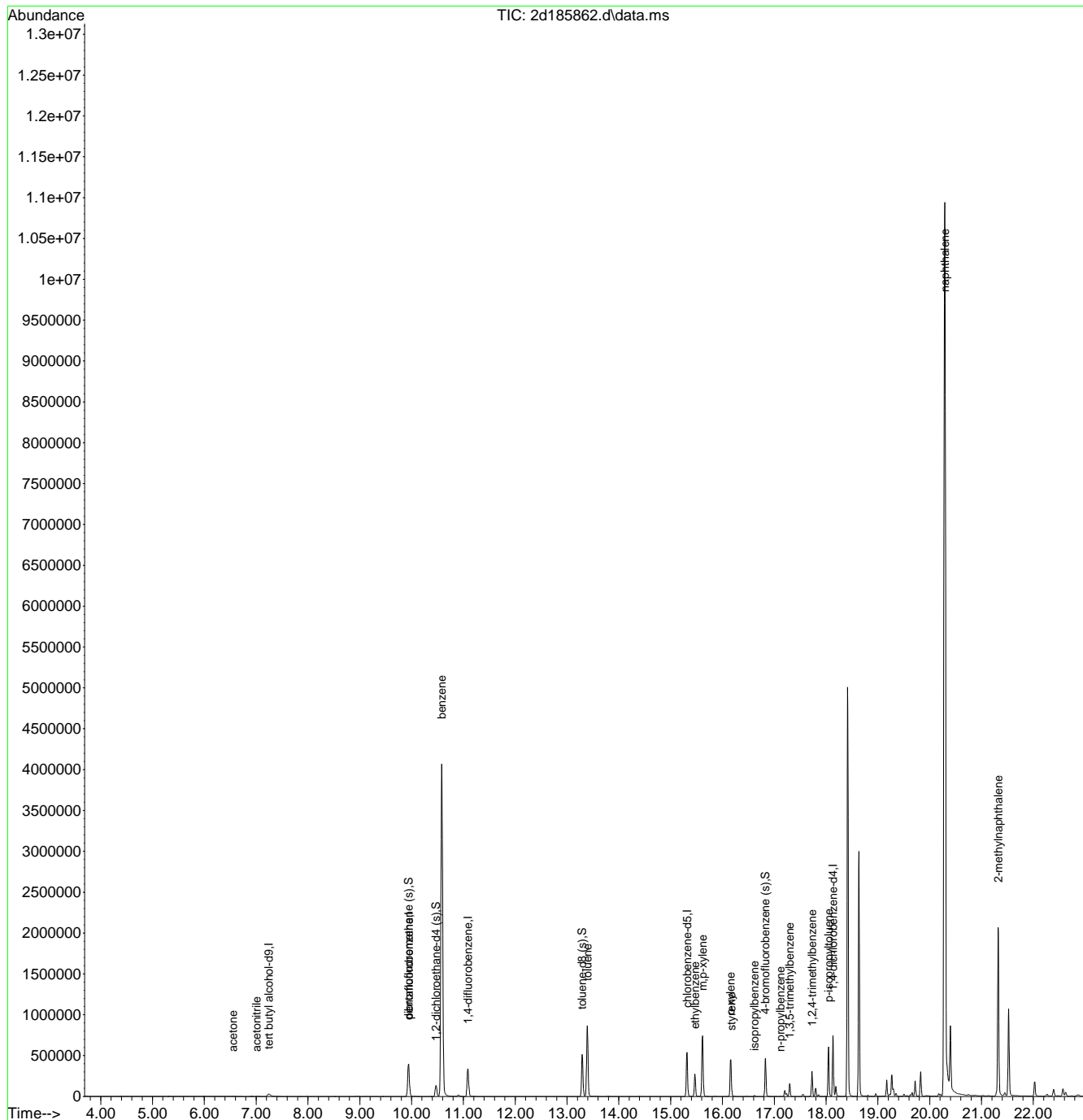
(#) = qualifier out of range (m) = manual integration (+) = signals summed

7.14
7

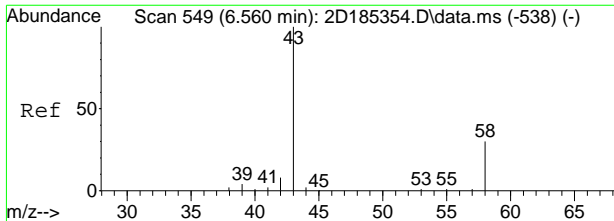
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\nizele\10_oct\10-14-19\v2d7993-rush\
 Data File : 2d185862.d
 Acq On : 11 Oct 2019 5:40 pm
 Operator : edwardd
 Sample : JC96248-4 Inst : MS2D
 Misc : MS38188,V2D7993,5,,,,,1
 ALS Vial : 13 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7967.M
 Quant Results File: M2D7967.RES
 Quant Time: Oct 13 23:48:11 2019
 Quant Title : SW-846 Method 8260C / EPA 624, DB624 60m x 0.25mm Thu Sep 26 10:58:10 2019
 QLast Update : Thu Sep 26 10:58:10 2019
 Response via : Initial Calibration

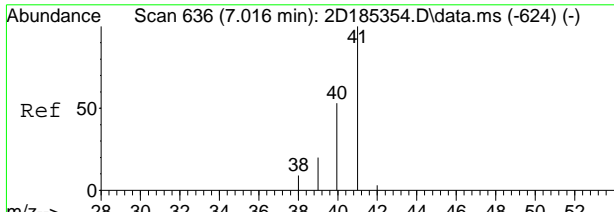
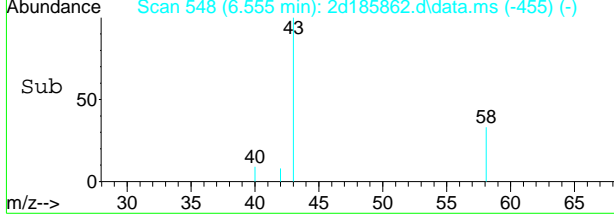
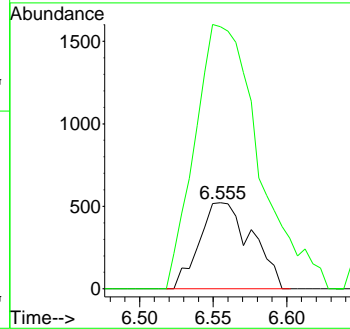
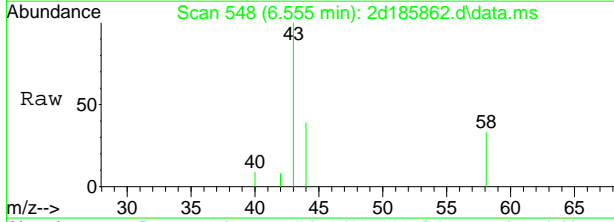


7.1.4
7



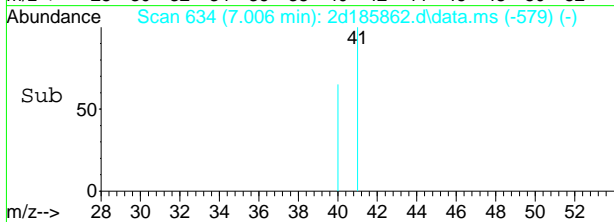
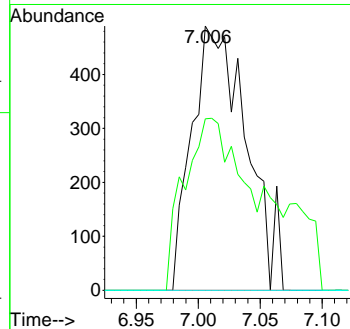
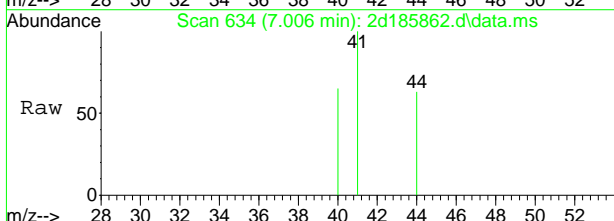
#20
 acetone
 Concen: 8.60 ug/L
 RT: 6.555 min Scan# 548
 Delta R.T. -0.010 min
 Lab File: 2d185862.d
 Acq: 11 Oct 2019 5:40 pm

Tgt Ion	Resp	Lower	Upper
58	1293	100	
43	304.4	308.0	368.0#

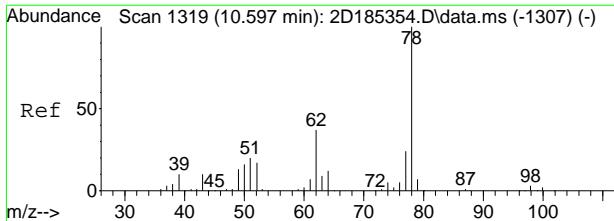


#21
 acetonitrile
 Concen: 6.67 ug/L
 RT: 7.006 min Scan# 634
 Delta R.T. -0.010 min
 Lab File: 2d185862.d
 Acq: 11 Oct 2019 5:40 pm

Tgt Ion	Resp	Lower	Upper
41	1505	100	
40	64.9	22.6	82.6
39	0.0	0.0	50.2



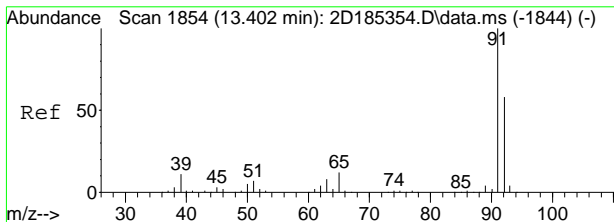
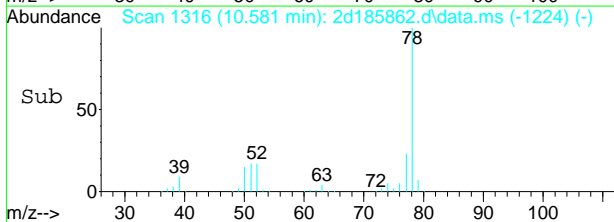
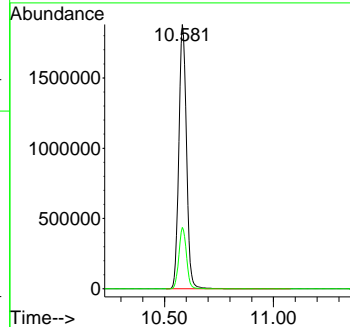
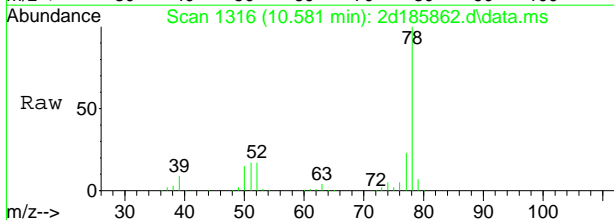
7.14
7



#54
benzene
Concen: 632.76 ug/L
RT: 10.581 min Scan# 1316
Delta R.T. -0.016 min
Lab File: 2d185862.d
Acq: 11 Oct 2019 5:40 pm

Tgt Ion: 78 Resp: 4603517

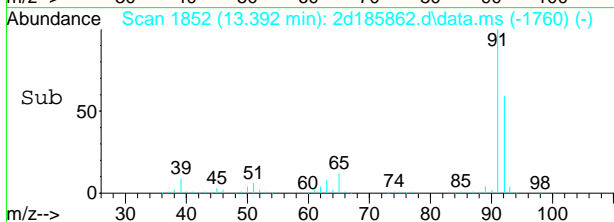
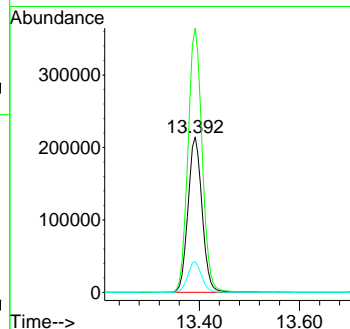
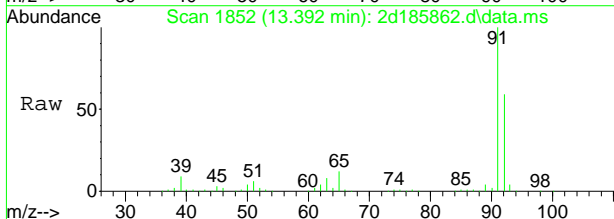
Ion	Ratio	Lower	Upper
78	100		
77	23.2	0.0	53.5



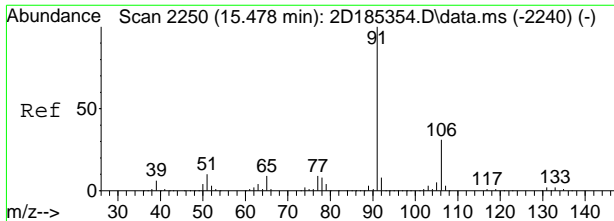
#76
toluene
Concen: 90.43 ug/L
RT: 13.392 min Scan# 1852
Delta R.T. -0.016 min
Lab File: 2d185862.d
Acq: 11 Oct 2019 5:40 pm

Tgt Ion: 92 Resp: 417513

Ion	Ratio	Lower	Upper
92	100		
91	169.9	152.0	192.0
65	19.7	0.0	40.0

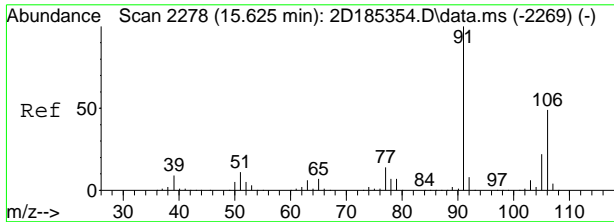
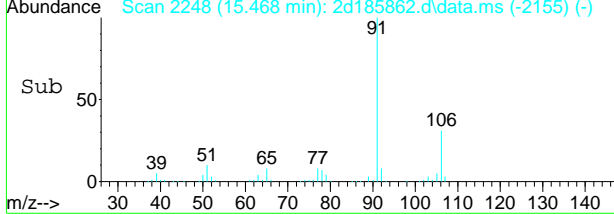
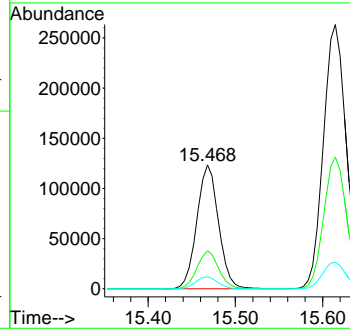
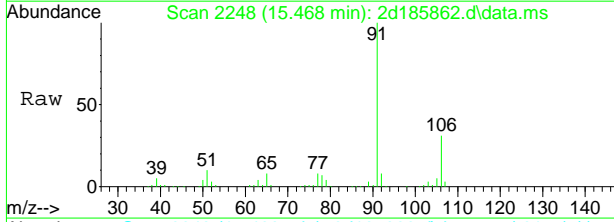


7.14
7



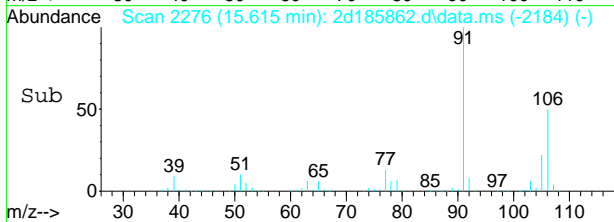
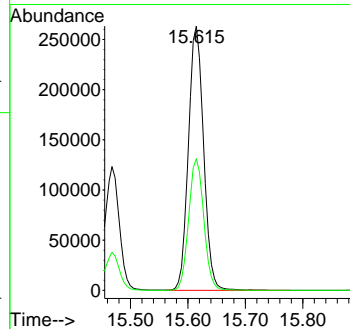
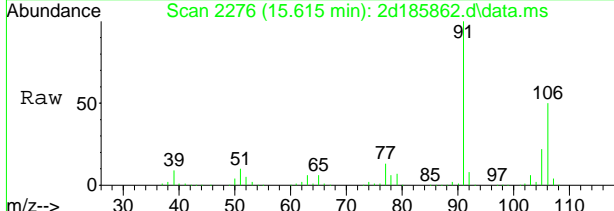
#89
ethylbenzene
Concen: 24.32 ug/L
RT: 15.468 min Scan# 2248
Delta R.T. -0.010 min
Lab File: 2d185862.d
Acq: 11 Oct 2019 5:40 pm

Tgt Ion	Resp	Lower	Upper
91	213406		
106	30.8	1.1	61.1
51	9.6	0.0	40.2

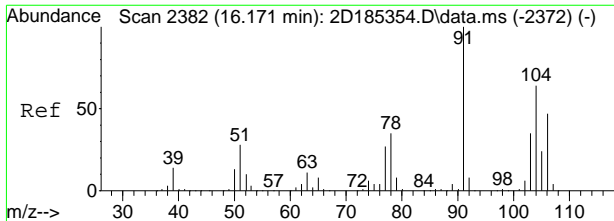


#90
m,p-xylene
Concen: 72.87 ug/L
RT: 15.615 min Scan# 2276
Delta R.T. -0.016 min
Lab File: 2d185862.d
Acq: 11 Oct 2019 5:40 pm

Tgt Ion	Resp	Lower	Upper
91	485051		
106	49.9	19.1	79.1

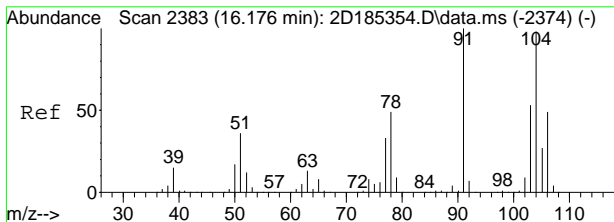
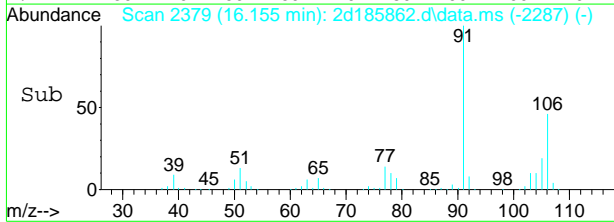
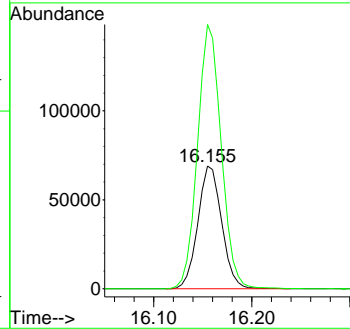
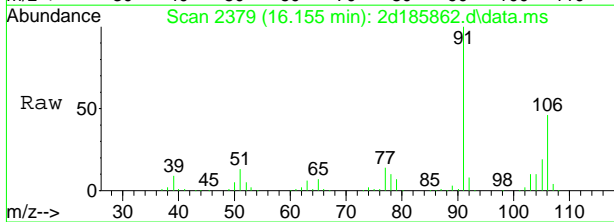


7.14
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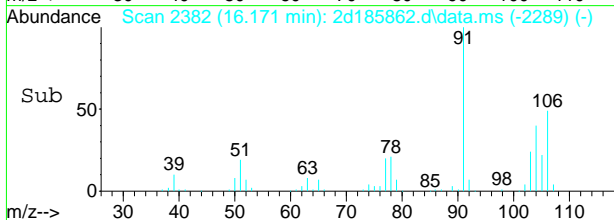
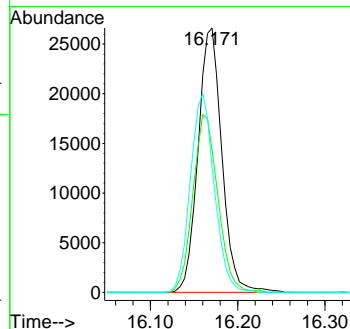
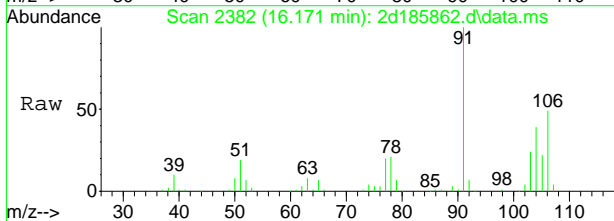
#91
 o-xylene
 Concen: 36.47 ug/L
 RT: 16.155 min Scan# 2379
 Delta R.T. -0.016 min
 Lab File: 2d185862.d
 Acq: 11 Oct 2019 5:40 pm

Tgt Ion	Ratio	Lower	Upper
106	100		
91	215.4	181.8	241.8

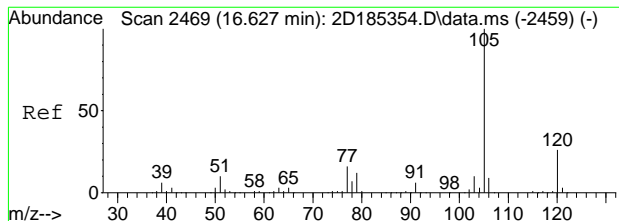


#92
 styrene
 Concen: 9.42 ug/L
 RT: 16.171 min Scan# 2382
 Delta R.T. -0.010 min
 Lab File: 2d185862.d
 Acq: 11 Oct 2019 5:40 pm

Tgt Ion	Ratio	Lower	Upper
104	100		
78	53.9	19.8	79.8
51	47.4	7.1	67.1

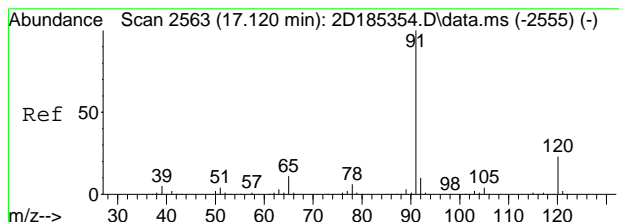
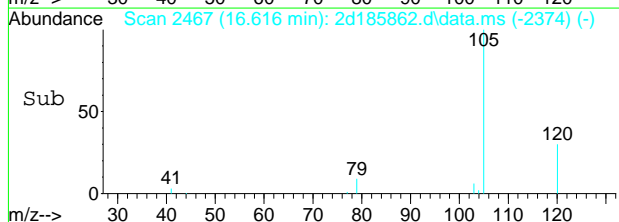
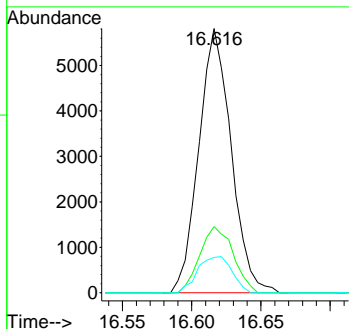
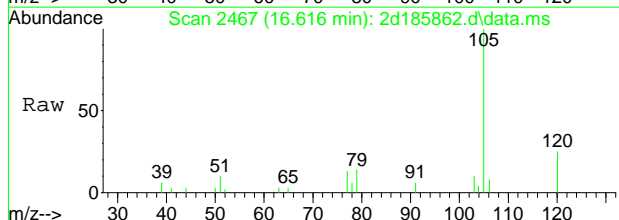


7.14
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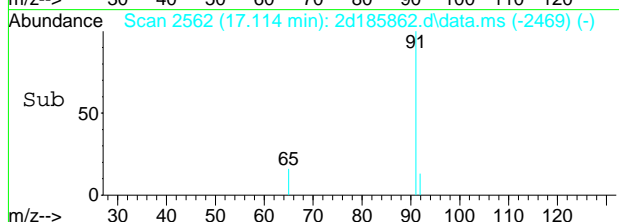
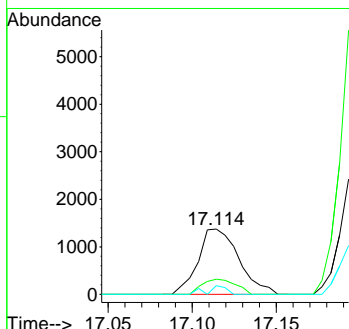
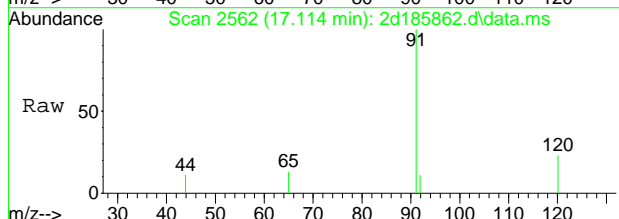
#96
 isopropylbenzene
 Concen: 1.15 ug/L
 RT: 16.616 min Scan# 2467
 Delta R.T. -0.010 min
 Lab File: 2d185862.d
 Acq: 11 Oct 2019 5:40 pm

Tgt Ion	Resp	Lower	Upper
105	9440		
120	25.0	6.3	46.3
77	13.4	0.0	36.1

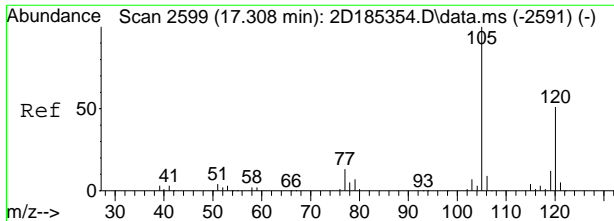


#104
 n-propylbenzene
 Concen: 0.22 ug/L
 RT: 17.114 min Scan# 2562
 Delta R.T. -0.010 min
 Lab File: 2d185862.d
 Acq: 11 Oct 2019 5:40 pm

Tgt Ion	Resp	Lower	Upper
91	2331		
120	23.0	0.0	52.5
65	13.2	0.0	40.6

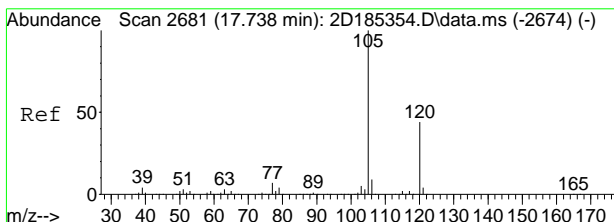
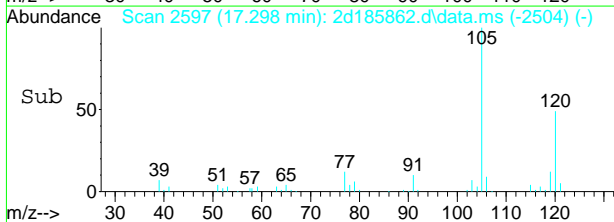
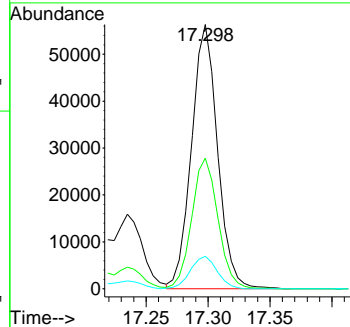
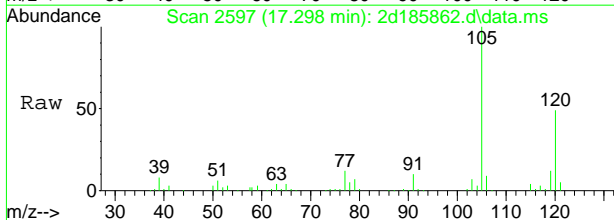


7.14
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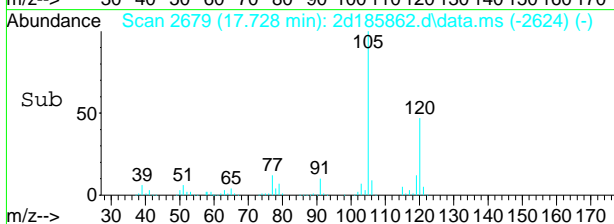
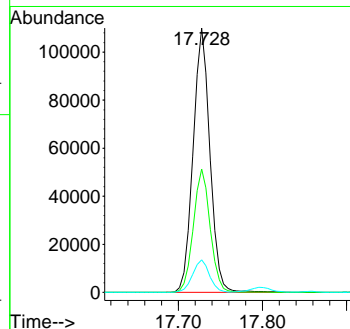
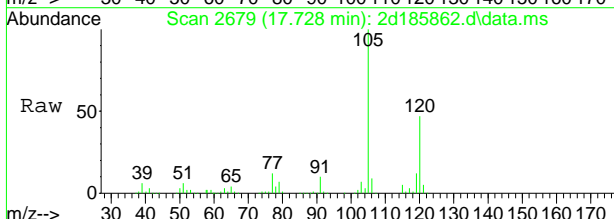
#107
 1,3,5-trimethylbenzene
 Concen: 11.37 ug/L
 RT: 17.298 min Scan# 2597
 Delta R.T. -0.010 min
 Lab File: 2d185862.d
 Acq: 11 Oct 2019 5:40 pm

Tgt Ion	Ratio	Lower	Upper
105	100		
120	49.4	20.5	80.5
77	12.4	0.0	42.7

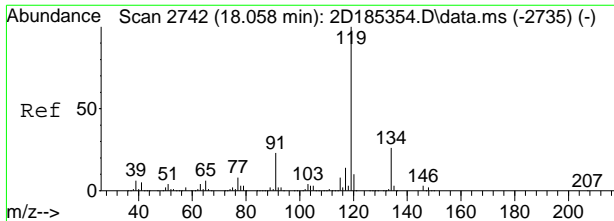


#109
 1,2,4-trimethylbenzene
 Concen: 20.78 ug/L
 RT: 17.728 min Scan# 2679
 Delta R.T. -0.010 min
 Lab File: 2d185862.d
 Acq: 11 Oct 2019 5:40 pm

Tgt Ion	Ratio	Lower	Upper
105	100		
120	46.7	17.9	77.9
77	12.3	0.0	42.3

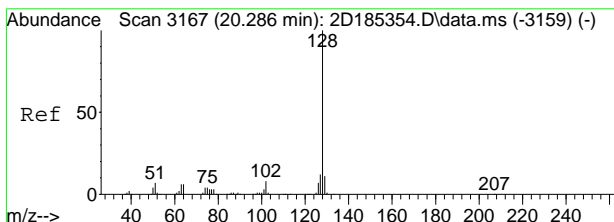
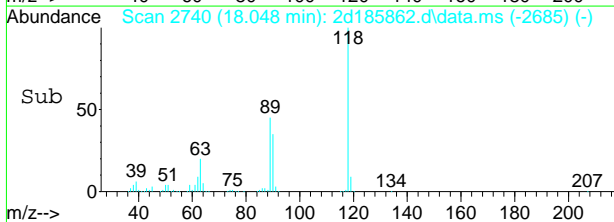
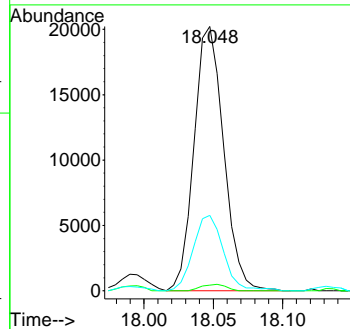
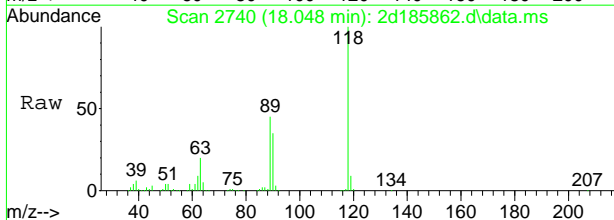


7.14
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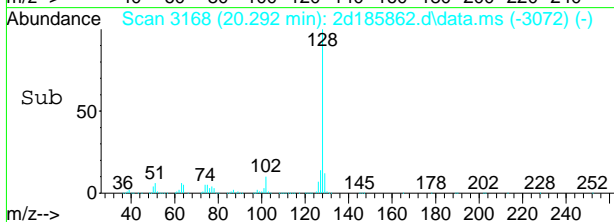
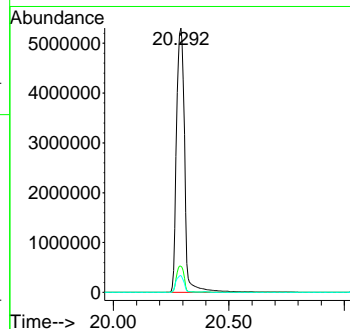
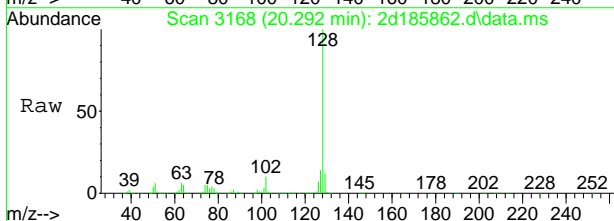
#112
 p-isopropyltoluene
 Concen: 4.02 ug/L
 RT: 18.048 min Scan# 2740
 Delta R.T. -0.010 min
 Lab File: 2d185862.d
 Acq: 11 Oct 2019 5:40 pm

Tgt Ion	Resp	Lower	Upper
119	30096		
134	2.2	0.0	56.4
91	28.5	0.0	53.3

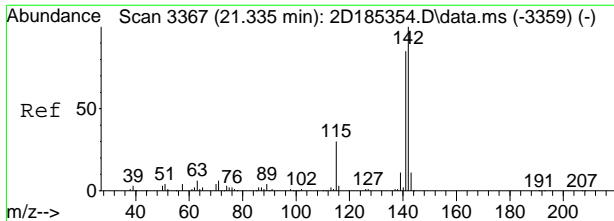


#121
 naphthalene
 Concen: 2256.40 ug/L
 RT: 20.292 min Scan# 3168
 Delta R.T. 0.005 min
 Lab File: 2d185862.d
 Acq: 11 Oct 2019 5:40 pm

Tgt Ion	Resp	Lower	Upper
128	13029817		
102	9.9	0.0	38.0
51	6.4	0.0	37.3

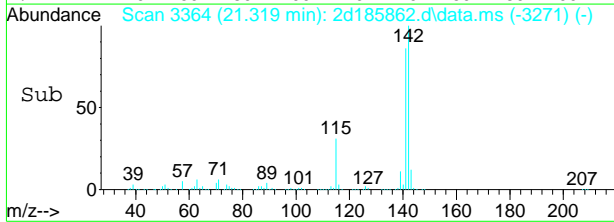
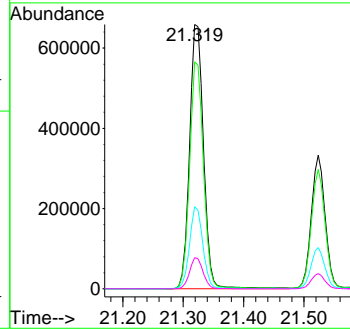
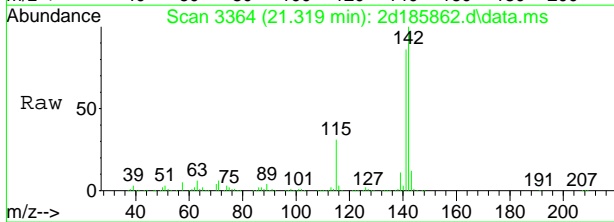


7.14
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#126
 2-methylnaphthalene
 Concen: 314.34 ug/L
 RT: 21.319 min Scan# 3364
 Delta R.T. -0.010 min
 Lab File: 2d185862.d
 Acq: 11 Oct 2019 5:40 pm

Tgt Ion	Ratio	Lower	Upper
142	100		
141	85.9	65.4	105.4
115	31.0	0.1	60.1
143	11.8	0.0	41.2



7.1.4
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\nizele\10_oct\10-14-19\v2d7993-rush\
 Data File : 2d185865.d
 Acq On : 11 Oct 2019 7:07 pm
 Operator : edwardd
 Sample : JC96248-4 Inst : MS2D
 Misc : MS38188,V2D7993,5,,,,,10
 ALS Vial : 16 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7967.M
 Quant Results File: M2D7967.RES
 Quant Time: Oct 13 23:52:08 2019
 Quant Title : SW-846 Method 8260C / EPA 624, DB624 60m x 0.25mm Thu Sep 26 10:58:10 2019
 QLast Update : Thu Sep 26 10:58:10 2019
 Response via : Initial Calibration

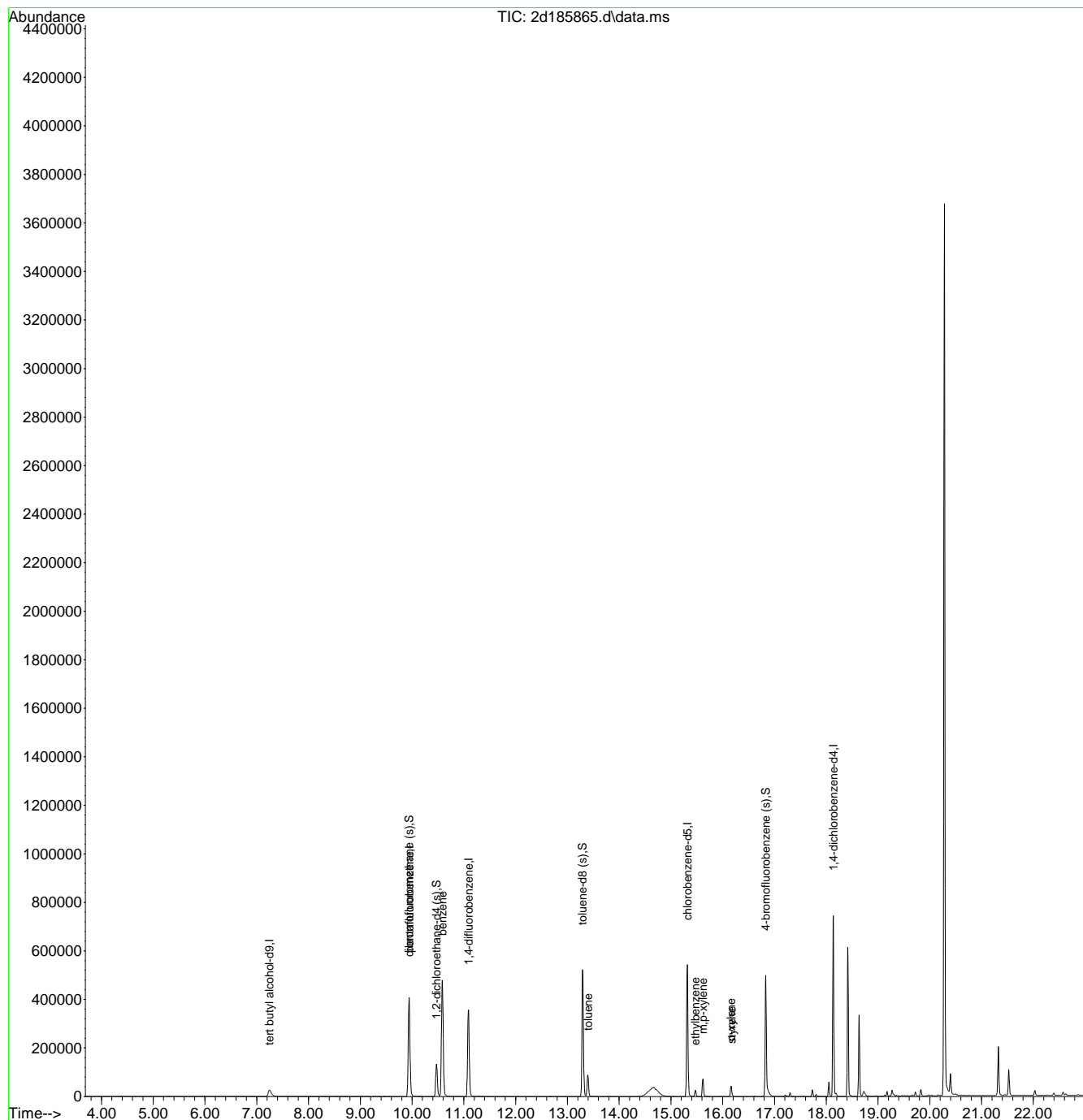
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.242	65	69451	500.00	ug/L	-0.02
5) pentafluorobenzene	9.942	168	255927	50.00	ug/L	-0.02
52) 1,4-difluorobenzene	11.090	114	367125	50.00	ug/L	-0.01
74) chlorobenzene-d5	15.316	117	345040	50.00	ug/L	-0.01
98) 1,4-dichlorobenzene-d4	18.137	152	188332	50.00	ug/L	0.00
System Monitoring Compounds						
44) dibromofluoromethane (s)	9.937	113	106358	43.98	ug/L	-0.02
Spiked Amount	50.000	Range	80 - 120	Recovery	=	87.96%
53) 1,2-dichloroethane-d4 (s)	10.471	65	113675	43.29	ug/L	-0.02
Spiked Amount	50.000	Range	81 - 124	Recovery	=	86.58%
75) toluene-d8 (s)	13.292	98	409632	47.31	ug/L	-0.02
Spiked Amount	50.000	Range	80 - 120	Recovery	=	94.62%
99) 4-bromofluorobenzene (s)	16.831	95	160903	47.18	ug/L	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	=	94.36%
Target Compounds						
54) benzene	10.587	78	538288	68.58	ug/L	100
76) toluene	13.397	92	43770	9.13	ug/L	95
89) ethylbenzene	15.473	91	22135	2.43	ug/L	95
90) m,p-xylene	15.615	91	49504	7.16	ug/L	98
91) o-xylene	16.160	106	12085	3.63	ug/L	97
92) styrene	16.171	104	5301	0.95	ug/L	80

(#) = qualifier out of range (m) = manual integration (+) = signals summed

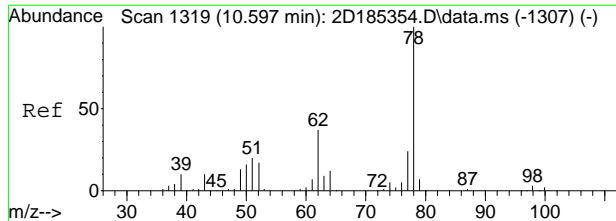
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\nizele\10_oct\10-14-19\v2d7993-rush\
 Data File : 2d185865.d
 Acq On : 11 Oct 2019 7:07 pm
 Operator : edwardd
 Sample : JC96248-4 Inst : MS2D
 Misc : MS38188,V2D7993,5,,,,10
 ALS Vial : 16 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7967.M
 Quant Results File: M2D7967.RES
 Quant Time: Oct 13 23:52:08 2019
 Quant Title : SW-846 Method 8260C / EPA 624, DB624 60m x 0.25mm Thu Sep 26 10:58:10 2019
 QLast Update : Thu Sep 26 10:58:10 2019
 Response via : Initial Calibration

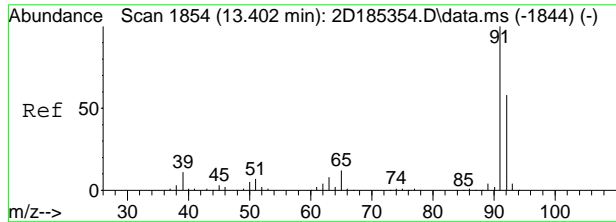
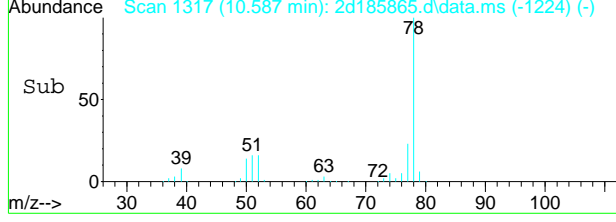
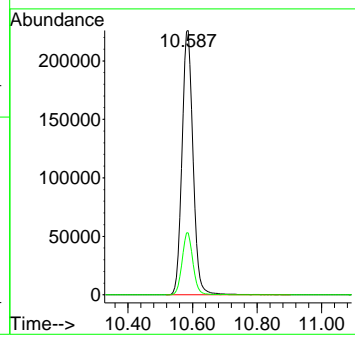
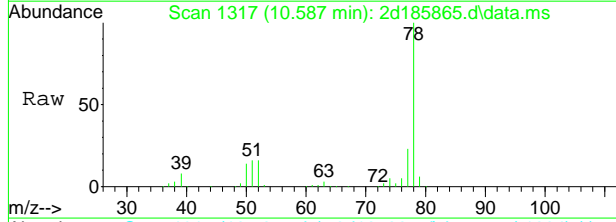


7.15
7



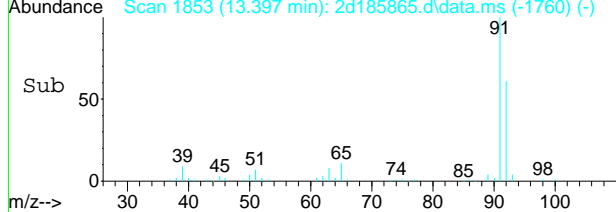
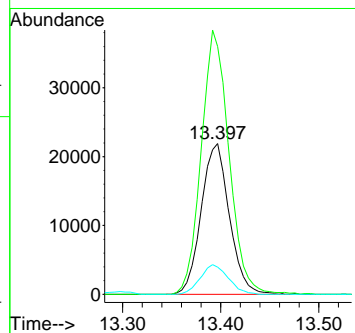
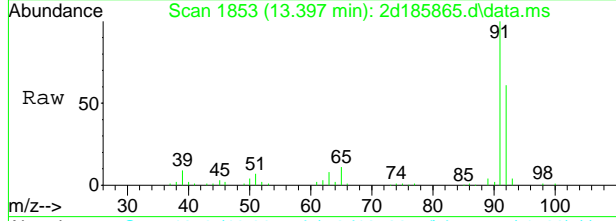
#54
benzene
Concen: 68.58 ug/L
RT: 10.587 min Scan# 1317
Delta R.T. -0.010 min
Lab File: 2d185865.d
Acq: 11 Oct 2019 7:07 pm

Tgt Ion	Ratio	Lower	Upper
78	100		
77	23.4	0.0	53.5

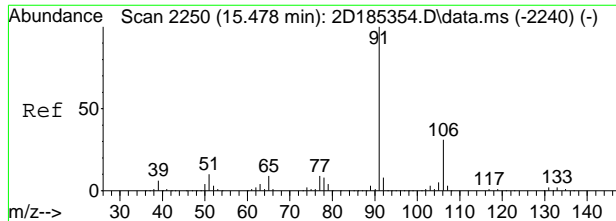


#76
toluene
Concen: 9.13 ug/L
RT: 13.397 min Scan# 1853
Delta R.T. -0.010 min
Lab File: 2d185865.d
Acq: 11 Oct 2019 7:07 pm

Tgt Ion	Ratio	Lower	Upper
92	100		
91	164.3	152.0	192.0
65	18.1	0.0	40.0

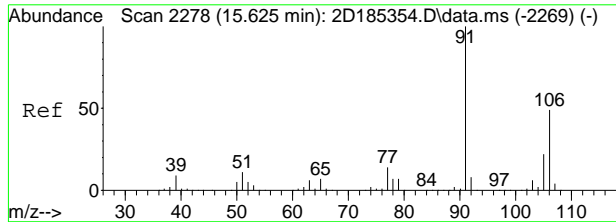
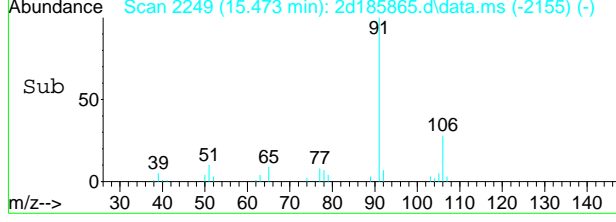
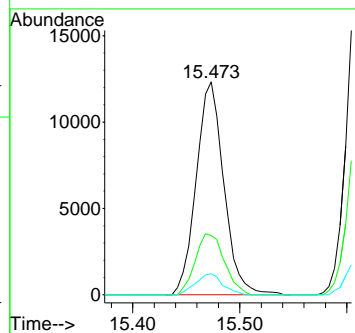
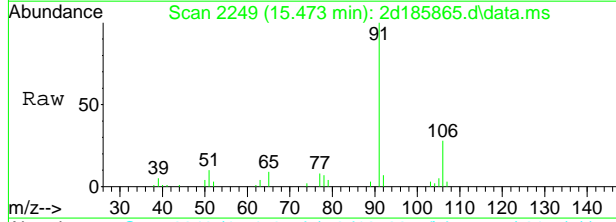


7.15
7



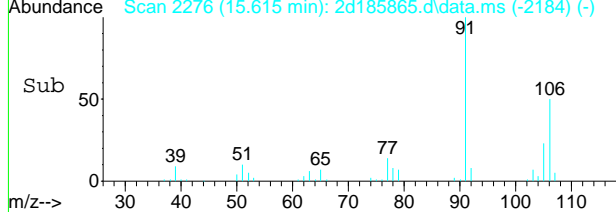
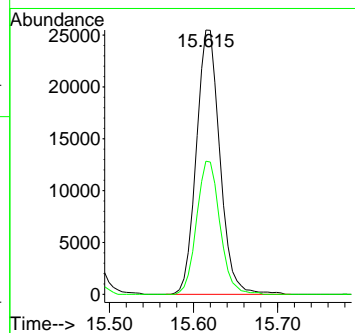
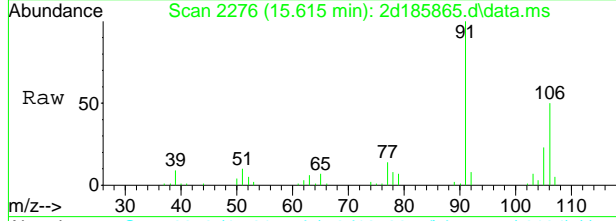
#89
ethylbenzene
Concen: 2.43 ug/L
RT: 15.473 min Scan# 2249
Delta R.T. -0.005 min
Lab File: 2d185865.d
Acq: 11 Oct 2019 7:07 pm

Tgt Ion	Ratio	Lower	Upper
91	100		
106	27.8	1.1	61.1
51	9.9	0.0	40.2

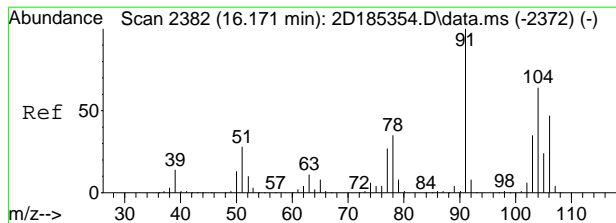


#90
m,p-xylene
Concen: 7.16 ug/L
RT: 15.615 min Scan# 2276
Delta R.T. -0.016 min
Lab File: 2d185865.d
Acq: 11 Oct 2019 7:07 pm

Tgt Ion	Ratio	Lower	Upper
91	100		
106	50.4	19.1	79.1

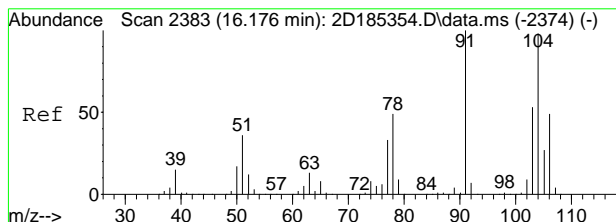
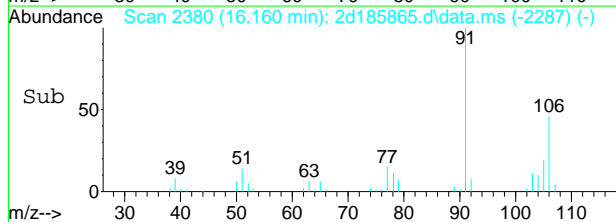
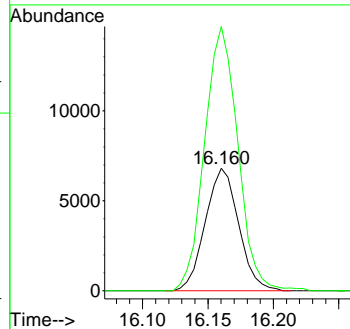
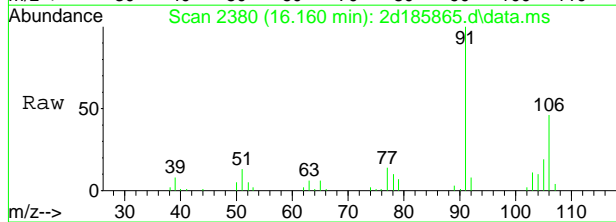


7.15
7



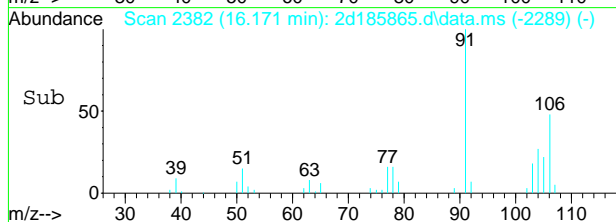
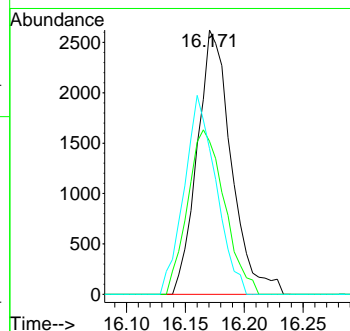
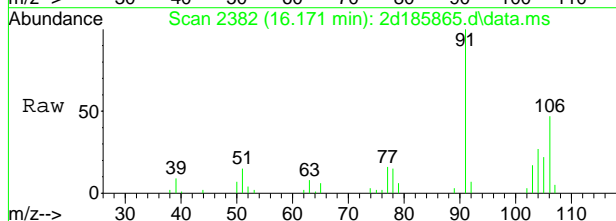
#91
 o-xylene
 Concen: 3.63 ug/L
 RT: 16.160 min Scan# 2380
 Delta R.T. -0.010 min
 Lab File: 2d185865.d
 Acq: 11 Oct 2019 7:07 pm

Tgt Ion	Ratio	Lower	Upper
106	100		
91	216.0	181.8	241.8



#92
 styrene
 Concen: 0.95 ug/L
 RT: 16.171 min Scan# 2382
 Delta R.T. -0.010 min
 Lab File: 2d185865.d
 Acq: 11 Oct 2019 7:07 pm

Tgt Ion	Ratio	Lower	Upper
104	100		
78	57.8	19.8	79.8
51	55.1	7.1	67.1



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\10-15-19\v2d7993\
 Data File : 2d185877.d
 Acq On : 12 Oct 2019 1:00 am
 Operator : edwardd
 Sample : JC96248-5 Inst : MS2D
 Misc : MS38188,V2D7993,5,,,,,1
 ALS Vial : 28 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7967.M
 Quant Results File: M2D7967.RES
 Quant Time: Oct 15 01:00:11 2019
 Quant Title : SW-846 Method 8260C / EPA 624, DB624 60m x 0.25mm Thu Sep 26 10:58:10 2019
 QLast Update : Thu Sep 26 10:58:10 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.247	65	64517	500.00	ug/L	-0.01
5) pentafluorobenzene	9.942	168	242355	50.00	ug/L	-0.02
52) 1,4-difluorobenzene	11.090	114	363169	50.00	ug/L	-0.01
74) chlorobenzene-d5	15.316	117	332916	50.00	ug/L	-0.01
98) 1,4-dichlorobenzene-d4	18.137	152	166046	50.00	ug/L	0.00
System Monitoring Compounds						
44) dibromofluoromethane (s)	9.937	113	107493	46.94	ug/L	-0.02
Spiked Amount	50.000	Range	80 - 120	Recovery	=	93.88%
53) 1,2-dichloroethane-d4 (s)	10.471	65	116555	44.87	ug/L	-0.02
Spiked Amount	50.000	Range	81 - 124	Recovery	=	89.74%
75) toluene-d8 (s)	13.297	98	403560	48.30	ug/L	-0.01
Spiked Amount	50.000	Range	80 - 120	Recovery	=	96.60%
99) 4-bromofluorobenzene (s)	16.831	95	147820	49.16	ug/L	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	=	98.32%

Target Compounds Qvalue

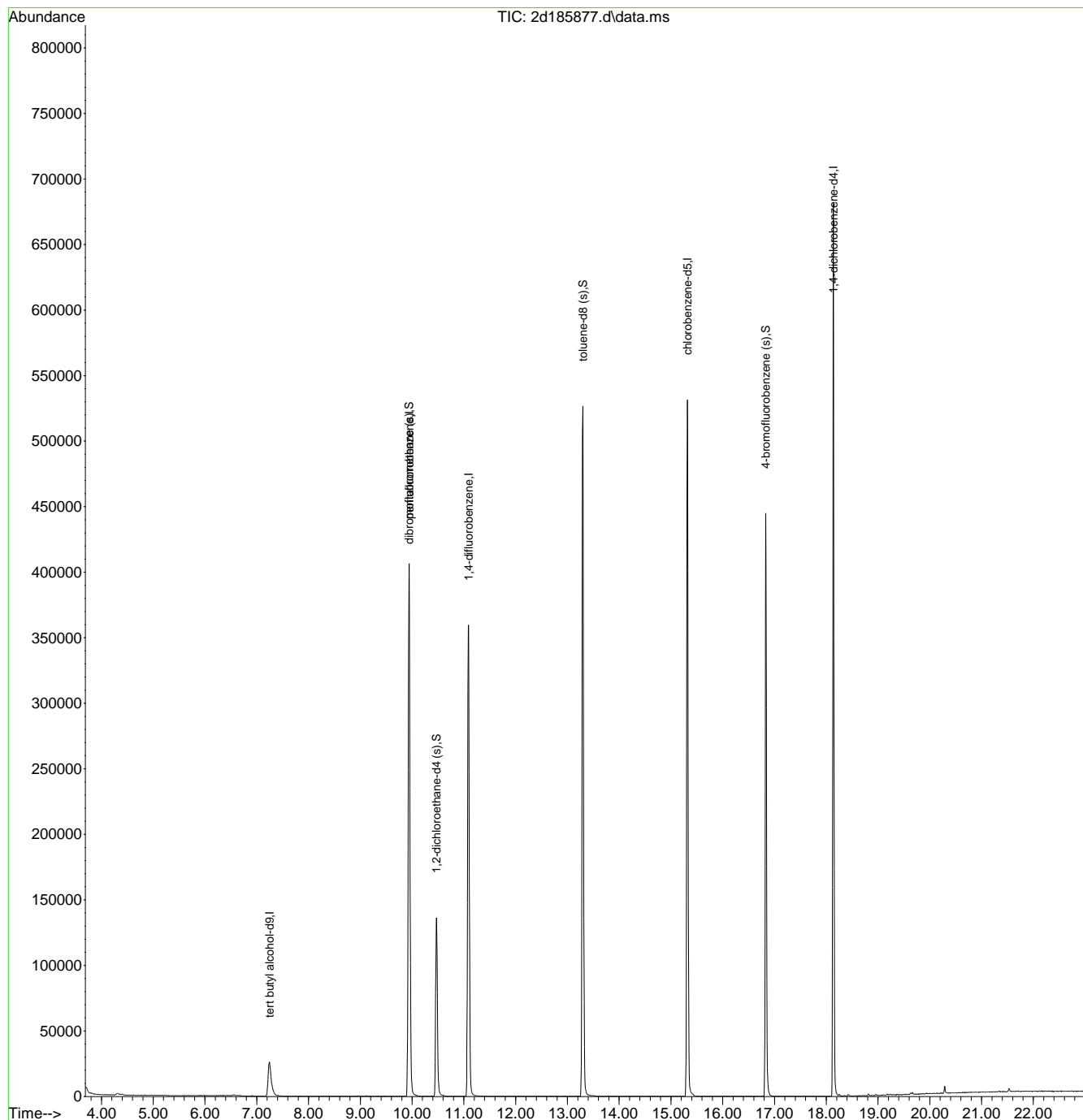
(#) = qualifier out of range (m) = manual integration (+) = signals summed

7.1.6
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\10-15-19\v2d7993\
 Data File : 2d185877.d
 Acq On : 12 Oct 2019 1:00 am
 Operator : edwardd
 Sample : JC96248-5 Inst : MS2D
 Misc : MS38188,V2D7993,5,,,,,1
 ALS Vial : 28 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7967.M
 Quant Results File: M2D7967.RES
 Quant Time: Oct 15 01:00:11 2019
 Quant Title : SW-846 Method 8260C / EPA 624, DB624 60m x 0.25mm Thu Sep 26 10:58:10 2019
 QLast Update : Thu Sep 26 10:58:10 2019
 Response via : Initial Calibration



7.1.6
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\10-15-19\v2d7993\
 Data File : 2d185878.d
 Acq On : 12 Oct 2019 1:30 am
 Operator : edwardd
 Sample : JC96248-6 Inst : MS2D
 Misc : MS38188,V2D7993,5,,,,,1
 ALS Vial : 29 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7967.M
 Quant Results File: M2D7967.RES
 Quant Time: Oct 15 01:01:02 2019
 Quant Title : SW-846 Method 8260C / EPA 624, DB624 60m x 0.25mm Thu Sep 26 10:58:10 2019
 QLast Update : Thu Sep 26 10:58:10 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.247	65	65343	500.00	ug/L	-0.01
5) pentafluorobenzene	9.942	168	245963	50.00	ug/L	-0.02
52) 1,4-difluorobenzene	11.090	114	363268	50.00	ug/L	-0.01
74) chlorobenzene-d5	15.316	117	338433	50.00	ug/L	-0.01
98) 1,4-dichlorobenzene-d4	18.136	152	172849	50.00	ug/L	0.00
System Monitoring Compounds						
44) dibromofluoromethane (s)	9.942	113	109132	46.95	ug/L	-0.01
Spiked Amount	50.000	Range	80 - 120	Recovery	=	93.90%
53) 1,2-dichloroethane-d4 (s)	10.471	65	118126	45.46	ug/L	-0.02
Spiked Amount	50.000	Range	81 - 124	Recovery	=	90.92%
75) toluene-d8 (s)	13.297	98	407867	48.02	ug/L	-0.01
Spiked Amount	50.000	Range	80 - 120	Recovery	=	96.04%
99) 4-bromofluorobenzene (s)	16.831	95	153837	49.15	ug/L	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	=	98.30%

Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

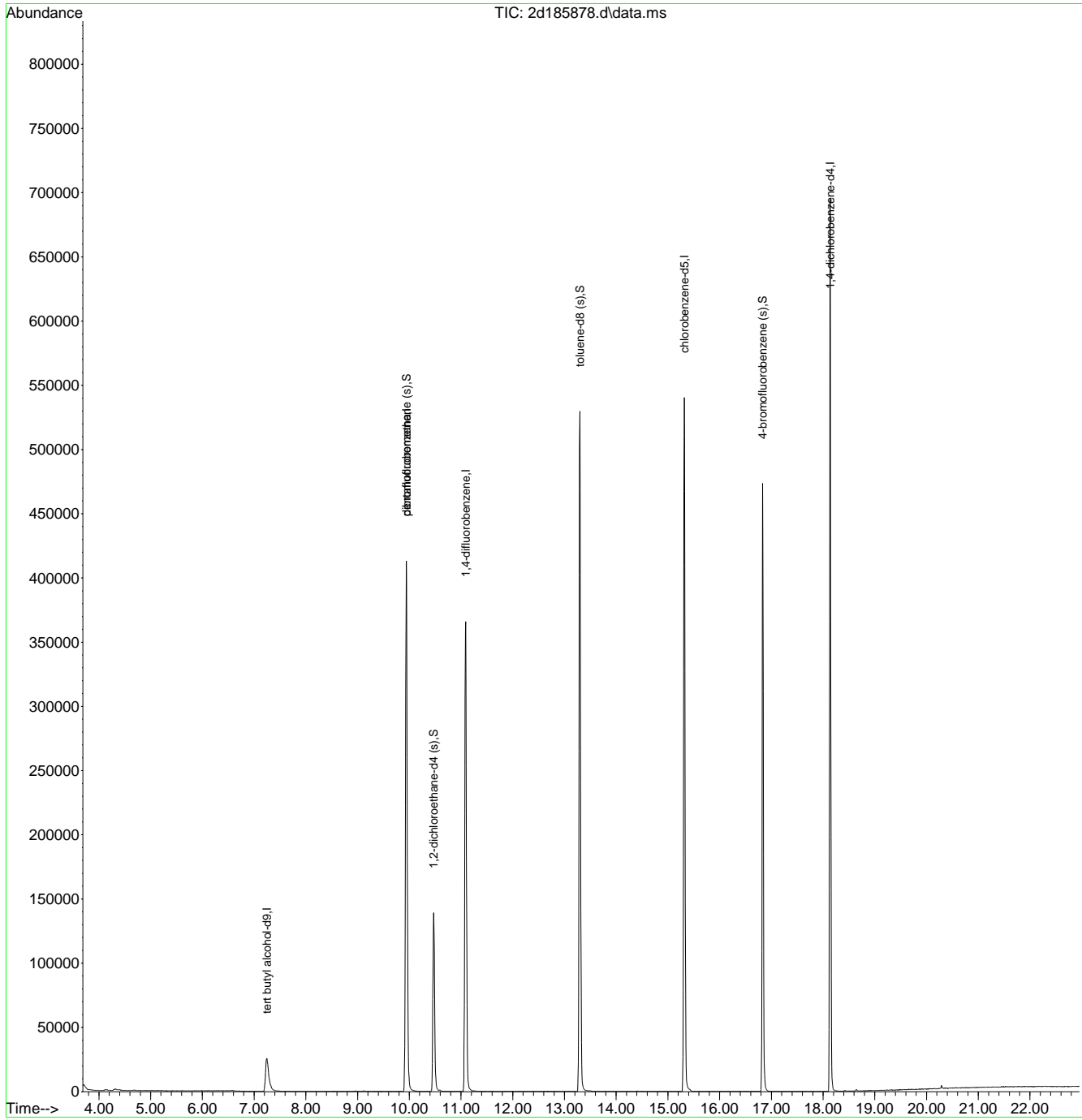
7.17
7



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\10-15-19\v2d7993\
 Data File : 2d185878.d
 Acq On : 12 Oct 2019 1:30 am
 Operator : edwardd
 Sample : JC96248-6 Inst : MS2D
 Misc : MS38188,V2D7993,5,,,,,1
 ALS Vial : 29 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7967.M
 Quant Results File: M2D7967.RES
 Quant Time: Oct 15 01:01:02 2019
 Quant Title : SW-846 Method 8260C / EPA 624, DB624 60m x 0.25mm Thu Sep 26 10:58:10 2019
 QLast Update : Thu Sep 26 10:58:10 2019
 Response via : Initial Calibration



7.17
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\10-15-19\v2d7993\
 Data File : 2d185879.d
 Acq On : 12 Oct 2019 1:59 am
 Operator : edwardd
 Sample : JC96248-7 Inst : MS2D
 Misc : MS38188,V2D7993,5,,,,,1
 ALS Vial : 30 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7967.M
 Quant Results File: M2D7967.RES
 Quant Time: Oct 15 01:10:10 2019
 Quant Title : SW-846 Method 8260C / EPA 624, DB624 60m x 0.25mm Thu Sep 26 10:58:10 2019
 QLast Update : Thu Sep 26 10:58:10 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.242	65	56443	500.00	ug/L	-0.02
5) pentafluorobenzene	9.947	168	217096	50.00	ug/L	-0.01
52) 1,4-difluorobenzene	11.090	114	325410	50.00	ug/L	-0.01
74) chlorobenzene-d5	15.316	117	301704	50.00	ug/L	-0.01
98) 1,4-dichlorobenzene-d4	18.137	152	152342	50.00	ug/L	0.00
System Monitoring Compounds						
44) dibromofluoromethane (s)	9.942	113	96401	46.99	ug/L	-0.01
Spiked Amount	50.000	Range	80 - 120	Recovery	=	93.98%
53) 1,2-dichloroethane-d4 (s)	10.471	65	105707	45.41	ug/L	-0.02
Spiked Amount	50.000	Range	81 - 124	Recovery	=	90.82%
75) toluene-d8 (s)	13.297	98	366045	48.35	ug/L	-0.01
Spiked Amount	50.000	Range	80 - 120	Recovery	=	96.70%
99) 4-bromofluorobenzene (s)	16.831	95	134099	48.61	ug/L	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	=	97.22%

Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

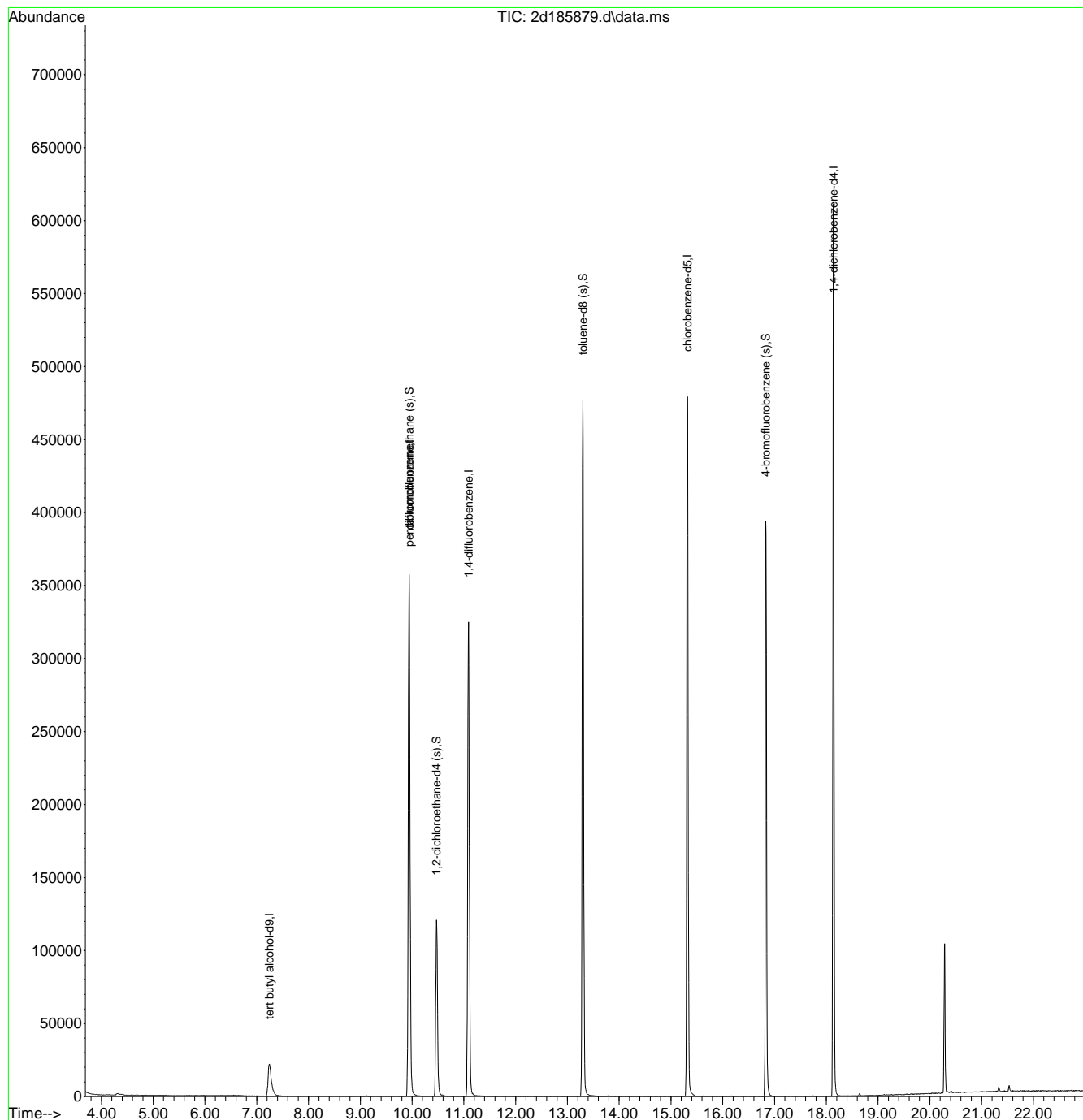
7.1.8
7



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\10-15-19\v2d7993\
 Data File : 2d185879.d
 Acq On : 12 Oct 2019 1:59 am
 Operator : edwardd
 Sample : JC96248-7 Inst : MS2D
 Misc : MS38188,V2D7993,5,,,,,1
 ALS Vial : 30 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7967.M
 Quant Results File: M2D7967.RES
 Quant Time: Oct 15 01:10:10 2019
 Quant Title : SW-846 Method 8260C / EPA 624, DB624 60m x 0.25mm Thu Sep 26 10:58:10 2019
 QLast Update : Thu Sep 26 10:58:10 2019
 Response via : Initial Calibration



718
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\10-18-19\v2d8000\
 Data File : 2d186009.d
 Acq On : 17 Oct 2019 10:34 am
 Operator : krizhkac
 Sample : jc96248-8 Inst : MS2D
 Misc : MS38188,V2D8000,5,,,,,1
 ALS Vial : 5 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7967.M
 Quant Results File: M2D7967.RES
 Quant Time: Oct 18 08:25:27 2019
 Quant Title : SW-846 Method 8260C / EPA 624, DB624 60m x 0.25mm Thu Sep 26 10:58:10 2019
 QLast Update : Thu Sep 26 10:58:10 2019
 Response via : Initial Calibration

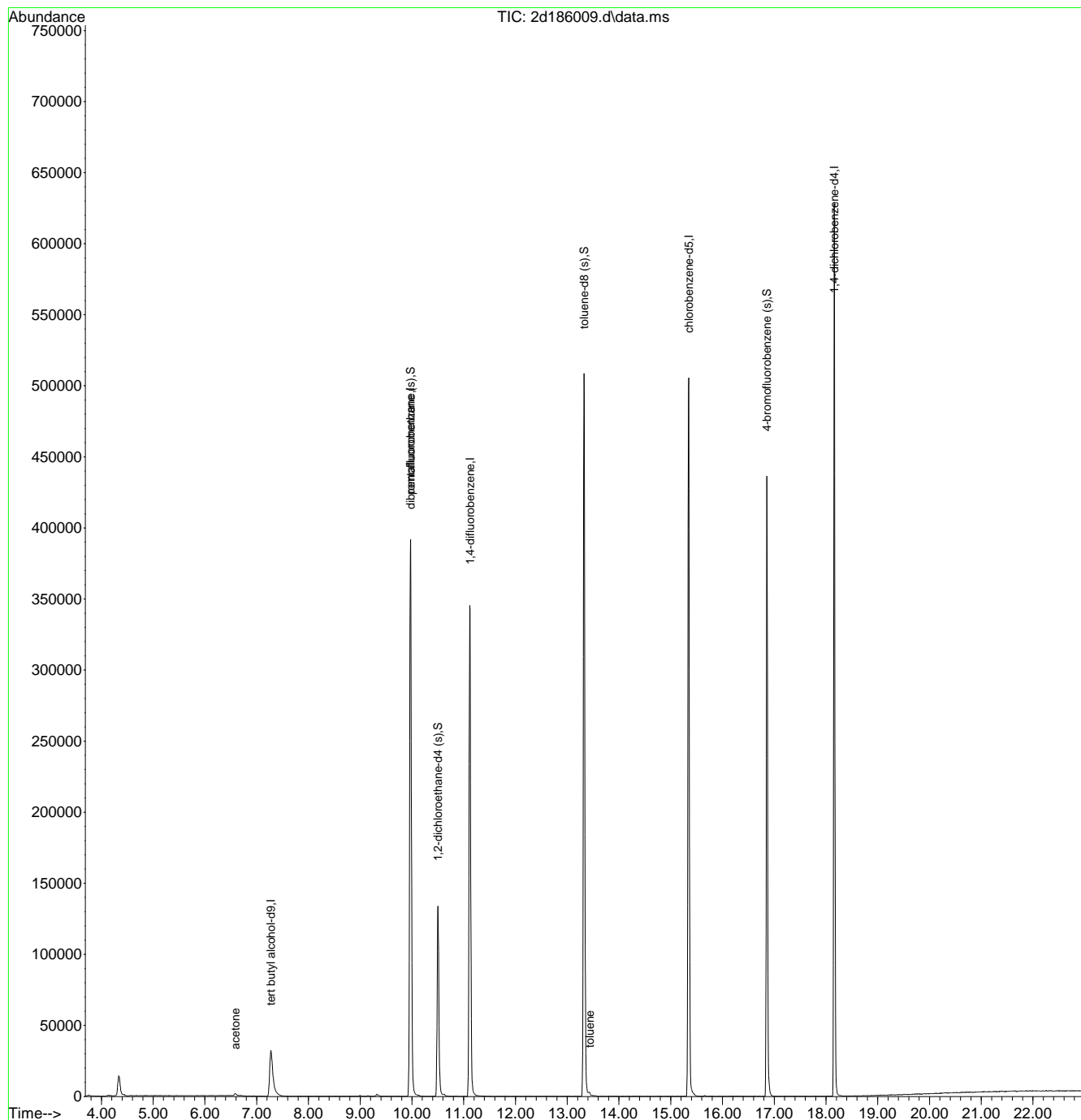
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.273	65	82176	500.00	ug/L	0.02
5) pentafluorobenzene	9.973	168	237948	50.00	ug/L	0.02
52) 1,4-difluorobenzene	11.121	114	351319	50.00	ug/L	0.02
74) chlorobenzene-d5	15.347	117	328755	50.00	ug/L	0.02
98) 1,4-dichlorobenzene-d4	18.158	152	162922	50.00	ug/L	0.02
System Monitoring Compounds						
44) dibromofluoromethane (s)	9.968	113	104947	46.67	ug/L	0.02
Spiked Amount	50.000	Range	80 - 120	Recovery	=	93.34%
53) 1,2-dichloroethane-d4 (s)	10.503	65	114544	45.58	ug/L	0.02
Spiked Amount	50.000	Range	81 - 124	Recovery	=	91.16%
75) toluene-d8 (s)	13.323	98	393804	47.73	ug/L	0.02
Spiked Amount	50.000	Range	80 - 120	Recovery	=	95.46%
99) 4-bromofluorobenzene (s)	16.857	95	145785	49.41	ug/L	0.02
Spiked Amount	50.000	Range	80 - 120	Recovery	=	98.82%
Target Compounds						
20) acetone	6.586	58	857	5.76	ug/L #	26
76) toluene	13.434	92	1181	0.26	ug/L #	85

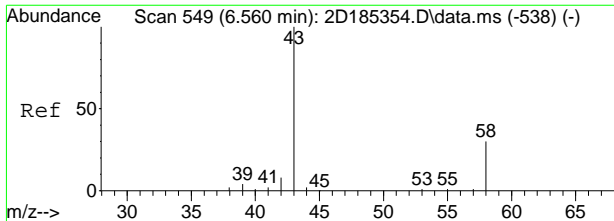
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janeliac\10-18-19\v2d8000\
Data File : 2d186009.d
Acq On : 17 Oct 2019 10:34 am
Operator : krizhkac
Sample : jc96248-8 Inst : MS2D
Misc : MS38188,V2D8000,5,,,,,1
ALS Vial : 5 Sample Multiplier: 1

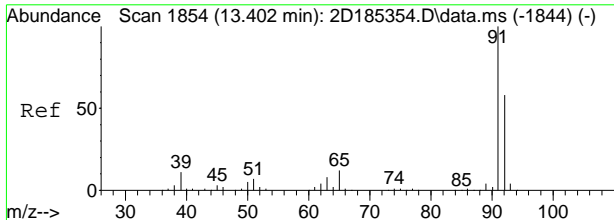
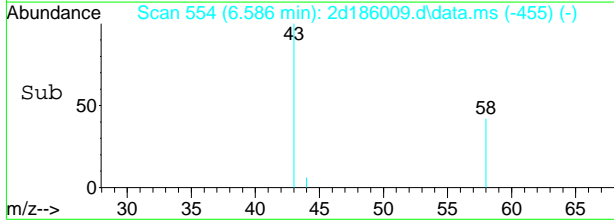
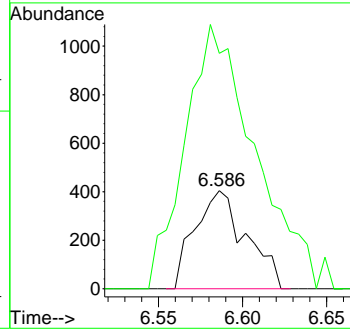
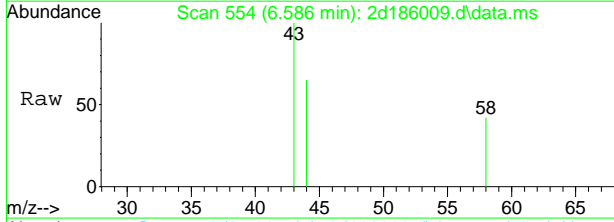
Quant Method : C:\msdchem\1\METHODS\M2D7967.M
Quant Results File: M2D7967.RES
Quant Time: Oct 18 08:25:27 2019
Quant Title : SW-846 Method 8260C / EPA 624, DB624 60m x 0.25mm Thu Sep 26 10:58:10 2019
QLast Update : Thu Sep 26 10:58:10 2019
Response via : Initial Calibration





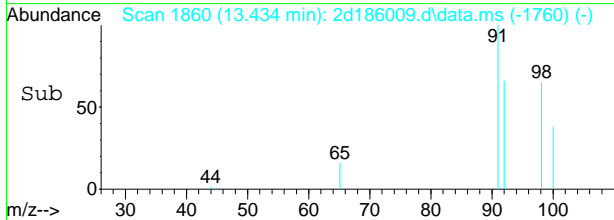
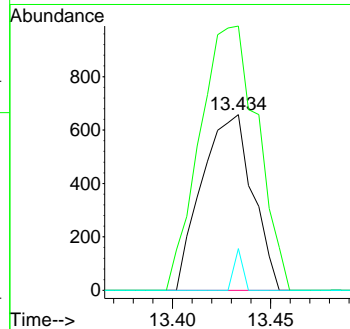
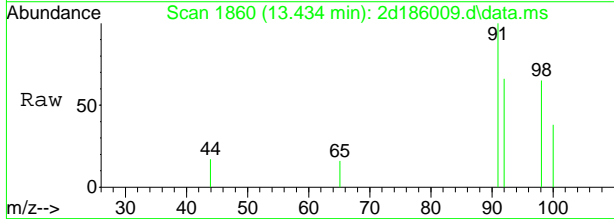
#20
 acetone
 Concen: 5.76 ug/L
 RT: 6.586 min Scan# 554
 Delta R.T. 0.021 min
 Lab File: 2d186009.d
 Acq: 17 Oct 2019 10:34 am

Tgt Ion	Resp	Lower	Upper
58	857	100	
43	181.4	308.0	368.0#



#76
 toluene
 Concen: 0.26 ug/L
 RT: 13.434 min Scan# 1860
 Delta R.T. 0.026 min
 Lab File: 2d186009.d
 Acq: 17 Oct 2019 10:34 am

Tgt Ion	Resp	Lower	Upper
92	1181	100	
91	150.5	152.0	192.0#
65	23.7	0.0	40.0



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\10-18-19\v2d8000\
 Data File : 2d186010.d
 Acq On : 17 Oct 2019 11:03 am
 Operator : krizhkac
 Sample : jc96248-9 Inst : MS2D
 Misc : MS38188,V2D8000,5,,,,,1
 ALS Vial : 6 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7967.M
 Quant Results File: M2D7967.RES
 Quant Time: Oct 18 08:25:55 2019
 Quant Title : SW-846 Method 8260C / EPA 624, DB624 60m x 0.25mm Thu Sep 26 10:58:10 2019
 QLast Update : Thu Sep 26 10:58:10 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.278	65	75158	500.00	ug/L	0.02
5) pentafluorobenzene	9.979	168	240232	50.00	ug/L	0.02
52) 1,4-difluorobenzene	11.121	114	356786	50.00	ug/L	0.02
74) chlorobenzene-d5	15.347	117	329658	50.00	ug/L	0.02
98) 1,4-dichlorobenzene-d4	18.163	152	161700	50.00	ug/L	0.02
System Monitoring Compounds						
44) dibromofluoromethane (s)	9.973	113	105507	46.48	ug/L	0.02
Spiked Amount	50.000	Range	80 - 120	Recovery	=	92.96%
53) 1,2-dichloroethane-d4 (s)	10.508	65	114526	44.87	ug/L	0.02
Spiked Amount	50.000	Range	81 - 124	Recovery	=	89.74%
75) toluene-d8 (s)	13.329	98	398639	48.19	ug/L	0.02
Spiked Amount	50.000	Range	80 - 120	Recovery	=	96.38%
99) 4-bromofluorobenzene (s)	16.857	95	144677	49.41	ug/L	0.02
Spiked Amount	50.000	Range	80 - 120	Recovery	=	98.82%

Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

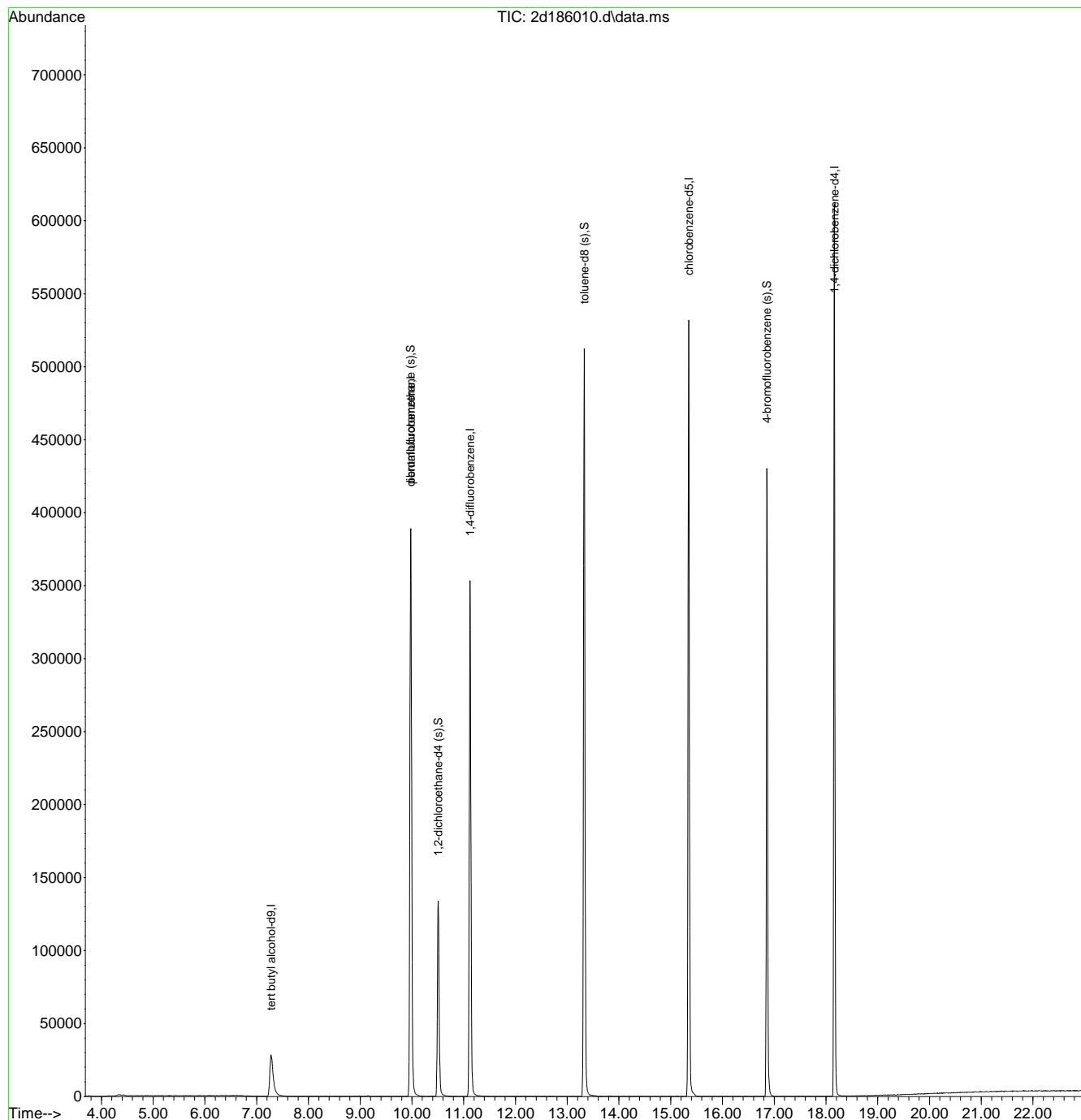
7.1.10
7



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\10-18-19\v2d8000\
Data File : 2d186010.d
Acq On : 17 Oct 2019 11:03 am
Operator : krizhkac
Sample : jc96248-9 Inst : MS2D
Misc : MS38188,V2D8000,5,,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7967.M
Quant Results File: M2D7967.RES
Quant Time: Oct 18 08:25:55 2019
Quant Title : SW-846 Method 8260C / EPA 624, DB624 60m x 0.25mm Thu Sep 26 10:58:10 2019
QLast Update : Thu Sep 26 10:58:10 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\nizele\10_oct\10-14-19\v2d7993-rush\
 Data File : 2d185861.d
 Acq On : 11 Oct 2019 5:11 pm
 Operator : edwardd
 Sample : mb Inst : MS2D
 Misc : MS38188,V2D7993,5,,,,,1
 ALS Vial : 12 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7967.M
 Quant Results File: M2D7967.RES
 Quant Time: Oct 13 23:45:24 2019
 Quant Title : SW-846 Method 8260C / EPA 624, DB624 60m x 0.25mm Thu Sep 26 10:58:10 2019
 QLast Update : Thu Sep 26 10:58:10 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.241	65	64185	500.00	ug/L	-0.02
5) pentafluorobenzene	9.942	168	235242	50.00	ug/L	-0.02
52) 1,4-difluorobenzene	11.085	114	347512	50.00	ug/L	-0.02
74) chlorobenzene-d5	15.316	117	320447	50.00	ug/L	-0.01
98) 1,4-dichlorobenzene-d4	18.136	152	160545	50.00	ug/L	0.00
System Monitoring Compounds						
44) dibromofluoromethane (s)	9.936	113	103250	46.45	ug/L	-0.02
Spiked Amount	50.000	Range	80 - 120	Recovery	=	92.90%
53) 1,2-dichloroethane-d4 (s)	10.466	65	112475	45.25	ug/L	-0.02
Spiked Amount	50.000	Range	81 - 124	Recovery	=	90.50%
75) toluene-d8 (s)	13.292	98	388022	48.25	ug/L	-0.02
Spiked Amount	50.000	Range	80 - 120	Recovery	=	96.50%
99) 4-bromofluorobenzene (s)	16.831	95	143922	49.50	ug/L	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	=	99.00%

Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

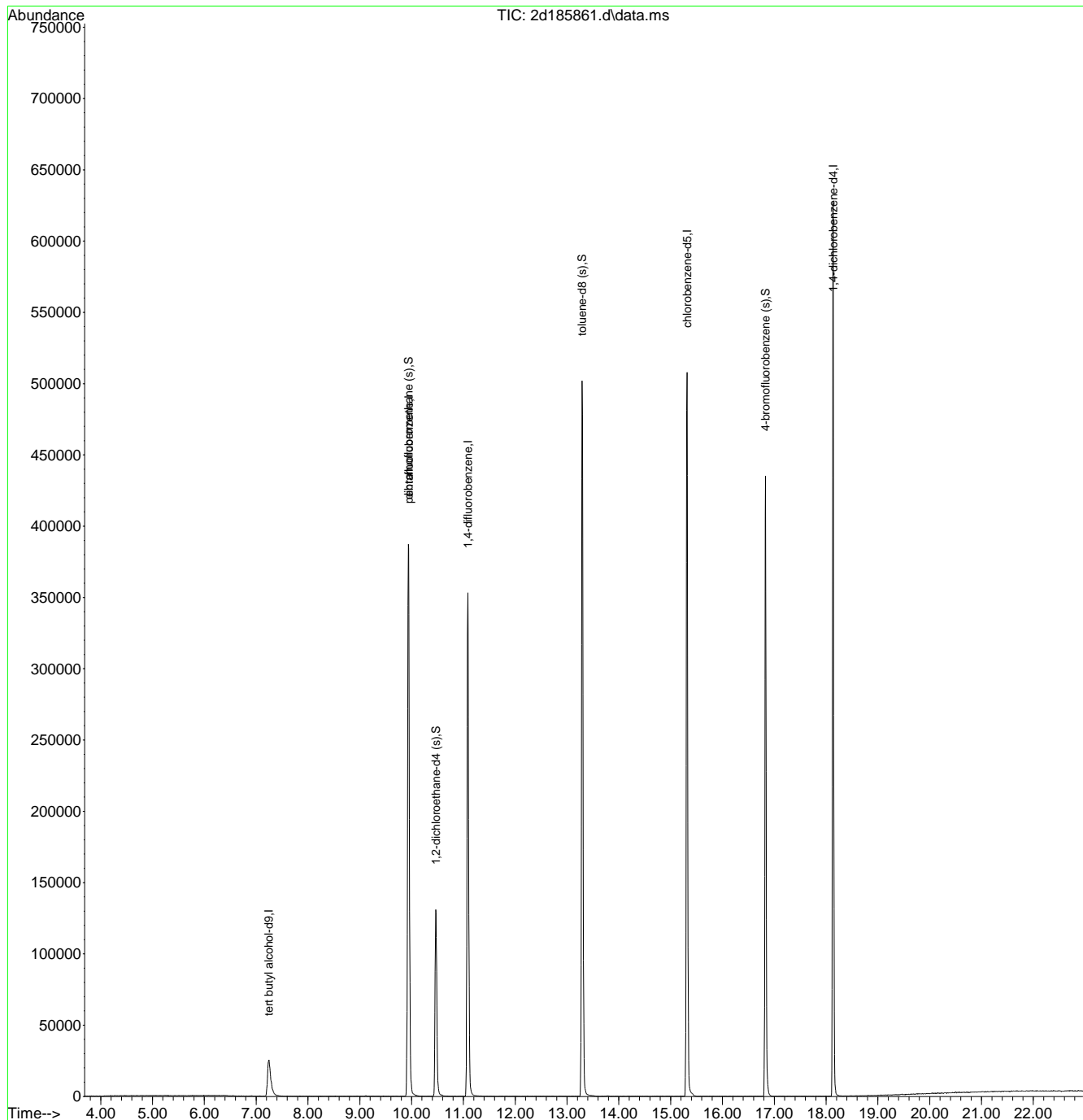
7.2.1
7



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\nizele\10_oct\10-14-19\v2d7993-rush\
 Data File : 2d185861.d
 Acq On : 11 Oct 2019 5:11 pm
 Operator : edwardd
 Sample : mb Inst : MS2D
 Misc : MS38188,V2D7993,5,,,,,1
 ALS Vial : 12 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7967.M
 Quant Results File: M2D7967.RES
 Quant Time: Oct 13 23:45:24 2019
 Quant Title : SW-846 Method 8260C / EPA 624, DB624 60m x 0.25mm Thu Sep 26 10:58:10 2019
 QLast Update : Thu Sep 26 10:58:10 2019
 Response via : Initial Calibration



7.2.1
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\10-18-19\v2d8000\
 Data File : 2d186008.d
 Acq On : 17 Oct 2019 9:54 am
 Operator : krizhkac
 Sample : mb Inst : MS2D
 Misc : MS38298,V2D8000,5,,,,1
 ALS Vial : 4 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7967.M
 Quant Results File: M2D7967.RES
 Quant Time: Oct 18 08:23:32 2019
 Quant Title : SW-846 Method 8260C / EPA 624, DB624 60m x 0.25mm Thu Sep 26 10:58:10 2019
 QLast Update : Thu Sep 26 10:58:10 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.278	65	78012	500.00	ug/L	0.02
5) pentafluorobenzene	9.973	168	243784	50.00	ug/L	0.02
52) 1,4-difluorobenzene	11.121	114	358225	50.00	ug/L	0.02
74) chlorobenzene-d5	15.347	117	339008	50.00	ug/L	0.02
98) 1,4-dichlorobenzene-d4	18.158	152	167347	50.00	ug/L	0.02
System Monitoring Compounds						
44) dibromofluoromethane (s)	9.968	113	106366	46.17	ug/L	0.02
Spiked Amount	50.000	Range	80 - 120	Recovery	=	92.34%
53) 1,2-dichloroethane-d4 (s)	10.503	65	115622	45.12	ug/L	0.02
Spiked Amount	50.000	Range	81 - 124	Recovery	=	90.24%
75) toluene-d8 (s)	13.329	98	403521	47.43	ug/L	0.02
Spiked Amount	50.000	Range	80 - 120	Recovery	=	94.86%
99) 4-bromofluorobenzene (s)	16.857	95	150819	49.76	ug/L	0.02
Spiked Amount	50.000	Range	80 - 120	Recovery	=	99.52%

Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

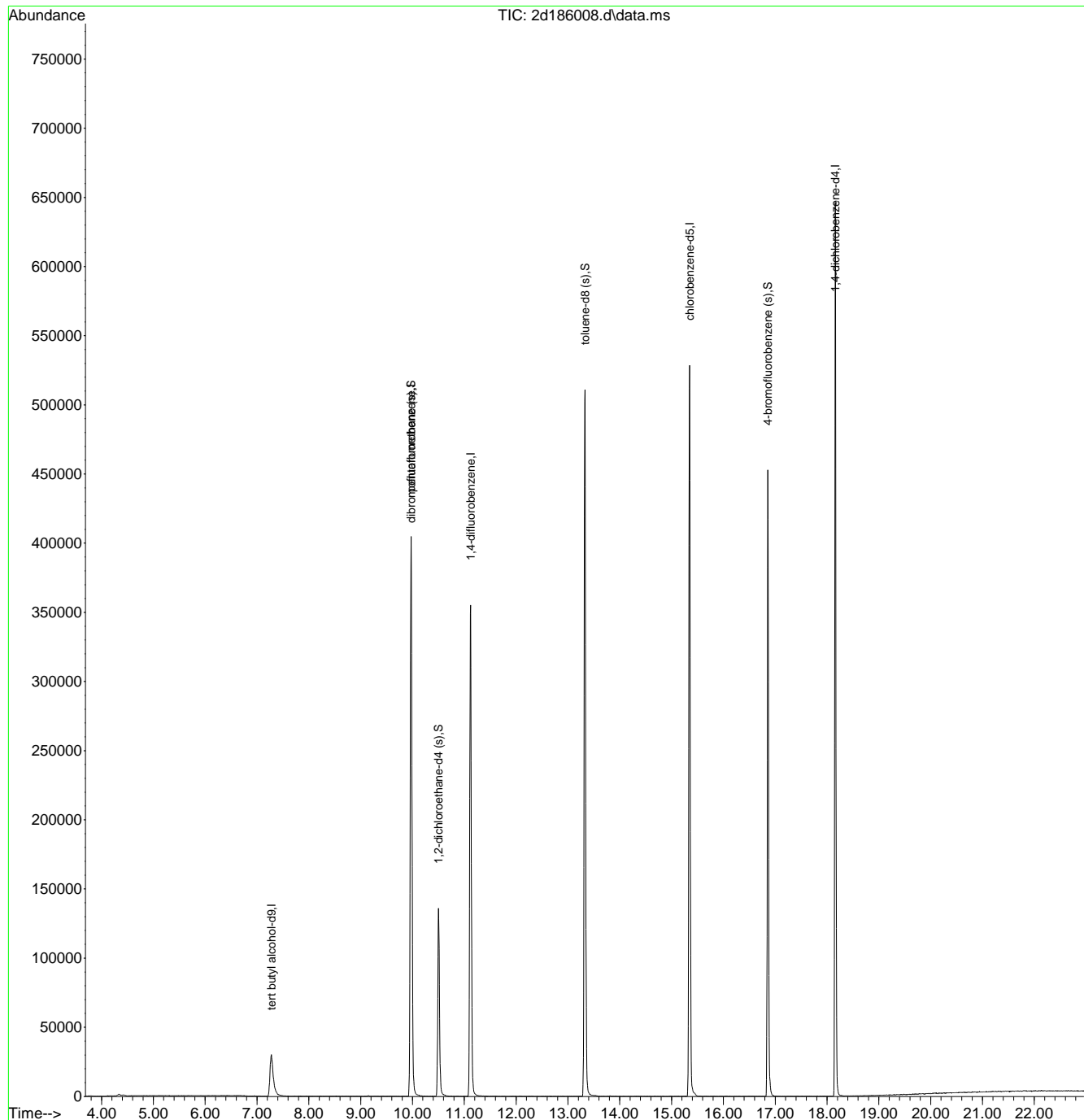
7.22
7



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janeliac\10-18-19\v2d8000\
 Data File : 2d186008.d
 Acq On : 17 Oct 2019 9:54 am
 Operator : krizhkac
 Sample : mb Inst : MS2D
 Misc : MS38298,V2D8000,5,,,,,1
 ALS Vial : 4 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7967.M
 Quant Results File: M2D7967.RES
 Quant Time: Oct 18 08:23:32 2019
 Quant Title : SW-846 Method 8260C / EPA 624, DB624 60m x 0.25mm Thu Sep 26 10:58:10 2019
 QLast Update : Thu Sep 26 10:58:10 2019
 Response via : Initial Calibration



7.22
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\nizele\10_oct\10-14-19\v2d7993-rush\
 Data File : 2d185859.d
 Acq On : 11 Oct 2019 4:12 pm
 Operator : edwardd
 Sample : bs Inst : MS2D
 Misc : MS38186,V2D7993,5,,,,,1
 ALS Vial : 10 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7967.M
 Quant Results File: M2D7967.RES
 Quant Time: Oct 11 23:42:58 2019
 Quant Title : SW-846 Method 8260C / EPA 624, DB624 60m x 0.25mm Thu Sep 26 10:58:10 2019
 QLast Update : Thu Sep 26 10:58:10 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.236	65	69260	500.00	ug/L	-0.02
5) pentafluorobenzene	9.936	168	244022	50.00	ug/L	-0.02
52) 1,4-difluorobenzene	11.085	114	358960	50.00	ug/L	-0.02
74) chlorobenzene-d5	15.316	117	342862	50.00	ug/L	-0.01
98) 1,4-dichlorobenzene-d4	18.131	152	187529	50.00	ug/L	-0.01
System Monitoring Compounds						
44) dibromofluoromethane (s)	9.931	113	106818	46.32	ug/L	-0.02
Spiked Amount	50.000	Range	80 - 120	Recovery	=	92.64%
53) 1,2-dichloroethane-d4 (s)	10.466	65	112363	43.76	ug/L	-0.02
Spiked Amount	50.000	Range	81 - 124	Recovery	=	87.52%
75) toluene-d8 (s)	13.292	98	403002	46.84	ug/L	-0.02
Spiked Amount	50.000	Range	80 - 120	Recovery	=	93.68%
99) 4-bromofluorobenzene (s)	16.826	95	157753	46.45	ug/L	-0.01
Spiked Amount	50.000	Range	80 - 120	Recovery	=	92.90%
Target Compounds						
2) tertiary butyl alcohol	7.367	59	37230	277.33	ug/L	96
3) ethanol	5.873	45	75091	4502.37	ug/L	97
4) 1,4-dioxane	12.018	88	18443	1351.08	ug/L	96
6) chlorodifluoromethane	3.839	51	129597	48.43	ug/L	96
7) dichlorodifluoromethane	3.818	85	138240	65.04	ug/L	99
8) chloromethane	4.190	50	142842	45.13	ug/L	100
9) vinyl chloride	4.415	62	142564	47.89	ug/L	97
10) 1,3-butadiene	4.447	54	92360	48.34	ug/L	95
11) bromomethane	5.034	94	89347	43.64	ug/L	99
12) chloroethane	5.186	64	65148	45.20	ug/L	97
13) trichlorofluoromethane	5.669	101	143656	50.18	ug/L	98
14) vinyl bromide	5.543	106	77578	49.81	ug/L	98
15) ethyl ether	6.078	74	44234	42.05	ug/L	94
16) acrolein	6.308	56	12614	43.86	ug/L	95
17) 1,1-dichloroethene	6.497	96	81893	47.02	ug/L	89
18) freon 113	6.502	151	73420	54.15	ug/L	95
19) 2-chloropropane	6.261	43	151628	38.62	ug/L	100
20) acetone	6.544	58	25784	168.93	ug/L	87
21) acetonitrile	6.995	41	93128	406.14	ug/L	99
22) iodomethane	6.775	142	124254	48.80	ug/L	98
23) carbon disulfide	6.906	76	234915	46.50	ug/L	97
24) methylene chloride	7.257	84	98124	46.66	ug/L	97
25) methyl acetate	7.063	43	58580	42.34	ug/L	97
26) methyl tert butyl ether	7.682	73	229573	47.52	ug/L	99
27) trans-1,2-dichloroethene	7.692	96	92612	50.83	ug/L	98
28) hexane	8.096	57	137399	56.95	ug/L	98
29) di-isopropyl ether	8.395	45	324929	46.47	ug/L	98
30) 2-butanone	9.213	72	31252	191.78	ug/L #	87
31) 1,1-dichloroethane	8.348	63	173356	47.77	ug/L	99
32) chloroprene	8.484	53	137152	48.21	ug/L	96
33) acrylonitrile	7.619	53	29917	46.60	ug/L	95
34) vinyl acetate	8.364	86	15454	46.90	ug/L #	85
35) ethyl tert-butyl ether	8.956	59	273945	46.70	ug/L	98
36) ethyl acetate	9.271	45	10946	42.84	ug/L #	80
37) 2,2-dichloropropane	9.255	77	133245	51.33	ug/L	93
38) cis-1,2-dichloroethene	9.234	96	101957	49.20	ug/L	95
39) propionitrile	9.307	54	106288	464.86	ug/L	100
40) tert-butyl formate	9.779	59	63306	39.37	ug/L	95
41) bromochloromethane	9.601	128	49869	49.27	ug/L	96

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\nizele\10_oct\10-14-19\v2d7993-rush\
 Data File : 2d185859.d
 Acq On : 11 Oct 2019 4:12 pm
 Operator : edwardd
 Sample : bs Inst : MS2D
 Misc : MS38186,V2D7993,5,,,,1
 ALS Vial : 10 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7967.M
 Quant Results File: M2D7967.RES
 Quant Time: Oct 11 23:42:58 2019
 Quant Title : SW-846 Method 8260C / EPA 624, DB624 60m x 0.25mm Thu Sep 26 10:58:10 2019
 QLast Update : Thu Sep 26 10:58:10 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
42) tetrahydrofuran	9.680	42	20872	41.62	ug/L	99
43) chloroform	9.690	83	164052	45.01	ug/L	97
45) methacrylonitrile	9.554	67	30634	47.08	ug/L	97
46) 1,1,1-trichloroethane	10.026	97	138445	47.88	ug/L	97
47) cyclohexane	10.130	84	133543	54.25	ug/L	98
48) 1,1-dichloropropene	10.256	75	124723	48.43	ug/L	97
49) isobutyl alcohol	10.277	43	30029	422.14	ug/L	97
50) carbon tetrachloride	10.282	117	124393	51.29	ug/L	98
51) tert-amyl alcohol	10.445	73	16177	222.74	ug/L	93
54) benzene	10.576	78	366644	47.78	ug/L	99
55) iso-octane	10.660	57	281776	57.49	ug/L	96
56) tert-amyl methyl ether	10.681	73	254762	47.83	ug/L	99
57) heptane	10.891	57	63788	57.91	ug/L	97
58) isopropyl acetate	10.555	87	16011	46.77	ug/L	# 83
59) 1,2-dichloroethane	10.581	62	118200	40.44	ug/L	98
60) n-butyl alcohol	11.258	56	100872	2363.37	ug/L	97
61) ethyl acrylate	11.577	55	99507	47.83	ug/L	98
62) trichloroethene	11.515	130	96178	52.01	ug/L	97
63) 2-nitropropane	12.553	41	15993	42.35	ug/L	97
64) 2-chloroethyl vinyl ether	12.621	63	277987	245.20	ug/L	99
65) methyl methacrylate	11.934	69	52698	48.89	ug/L	90
66) 1,2-dichloropropane	11.855	63	98494	48.19	ug/L	97
67) dibromomethane	12.039	93	56576	48.99	ug/L	93
68) methylcyclohexane	11.834	83	154745	57.33	ug/L	97
69) bromodichloromethane	12.238	83	125823	48.73	ug/L	99
70) epichlorohydrin	12.747	57	36389	241.84	ug/L	97
71) cis-1,3-dichloropropene	12.883	75	158576	53.17	ug/L	96
72) 4-methyl-2-pentanone	13.061	58	122625	201.13	ug/L	96
73) 3-methyl-1-butanol	13.087	55	67358	996.84	ug/L	96
76) toluene	13.392	92	228705	47.98	ug/L	98
77) trans-1,3-dichloropropene	13.654	75	137931	50.72	ug/L	99
78) ethyl methacrylate	13.722	69	107123	49.55	ug/L	94
79) 1,1,2-trichloroethane	13.926	83	69899	47.83	ug/L	97
80) tetrachloroethene	14.178	164	85001	51.54	ug/L	97
81) 1,3-dichloropropane	14.178	76	135940	47.68	ug/L	97
82) 2-hexanone	14.225	58	116632	202.33	ug/L	97
83) butyl acetate	14.367	56	54723	48.31	ug/L	99
84) dibromochloromethane	14.508	129	98947	52.46	ug/L	98
85) 1,2-dibromoethane	14.702	107	95010	49.59	ug/L	98
86) n-butyl ether	15.368	57	410893	50.89	ug/L	100
87) chlorobenzene	15.352	112	269003	49.47	ug/L	100
88) 1,1,1,2-tetrachloroethane	15.442	131	98442	51.57	ug/L	97
89) ethylbenzene	15.468	91	443248	48.94	ug/L	98
90) m,p-xylene	15.615	91	680735	99.07	ug/L	97
91) o-xylene	16.155	106	171951	52.03	ug/L	99
92) styrene	16.165	104	293070	52.95	ug/L	94
93) butyl acrylate	15.997	55	177905	49.25	ug/L	98
94) n-amyl acetate	16.286	70	61159	50.85	ug/L	93
95) bromoform	16.448	173	67774	52.70	ug/L	98
96) isopropylbenzene	16.616	105	432650	51.16	ug/L	99
97) cis-1,4-dichloro-2-butene	16.679	88	31460	44.00	ug/L	96
100) bromobenzene	17.041	156	128928	49.62	ug/L	98
101) 1,1,2,2-tetrachloroethane	16.957	83	107303	45.38	ug/L	98
102) trans-1,4-dichloro-2-b...	17.020	53	24999	42.49	ug/L	96
103) 1,2,3-trichloropropane	17.035	110	27270	45.98	ug/L	98
104) n-propylbenzene	17.109	91	514256	48.53	ug/L	99
105) 2-chlorotoluene	17.250	126	114534	51.01	ug/L	91

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\nizele\10_oct\10-14-19\v2d7993-rush\
 Data File : 2d185859.d
 Acq On : 11 Oct 2019 4:12 pm
 Operator : edwardd
 Sample : bs Inst : MS2D
 Misc : MS38186,V2D7993,5,,,,,1
 ALS Vial : 10 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7967.M
 Quant Results File: M2D7967.RES
 Quant Time: Oct 11 23:42:58 2019
 Quant Title : SW-846 Method 8260C / EPA 624, DB624 60m x 0.25mm Thu Sep 26 10:58:10 2019
 QLast Update : Thu Sep 26 10:58:10 2019
 Response via : Initial Calibration

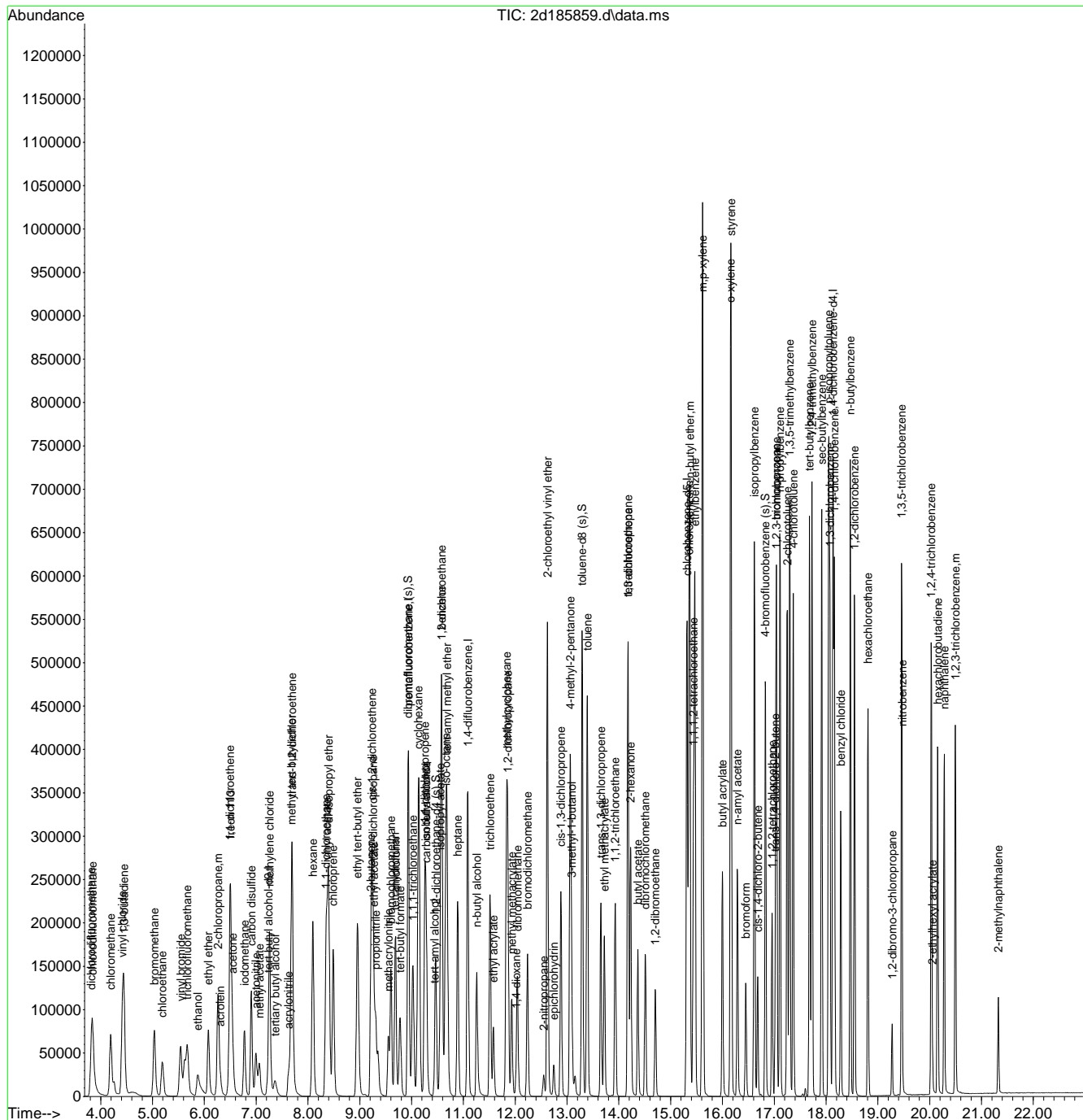
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
106) 4-chlorotoluene	17.366	91	315026	47.81	ug/L	99
107) 1,3,5-trimethylbenzene	17.298	105	367125	49.79	ug/L	99
108) tert-butylbenzene	17.680	119	312523	50.74	ug/L	97
109) 1,2,4-trimethylbenzene	17.728	105	373375	50.02	ug/L	100
110) sec-butylbenzene	17.916	105	464476	51.13	ug/L	99
111) 1,3-dichlorobenzene	18.074	146	232158	49.82	ug/L	99
112) p-isopropyltoluene	18.047	119	399902	52.65	ug/L	99
113) 1,4-dichlorobenzene	18.157	146	233960	47.79	ug/L	99
114) 1,2-dichlorobenzene	18.545	146	229066	50.11	ug/L	99
115) benzyl chloride	18.283	91	217332	59.44	ug/L	98
116) n-butylbenzene	18.467	92	198595	52.59	ug/L	99
117) 1,2-dibromo-3-chloropr...	19.274	157	22476	51.06	ug/L	94
118) nitrobenzene	19.468	77	3466	53.45	ug/L	91
119) 1,3,5-trichlorobenzene	19.458	180	191949	56.91	ug/L	98
120) hexachlorobutadiene	20.155	225	90044	57.81	ug/L	99
121) naphthalene	20.281	128	299366	51.06	ug/L	99
122) 2-ethylhexyl acrylate	20.050	70	10133	6.51	ug/L	97
123) 1,2,4-trichlorobenzene	20.029	180	160546	56.69	ug/L	99
124) 1,2,3-trichlorobenzene	20.496	180	139413	53.63	ug/L	98
125) hexachloroethane	18.808	201	76792	56.13	ug/L	99
126) 2-methylnaphthalene	21.324	142	54468	18.74	ug/L	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\nizele\10_oct\10-14-19\v2d7993-rush\
Data File : 2d185859.d
Acq On : 11 Oct 2019 4:12 pm
Operator : edwardd
Sample : bs
Misc : MS38186,V2D7993,5,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7967.M
Quant Results File: M2D7967.RES
Quant Time: Oct 11 23:42:58 2019
Quant Title : SW-846 Method 8260C / EPA 624, DB624 60m x 0.25mm Thu Sep 26 10:58:10 2019
QLast Update : Thu Sep 26 10:58:10 2019
Response via : Initial Calibration



7.3.1 7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\10-18-19\v2d8000\
 Data File : 2d186006.d
 Acq On : 17 Oct 2019 8:46 am
 Operator : krizhkac
 Sample : bs Inst : MS2D
 Misc : MS38297,V2D8000,5,,,,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7967.M
 Quant Results File: M2D7967.RES
 Quant Time: Oct 17 09:09:53 2019
 Quant Title : SW-846 Method 8260C / EPA 624, DB624 60m x 0.25mm Thu Sep 26 10:58:10 2019
 QLast Update : Thu Sep 26 10:58:10 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.273	65	77097	500.00	ug/L	0.02
5) pentafluorobenzene	9.978	168	243645	50.00	ug/L	0.02
52) 1,4-difluorobenzene	11.121	114	354424	50.00	ug/L	0.02
74) chlorobenzene-d5	15.347	117	342879	50.00	ug/L	0.02
98) 1,4-dichlorobenzene-d4	18.163	152	188783	50.00	ug/L	0.02
System Monitoring Compounds						
44) dibromofluoromethane (s)	9.973	113	104526	45.40	ug/L	0.02
Spiked Amount	50.000	Range	80 - 120	Recovery	=	90.80%
53) 1,2-dichloroethane-d4 (s)	10.508	65	110684	43.66	ug/L	0.02
Spiked Amount	50.000	Range	81 - 124	Recovery	=	87.32%
75) toluene-d8 (s)	13.329	98	400389	46.53	ug/L	0.02
Spiked Amount	50.000	Range	80 - 120	Recovery	=	93.06%
99) 4-bromofluorobenzene (s)	16.857	95	159806	46.74	ug/L	0.02
Spiked Amount	50.000	Range	80 - 120	Recovery	=	93.48%
Target Compounds						
2) tertiary butyl alcohol	7.409	59	38008	254.34	ug/L	95
3) ethanol	5.910	45	75723	4078.74	ug/L	98
4) 1,4-dioxane	12.060	88	19631	1291.92	ug/L	93
6) chlorodifluoromethane	3.875	51	134239	50.24	ug/L	97
7) dichlorodifluoromethane	3.860	85	129919	61.22	ug/L	98
8) chloromethane	4.222	50	136140	43.08	ug/L	99
9) vinyl chloride	4.447	62	137755	46.35	ug/L	97
10) 1,3-butadiene	4.478	54	100747	52.81	ug/L	95
11) bromomethane	5.071	94	86735	42.43	ug/L	98
12) chloroethane	5.228	64	63116	43.86	ug/L	96
13) trichlorofluoromethane	5.705	101	136752	47.84	ug/L	99
14) vinyl bromide	5.569	106	75401	48.49	ug/L	99
15) ethyl ether	6.114	74	45561	43.38	ug/L	90
16) acrolein	6.350	56	12729	44.33	ug/L	97
17) 1,1-dichloroethene	6.539	96	81903	47.10	ug/L	91
18) freon 113	6.544	151	73557	54.34	ug/L	93
19) 2-chloropropane	6.303	43	148112	37.79	ug/L	98
20) acetone	6.581	58	26456	173.60	ug/L	# 85
21) acetonitrile	7.032	41	108546	474.11	ug/L	99
22) iodomethane	6.812	142	135381	53.25	ug/L	96
23) carbon disulfide	6.948	76	255692	50.69	ug/L	97
24) methylene chloride	7.299	84	98814	47.06	ug/L	93
25) methyl acetate	7.100	43	63032	45.63	ug/L	98
26) methyl tert butyl ether	7.724	73	240472	49.85	ug/L	99
27) trans-1,2-dichloroethene	7.734	96	92759	50.99	ug/L	94
28) hexane	8.133	57	135907	56.41	ug/L	97
29) di-isopropyl ether	8.437	45	318883	45.67	ug/L	95
30) 2-butanone	9.250	72	33291	204.61	ug/L	# 87
31) 1,1-dichloroethane	8.384	63	168921	46.62	ug/L	99
32) chloroprene	8.526	53	132285	46.57	ug/L	95
33) acrylonitrile	7.666	53	31356	48.92	ug/L	96
34) vinyl acetate	8.400	86	16053	48.79	ug/L	# 65
35) ethyl tert-butyl ether	8.998	59	281238	48.02	ug/L	97
36) ethyl acetate	9.307	45	11650	45.66	ug/L	# 71
37) 2,2-dichloropropane	9.297	77	137382	53.01	ug/L	93
38) cis-1,2-dichloroethene	9.271	96	102602	49.59	ug/L	93
39) propionitrile	9.344	54	112142	491.22	ug/L	99
40) tert-butyl formate	9.816	59	75631	47.11	ug/L	97
41) bromochloromethane	9.643	128	51006	50.48	ug/L	91

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\10-18-19\v2d8000\
 Data File : 2d186006.d
 Acq On : 17 Oct 2019 8:46 am
 Operator : krizhkac
 Sample : bs Inst : MS2D
 Misc : MS38297,V2D8000,5,,,,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7967.M
 Quant Results File: M2D7967.RES
 Quant Time: Oct 17 09:09:53 2019
 Quant Title : SW-846 Method 8260C / EPA 624, DB624 60m x 0.25mm Thu Sep 26 10:58:10 2019
 QLast Update : Thu Sep 26 10:58:10 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
42) tetrahydrofuran	9.716	42	21719	43.38	ug/L	97
43) chloroform	9.727	83	161469	44.37	ug/L	97
45) methacrylonitrile	9.590	67	32568	50.13	ug/L	95
46) 1,1,1-trichloroethane	10.068	97	139578	48.34	ug/L	97
47) cyclohexane	10.172	84	128074	52.11	ug/L	89
48) 1,1-dichloropropene	10.293	75	122476	47.63	ug/L	98
49) isobutyl alcohol	10.314	43	31018	436.71	ug/L	98
50) carbon tetrachloride	10.324	117	124852	51.56	ug/L	97
51) tert-amyl alcohol	10.487	73	17284	238.35	ug/L	92
54) benzene	10.618	78	365837	48.28	ug/L	99
55) iso-octane	10.697	57	276654	57.17	ug/L	96
56) tert-amyl methyl ether	10.723	73	265764	50.54	ug/L	99
57) heptane	10.927	57	62726	57.68	ug/L	95
58) isopropyl acetate	10.592	87	17343	51.31	ug/L #	73
59) 1,2-dichloroethane	10.618	62	119161	41.29	ug/L	99
60) n-butyl alcohol	11.294	56	104565	2481.25	ug/L	96
61) ethyl acrylate	11.614	55	107007	52.09	ug/L	99
62) trichloroethene	11.551	130	97893	53.62	ug/L	97
63) 2-nitropropane	12.589	41	16361	43.88	ug/L	97
64) 2-chloroethyl vinyl ether	12.658	63	276806	247.28	ug/L	99
65) methyl methacrylate	11.965	69	56219	52.82	ug/L	92
66) 1,2-dichloropropane	11.897	63	99037	49.08	ug/L	99
67) dibromomethane	12.076	93	57885	50.76	ug/L	94
68) methylcyclohexane	11.876	83	155741	58.44	ug/L	97
69) bromodichloromethane	12.275	83	124361	48.78	ug/L	99
70) epichlorohydrin	12.778	57	40187	270.50	ug/L	97
71) cis-1,3-dichloropropene	12.920	75	159584	54.19	ug/L	94
72) 4-methyl-2-pentanone	13.098	58	132670	220.39	ug/L	92
73) 3-methyl-1-butanol	13.119	55	71722	1075.00	ug/L	96
76) toluene	13.423	92	231303	48.53	ug/L	98
77) trans-1,3-dichloropropene	13.685	75	140509	51.67	ug/L	98
78) ethyl methacrylate	13.753	69	113914	52.69	ug/L	95
79) 1,1,2-trichloroethane	13.963	83	72649	49.71	ug/L	95
80) tetrachloroethene	14.210	164	86232	52.28	ug/L	97
81) 1,3-dichloropropane	14.210	76	140549	49.30	ug/L	97
82) 2-hexanone	14.262	58	126148	218.83	ug/L	94
83) butyl acetate	14.398	56	60129	53.08	ug/L	97
84) dibromochloromethane	14.545	129	100512	53.28	ug/L	99
85) 1,2-dibromoethane	14.739	107	100746	52.58	ug/L	97
86) n-butyl ether	15.400	57	411632	50.98	ug/L	99
87) chlorobenzene	15.389	112	273956	50.38	ug/L	98
88) 1,1,1,2-tetrachloroethane	15.473	131	100223	52.50	ug/L	98
89) ethylbenzene	15.499	91	450511	49.74	ug/L	99
90) m,p-xylene	15.651	91	692231	100.73	ug/L	97
91) o-xylene	16.191	106	176296	53.34	ug/L	97
92) styrene	16.197	104	298107	53.85	ug/L	94
93) butyl acrylate	16.029	55	187765	51.98	ug/L	97
94) n-amyl acetate	16.317	70	65785	54.70	ug/L	90
95) bromoform	16.480	173	71880	55.89	ug/L	96
96) isopropylbenzene	16.648	105	439218	51.94	ug/L	98
97) cis-1,4-dichloro-2-butene	16.710	88	31278	43.74	ug/L	96
100) bromobenzene	17.072	156	132439	50.63	ug/L	94
101) 1,1,2,2-tetrachloroethane	16.983	83	117234	49.25	ug/L	98
102) trans-1,4-dichloro-2-b...	17.046	53	24791	41.86	ug/L	91
103) 1,2,3-trichloropropane	17.067	110	29607	49.59	ug/L #	90
104) n-propylbenzene	17.140	91	520911	48.83	ug/L	97
105) 2-chlorotoluene	17.277	126	117123	51.81	ug/L	92

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\10-18-19\v2d8000\
 Data File : 2d186006.d
 Acq On : 17 Oct 2019 8:46 am
 Operator : krizhkac
 Sample : bs Inst : MS2D
 Misc : MS38297,V2D8000,5,,,,,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7967.M
 Quant Results File: M2D7967.RES
 Quant Time: Oct 17 09:09:53 2019
 Quant Title : SW-846 Method 8260C / EPA 624, DB624 60m x 0.25mm Thu Sep 26 10:58:10 2019
 QLast Update : Thu Sep 26 10:58:10 2019
 Response via : Initial Calibration

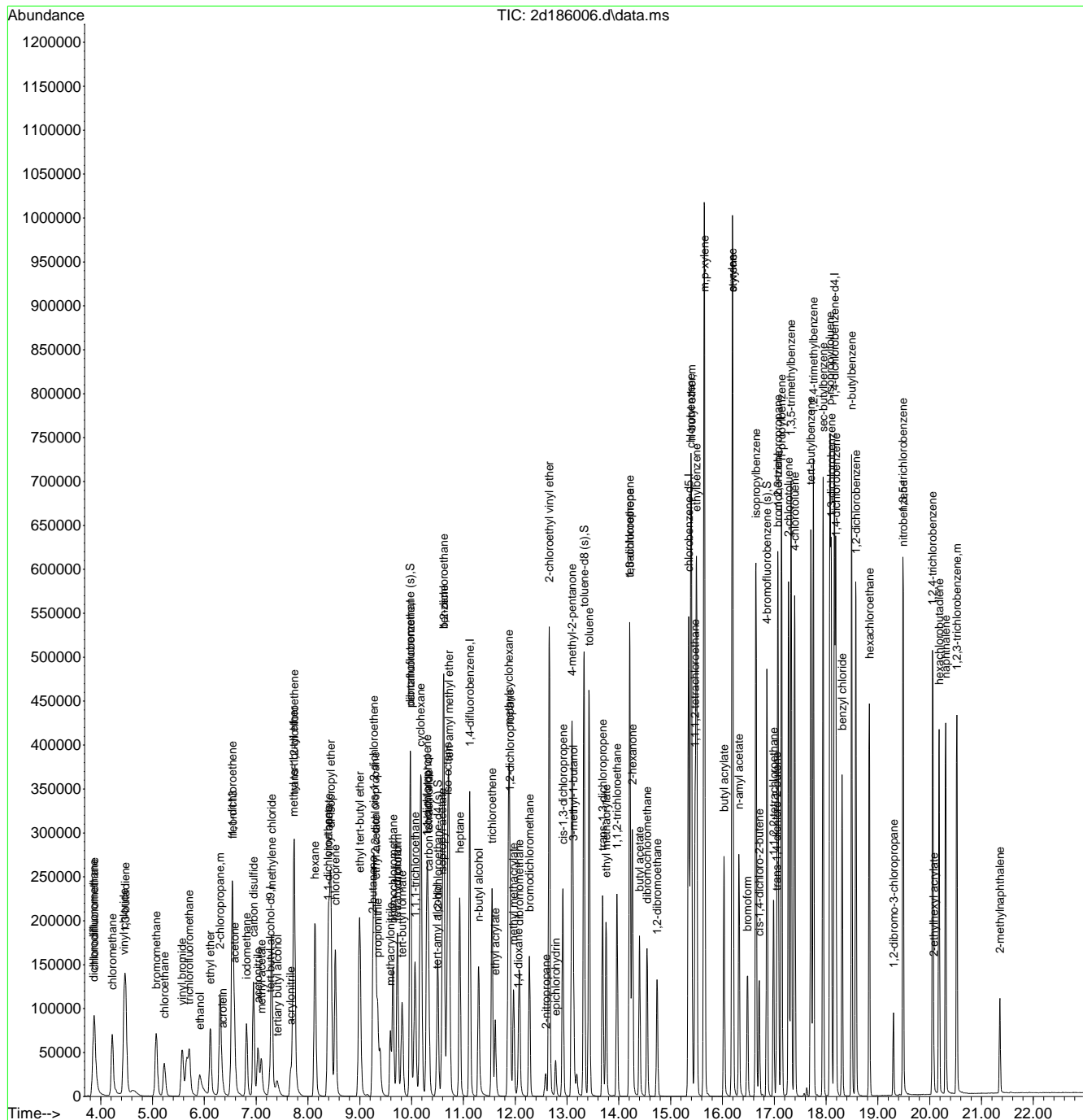
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
106) 4-chlorotoluene	17.392	91	321887	48.53	ug/L	99
107) 1,3,5-trimethylbenzene	17.324	105	373385	50.30	ug/L	99
108) tert-butylbenzene	17.707	119	317464	51.20	ug/L	98
109) 1,2,4-trimethylbenzene	17.754	105	381644	50.79	ug/L	99
110) sec-butylbenzene	17.943	105	468033	51.18	ug/L	98
111) 1,3-dichlorobenzene	18.100	146	236648	50.44	ug/L	99
112) p-isopropyltoluene	18.074	119	406335	53.14	ug/L	99
113) 1,4-dichlorobenzene	18.189	146	239269	48.55	ug/L	98
114) 1,2-dichlorobenzene	18.577	146	234615	50.98	ug/L	98
115) benzyl chloride	18.310	91	237489	64.52	ug/L	98
116) n-butylbenzene	18.493	92	200629	52.77	ug/L	99
117) 1,2-dibromo-3-chloropr...	19.300	157	25107	56.66	ug/L	97
118) nitrobenzene	19.489	77	3633	55.65	ug/L	89
119) 1,3,5-trichlorobenzene	19.484	180	194476	57.28	ug/L	99
120) hexachlorobutadiene	20.181	225	90022	57.41	ug/L	98
121) naphthalene	20.307	128	320316	54.27	ug/L	99
122) 2-ethylhexyl acrylate	20.076	70	8712	5.76	ug/L	95
123) 1,2,4-trichlorobenzene	20.055	180	163669	57.41	ug/L	99
124) 1,2,3-trichlorobenzene	20.522	180	142915	54.61	ug/L	99
125) hexachloroethane	18.834	201	77374	56.18	ug/L	98
126) 2-methylnaphthalene	21.356	142	54807	18.73	ug/L	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\10-18-19\v2d8000\
Data File : 2d186006.d
Acq On : 17 Oct 2019 8:46 am
Operator : krizhkac
Sample : bs
Misc : MS38297,V2D8000,5,,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7967.M
Quant Results File: M2D7967.RES
Quant Time: Oct 17 09:09:53 2019
Quant Title : SW-846 Method 8260C / EPA 624, DB624 60m x 0.25mm Thu Sep 26 10:58:10 2019
QLast Update : Thu Sep 26 10:58:10 2019
Response via : Initial Calibration



7.3.2
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\nizele\10_oct\10-14-19\v2d7993-rush\
 Data File : 2d185863.d
 Acq On : 11 Oct 2019 6:09 pm
 Operator : edwardd
 Sample : JC96248-4ms Inst : MS2D
 Misc : MS38188,V2D7993,5,,,,,1
 ALS Vial : 14 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7967.M
 Quant Results File: M2D7967.RES
 Quant Time: Oct 13 23:48:25 2019
 Quant Title : SW-846 Method 8260C / EPA 624, DB624 60m x 0.25mm Thu Sep 26 10:58:10 2019
 QLast Update : Thu Sep 26 10:58:10 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.247	65	58734	500.00	ug/L	-0.01
5) pentafluorobenzene	9.942	168	216169	50.00	ug/L	-0.02
52) 1,4-difluorobenzene	11.090	114	310160	50.00	ug/L	-0.01
74) chlorobenzene-d5	15.316	117	304660	50.00	ug/L	-0.01
98) 1,4-dichlorobenzene-d4	18.137	152	167004	50.00	ug/L	0.00
System Monitoring Compounds						
44) dibromofluoromethane (s)	9.937	113	92638	45.35	ug/L	-0.02
Spiked Amount	50.000	Range	80 - 120	Recovery	=	90.70%
53) 1,2-dichloroethane-d4 (s)	10.471	65	96439	43.47	ug/L	-0.02
Spiked Amount	50.000	Range	81 - 124	Recovery	=	86.94%
75) toluene-d8 (s)	13.292	98	354629	46.38	ug/L	-0.02
Spiked Amount	50.000	Range	80 - 120	Recovery	=	92.76%
99) 4-bromofluorobenzene (s)	16.831	95	140058	46.31	ug/L	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	=	92.62%
Target Compounds						
2) tertiary butyl alcohol	7.373	59	36633	321.78	ug/L	98
3) ethanol	5.889	45	66673	4714.07	ug/L	97
4) 1,4-dioxane	12.023	88	19017	1642.80	ug/L	96
6) chlorodifluoromethane	3.855	51	128111	54.04	ug/L	97
7) dichlorodifluoromethane	3.828	85	145741	77.40	ug/L	99
8) chloromethane	4.201	50	143804	51.29	ug/L	98
9) vinyl chloride	4.426	62	145220	55.07	ug/L	99
10) 1,3-butadiene	4.452	54	91599	54.12	ug/L	94
11) bromomethane	5.045	94	90540	49.92	ug/L	99
12) chloroethane	5.197	64	65364	51.20	ug/L	97
13) trichlorofluoromethane	5.674	101	153343	60.46	ug/L	100
14) vinyl bromide	5.548	106	82400	59.72	ug/L	96
15) ethyl ether	6.083	74	42761	45.89	ug/L	91
16) acrolein	6.319	56	11824	46.41	ug/L	91
17) 1,1-dichloroethene	6.508	96	88383	57.29	ug/L	90
18) freon 113	6.508	151	80010	66.62	ug/L	95
19) 2-chloropropane	6.272	43	153017	44.00	ug/L	99
20) acetone	6.555	58	25508	188.66	ug/L	# 82
21) acetonitrile	7.006	41	96871	476.89	ug/L	98
22) iodomethane	6.780	142	139551	61.86	ug/L	96
23) carbon disulfide	6.917	76	269196	60.16	ug/L	97
24) methylene chloride	7.268	84	99107	53.20	ug/L	94
25) methyl acetate	7.074	43	56933	46.46	ug/L	99
26) methyl tert butyl ether	7.693	73	226345	52.89	ug/L	100
27) trans-1,2-dichloroethene	7.703	96	97201	60.23	ug/L	96
28) hexane	8.102	57	145032	67.85	ug/L	97
29) di-isopropyl ether	8.406	45	324022	52.31	ug/L	93
30) 2-butanone	9.213	72	30133	208.74	ug/L	96
31) 1,1-dichloroethane	8.353	63	178037	55.38	ug/L	100
32) chloroprene	8.495	53	143979	57.13	ug/L	94
33) acrylonitrile	7.630	53	27933	49.12	ug/L	96
34) vinyl acetate	8.369	86	15223	52.15	ug/L	# 78
35) ethyl tert-butyl ether	8.961	59	278389	53.58	ug/L	98
36) ethyl acetate	9.276	45	11526	50.92	ug/L	# 71
37) 2,2-dichloropropane	9.265	77	140335	61.03	ug/L	92
38) cis-1,2-dichloroethene	9.234	96	106533	58.04	ug/L	93
39) propionitrile	9.313	54	101137	499.32	ug/L	99
40) tert-butyl formate	9.785	59	49303	34.61	ug/L	94
41) bromochloromethane	9.606	128	50975	56.86	ug/L	94

7.4.1
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\nizele\10_oct\10-14-19\v2d7993-rush\
 Data File : 2d185863.d
 Acq On : 11 Oct 2019 6:09 pm
 Operator : edwardd
 Sample : JC96248-4ms Inst : MS2D
 Misc : MS38188,V2D7993,5,,,,1
 ALS Vial : 14 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7967.M
 Quant Results File: M2D7967.RES
 Quant Time: Oct 13 23:48:25 2019
 Quant Title : SW-846 Method 8260C / EPA 624, DB624 60m x 0.25mm Thu Sep 26 10:58:10 2019
 QLast Update : Thu Sep 26 10:58:10 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
42) tetrahydrofuran	9.685	42	20307	45.71	ug/L	98
43) chloroform	9.695	83	168362	52.14	ug/L	96
45) methacrylonitrile	9.559	67	30206	52.41	ug/L	95
46) 1,1,1-trichloroethane	10.031	97	146854	57.33	ug/L	97
47) cyclohexane	10.136	84	147248	67.52	ug/L	96
48) 1,1-dichloropropene	10.256	75	132726	58.18	ug/L	98
49) isobutyl alcohol	10.283	43	30597	485.54	ug/L	94
50) carbon tetrachloride	10.288	117	132089	61.48	ug/L	98
51) tert-amyl alcohol	10.456	73	17158	266.69	ug/L	93
54) benzene	10.587	78	4674633	704.99	ug/L	100
55) iso-octane	10.665	57	259337	61.24	ug/L	97
56) tert-amyl methyl ether	10.686	73	252525	54.87	ug/L	98
57) heptane	10.896	57	63982	67.23	ug/L	94
58) isopropyl acetate	10.555	87	15591	52.71	ug/L #	78
59) 1,2-dichloroethane	10.587	62	141668	56.10	ug/L	95
60) n-butyl alcohol	11.258	56	99186	2689.50	ug/L	97
61) ethyl acrylate	11.583	55	100243	55.77	ug/L	98
62) trichloroethene	11.520	130	102687	64.27	ug/L	96
63) 2-nitropropane	12.553	41	15212	46.62	ug/L	96
65) methyl methacrylate	11.934	69	52612	56.49	ug/L	95
66) 1,2-dichloropropane	11.861	63	100200	56.74	ug/L	99
67) dibromomethane	12.044	93	55898	56.02	ug/L	91
68) methylcyclohexane	11.840	83	161906	69.42	ug/L	98
69) bromodichloromethane	12.238	83	128792	57.73	ug/L	100
70) epichlorohydrin	12.747	57	33331	256.37	ug/L	99
71) cis-1,3-dichloropropene	12.883	75	162008	62.86	ug/L	96
72) 4-methyl-2-pentanone	13.061	58	129343	245.53	ug/L	93
73) 3-methyl-1-butanol	13.088	55	74239	1271.53	ug/L	94
76) toluene	13.392	92	672638	158.82	ug/L	97
77) trans-1,3-dichloropropene	13.654	75	138195	57.19	ug/L	98
78) ethyl methacrylate	13.722	69	113521	59.09	ug/L	94
79) 1,1,2-trichloroethane	13.932	83	70929	54.62	ug/L	96
80) tetrachloroethene	14.178	164	91403	62.37	ug/L	99
81) 1,3-dichloropropane	14.178	76	137719	54.37	ug/L	97
82) 2-hexanone	14.231	58	123849	241.79	ug/L	90
83) butyl acetate	14.367	56	61658	61.26	ug/L	97
84) dibromochloromethane	14.514	129	99841	59.57	ug/L	99
85) 1,2-dibromoethane	14.708	107	97549	57.29	ug/L	97
86) n-butyl ether	15.374	57	429144	59.82	ug/L	99
87) chlorobenzene	15.358	112	285358	59.06	ug/L	99
88) 1,1,1,2-tetrachloroethane	15.442	131	103378	60.94	ug/L	98
89) ethylbenzene	15.468	91	689754	85.70	ug/L	99
90) m,p-xylene	15.615	91	1186975	194.40	ug/L	97
91) o-xylene	16.160	106	300945	102.49	ug/L	97
92) styrene	16.171	104	350132	71.19	ug/L	93
93) butyl acrylate	15.998	55	209262	65.20	ug/L	98
94) n-amyl acetate	16.291	70	76907	71.97	ug/L	88
95) bromoform	16.454	173	69293	60.64	ug/L	98
96) isopropylbenzene	16.616	105	473303	62.99	ug/L	98
97) cis-1,4-dichloro-2-butene	16.679	88	31817	50.08	ug/L	98
100) bromobenzene	17.046	156	137151	59.27	ug/L	91
101) 1,1,2,2-tetrachloroethane	16.957	83	112380	53.37	ug/L	99
102) trans-1,4-dichloro-2-b...	17.020	53	25560	48.78	ug/L	95
103) 1,2,3-trichloropropane	17.036	110	28021	53.06	ug/L	94
104) n-propylbenzene	17.114	91	549276	58.20	ug/L	97
105) 2-chlorotoluene	17.251	126	122270	61.14	ug/L	93
106) 4-chlorotoluene	17.366	91	334504	57.01	ug/L	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\nizele\10_oct\10-14-19\v2d7993-rush\
 Data File : 2d185863.d
 Acq On : 11 Oct 2019 6:09 pm
 Operator : edwardd
 Sample : JC96248-4ms Inst : MS2D
 Misc : MS38188,V2D7993,5,,,,,1
 ALS Vial : 14 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7967.M
 Quant Results File: M2D7967.RES
 Quant Time: Oct 13 23:48:25 2019
 Quant Title : SW-846 Method 8260C / EPA 624, DB624 60m x 0.25mm Thu Sep 26 10:58:10 2019
 QLast Update : Thu Sep 26 10:58:10 2019
 Response via : Initial Calibration

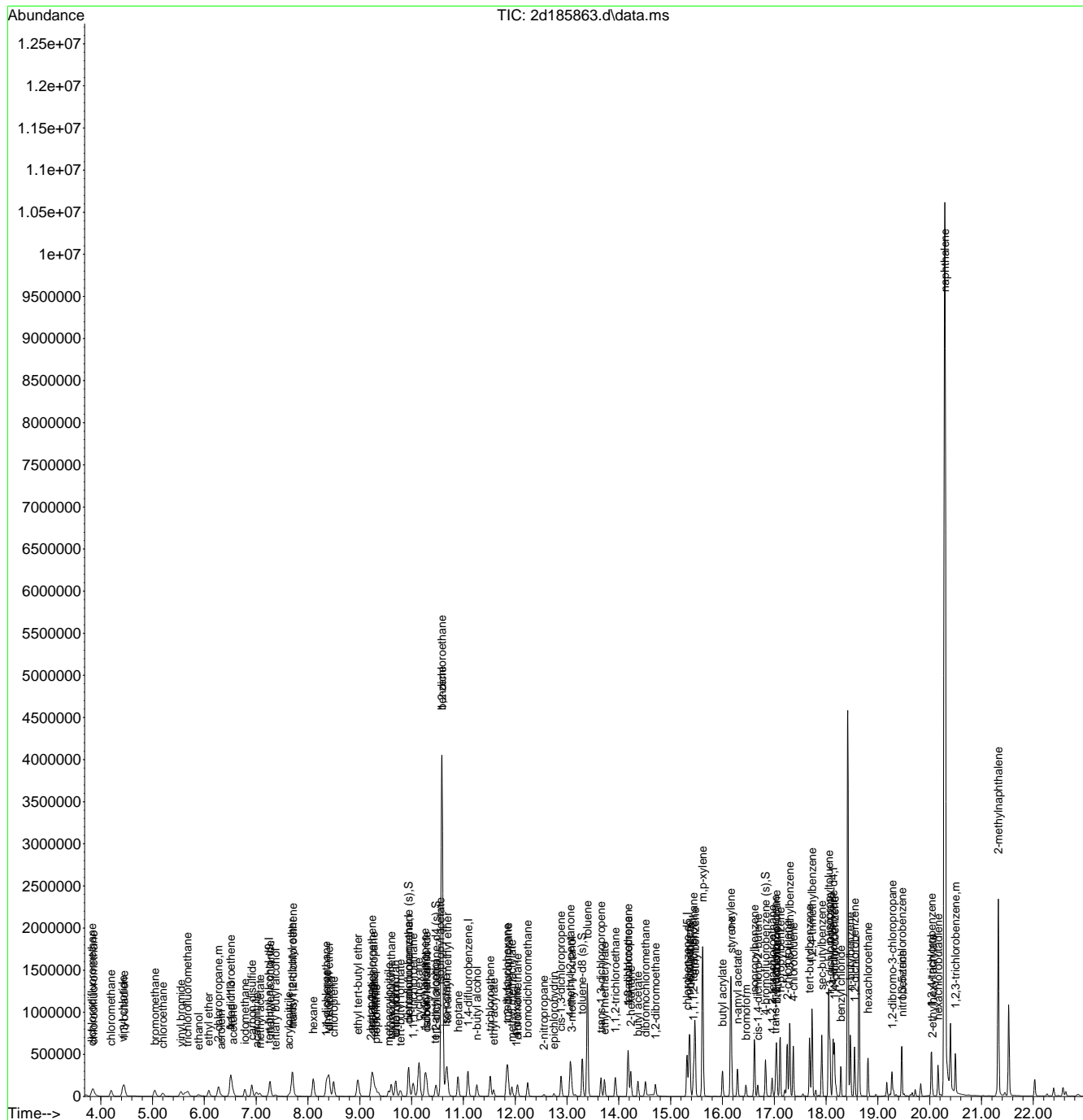
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
107) 1,3,5-trimethylbenzene	17.298	105	471739	71.84	ug/L	99
108) tert-butylbenzene	17.681	119	332671	60.65	ug/L	98
109) 1,2,4-trimethylbenzene	17.728	105	548646	82.53	ug/L	100
110) sec-butylbenzene	17.916	105	485617	60.02	ug/L	99
111) 1,3-dichlorobenzene	18.074	146	244864	59.00	ug/L	99
112) p-isopropyltoluene	18.053	119	443126	65.51	ug/L	99
113) 1,4-dichlorobenzene	18.163	146	249209	57.16	ug/L	99
114) 1,2-dichlorobenzene	18.551	146	235474	57.84	ug/L	98
115) benzyl chloride	18.284	91	229798	70.57	ug/L	99
116) n-butylbenzene	18.467	92	198420	59.00	ug/L	99
117) 1,2-dibromo-3-chloropr...	19.274	157	24368	62.17	ug/L	92
118) nitrobenzene	19.468	77	5213	90.26	ug/L	91
119) 1,3,5-trichlorobenzene	19.463	180	190760	63.51	ug/L	99
120) hexachlorobutadiene	20.161	225	79271	57.14	ug/L	99
121) naphthalene	20.292	128	12764822	2444.56	ug/L	96
122) 2-ethylhexyl acrylate	20.050	70	16221	10.65	ug/L	97
123) 1,2,4-trichlorobenzene	20.035	180	169269	67.11	ug/L	98
124) 1,2,3-trichlorobenzene	20.496	180	148984	64.35	ug/L	99
125) hexachloroethane	18.808	201	78633	64.53	ug/L	99
126) 2-methylnaphthalene	21.324	142	1192566	389.81	ug/L	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\nizele\10_oct\10-14-19\v2d7993-rush\
 Data File : 2d185863.d
 Acq On : 11 Oct 2019 6:09 pm
 Operator : edwardd
 Sample : JC96248-4ms Inst : MS2D
 Misc : MS38188,V2D7993,5,,,,,1
 ALS Vial : 14 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7967.M
 Quant Results File: M2D7967.RES
 Quant Time: Oct 13 23:48:25 2019
 Quant Title : SW-846 Method 8260C / EPA 624, DB624 60m x 0.25mm Thu Sep 26 10:58:10 2019
 QLast Update : Thu Sep 26 10:58:10 2019
 Response via : Initial Calibration



7.4.1
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\nizele\10_oct\10-14-19\v2d7993-rush\
 Data File : 2d185864.d
 Acq On : 11 Oct 2019 6:38 pm
 Operator : edwardd
 Sample : JC96248-4msd Inst : MS2D
 Misc : MS38188,V2D7993,5,,,,,1
 ALS Vial : 15 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7967.M
 Quant Results File: M2D7967.RES
 Quant Time: Oct 13 23:50:17 2019
 Quant Title : SW-846 Method 8260C / EPA 624, DB624 60m x 0.25mm Thu Sep 26 10:58:10 2019
 QLast Update : Thu Sep 26 10:58:10 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) tert butyl alcohol-d9	7.247	65	68464	500.00	ug/L	-0.01
5) pentafluorobenzene	9.947	168	240558	50.00	ug/L	-0.01
52) 1,4-difluorobenzene	11.085	114	344294	50.00	ug/L	-0.02
74) chlorobenzene-d5	15.316	117	335708	50.00	ug/L	-0.01
98) 1,4-dichlorobenzene-d4	18.137	152	184307	50.00	ug/L	0.00
System Monitoring Compounds						
44) dibromofluoromethane (s)	9.936	113	102916	45.27	ug/L	-0.02
Spiked Amount	50.000	Range	80 - 120	Recovery	=	90.54%
53) 1,2-dichloroethane-d4 (s)	10.471	65	106291	43.16	ug/L	-0.02
Spiked Amount	50.000	Range	81 - 124	Recovery	=	86.32%
75) toluene-d8 (s)	13.297	98	390813	46.39	ug/L	-0.01
Spiked Amount	50.000	Range	80 - 120	Recovery	=	92.78%
99) 4-bromofluorobenzene (s)	16.831	95	155807	46.68	ug/L	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	=	93.36%
Target Compounds						
						Qvalue
2) tertiary butyl alcohol	7.373	59	39009	293.96	ug/L	98
3) ethanol	5.884	45	67935	4120.66	ug/L	99
4) 1,4-dioxane	12.023	88	20523	1520.93	ug/L	97
6) chlorodifluoromethane	3.849	51	130660	49.53	ug/L	97
7) dichlorodifluoromethane	3.834	85	142555	68.03	ug/L	99
8) chloromethane	4.201	50	141285	45.28	ug/L	98
9) vinyl chloride	4.421	62	143973	49.06	ug/L	98
10) 1,3-butadiene	4.452	54	89100	47.31	ug/L	94
11) bromomethane	5.039	94	89783	44.49	ug/L	99
12) chloroethane	5.191	64	64142	45.15	ug/L	98
13) trichlorofluoromethane	5.679	101	150219	53.22	ug/L	97
14) vinyl bromide	5.543	106	82851	53.96	ug/L	98
15) ethyl ether	6.088	74	42848	41.32	ug/L	90
16) acrolein	6.319	56	11957	42.17	ug/L	96
17) 1,1-dichloroethene	6.508	96	95661	55.72	ug/L	87
18) freon 113	6.513	151	84441	63.18	ug/L	93
19) 2-chloropropane	6.272	43	151393	39.12	ug/L	99
20) acetone	6.555	58	25788	171.39	ug/L	# 83
21) acetonitrile	7.006	41	99793	441.47	ug/L	99
22) iodomethane	6.780	142	144286	57.48	ug/L	96
23) carbon disulfide	6.916	76	275918	55.41	ug/L	97
24) methylene chloride	7.268	84	102629	49.50	ug/L	93
25) methyl acetate	7.069	43	57997	42.53	ug/L	96
26) methyl tert butyl ether	7.687	73	236422	49.64	ug/L	99
27) trans-1,2-dichloroethene	7.703	96	100171	55.78	ug/L	94
28) hexane	8.101	57	141291	59.40	ug/L	98
29) di-isopropyl ether	8.405	45	334394	48.51	ug/L	92
30) 2-butanone	9.213	72	31635	196.93	ug/L	# 86
31) 1,1-dichloroethane	8.353	63	183142	51.20	ug/L	100
32) chloroprene	8.495	53	147943	52.75	ug/L	94
33) acrylonitrile	7.630	53	29022	45.86	ug/L	97
34) vinyl acetate	8.369	86	15503	47.73	ug/L	# 79
35) ethyl tert-butyl ether	8.961	59	290436	50.23	ug/L	99
36) ethyl acetate	9.276	45	11036	43.81	ug/L	# 65
37) 2,2-dichloropropane	9.260	77	145470	56.85	ug/L	92
38) cis-1,2-dichloroethene	9.234	96	110497	54.09	ug/L	94
39) propionitrile	9.313	54	104841	465.13	ug/L	100
40) tert-butyl formate	9.784	59	48460	30.57	ug/L	98
41) bromochloromethane	9.606	128	53003	53.12	ug/L	93

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\nizele\10_oct\10-14-19\v2d7993-rush\
 Data File : 2d185864.d
 Acq On : 11 Oct 2019 6:38 pm
 Operator : edwardd
 Sample : JC96248-4msd Inst : MS2D
 Misc : MS38188,V2D7993,5,,,,,1
 ALS Vial : 15 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7967.M
 Quant Results File: M2D7967.RES
 Quant Time: Oct 13 23:50:17 2019
 Quant Title : SW-846 Method 8260C / EPA 624, DB624 60m x 0.25mm Thu Sep 26 10:58:10 2019
 QLast Update : Thu Sep 26 10:58:10 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
42) tetrahydrofuran	9.680	42	21160	42.80	ug/L	98
43) chloroform	9.695	83	175009	48.70	ug/L	97
45) methacrylonitrile	9.554	67	31299	48.80	ug/L	95
46) 1,1,1-trichloroethane	10.031	97	153457	53.83	ug/L	97
47) cyclohexane	10.136	84	148316	61.12	ug/L	97
48) 1,1-dichloropropene	10.256	75	137146	54.02	ug/L	97
49) isobutyl alcohol	10.282	43	32414	462.22	ug/L	98
50) carbon tetrachloride	10.288	117	136861	57.24	ug/L	98
51) tert-amyl alcohol	10.450	73	18193	254.11	ug/L	95
54) benzene	10.587	78	4669095	634.34	ug/L	100
55) iso-octane	10.665	57	253005	53.82	ug/L	97
56) tert-amyl methyl ether	10.686	73	263171	51.52	ug/L	99
57) heptane	10.896	57	61912	58.60	ug/L	94
58) isopropyl acetate	10.555	87	16386	49.91	ug/L #	78
59) 1,2-dichloroethane	10.587	62	142708	50.91	ug/L	97
60) n-butyl alcohol	11.258	56	106087	2591.43	ug/L	97
61) ethyl acrylate	11.583	55	103620	51.93	ug/L	98
62) trichloroethene	11.520	130	105603	59.54	ug/L	96
63) 2-nitropropane	12.558	41	15806	43.64	ug/L	95
65) methyl methacrylate	11.934	69	55195	53.38	ug/L	95
66) 1,2-dichloropropane	11.861	63	104087	53.10	ug/L	99
67) dibromomethane	12.044	93	58488	52.80	ug/L	90
68) methylcyclohexane	11.840	83	163947	63.33	ug/L	97
69) bromodichloromethane	12.238	83	131998	53.30	ug/L	99
70) epichlorohydrin	12.747	57	34064	236.04	ug/L	96
71) cis-1,3-dichloropropene	12.888	75	167903	58.69	ug/L	94
72) 4-methyl-2-pentanone	13.067	58	133098	227.60	ug/L	93
73) 3-methyl-1-butanol	13.088	55	77771	1199.97	ug/L	97
76) toluene	13.392	92	683771	146.52	ug/L	97
77) trans-1,3-dichloropropene	13.654	75	144625	54.32	ug/L	99
78) ethyl methacrylate	13.722	69	117455	55.48	ug/L	94
79) 1,1,2-trichloroethane	13.932	83	73120	51.10	ug/L	96
80) tetrachloroethene	14.178	164	94757	58.67	ug/L	98
81) 1,3-dichloropropane	14.178	76	142035	50.88	ug/L	97
82) 2-hexanone	14.230	58	126235	223.66	ug/L	93
83) butyl acetate	14.367	56	62888	56.70	ug/L	97
84) dibromochloromethane	14.514	129	103637	56.11	ug/L	99
85) 1,2-dibromoethane	14.708	107	101354	54.02	ug/L	98
86) n-butyl ether	15.373	57	440689	55.74	ug/L	99
87) chlorobenzene	15.358	112	294672	55.35	ug/L	97
88) 1,1,1,2-tetrachloroethane	15.442	131	106783	57.13	ug/L	98
89) ethylbenzene	15.468	91	704474	79.43	ug/L	98
90) m,p-xylene	15.620	91	1218311	181.08	ug/L	97
91) o-xylene	16.160	106	305951	94.55	ug/L	97
92) styrene	16.170	104	369499	68.18	ug/L	94
93) butyl acrylate	16.003	55	215587	60.96	ug/L	96
94) n-amyl acetate	16.291	70	77863	66.12	ug/L	90
95) bromoform	16.454	173	72043	57.21	ug/L	98
96) isopropylbenzene	16.616	105	488912	59.05	ug/L	99
97) cis-1,4-dichloro-2-butene	16.684	88	33547	47.92	ug/L	96
100) bromobenzene	17.046	156	142030	55.61	ug/L	92
101) 1,1,2,2-tetrachloroethane	16.957	83	115349	49.64	ug/L	99
102) trans-1,4-dichloro-2-b...	17.020	53	26521	45.86	ug/L	94
103) 1,2,3-trichloropropane	17.036	110	29296	50.26	ug/L	95
104) n-propylbenzene	17.114	91	566553	54.40	ug/L	98
105) 2-chlorotoluene	17.250	126	125637	56.93	ug/L	93
106) 4-chlorotoluene	17.366	91	347077	53.60	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\nizele\10_oct\10-14-19\v2d7993-rush\
 Data File : 2d185864.d
 Acq On : 11 Oct 2019 6:38 pm
 Operator : edwardd
 Sample : JC96248-4msd Inst : MS2D
 Misc : MS38188,V2D7993,5,,,,,1
 ALS Vial : 15 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7967.M

Quant Results File: M2D7967.RES

Quant Time: Oct 13 23:50:17 2019

Quant Title : SW-846 Method 8260C / EPA 624, DB624 60m x 0.25mm Thu Sep 26 10:58:10 2019

QLast Update : Thu Sep 26 10:58:10 2019

Response via : Initial Calibration

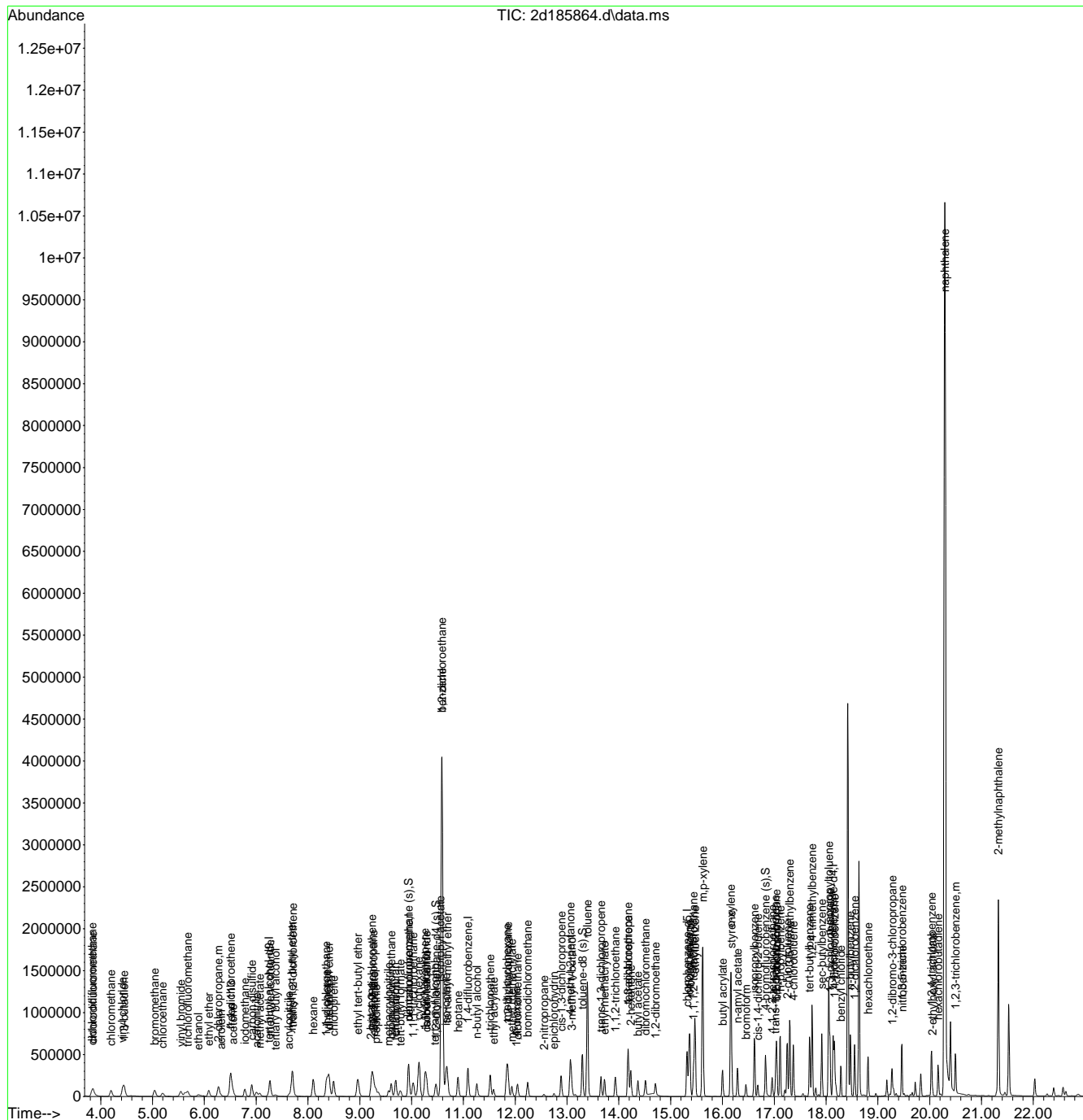
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
107) 1,3,5-trimethylbenzene	17.298	105	488191	67.37	ug/L	100
108) tert-butylbenzene	17.680	119	346974	57.32	ug/L	98
109) 1,2,4-trimethylbenzene	17.728	105	565798	77.12	ug/L	99
110) sec-butylbenzene	17.916	105	501054	56.12	ug/L	99
111) 1,3-dichlorobenzene	18.074	146	253826	55.42	ug/L	100
112) p-isopropyltoluene	18.053	119	461358	61.81	ug/L	98
113) 1,4-dichlorobenzene	18.163	146	255541	53.11	ug/L	99
114) 1,2-dichlorobenzene	18.551	146	244165	54.34	ug/L	99
115) benzyl chloride	18.283	91	233220	64.90	ug/L	100
116) n-butylbenzene	18.467	92	203318	54.78	ug/L	96
117) 1,2-dibromo-3-chloropr...	19.274	157	25424	58.77	ug/L	94
118) nitrobenzene	19.468	77	5517	86.56	ug/L	95
119) 1,3,5-trichlorobenzene	19.463	180	195398	58.95	ug/L	98
120) hexachlorobutadiene	20.160	225	79865	52.17	ug/L	99
121) naphthalene	20.291	128	12744200	2211.48	ug/L	96
122) 2-ethylhexyl acrylate	20.050	70	16584	9.96	ug/L	98
123) 1,2,4-trichlorobenzene	20.035	180	173488	62.33	ug/L	97
124) 1,2,3-trichlorobenzene	20.496	180	153330	60.01	ug/L	99
125) hexachloroethane	18.813	201	81952	60.94	ug/L	95
126) 2-methylnaphthalene	21.324	142	1185497	351.42	ug/L	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\nizele\10_oct\10-14-19\v2d7993-rush\
Data File : 2d185864.d
Acq On : 11 Oct 2019 6:38 pm
Operator : edwardd
Sample : JC96248-4msd Inst : MS2D
Misc : MS38188,V2D7993,5,,,,,1
ALS Vial : 15 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7967.M
Quant Results File: M2D7967.RES
Quant Time: Oct 13 23:50:17 2019
Quant Title : SW-846 Method 8260C / EPA 624, DB624 60m x 0.25mm Thu Sep 26 10:58:10 2019
QLast Update : Thu Sep 26 10:58:10 2019
Response via : Initial Calibration



7.4.2
7



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\10-18-19\v2d8000\
 Data File : 2d186019.d
 Acq On : 17 Oct 2019 3:29 pm
 Operator : krizhkac
 Sample : jc96538-1ms Inst : MS2D
 Misc : MS38298,V2D8000,5,,,,,1
 ALS Vial : 15 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7967.M
 Quant Results File: M2D7967.RES
 Quant Time: Oct 18 08:36:51 2019
 Quant Title : SW-846 Method 8260C / EPA 624, DB624 60m x 0.25mm Thu Sep 26 10:58:10 2019
 QLast Update : Thu Sep 26 10:58:10 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.278	65	72500	500.00	ug/L	0.02
5) pentafluorobenzene	9.973	168	229218	50.00	ug/L	0.02
52) 1,4-difluorobenzene	11.121	114	332773	50.00	ug/L	0.02
74) chlorobenzene-d5	15.342	117	323581	50.00	ug/L	0.02
98) 1,4-dichlorobenzene-d4	18.157	152	177047	50.00	ug/L	0.02
System Monitoring Compounds						
44) dibromofluoromethane (s)	9.968	113	99930	46.13	ug/L	0.02
Spiked Amount	50.000	Range	80 - 120	Recovery	=	92.26%
53) 1,2-dichloroethane-d4 (s)	10.503	65	104636	43.96	ug/L	0.02
Spiked Amount	50.000	Range	81 - 124	Recovery	=	87.92%
75) toluene-d8 (s)	13.323	98	381329	46.96	ug/L	0.02
Spiked Amount	50.000	Range	80 - 120	Recovery	=	93.92%
99) 4-bromofluorobenzene (s)	16.857	95	147447	45.99	ug/L	0.02
Spiked Amount	50.000	Range	80 - 120	Recovery	=	91.98%
Target Compounds						
2) tertiary butyl alcohol	7.399	59	31944	227.32	ug/L	95
3) ethanol	5.915	45	63045	3611.17	ug/L	97
4) 1,4-dioxane	12.055	88	16529	1156.75	ug/L	93
6) chlorodifluoromethane	3.875	51	83122	33.07	ug/L	95
7) dichlorodifluoromethane	3.860	85	126395	63.31	ug/L	99
8) chloromethane	4.227	50	135248	45.49	ug/L	99
9) vinyl chloride	4.452	62	139936	50.04	ug/L	99
10) 1,3-butadiene	4.478	54	62965	35.08	ug/L	95
11) bromomethane	5.071	94	87779	45.65	ug/L	96
12) chloroethane	5.223	64	65270	48.21	ug/L	97
13) trichlorofluoromethane	5.705	101	145125	53.96	ug/L	98
14) vinyl bromide	5.574	106	76444	52.25	ug/L	99
15) ethyl ether	6.120	74	36624	37.07	ug/L	89
16) acrolein	6.350	56	10148	37.56	ug/L	98
17) 1,1-dichloroethene	6.539	96	66397	40.59	ug/L	94
18) freon 113	6.544	151	61263	48.10	ug/L	96
19) 2-chloropropane	6.303	43	124667	33.81	ug/L	97
20) acetone	6.581	58	20813	145.17	ug/L	87
21) acetonitrile	7.032	41	87387	405.71	ug/L	99
22) iodomethane	6.812	142	101667	42.50	ug/L	99
23) carbon disulfide	6.948	76	191081	40.27	ug/L	97
24) methylene chloride	7.299	84	79974	40.48	ug/L	91
25) methyl acetate	7.100	43	50426	38.80	ug/L	97
26) methyl tert butyl ether	7.719	73	186140	41.02	ug/L	100
27) trans-1,2-dichloroethene	7.734	96	76487	44.69	ug/L	95
28) hexane	8.133	57	109410	48.27	ug/L	97
29) di-isopropyl ether	8.432	45	264503	40.27	ug/L	98
30) 2-butanone	9.250	72	26600	173.78	ug/L #	86
31) 1,1-dichloroethane	8.384	63	141679	41.56	ug/L	99
32) chloroprene	8.526	53	112578	42.13	ug/L	95
33) acrylonitrile	7.661	53	25423	42.16	ug/L	96
34) vinyl acetate	8.405	86	12420	40.13	ug/L #	94
35) ethyl tert-butyl ether	8.993	59	221970	40.29	ug/L	97
36) ethyl acetate	9.302	45	9439	39.33	ug/L #	34
37) 2,2-dichloropropane	9.297	77	113531	46.56	ug/L	94
38) cis-1,2-dichloroethene	9.271	96	85363	43.86	ug/L	94
39) propionitrile	9.344	54	92374	430.10	ug/L	99
40) tert-butyl formate	9.816	59	37311	24.70	ug/L	96
41) bromochloromethane	9.638	128	41294	43.44	ug/L	95

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\10-18-19\v2d8000\
 Data File : 2d186019.d
 Acq On : 17 Oct 2019 3:29 pm
 Operator : krizhkac
 Sample : jc96538-1ms Inst : MS2D
 Misc : MS38298,V2D8000,5,,,,,1
 ALS Vial : 15 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7967.M
 Quant Results File: M2D7967.RES
 Quant Time: Oct 18 08:36:51 2019
 Quant Title : SW-846 Method 8260C / EPA 624, DB624 60m x 0.25mm Thu Sep 26 10:58:10 2019
 QLast Update : Thu Sep 26 10:58:10 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
42) tetrahydrofuran	9.711	42	17615	37.39	ug/L	94
43) chloroform	9.727	83	141382	41.29	ug/L	98
45) methacrylonitrile	9.590	67	26295	43.02	ug/L	99
46) 1,1,1-trichloroethane	10.062	97	118603	43.67	ug/L	98
47) cyclohexane	10.172	84	130595	56.48	ug/L	96
48) 1,1-dichloropropene	10.293	75	103512	42.79	ug/L	96
49) isobutyl alcohol	10.314	43	26072	390.18	ug/L	96
50) carbon tetrachloride	10.319	117	106570	46.78	ug/L	98
51) tert-amyl alcohol	10.487	73	13987	205.03	ug/L	91
54) benzene	10.618	78	307353	43.20	ug/L	99
55) iso-octane	10.697	57	232859	51.25	ug/L	97
56) tert-amyl methyl ether	10.718	73	211476	42.83	ug/L	98
57) heptane	10.927	57	53964	52.85	ug/L	96
58) isopropyl acetate	10.592	87	13859	43.67	ug/L #	78
59) 1,2-dichloroethane	10.618	62	98347	36.30	ug/L	100
60) n-butyl alcohol	11.289	56	87598	2213.87	ug/L	94
61) ethyl acrylate	11.614	55	86166	44.68	ug/L	97
62) trichloroethene	11.551	130	81349	47.46	ug/L	96
63) 2-nitropropane	12.584	41	13071	37.34	ug/L	95
65) methyl methacrylate	11.965	69	45584	45.61	ug/L	93
66) 1,2-dichloropropane	11.897	63	82388	43.48	ug/L	99
67) dibromomethane	12.076	93	47010	43.91	ug/L	88
68) methylcyclohexane	11.871	83	135338	54.09	ug/L	97
69) bromodichloromethane	12.270	83	104642	43.72	ug/L	98
70) epichlorohydrin	12.778	57	29238	209.61	ug/L	94
71) cis-1,3-dichloropropene	12.914	75	129433	46.81	ug/L	94
72) 4-methyl-2-pentanone	13.093	58	111142	196.64	ug/L	93
73) 3-methyl-1-butanol	13.119	55	61256	977.87	ug/L	94
76) toluene	13.423	92	196675	43.72	ug/L	97
77) trans-1,3-dichloropropene	13.685	75	114068	44.45	ug/L	98
78) ethyl methacrylate	13.753	69	92737	45.45	ug/L	92
79) 1,1,2-trichloroethane	13.963	83	60370	43.77	ug/L	95
80) tetrachloroethene	14.210	164	73613	47.29	ug/L	94
81) 1,3-dichloropropane	14.210	76	115927	43.09	ug/L	95
82) 2-hexanone	14.257	58	104106	191.36	ug/L	94
83) butyl acetate	14.398	56	49501	46.30	ug/L	94
84) dibromochloromethane	14.540	129	82320	46.24	ug/L	97
85) 1,2-dibromoethane	14.734	107	81745	45.20	ug/L	99
86) n-butyl ether	15.400	57	344006	45.15	ug/L	100
87) chlorobenzene	15.384	112	230993	45.01	ug/L	99
88) 1,1,1,2-tetrachloroethane	15.473	131	82294	45.68	ug/L	98
89) ethylbenzene	15.499	91	383172	44.82	ug/L	98
90) m,p-xylene	15.646	91	597638	92.16	ug/L	98
91) o-xylene	16.186	106	150653	48.30	ug/L	99
92) styrene	16.197	104	248264	47.52	ug/L	92
93) butyl acrylate	16.029	55	156921	46.03	ug/L	96
94) n-amyl acetate	16.317	70	56783	50.03	ug/L	88
95) bromoform	16.480	173	57111	47.06	ug/L	97
96) isopropylbenzene	16.642	105	374183	46.88	ug/L	99
97) cis-1,4-dichloro-2-butene	16.705	88	24768	36.71	ug/L	98
100) bromobenzene	17.072	156	109754	44.74	ug/L	91
101) 1,1,2,2-tetrachloroethane	16.983	83	94168	42.19	ug/L	99
102) trans-1,4-dichloro-2-b...	17.046	53	20076	36.14	ug/L	89
103) 1,2,3-trichloropropane	17.062	110	23876	42.64	ug/L #	87
104) n-propylbenzene	17.135	91	445927	44.57	ug/L	99
105) 2-chlorotoluene	17.277	126	98418	46.42	ug/L	90
106) 4-chlorotoluene	17.392	91	267698	43.03	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\10-18-19\v2d8000\
 Data File : 2d186019.d
 Acq On : 17 Oct 2019 3:29 pm
 Operator : krizhkac
 Sample : jc96538-1ms Inst : MS2D
 Misc : MS38298,V2D8000,5,,,,,1
 ALS Vial : 15 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7967.M
 Quant Results File: M2D7967.RES
 Quant Time: Oct 18 08:36:51 2019
 Quant Title : SW-846 Method 8260C / EPA 624, DB624 60m x 0.25mm Thu Sep 26 10:58:10 2019
 QLast Update : Thu Sep 26 10:58:10 2019
 Response via : Initial Calibration

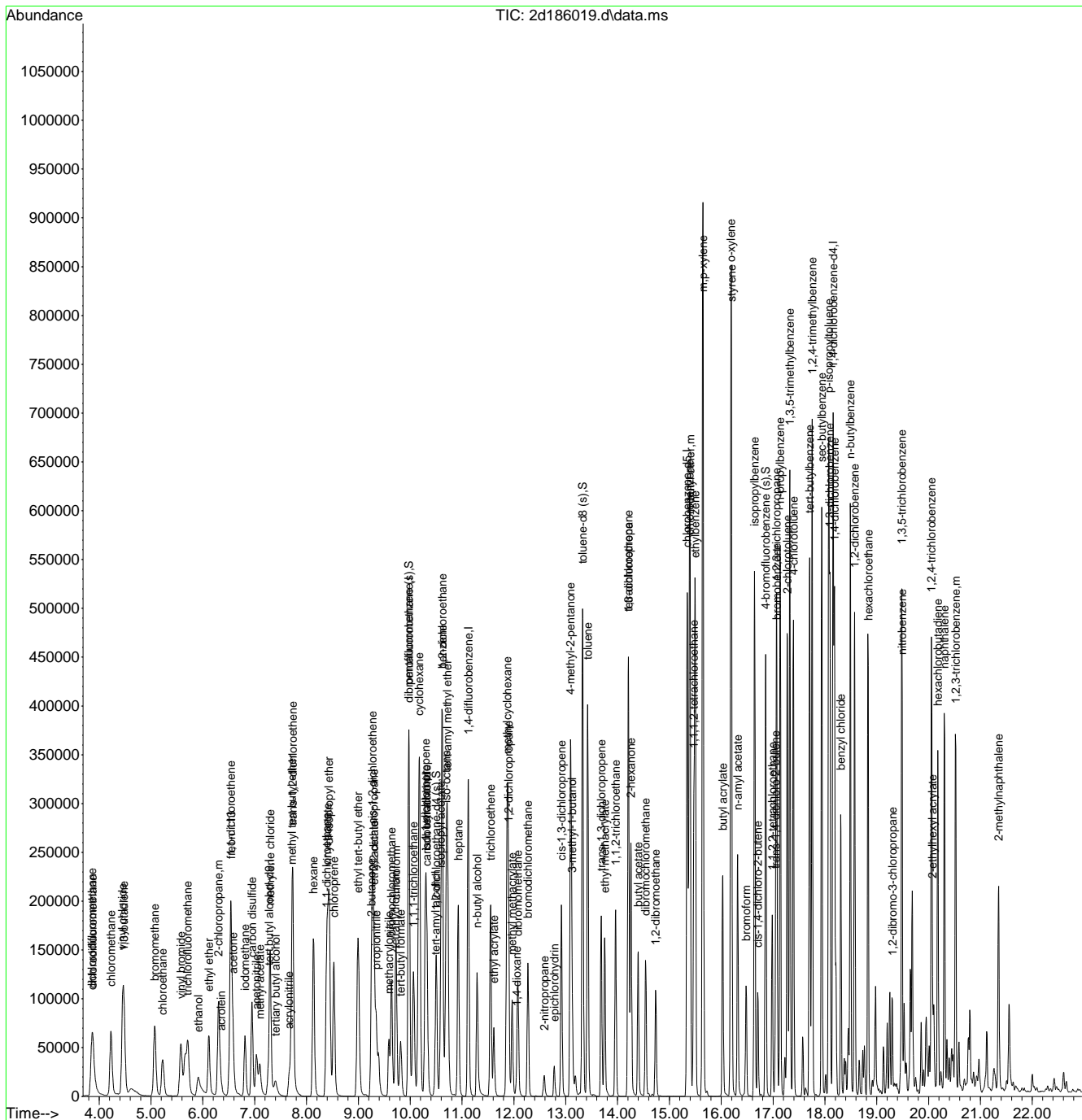
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
107) 1,3,5-trimethylbenzene	17.324	105	341698	49.09	ug/L	99
108) tert-butylbenzene	17.707	119	268154	46.12	ug/L	96
109) 1,2,4-trimethylbenzene	17.754	105	362578	51.45	ug/L	100
110) sec-butylbenzene	17.937	105	402138	46.89	ug/L	99
111) 1,3-dichlorobenzene	18.095	146	196983	44.77	ug/L	99
112) p-isopropyltoluene	18.074	119	345943	48.24	ug/L	98
113) 1,4-dichlorobenzene	18.184	146	198943	43.04	ug/L	99
114) 1,2-dichlorobenzene	18.572	146	194509	45.07	ug/L	99
115) benzyl chloride	18.304	91	184141	53.34	ug/L	99
116) n-butylbenzene	18.488	92	172534	48.39	ug/L	98
117) 1,2-dibromo-3-chloropr...	19.300	157	20391	49.07	ug/L	96
118) nitrobenzene	19.489	77	3096	50.57	ug/L	83
119) 1,3,5-trichlorobenzene	19.484	180	161752	50.80	ug/L	98
120) hexachlorobutadiene	20.176	225	76629	52.11	ug/L	100
121) naphthalene	20.302	128	296748	53.61	ug/L	99
122) 2-ethylhexyl acrylate	20.071	70	11793	7.72	ug/L	95
123) 1,2,4-trichlorobenzene	20.055	180	138424	51.77	ug/L	97
124) 1,2,3-trichlorobenzene	20.522	180	123364	50.26	ug/L	98
125) hexachloroethane	18.834	201	64821	50.18	ug/L	96
126) 2-methylnaphthalene	21.351	142	104030	34.83	ug/L	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janelac\10-18-19\v2d8000\
 Data File : 2d186019.d
 Acq On : 17 Oct 2019 3:29 pm
 Operator : krizhkac
 Sample : jc96538-1ms Inst : MS2D
 Misc : MS38298,V2D8000,5,,1
 ALS Vial : 15 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7967.M
 Quant Results File: M2D7967.RES
 Quant Time: Oct 18 08:36:51 2019
 Quant Title : SW-846 Method 8260C / EPA 624, DB624 60m x 0.25mm Thu Sep 26 10:58:10 2019
 QLast Update : Thu Sep 26 10:58:10 2019
 Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\10-18-19\v2d8000\
 Data File : 2d186021.d
 Acq On : 17 Oct 2019 4:28 pm
 Operator : krizhkac
 Sample : jc96552-2dup Inst : MS2D
 Misc : MS38298,V2D8000,5,,,,,1
 ALS Vial : 17 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7967.M
 Quant Results File: M2D7967.RES
 Quant Time: Oct 18 08:39:07 2019
 Quant Title : SW-846 Method 8260C / EPA 624, DB624 60m x 0.25mm Thu Sep 26 10:58:10 2019
 QLast Update : Thu Sep 26 10:58:10 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.273	65	72875	500.00	ug/L	0.02
5) pentafluorobenzene	9.973	168	235943	50.00	ug/L	0.02
52) 1,4-difluorobenzene	11.121	114	350706	50.00	ug/L	0.02
74) chlorobenzene-d5	15.342	117	324865	50.00	ug/L	0.02
98) 1,4-dichlorobenzene-d4	18.157	152	160762	50.00	ug/L	0.02
System Monitoring Compounds						
44) dibromofluoromethane (s)	9.968	113	103228	46.30	ug/L	0.02
Spiked Amount	50.000	Range	80 - 120	Recovery	=	92.60%
53) 1,2-dichloroethane-d4 (s)	10.503	65	112452	44.82	ug/L	0.02
Spiked Amount	50.000	Range	81 - 124	Recovery	=	89.64%
75) toluene-d8 (s)	13.323	98	393116	48.22	ug/L	0.02
Spiked Amount	50.000	Range	80 - 120	Recovery	=	96.44%
99) 4-bromofluorobenzene (s)	16.857	95	142010	48.78	ug/L	0.02
Spiked Amount	50.000	Range	80 - 120	Recovery	=	97.56%

Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

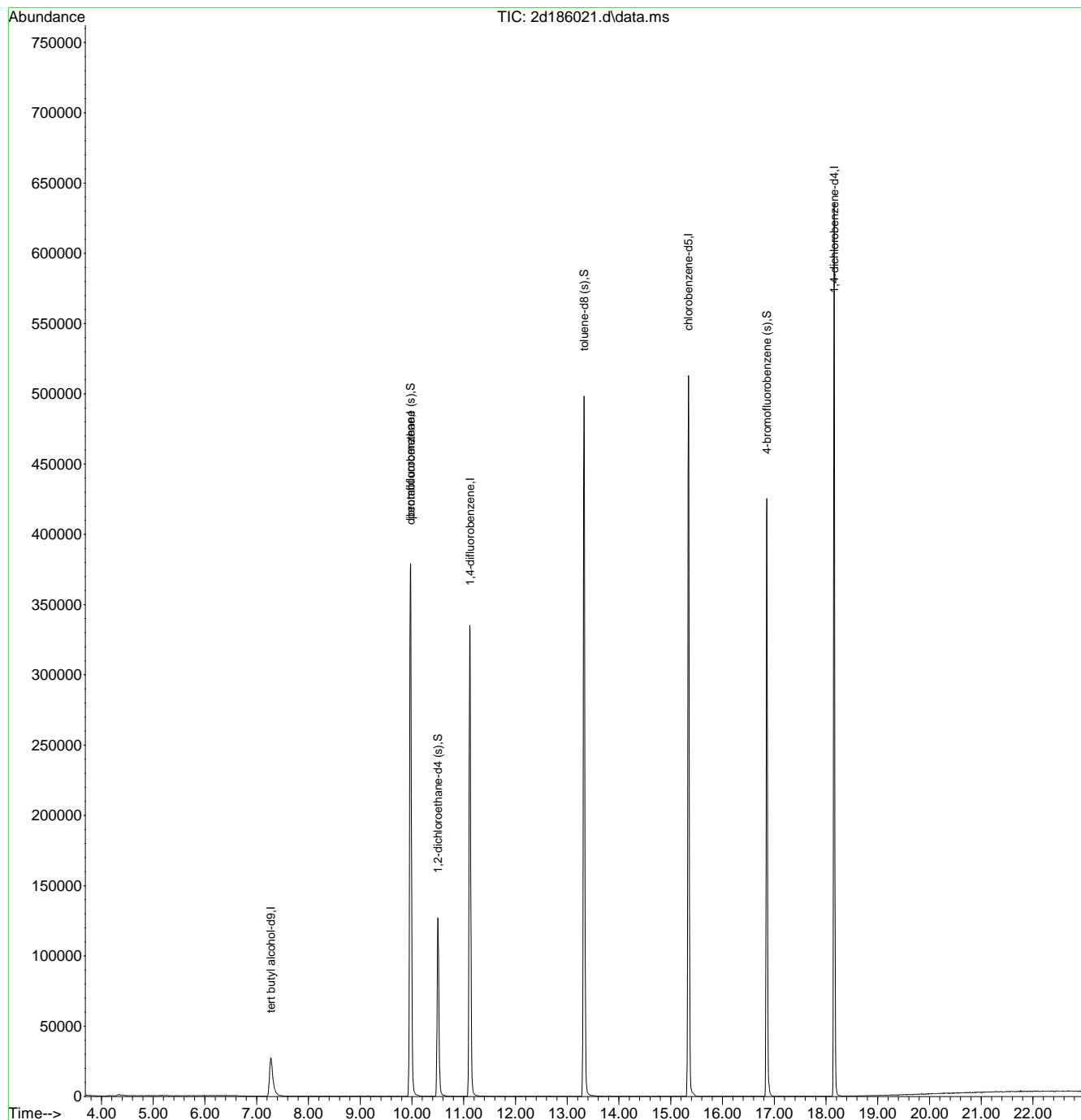
7.5.1
7



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\10-18-19\v2d8000\
Data File : 2d186021.d
Acq On : 17 Oct 2019 4:28 pm
Operator : krizhkac
Sample : jc96552-2dup Inst : MS2D
Misc : MS38298,V2D8000,5,,,,,1
ALS Vial : 17 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7967.M
Quant Results File: M2D7967.RES
Quant Time: Oct 18 08:39:07 2019
Quant Title : SW-846 Method 8260C / EPA 624, DB624 60m x 0.25mm Thu Sep 26 10:58:10 2019
QLast Update : Thu Sep 26 10:58:10 2019
Response via : Initial Calibration

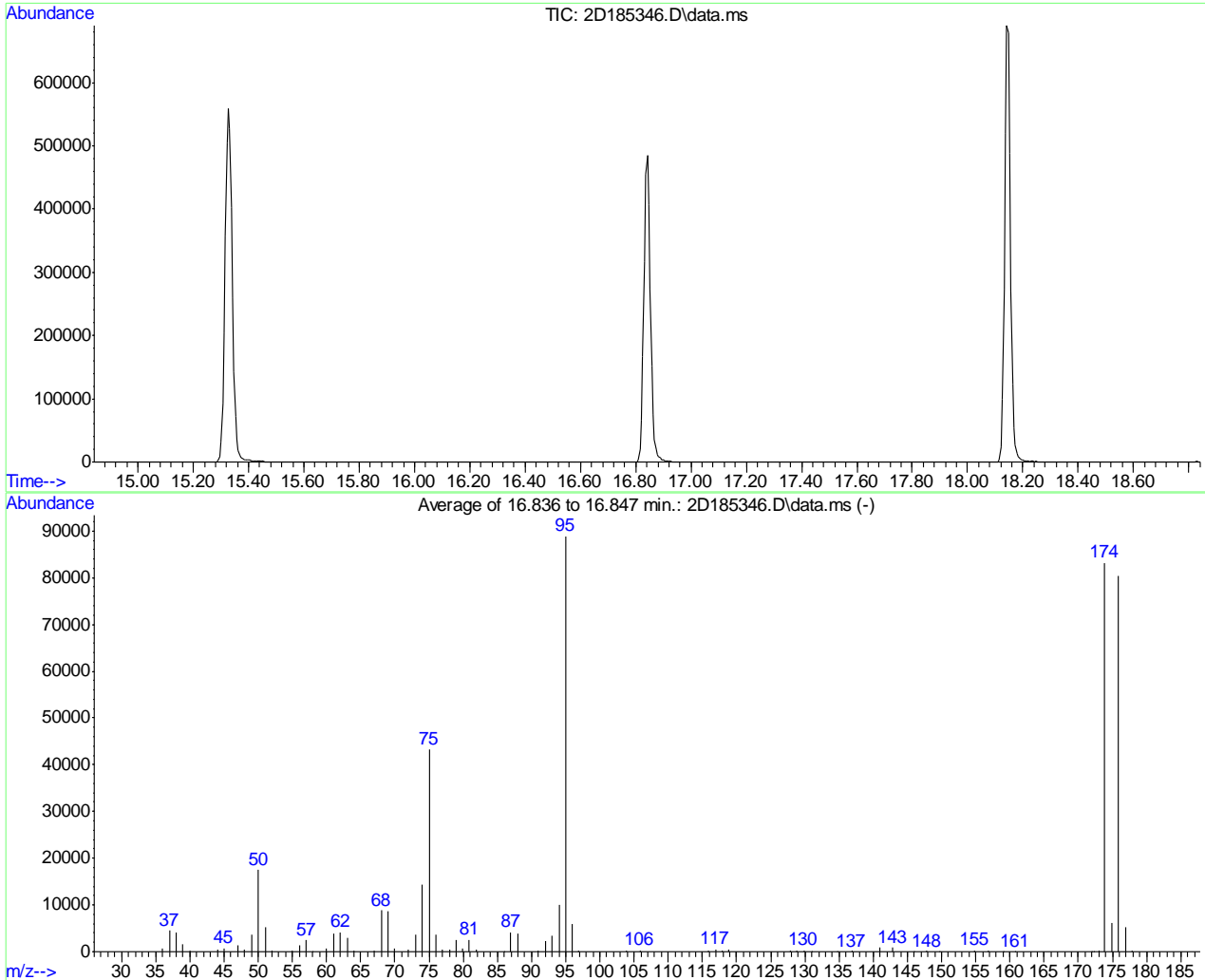


BFB

Data File : C:\msdchem\1\DATA\V2D7967\2D185346.D
 Acq On : 25 Sep 2019 6:09 pm
 Sample : bfb
 Misc : MS37556,V2D7967,5,,,1
 MS Integration Params: rteint.p

Vial: 3
 Operator: brittank
 Inst : MS2D
 Multiplr: 1.00

Method : C:\msdchem\1\METHODS\M2D7967.M (RTE Integrator)
 Title : SW-846 Method 8260C / EPA 624, DB624 60m x 0.25mm Thu Sep 26 10:58:10 2019



AutoFind: Scans 2509, 2510, 2511; Background Corrected with Scan 2500

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	19.7	17497	PASS
75	95	30	60	48.8	43346	PASS
95	95	100	100	100.0	88912	PASS
96	95	5	9	6.6	5848	PASS
173	174	0.00	2	0.4	292	PASS
174	95	50	120	93.5	83120	PASS
175	174	5	9	7.5	6238	PASS
176	174	95	101	96.6	80325	PASS
177	176	5	9	6.6	5295	PASS

2D185346.D M2D7967.M Thu Sep 26 11:28:15 2019 GCMS2D

Average of 16.836 to 16.847 min.: 2D185346.D\data.ms

bfb

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.00	758	51.00	5265	67.00	236	78.90	2529
37.00	4508	51.95	254	68.00	8837	79.90	705
38.00	4017	54.95	248	69.00	8722	80.90	2531
39.00	1659	56.00	1299	70.00	668	81.90	516
39.95	155	57.00	2403	72.00	437	86.00	46
44.00	469	57.90	41	73.00	3685	86.95	4101
45.00	775	60.00	789	74.00	14295	88.00	3852
47.00	1271	61.00	3867	75.00	43346	90.90	306
48.00	533	62.00	4100	76.00	3620	92.00	2343
49.00	3734	63.00	3062	76.95	550	93.00	3356
50.00	17497	63.95	284	77.95	409	94.00	9985

Average of 16.836 to 16.847 min.: 2D185346.D\data.ms

bfb

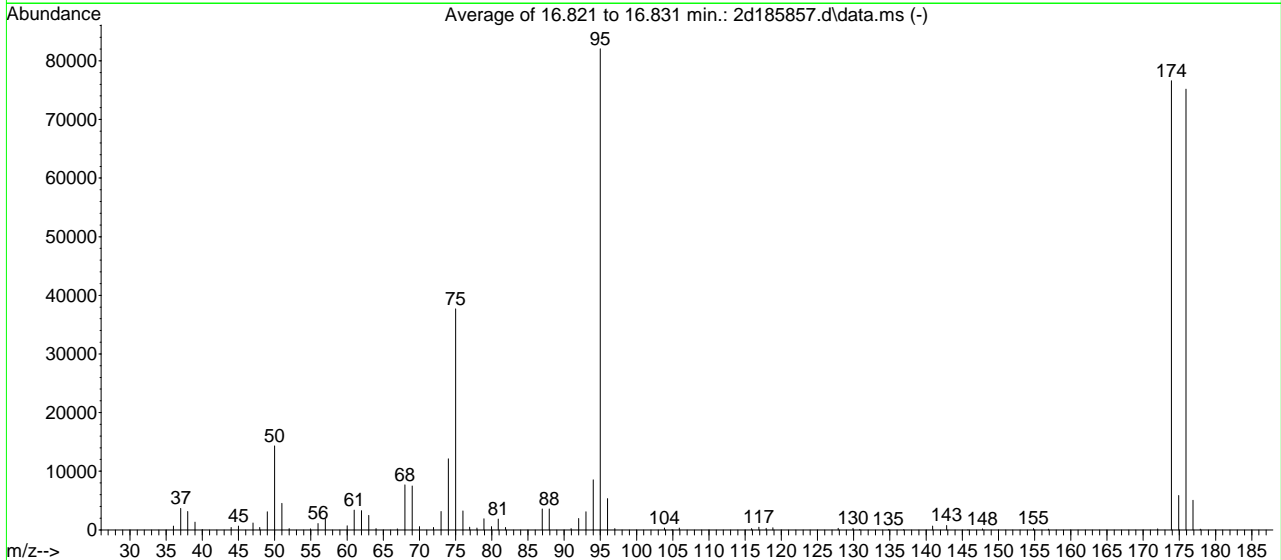
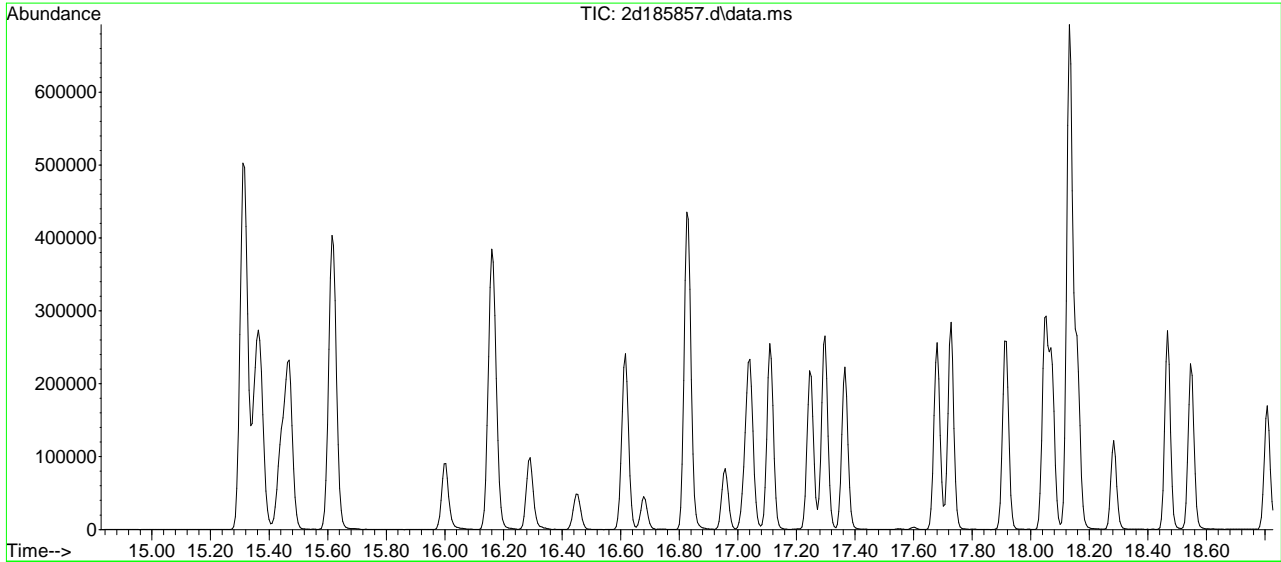
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
95.00	88912	129.85	342	158.95	84		
96.00	5848	130.95	81	160.80	40		
96.95	184	134.80	110	171.90	75		
103.85	335	136.85	155	172.20	65		
105.90	350	140.90	867	173.00	292		
115.85	302	142.90	897	173.90	83120		
116.90	555	145.90	84	174.90	6238		
117.85	293	147.85	181	175.90	80325		
118.90	445	149.70	44	176.90	5295		
127.85	273	154.85	236	177.85	160		
128.85	139	156.85	154				

BFB

Data File : C:\msdchem\1\data\ni...d7993-rush\2d185857.d Vial: 8
 Acq On : 11 Oct 2019 3:05 pm Operator: edwardd
 Sample : bfb Inst : MS2D
 Misc : MS38186,V2D7993,5,,,1 Multiplr: 1.00
 MS Integration Params: rteint.p

Method : C:\msdchem\1\METHODS\M2D7967.M (RTE Integrator)
 Title : SW-846 Method 8260C / EPA 624, DB624 60m x 0.25mm Thu Sep 26 10:58:10 2019



AutoFind: Scans 2506, 2507, 2508; Background Corrected with Scan 2498

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	17.4	14311	PASS
75	95	30	60	45.9	37677	PASS
95	95	100	100	100.0	82040	PASS
96	95	5	9	6.5	5311	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	93.4	76589	PASS
175	174	5	9	7.6	5850	PASS
176	174	95	101	98.2	75173	PASS
177	176	5	9	6.7	5034	PASS

2d185857.d M2D7967.M Sun Oct 13 23:39:37 2019

7.6.2
7

Average of 16.821 to 16.831 min.: 2d185857.d\data.ms

bfb

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.00	671	51.00	4531	68.00	7663	79.95	540
37.00	3675	52.00	218	69.00	7488	80.90	1864
38.00	3132	54.95	181	70.00	568	81.90	409
39.00	1299	56.00	1099	71.95	392	86.95	3562
40.00	42	57.00	1846	73.00	3157	87.95	3567
44.00	385	60.00	687	74.00	12112	90.95	231
45.00	649	61.00	3363	75.00	37677	92.00	1947
47.00	1192	62.00	3259	76.00	3219	93.00	3097
47.95	405	63.00	2485	76.95	451	94.00	8526
49.00	3087	64.00	230	77.95	333	95.00	82040
50.00	14311	66.95	181	78.90	1905	96.00	5311

Average of 16.821 to 16.831 min.: 2d185857.d\data.ms

bfb

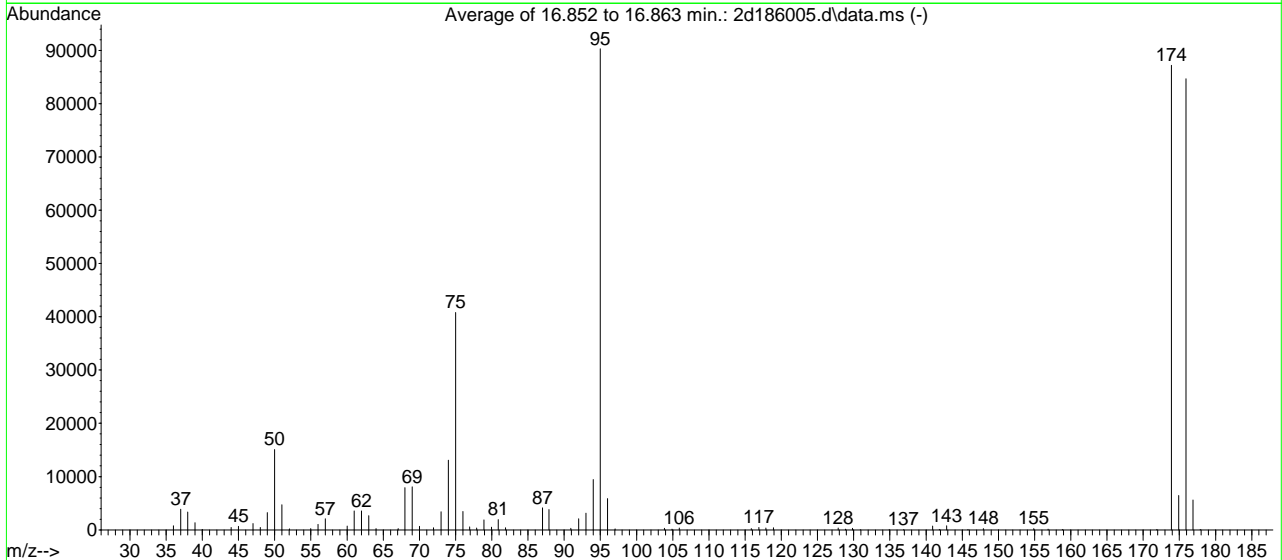
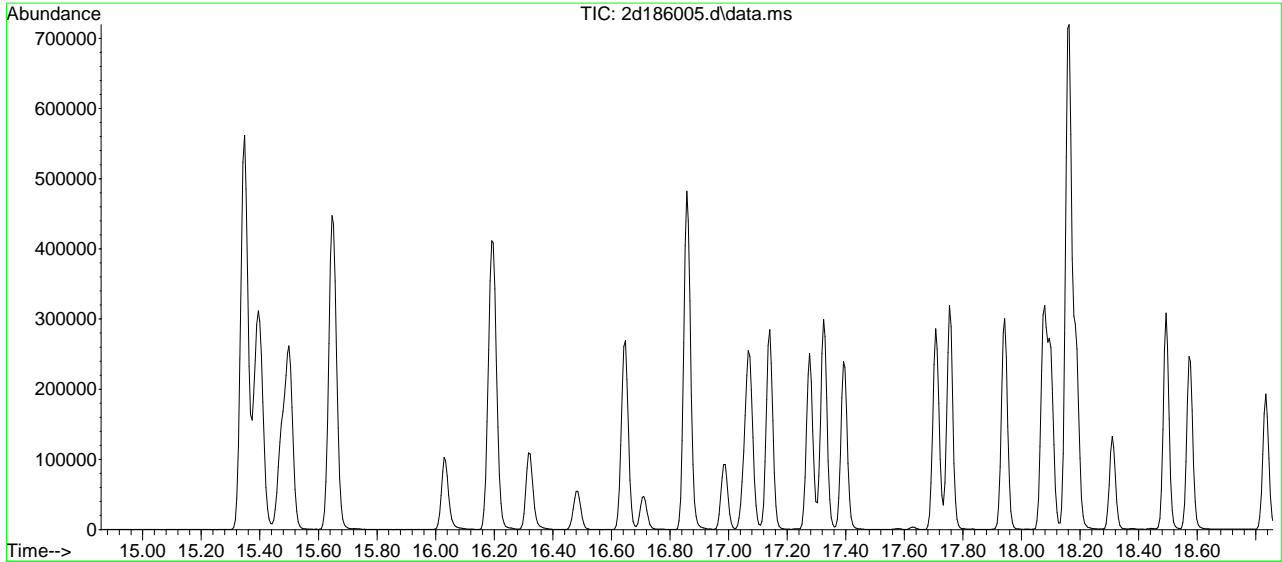
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
97.00	197	134.80	98	175.90	75173		
103.85	334	136.90	40	176.90	5034		
104.90	48	140.90	658	177.90	116		
105.90	306	142.85	724				
115.90	235	145.80	43				
116.90	449	147.80	163				
117.90	268	154.85	211				
118.85	359	156.90	136				
127.85	262	172.00	172				
129.90	282	173.90	76589				
130.85	89	174.90	5850				

BFB

Data File : C:\msdchem\1\data\ja...19\v2d8000\2d186005.d Vial: 1
 Acq On : 17 Oct 2019 8:07 am Operator: deving
 Sample : BFB Inst : MS2D
 Misc : MS38297,V2D8000,5,,,1 Multiplr: 1.00
 MS Integration Params: rteint.p

Method : C:\msdchem\1\METHODS\M2D7967.M (RTE Integrator)
 Title : SW-846 Method 8260C / EPA 624, DB624 60m x 0.25mm Thu Sep 26 10:58:10 2019



AutoFind: Scans 2512, 2513, 2514; Background Corrected with Scan 2504

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	16.7	15102	PASS
75	95	30	60	45.2	40837	PASS
95	95	100	100	100.0	90315	PASS
96	95	5	9	6.5	5873	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	96.6	87251	PASS
175	174	5	9	7.4	6430	PASS
176	174	95	101	97.1	84709	PASS
177	176	5	9	6.6	5623	PASS

2d186005.d M2D7967.M Fri Oct 18 08:20:15 2019

Average of 16.852 to 16.863 min.: 2d186005.d\data.ms

BFB

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.00	782	51.00	4714	68.00	7946	79.95	520
37.00	3880	52.05	183	69.00	8076	80.90	1940
38.00	3362	55.00	218	70.00	641	81.90	415
39.00	1331	56.00	1008	71.95	418	87.00	4140
40.00	85	57.00	2093	73.00	3414	87.90	3840
44.00	452	60.00	704	74.00	13096	90.90	273
45.00	644	61.00	3544	75.00	40837	92.00	2097
47.00	1201	62.00	3547	76.00	3432	93.00	3154
48.00	464	63.00	2650	76.95	539	94.00	9465
49.00	3266	64.00	267	77.90	371	95.00	90315
50.00	15102	67.05	240	78.90	1897	96.00	5873

Average of 16.852 to 16.863 min.: 2d186005.d\data.ms

BFB

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
97.05	175	130.90	42	171.90	100		
103.85	312	134.90	40	173.90	87251		
104.90	126	136.90	51	174.90	6430		
105.90	331	140.90	733	175.90	84709		
115.85	250	141.85	86	176.90	5623		
116.90	471	142.85	754	177.90	60		
117.85	325	145.80	86				
118.90	415	147.90	231				
127.85	321	154.90	250				
128.85	141	156.85	141				
129.85	314	158.85	86				

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7967\
 Data File : 2D185347.D
 Acq On : 25 Sep 2019 6:56 pm
 Operator : brittank
 Sample : IC7967-0.2
 Misc : MS37556,V2D7967,5,,,,,1
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Sep 26 10:42:25 2019

Quant Method : C:\msdchem\1\METHODS\M2D7967.M

Quant Title : SW-846 Method 8260C / EPA 624, DB624 60m x 0.25mm Thu Sep 26 07:31:03 2019

QLast Update : Thu Sep 26 07:31:03 2019

Response via : Initial Calibration

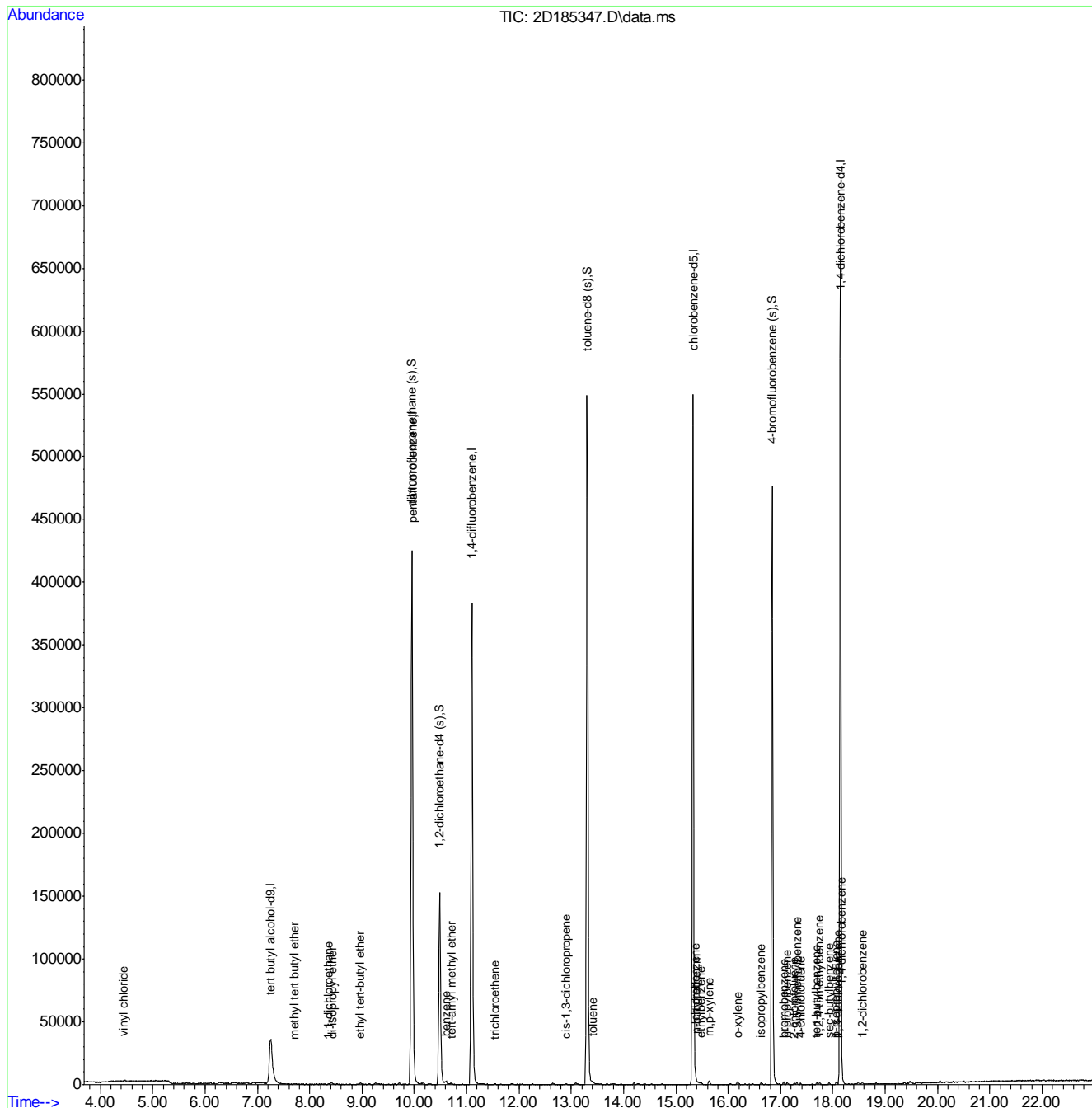
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.252	65	89237	500.00	ug/L	0.00
5) pentafluorobenzene	9.958	168	242984	50.00	ug/L	0.00
52) 1,4-difluorobenzene	11.101	114	371207	50.00	ug/L	0.00
74) chlorobenzene-d5	15.326	117	334172	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	18.142	152	170854	50.00	ug/L	0.00
System Monitoring Compounds						
44) dibromofluoromethane (s)	9.952	113	116158	50.46	ug/L	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	=	100.92%
53) 1,2-dichloroethane-d4 (s)	10.482	65	134041	50.66	ug/L	0.00
Spiked Amount	50.000	Range	81 - 124	Recovery	=	101.32%
75) toluene-d8 (s)	13.303	98	423670	51.01	ug/L	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	=	102.02%
99) 4-bromofluorobenzene (s)	16.836	95	155833	50.56	ug/L	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	=	101.12%
Target Compounds						
						Qvalue
9) vinyl chloride	4.437	62	604	0.20	ug/L	# 51
26) methyl tert butyl ether	7.698	73	859	0.17	ug/L	52
29) di-isopropyl ether	8.421	45	1351	0.19	ug/L	79
31) 1,1-dichloroethane	8.358	63	666	0.18	ug/L	# 51
35) ethyl tert-butyl ether	8.961	59	1105	0.18	ug/L	# 74
54) benzene	10.602	78	1721	0.22	ug/L	94
56) tert-amyl methyl ether	10.707	73	1069	0.19	ug/L	75
62) trichloroethene	11.530	130	342	0.17	ug/L	80
71) cis-1,3-dichloropropene	12.904	75	543	0.16	ug/L	88
76) toluene	13.407	92	946	0.21	ug/L	98
86) n-butyl ether	15.389	57	1460	0.17	ug/L	86
87) chlorobenzene	15.363	112	1111	0.21	ug/L	93
89) ethylbenzene	15.484	91	1909	0.22	ug/L	85
90) m,p-xylene	15.630	91	2645	0.38	ug/L	97
91) o-xylene	16.176	106	553	0.16	ug/L	90
96) isopropylbenzene	16.627	105	1772	0.21	ug/L	94
100) bromobenzene	17.057	156	475	0.20	ug/L	93
104) n-propylbenzene	17.125	91	2040	0.21	ug/L	82
105) 2-chlorotoluene	17.256	126	348	0.16	ug/L	# 69
106) 4-chlorotoluene	17.382	91	1287	0.21	ug/L	94
107) 1,3,5-trimethylbenzene	17.314	105	1315	0.19	ug/L	92
108) tert-butylbenzene	17.691	119	1092	0.19	ug/L	97
109) 1,2,4-trimethylbenzene	17.743	105	1370	0.19	ug/L	96
110) sec-butylbenzene	17.927	105	1646	0.19	ug/L	92
111) 1,3-dichlorobenzene	18.084	146	904	0.21	ug/L	90
112) p-isopropyltoluene	18.058	119	1382	0.19	ug/L	96
113) 1,4-dichlorobenzene	18.168	146	1041	0.24	ug/L	76
114) 1,2-dichlorobenzene	18.561	146	869	0.20	ug/L	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7967\
 Data File : 2D185347.D
 Acq On : 25 Sep 2019 6:56 pm
 Operator : brittank
 Sample : IC7967-0.2
 Misc : MS37556,V2D7967,5,,,,,1
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Sep 26 10:42:25 2019
 Quant Method : C:\msdchem\1\METHODS\M2D7967.M
 Quant Title : SW-846 Method 8260C / EPA 624, DB624 60m x 0.25mm Thu Sep 26 07:31:03 2019
 QLast Update : Thu Sep 26 07:31:03 2019
 Response via : Initial Calibration



7.7.1
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Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7967\
 Data File : 2D185348.D
 Acq On : 25 Sep 2019 7:25 pm
 Operator : brittank
 Sample : IC7967-0.5
 Misc : MS37556,V2D7967,5,,,,,1
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Sep 26 10:44:06 2019

Quant Method : C:\msdchem\1\METHODS\M2D7967.M

Quant Title : SW-846 Method 8260C / EPA 624, DB624 60m x 0.25mm Thu Sep 26 07:31:03 2019

QLast Update : Thu Sep 26 07:31:03 2019

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.257	65	80929	500.00	ug/L	0.00
5) pentafluorobenzene	9.957	168	244917	50.00	ug/L	0.00
52) 1,4-difluorobenzene	11.100	114	371727	50.00	ug/L	0.00
74) chlorobenzene-d5	15.326	117	337207	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	18.142	152	170841	50.00	ug/L	0.00
System Monitoring Compounds						
44) dibromofluoromethane (s)	9.952	113	116771	50.33	ug/L	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	=	100.66%
53) 1,2-dichloroethane-d4 (s)	10.487	65	134234	50.66	ug/L	0.00
Spiked Amount	50.000	Range	81 - 124	Recovery	=	101.32%
75) toluene-d8 (s)	13.308	98	426117	50.84	ug/L	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	=	101.68%
99) 4-bromofluorobenzene (s)	16.836	95	155822	50.56	ug/L	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	=	101.12%
Target Compounds						
6) chlorodifluoromethane	3.860	51	1132	0.41	ug/L	66
8) chloromethane	4.211	50	1768	0.58	ug/L	88
9) vinyl chloride	4.426	62	1425	0.48	ug/L	93
11) bromomethane	5.050	94	1232	0.64	ug/L	79
12) chloroethane	5.207	64	639	0.44	ug/L #	44
13) trichlorofluoromethane	5.663	101	1144	0.39	ug/L	84
17) 1,1-dichloroethene	6.518	96	796	0.45	ug/L	88
22) iodomethane	6.801	142	1232	0.48	ug/L	82
23) carbon disulfide	6.932	76	2715	0.54	ug/L	88
24) methylene chloride	7.283	84	1264	0.63	ug/L	87
26) methyl tert butyl ether	7.708	73	2338	0.46	ug/L	100
27) trans-1,2-dichloroethene	7.719	96	870	0.47	ug/L	83
29) di-isopropyl ether	8.416	45	3397	0.47	ug/L	81
31) 1,1-dichloroethane	8.369	63	1812	0.49	ug/L	87
32) chloroprene	8.521	53	1221	0.41	ug/L	90
35) ethyl tert-butyl ether	8.977	59	2761	0.45	ug/L	94
37) 2,2-dichloropropane	9.271	77	1203	0.46	ug/L	83
38) cis-1,2-dichloroethene	9.260	96	977	0.46	ug/L	94
43) chloroform	9.722	83	2036	0.57	ug/L	90
46) 1,1,1-trichloroethane	10.036	97	1403	0.48	ug/L	77
48) 1,1-dichloropropene	10.272	75	1249	0.48	ug/L	85
50) carbon tetrachloride	10.309	117	1171	0.47	ug/L #	67
54) benzene	10.602	78	3988	0.51	ug/L	94
56) tert-amyl methyl ether	10.697	73	2681	0.47	ug/L	98
59) 1,2-dichloroethane	10.608	62	1904	0.67	ug/L	88
62) trichloroethene	11.536	130	840	0.42	ug/L	89
64) 2-chloroethyl vinyl ether	12.647	63	2406	1.85	ug/L	89
66) 1,2-dichloropropane	11.876	63	978	0.45	ug/L	99
67) dibromomethane	12.060	93	482	0.38	ug/L	97
69) bromodichloromethane	12.259	83	1217	0.44	ug/L	91
71) cis-1,3-dichloropropene	12.904	75	1378	0.41	ug/L	99
72) 4-methyl-2-pentanone	13.077	58	978	1.43	ug/L #	84

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7967\
 Data File : 2D185348.D
 Acq On : 25 Sep 2019 7:25 pm
 Operator : brittank
 Sample : IC7967-0.5
 Misc : MS37556,V2D7967,5,,,1
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Sep 26 10:44:06 2019

Quant Method : C:\msdchem\1\METHODS\M2D7967.M

Quant Title : SW-846 Method 8260C / EPA 624, DB624 60m x 0.25mm Thu Sep 26 07:31:03 2019

QLast Update : Thu Sep 26 07:31:03 2019

Response via : Initial Calibration

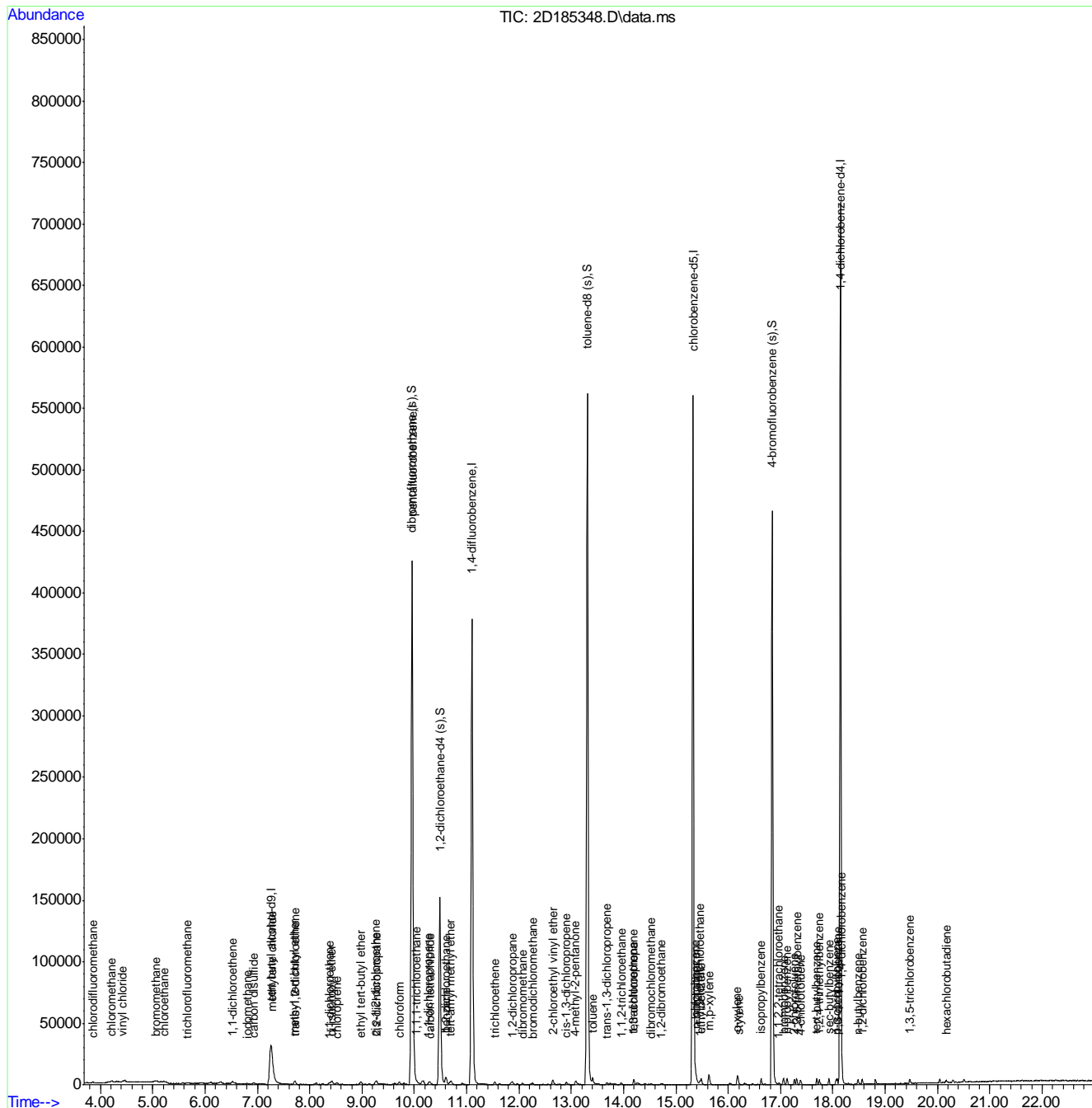
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
76) toluene	13.407	92	2457	0.53	ug/L	99
77) trans-1,3-dichloropropene	13.675	75	1124	0.39	ug/L #	80
79) 1,1,2-trichloroethane	13.953	83	655	0.44	ug/L #	86
80) tetrachloroethene	14.194	164	772	0.48	ug/L	80
81) 1,3-dichloropropane	14.194	76	1349	0.46	ug/L	97
84) dibromochloromethane	14.524	129	748	0.37	ug/L	84
85) 1,2-dibromoethane	14.723	107	883	0.45	ug/L	97
86) n-butyl ether	15.384	57	3657	0.43	ug/L	92
87) chlorobenzene	15.363	112	2439	0.45	ug/L	92
88) 1,1,1,2-tetrachloroethane	15.457	131	829	0.42	ug/L	86
89) ethylbenzene	15.484	91	4391	0.49	ug/L	95
90) m,p-xylene	15.636	91	6445	0.93	ug/L	93
91) o-xylene	16.170	106	1486	0.43	ug/L	87
92) styrene	16.191	104	2274	0.39	ug/L	95
96) isopropylbenzene	16.627	105	3785	0.44	ug/L	95
100) bromobenzene	17.057	156	1188	0.50	ug/L	95
101) 1,1,2,2-tetrachloroethane	16.967	83	1027	0.48	ug/L	82
104) n-propylbenzene	17.125	91	4701	0.49	ug/L	94
105) 2-chlorotoluene	17.261	126	936	0.44	ug/L	99
106) 4-chlorotoluene	17.382	91	3000	0.50	ug/L	97
107) 1,3,5-trimethylbenzene	17.308	105	3155	0.46	ug/L	88
108) tert-butylbenzene	17.691	119	2755	0.48	ug/L	93
109) 1,2,4-trimethylbenzene	17.743	105	3084	0.44	ug/L	97
110) sec-butylbenzene	17.927	105	3872	0.45	ug/L	97
111) 1,3-dichlorobenzene	18.084	146	2048	0.48	ug/L	93
112) p-isopropyltoluene	18.063	119	3154	0.43	ug/L	93
113) 1,4-dichlorobenzene	18.168	146	2304	0.53	ug/L	85
114) 1,2-dichlorobenzene	18.561	146	1991	0.47	ug/L	93
116) n-butylbenzene	18.477	92	1597	0.44	ug/L	92
119) 1,3,5-trichlorobenzene	19.474	180	1380	0.41	ug/L	93
120) hexachlorobutadiene	20.166	225	624	0.41	ug/L	92

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7967\
 Data File : 2D185348.D
 Acq On : 25 Sep 2019 7:25 pm
 Operator : brittank
 Sample : IC7967-0.5
 Misc : MS37556,V2D7967,5,,,,,1
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Sep 26 10:44:06 2019
 Quant Method : C:\msdchem\1\METHODS\M2D7967.M
 Quant Title : SW-846 Method 8260C / EPA 624, DB624 60m x 0.25mm Thu Sep 26 07:31:03 2019
 QLast Update : Thu Sep 26 07:31:03 2019
 Response via : Initial Calibration



7.7.2
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7967\
 Data File : 2D185349.D
 Acq On : 25 Sep 2019 7:55 pm
 Operator : brittank
 Sample : IC7967-1
 Misc : MS37556,V2D7967,5,,,,,1
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Sep 26 10:47:24 2019

Quant Method : C:\msdchem\1\METHODS\M2D7967.M

Quant Title : SW-846 Method 8260C / EPA 624, DB624 60m x 0.25mm Thu Sep 26 07:47:18 2019

QLast Update : Thu Sep 26 07:47:18 2019

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.252	65	81356	500.00	ug/L	0.00
5) pentafluorobenzene	9.952	168	247977	50.00	ug/L	0.00
52) 1,4-difluorobenzene	11.101	114	376522	50.00	ug/L	0.00
74) chlorobenzene-d5	15.326	117	339154	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	18.142	152	172552	50.00	ug/L	0.00
System Monitoring Compounds						
44) dibromofluoromethane (s)	9.952	113	117756	50.25	ug/L	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	=	100.50%
53) 1,2-dichloroethane-d4 (s)	10.482	65	134602	49.98	ug/L	0.00
Spiked Amount	50.000	Range	81 - 124	Recovery	=	99.96%
75) toluene-d8 (s)	13.308	98	430093	50.53	ug/L	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	=	101.06%
99) 4-bromofluorobenzene (s)	16.836	95	158194	50.62	ug/L	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	=	101.24%
Target Compounds						
3) ethanol	5.899	45	2042	112.14	ug/L	93
6) chlorodifluoromethane	3.855	51	2901	1.10	ug/L	91
8) chloromethane	4.190	50	3325	1.03	ug/L	93
9) vinyl chloride	4.421	62	2975	0.98	ug/L	92
10) 1,3-butadiene	4.452	54	1854	0.95	ug/L	94
11) bromomethane	5.045	94	2158	1.02	ug/L	93
12) chloroethane	5.186	64	1489	1.02	ug/L	98
13) trichlorofluoromethane	5.679	101	2719	0.93	ug/L	92
14) vinyl bromide	5.553	106	1505	0.95	ug/L	89
15) ethyl ether	6.099	74	1098	1.03	ug/L	83
17) 1,1-dichloroethene	6.518	96	1898	1.07	ug/L	91
19) 2-chloropropane	6.277	43	4610	1.16	ug/L	94
20) acetone	6.560	58	642	4.14	ug/L #	45
22) iodomethane	6.791	142	2575	1.00	ug/L	96
23) carbon disulfide	6.922	76	5496	1.07	ug/L	95
24) methylene chloride	7.273	84	2385	1.12	ug/L	97
26) methyl tert butyl ether	7.693	73	4832	0.98	ug/L	94
27) trans-1,2-dichloroethene	7.708	96	1896	1.02	ug/L	91
28) hexane	8.112	57	2287	0.93	ug/L	91
29) di-isopropyl ether	8.411	45	7212	1.01	ug/L	74
31) 1,1-dichloroethane	8.364	63	3841	1.04	ug/L	95
32) chloroprene	8.510	53	3102	1.07	ug/L	98
35) ethyl tert-butyl ether	8.967	59	6088	1.02	ug/L	89
37) 2,2-dichloropropane	9.271	77	2911	1.10	ug/L	89
38) cis-1,2-dichloroethene	9.255	96	2155	1.02	ug/L	92
39) propionitrile	9.344	54	2060	8.87	ug/L	99
40) tert-butyl formate	9.795	59	1500	0.92	ug/L	84
41) bromochloromethane	9.617	128	1014	0.99	ug/L	89
43) chloroform	9.706	83	4087	1.10	ug/L	99
46) 1,1,1-trichloroethane	10.041	97	3242	1.10	ug/L	94
47) cyclohexane	10.141	84	2246	0.90	ug/L #	66
48) 1,1-dichloropropene	10.277	75	2748	1.05	ug/L	96

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7967\
 Data File : 2D185349.D
 Acq On : 25 Sep 2019 7:55 pm
 Operator : brittank
 Sample : IC7967-1
 Misc : MS37556,V2D7967,5,,,1
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Sep 26 10:47:24 2019

Quant Method : C:\msdchem\1\METHODS\M2D7967.M

Quant Title : SW-846 Method 8260C / EPA 624, DB624 60m x 0.25mm Thu Sep 26 07:47:18 2019

QLast Update : Thu Sep 26 07:47:18 2019

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
50) carbon tetrachloride	10.298	117	2531	1.03	ug/L	94
54) benzene	10.597	78	8549	1.06	ug/L	95
55) iso-octane	10.671	57	4697	0.91	ug/L	94
56) tert-amyl methyl ether	10.692	73	5750	1.03	ug/L	94
59) 1,2-dichloroethane	10.602	62	3306	1.08	ug/L	90
62) trichloroethene	11.536	130	2112	1.09	ug/L	80
64) 2-chloroethyl vinyl ether	12.642	63	5323	4.48	ug/L	97
66) 1,2-dichloropropane	11.877	63	2161	1.01	ug/L	97
67) dibromomethane	12.060	93	1174	0.97	ug/L	83
68) methylcyclohexane	11.856	83	2616	0.92	ug/L	91
69) bromodichloromethane	12.249	83	2708	1.00	ug/L	96
71) cis-1,3-dichloropropene	12.899	75	3100	0.99	ug/L	98
72) 4-methyl-2-pentanone	13.082	58	2293	3.59	ug/L #	77
76) toluene	13.407	92	4977	1.06	ug/L	99
77) trans-1,3-dichloropropene	13.670	75	2520	0.94	ug/L	94
78) ethyl methacrylate	13.748	69	1839	0.86	ug/L	83
79) 1,1,2-trichloroethane	13.948	83	1383	0.96	ug/L	90
80) tetrachloroethene	14.189	164	1653	1.01	ug/L	97
81) 1,3-dichloropropane	14.194	76	2857	1.01	ug/L	97
82) 2-hexanone	14.246	58	1716	3.01	ug/L	96
84) dibromochloromethane	14.524	129	1745	0.94	ug/L	91
85) 1,2-dibromoethane	14.723	107	1763	0.93	ug/L	93
86) n-butyl ether	15.384	57	7817	0.98	ug/L	93
87) chlorobenzene	15.368	112	5602	1.04	ug/L	93
88) 1,1,1,2-tetrachloroethane	15.452	131	1727	0.91	ug/L	92
89) ethylbenzene	15.484	91	9173	1.02	ug/L	94
90) m,p-xylene	15.631	91	13696	2.01	ug/L	97
91) o-xylene	16.171	106	3189	0.98	ug/L	95
92) styrene	16.181	104	5166	0.94	ug/L	94
95) bromoform	16.469	173	1062	0.83	ug/L	81
96) isopropylbenzene	16.627	105	8438	1.01	ug/L	96
100) bromobenzene	17.057	156	2431	1.02	ug/L	97
101) 1,1,2,2-tetrachloroethane	16.968	83	2250	1.03	ug/L	93
104) n-propylbenzene	17.125	91	9971	1.02	ug/L	96
105) 2-chlorotoluene	17.261	126	2143	1.04	ug/L	99
106) 4-chlorotoluene	17.376	91	6091	1.00	ug/L	98
107) 1,3,5-trimethylbenzene	17.308	105	6944	1.02	ug/L	96
108) tert-butylbenzene	17.691	119	5765	1.02	ug/L	96
109) 1,2,4-trimethylbenzene	17.738	105	6953	1.01	ug/L	95
110) sec-butylbenzene	17.927	105	8332	1.00	ug/L	96
111) 1,3-dichlorobenzene	18.084	146	4345	1.01	ug/L	98
112) p-isopropyltoluene	18.058	119	6693	0.96	ug/L	97
113) 1,4-dichlorobenzene	18.173	146	4675	1.04	ug/L	95
114) 1,2-dichlorobenzene	18.556	146	4168	0.99	ug/L	95
116) n-butylbenzene	18.477	92	3328	0.96	ug/L	92
119) 1,3,5-trichlorobenzene	19.474	180	2766	0.89	ug/L	97
120) hexachlorobutadiene	20.161	225	1308	0.91	ug/L	96
123) 1,2,4-trichlorobenzene	20.045	180	2177	0.84	ug/L	98
124) 1,2,3-trichlorobenzene	20.507	180	2148	0.90	ug/L	96
125) hexachloroethane	18.813	201	1166	0.93	ug/L	83

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7967\
Data File : 2D185349.D
Acq On : 25 Sep 2019 7:55 pm
Operator : brittank
Sample : IC7967-1
Misc : MS37556,V2D7967,5,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Sep 26 10:47:24 2019

Quant Method : C:\msdchem\1\METHODS\M2D7967.M

Quant Title : SW-846 Method 8260C / EPA 624, DB624 60m x 0.25mm Thu Sep 26 07:47:18 2019

QLast Update : Thu Sep 26 07:47:18 2019

Response via : Initial Calibration

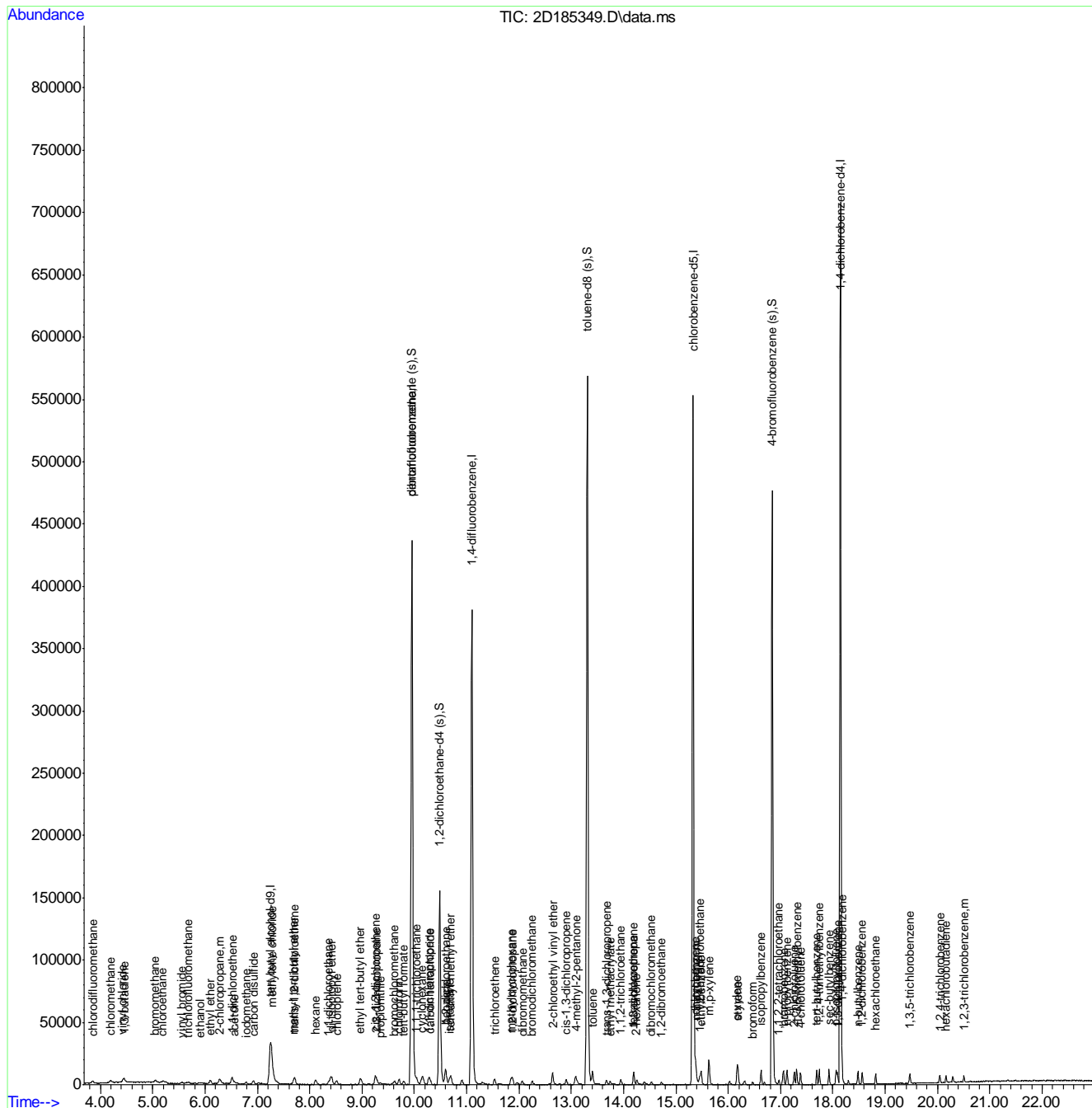
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
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(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7967\
 Data File : 2D185349.D
 Acq On : 25 Sep 2019 7:55 pm
 Operator : brittank
 Sample : IC7967-1
 Misc : MS37556,V2D7967,5,,,,1
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Sep 26 10:47:24 2019
 Quant Method : C:\msdchem\1\METHODS\M2D7967.M
 Quant Title : SW-846 Method 8260C / EPA 624, DB624 60m x 0.25mm Thu Sep 26 07:47:18 2019
 QLast Update : Thu Sep 26 07:47:18 2019
 Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7967\
 Data File : 2D185350.D
 Acq On : 25 Sep 2019 8:24 pm
 Operator : brittank
 Sample : IC7967-2
 Misc : MS37556,V2D7967,5,,,,,1
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Sep 26 10:50:52 2019

Quant Method : C:\msdchem\1\METHODS\M2D7967.M

Quant Title : SW-846 Method 8260C / EPA 624, DB624 60m x 0.25mm Thu Sep 26 07:47:18 2019

QLast Update : Thu Sep 26 07:47:18 2019

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
Internal Standards							
1) tert butyl alcohol-d9	7.247	65	80773	500.00	ug/L	-0.01	
5) pentafluorobenzene	9.957	168	247842	50.00	ug/L	0.00	
52) 1,4-difluorobenzene	11.100	114	377591	50.00	ug/L	0.00	
74) chlorobenzene-d5	15.326	117	341031	50.00	ug/L	0.00	
98) 1,4-dichlorobenzene-d4	18.142	152	173912	50.00	ug/L	0.00	
System Monitoring Compounds							
44) dibromofluoromethane (s)	9.952	113	117948	50.36	ug/L	0.00	
Spiked Amount	50.000	Range	80 - 120	Recovery	=	100.72%	
53) 1,2-dichloroethane-d4 (s)	10.482	65	136405	50.50	ug/L	0.00	
Spiked Amount	50.000	Range	81 - 124	Recovery	=	101.00%	
75) toluene-d8 (s)	13.308	98	433242	50.62	ug/L	0.00	
Spiked Amount	50.000	Range	80 - 120	Recovery	=	101.24%	
99) 4-bromofluorobenzene (s)	16.841	95	159505	50.64	ug/L	0.00	
Spiked Amount	50.000	Range	80 - 120	Recovery	=	101.28%	
Target Compounds							
							Qvalue
2) tertiary butyl alcohol	7.388	59	1408	8.99	ug/L		55
3) ethanol	5.894	45	4493	248.53	ug/L		99
6) chlorodifluoromethane	3.854	51	5507	2.08	ug/L		95
7) dichlorodifluoromethane	3.823	85	3915	1.81	ug/L		89
8) chloromethane	4.195	50	6504	2.02	ug/L		98
9) vinyl chloride	4.431	62	6040	2.00	ug/L		99
10) 1,3-butadiene	4.452	54	3889	2.00	ug/L		90
11) bromomethane	5.045	94	4356	2.06	ug/L		97
12) chloroethane	5.207	64	2946	2.01	ug/L		98
13) trichlorofluoromethane	5.674	101	5965	2.05	ug/L		92
14) vinyl bromide	5.548	106	3038	1.92	ug/L		91
15) ethyl ether	6.093	74	2134	2.00	ug/L		95
17) 1,1-dichloroethene	6.518	96	3616	2.04	ug/L		94
18) freon 113	6.513	151	2613	1.90	ug/L		87
19) 2-chloropropane	6.271	43	8196	2.06	ug/L		94
20) acetone	6.570	58	1274	8.22	ug/L #		78
21) acetonitrile	7.026	41	4536	19.48	ug/L		88
22) iodomethane	6.785	142	5099	1.97	ug/L		96
23) carbon disulfide	6.927	76	10098	1.97	ug/L		98
24) methylene chloride	7.283	84	4084	1.91	ug/L		87
25) methyl acetate	7.089	43	2688	1.91	ug/L		86
26) methyl tert butyl ether	7.692	73	9796	2.00	ug/L		95
27) trans-1,2-dichloroethene	7.713	96	3648	1.97	ug/L		94
28) hexane	8.112	57	4762	1.94	ug/L		99
29) di-isopropyl ether	8.416	45	14233	2.00	ug/L		86
30) 2-butanone	9.239	72	984	5.95	ug/L #		56
31) 1,1-dichloroethane	8.358	63	7475	2.03	ug/L		98
32) chloroprene	8.515	53	5769	2.00	ug/L		96
35) ethyl tert-butyl ether	8.972	59	11814	1.98	ug/L		95
37) 2,2-dichloropropane	9.271	77	5368	2.04	ug/L		95
38) cis-1,2-dichloroethene	9.255	96	4159	1.98	ug/L		90
39) propionitrile	9.339	54	4328	18.64	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7967\
 Data File : 2D185350.D
 Acq On : 25 Sep 2019 8:24 pm
 Operator : brittank
 Sample : IC7967-2
 Misc : MS37556,V2D7967,5,,,1
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Sep 26 10:50:52 2019

Quant Method : C:\msdchem\1\METHODS\M2D7967.M

Quant Title : SW-846 Method 8260C / EPA 624, DB624 60m x 0.25mm Thu Sep 26 07:47:18 2019

QLast Update : Thu Sep 26 07:47:18 2019

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
40) tert-butyl formate	9.800	59	2915	1.78	ug/L	91
41) bromochloromethane	9.627	128	1934	1.88	ug/L	92
42) tetrahydrofuran	9.706	42	1039	2.04	ug/L #	65
43) chloroform	9.711	83	7446	2.01	ug/L	98
45) methacrylonitrile	9.575	67	1027	1.55	ug/L	83
46) 1,1,1-trichloroethane	10.041	97	5711	1.94	ug/L	89
47) cyclohexane	10.146	84	4865	1.95	ug/L	87
48) 1,1-dichloropropene	10.272	75	5165	1.97	ug/L	97
50) carbon tetrachloride	10.298	117	4827	1.96	ug/L	94
54) benzene	10.602	78	16062	1.99	ug/L	95
55) iso-octane	10.676	57	10274	1.99	ug/L	97
56) tert-amyl methyl ether	10.702	73	10753	1.92	ug/L	98
57) heptane	10.912	57	2180	1.88	ug/L	92
59) 1,2-dichloroethane	10.597	62	6001	1.95	ug/L	96
61) ethyl acrylate	11.609	55	3592	1.64	ug/L	79
62) trichloroethene	11.530	130	3822	1.96	ug/L	94
64) 2-chloroethyl vinyl ether	12.637	63	10986	9.21	ug/L	98
65) methyl methacrylate	11.955	69	1907	1.68	ug/L	88
66) 1,2-dichloropropane	11.871	63	4166	1.94	ug/L	92
67) dibromomethane	12.060	93	2342	1.93	ug/L	97
68) methylcyclohexane	11.855	83	5543	1.95	ug/L	98
69) bromodichloromethane	12.254	83	5254	1.93	ug/L	98
70) epichlorohydrin	12.768	57	1318	8.33	ug/L	91
71) cis-1,3-dichloropropene	12.904	75	5895	1.88	ug/L	91
72) 4-methyl-2-pentanone	13.082	58	4749	7.40	ug/L	90
73) 3-methyl-1-butanol	13.114	55	2113	29.73	ug/L	95
76) toluene	13.402	92	9386	1.98	ug/L	93
77) trans-1,3-dichloropropene	13.669	75	4975	1.84	ug/L	94
78) ethyl methacrylate	13.743	69	3801	1.77	ug/L	95
79) 1,1,2-trichloroethane	13.942	83	2825	1.94	ug/L	96
80) tetrachloroethene	14.188	164	3195	1.95	ug/L	96
81) 1,3-dichloropropane	14.188	76	5356	1.89	ug/L	96
82) 2-hexanone	14.246	58	4036	7.04	ug/L	99
83) butyl acetate	14.388	56	1899	1.69	ug/L #	84
84) dibromochloromethane	14.524	129	3545	1.89	ug/L	96
85) 1,2-dibromoethane	14.718	107	3573	1.87	ug/L	91
86) n-butyl ether	15.384	57	15129	1.88	ug/L	96
87) chlorobenzene	15.368	112	10712	1.98	ug/L	98
88) 1,1,1,2-tetrachloroethane	15.457	131	3587	1.89	ug/L	93
89) ethylbenzene	15.483	91	17488	1.94	ug/L	96
90) m,p-xylene	15.630	91	26576	3.89	ug/L	98
91) o-xylene	16.170	106	6303	1.92	ug/L	98
92) styrene	16.181	104	10137	1.84	ug/L	98
93) butyl acrylate	16.018	55	5839	1.63	ug/L	98
94) n-amyl acetate	16.301	70	1834	1.53	ug/L #	83
95) bromoform	16.464	173	2251	1.76	ug/L	99
96) isopropylbenzene	16.626	105	15803	1.88	ug/L	97
100) bromobenzene	17.056	156	4650	1.93	ug/L	97
101) 1,1,2,2-tetrachloroethane	16.967	83	4521	2.06	ug/L	96
103) 1,2,3-trichloropropane	17.051	110	1025	1.86	ug/L #	85

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7967\
 Data File : 2D185350.D
 Acq On : 25 Sep 2019 8:24 pm
 Operator : brittank
 Sample : IC7967-2
 Misc : MS37556,V2D7967,5,,,,1
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Sep 26 10:50:52 2019

Quant Method : C:\msdchem\1\METHODS\M2D7967.M

Quant Title : SW-846 Method 8260C / EPA 624, DB624 60m x 0.25mm Thu Sep 26 07:47:18 2019

QLast Update : Thu Sep 26 07:47:18 2019

Response via : Initial Calibration

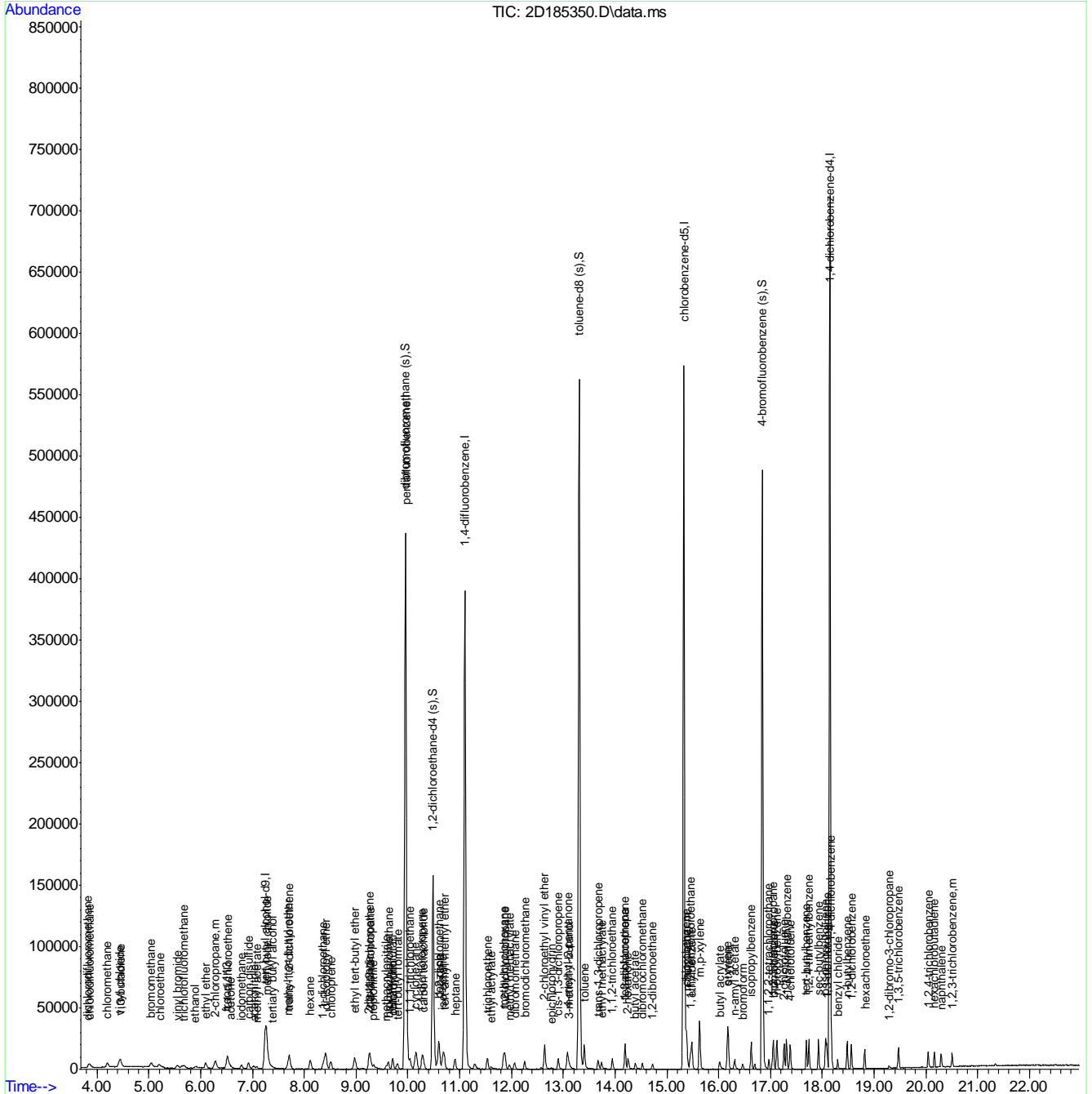
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
104) n-propylbenzene	17.125	91	19544	1.99	ug/L	99
105) 2-chlorotoluene	17.261	126	4173	2.00	ug/L	95
106) 4-chlorotoluene	17.376	91	12039	1.97	ug/L	96
107) 1,3,5-trimethylbenzene	17.308	105	13304	1.95	ug/L	96
108) tert-butylbenzene	17.691	119	11050	1.93	ug/L	99
109) 1,2,4-trimethylbenzene	17.738	105	13222	1.91	ug/L	98
110) sec-butylbenzene	17.927	105	16847	2.00	ug/L	99
111) 1,3-dichlorobenzene	18.084	146	8508	1.97	ug/L	95
112) p-isopropyltoluene	18.058	119	13386	1.90	ug/L	93
113) 1,4-dichlorobenzene	18.168	146	8759	1.93	ug/L	94
114) 1,2-dichlorobenzene	18.561	146	8267	1.95	ug/L	99
115) benzyl chloride	18.299	91	5810	1.71	ug/L	97
116) n-butylbenzene	18.477	92	6645	1.90	ug/L	97
117) 1,2-dibromo-3-chloropr...	19.285	157	605	1.48	ug/L #	64
119) 1,3,5-trichlorobenzene	19.473	180	5658	1.81	ug/L	94
120) hexachlorobutadiene	20.160	225	2829	1.96	ug/L	97
121) naphthalene	20.291	128	8752	1.61	ug/L	99
123) 1,2,4-trichlorobenzene	20.045	180	4306	1.64	ug/L	96
124) 1,2,3-trichlorobenzene	20.506	180	4085	1.69	ug/L	94
125) hexachloroethane	18.823	201	2347	1.85	ug/L	89

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7967\
Data File : 2D185350.D
Acq On : 25 Sep 2019 8:24 pm
Operator : brittank
Sample : IC7967-2
Misc : MS37556,V2D7967,5,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Sep 26 10:50:52 2019
Quant Method : C:\msdchem\1\METHODS\M2D7967.M
Quant Title : SW-846 Method 8260C / EPA 624, DB624 60m x 0.25mm Thu Sep 26 07:47:18 2019
QLast Update : Thu Sep 26 07:47:18 2019
Response via : Initial Calibration



7.7.4
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7967\
 Data File : 2D185351.D
 Acq On : 25 Sep 2019 8:54 pm
 Operator : brittank
 Sample : IC7967-4
 Misc : MS37556,V2D7967,5,,,,,1
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Sep 26 10:57:47 2019

Quant Method : C:\msdchem\1\METHODS\M2D7967.M

Quant Title : SW-846 Method 8260C / EPA 624, DB624 60m x 0.25mm Thu Sep 26 10:52:22 2019

QLast Update : Thu Sep 26 10:52:51 2019

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
Internal Standards							
1) tert butyl alcohol-d9	7.257	65	78119	500.00	ug/L	0.00	
5) pentafluorobenzene	9.958	168	244840	50.00	ug/L	0.00	
52) 1,4-difluorobenzene	11.101	114	370698	50.00	ug/L	0.00	
74) chlorobenzene-d5	15.326	117	335273	50.00	ug/L	0.00	
98) 1,4-dichlorobenzene-d4	18.142	152	171657	50.00	ug/L	0.00	
System Monitoring Compounds							
44) dibromofluoromethane (s)	9.952	113	115279	49.70	ug/L	0.00	
Spiked Amount	50.000	Range	80 - 120	Recovery	=	99.40%	
53) 1,2-dichloroethane-d4 (s)	10.487	65	133019	50.35	ug/L	0.00	
Spiked Amount	50.000	Range	81 - 124	Recovery	=	100.70%	
75) toluene-d8 (s)	13.308	98	426182	51.14	ug/L	0.00	
Spiked Amount	50.000	Range	80 - 120	Recovery	=	102.28%	
99) 4-bromofluorobenzene (s)	16.836	95	156991	50.70	ug/L	0.00	
Spiked Amount	50.000	Range	80 - 120	Recovery	=	101.40%	
Target Compounds							
							Qvalue
2) tertiary butyl alcohol	7.388	59	3001	19.10	ug/L		81
3) ethanol	5.899	45	8075	442.48	ug/L		94
4) 1,4-dioxane	12.044	88	1429	89.28	ug/L		95
6) chlorodifluoromethane	3.860	51	10225	3.73	ug/L		91
7) dichlorodifluoromethane	3.834	85	8149	3.76	ug/L		97
8) chloromethane	4.211	50	12921	4.21	ug/L		95
9) vinyl chloride	4.431	62	12468	4.17	ug/L		98
10) 1,3-butadiene	4.463	54	7372	3.77	ug/L		96
11) bromomethane	5.055	94	8542	4.45	ug/L		99
12) chloroethane	5.197	64	6073	4.15	ug/L		95
13) trichlorofluoromethane	5.690	101	12170	4.17	ug/L		95
14) vinyl bromide	5.559	106	6467	4.08	ug/L		92
15) ethyl ether	6.093	74	3924	3.68	ug/L		93
16) acrolein	6.329	56	1043	3.50	ug/L		93
17) 1,1-dichloroethene	6.523	96	6802	3.87	ug/L		88
18) freon 113	6.518	151	4866	3.43	ug/L		96
19) 2-chloropropane	6.287	43	15318	4.02	ug/L		97
20) acetone	6.565	58	2469	16.19	ug/L #		84
21) acetonitrile	7.021	41	9319	40.71	ug/L		94
22) iodomethane	6.791	142	9666	3.73	ug/L		93
23) carbon disulfide	6.927	76	18712	3.72	ug/L		97
24) methylene chloride	7.278	84	7861	3.89	ug/L		100
25) methyl acetate	7.084	43	5486	3.95	ug/L		93
26) methyl tert butyl ether	7.698	73	18587	3.65	ug/L		99
27) trans-1,2-dichloroethene	7.719	96	6893	3.71	ug/L		96
28) hexane	8.117	57	8733	3.45	ug/L		95
29) di-isopropyl ether	8.411	45	27033	3.73	ug/L		74
30) 2-butanone	9.239	72	2396	13.48	ug/L #		84
31) 1,1-dichloroethane	8.364	63	14189	3.83	ug/L		99
32) chloroprene	8.516	53	10503	3.53	ug/L		98
33) acrylonitrile	7.656	53	2226	3.37	ug/L		90
35) ethyl tert-butyl ether	8.972	59	22584	3.67	ug/L		95

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7967\
 Data File : 2D185351.D
 Acq On : 25 Sep 2019 8:54 pm
 Operator : brittank
 Sample : IC7967-4
 Misc : MS37556,V2D7967,5,,,,1
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Sep 26 10:57:47 2019

Quant Method : C:\msdchem\1\METHODS\M2D7967.M

Quant Title : SW-846 Method 8260C / EPA 624, DB624 60m x 0.25mm Thu Sep 26 10:52:22 2019

QLast Update : Thu Sep 26 10:52:51 2019

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
36) ethyl acetate	9.292	45	891	3.46	ug/L	87
37) 2,2-dichloropropane	9.276	77	9762	3.74	ug/L	96
38) cis-1,2-dichloroethene	9.255	96	7915	3.72	ug/L	95
39) propionitrile	9.339	54	8739	35.93	ug/L	98
40) tert-butyl formate	9.800	59	5932	3.53	ug/L	94
41) bromochloromethane	9.622	128	3872	3.71	ug/L	91
42) tetrahydrofuran	9.701	42	1908	3.77	ug/L	96
43) chloroform	9.711	83	13943	3.93	ug/L	98
45) methacrylonitrile	9.580	67	2423	3.46	ug/L	91
46) 1,1,1-trichloroethane	10.041	97	10928	3.76	ug/L	97
47) cyclohexane	10.152	84	10032	4.08	ug/L	98
48) 1,1-dichloropropene	10.272	75	9613	3.67	ug/L	95
49) isobutyl alcohol	10.309	43	2752	39.29	ug/L #	86
50) carbon tetrachloride	10.304	117	8955	3.61	ug/L	97
51) tert-amyl alcohol	10.477	73	1321	17.81	ug/L	95
54) benzene	10.602	78	30091	3.85	ug/L	97
55) iso-octane	10.671	57	18318	3.45	ug/L	99
56) tert-amyl methyl ether	10.697	73	21576	3.81	ug/L	98
57) heptane	10.912	57	4102	3.48	ug/L	91
58) isopropyl acetate	10.576	87	1295	3.55	ug/L #	40
59) 1,2-dichloroethane	10.602	62	11504	4.03	ug/L	99
60) n-butyl alcohol	11.284	56	7660	168.51	ug/L	98
61) ethyl acrylate	11.604	55	7821	3.42	ug/L	98
62) trichloroethene	11.530	130	7228	3.66	ug/L	99
63) 2-nitropropane	12.569	41	1304	3.29	ug/L	94
64) 2-chloroethyl vinyl ether	12.637	63	22436	17.34	ug/L	98
65) methyl methacrylate	11.950	69	3978	3.37	ug/L	88
66) 1,2-dichloropropane	11.876	63	8355	3.86	ug/L	98
67) dibromomethane	12.055	93	4740	3.76	ug/L	89
68) methylcyclohexane	11.850	83	9712	3.30	ug/L	96
69) bromodichloromethane	12.254	83	10304	3.74	ug/L	92
70) epichlorohydrin	12.763	57	2838	17.23	ug/L	91
71) cis-1,3-dichloropropene	12.899	75	11479	3.43	ug/L	97
72) 4-methyl-2-pentanone	13.077	58	9889	14.46	ug/L	99
73) 3-methyl-1-butanol	13.114	55	5095	68.52	ug/L	84
76) toluene	13.407	92	17653	3.85	ug/L	98
77) trans-1,3-dichloropropene	13.670	75	10067	3.49	ug/L	98
78) ethyl methacrylate	13.738	69	7706	3.38	ug/L	99
79) 1,1,2-trichloroethane	13.947	83	5743	3.86	ug/L	94
80) tetrachloroethene	14.194	164	6258	3.89	ug/L	85
81) 1,3-dichloropropane	14.194	76	10634	3.69	ug/L	95
82) 2-hexanone	14.246	58	8841	14.54	ug/L	98
83) butyl acetate	14.383	56	4196	3.64	ug/L	89
84) dibromochloromethane	14.524	129	6842	3.44	ug/L	96
85) 1,2-dibromoethane	14.718	107	7365	3.77	ug/L	97
86) n-butyl ether	15.384	57	29895	3.56	ug/L	98
87) chlorobenzene	15.368	112	20606	3.85	ug/L	98
88) 1,1,1,2-tetrachloroethane	15.452	131	7246	3.66	ug/L	91
89) ethylbenzene	15.478	91	33370	3.76	ug/L	99
90) m,p-xylene	15.630	91	50958	7.36	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7967\
 Data File : 2D185351.D
 Acq On : 25 Sep 2019 8:54 pm
 Operator : brittank
 Sample : IC7967-4
 Misc : MS37556,V2D7967,5,,,,1
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Sep 26 10:57:47 2019

Quant Method : C:\msdchem\1\METHODS\M2D7967.M

Quant Title : SW-846 Method 8260C / EPA 624, DB624 60m x 0.25mm Thu Sep 26 10:52:22 2019

QLast Update : Thu Sep 26 10:52:51 2019

Response via : Initial Calibration

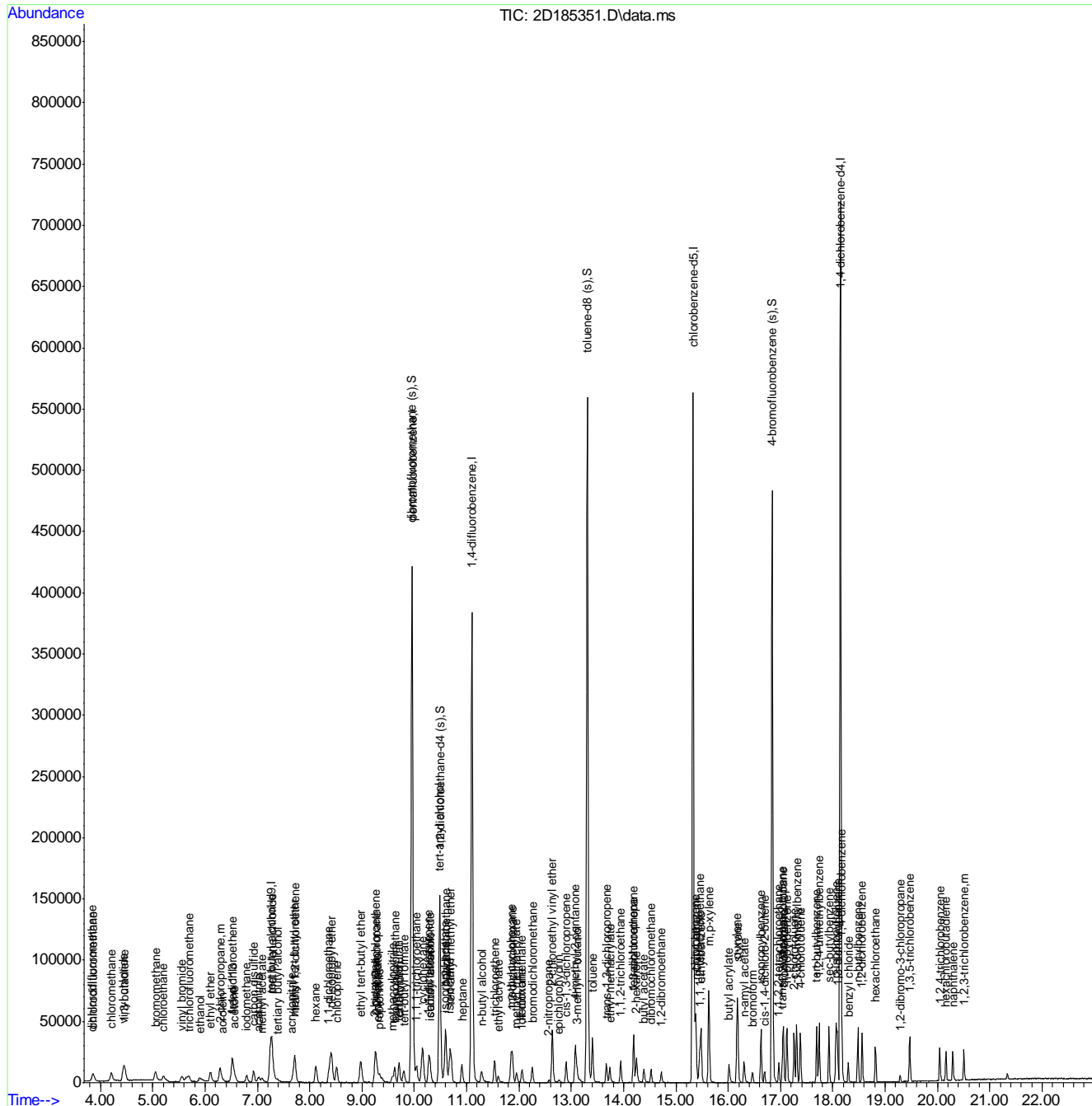
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
91) o-xylene	16.171	106	12650	3.66	ug/L	100
92) styrene	16.181	104	20327	3.48	ug/L	99
93) butyl acrylate	16.013	55	12081	3.14	ug/L	95
94) n-amyl acetate	16.302	70	4171	3.32	ug/L	98
95) bromoform	16.464	173	4475	3.30	ug/L	91
96) isopropylbenzene	16.627	105	30402	3.56	ug/L	99
97) cis-1,4-dichloro-2-butene	16.695	88	2183	2.90	ug/L	93
100) bromobenzene	17.057	156	9320	3.87	ug/L	93
101) 1,1,2,2-tetrachloroethane	16.967	83	8770	4.07	ug/L	99
102) trans-1,4-dichloro-2-b...	17.036	53	1942	3.51	ug/L #	53
103) 1,2,3-trichloropropane	17.046	110	2150	3.93	ug/L #	88
104) n-propylbenzene	17.119	91	36655	3.77	ug/L	99
105) 2-chlorotoluene	17.261	126	8191	3.85	ug/L	89
106) 4-chlorotoluene	17.376	91	23231	3.86	ug/L	97
107) 1,3,5-trimethylbenzene	17.308	105	25519	3.67	ug/L	100
108) tert-butylbenzene	17.691	119	20678	3.57	ug/L	97
109) 1,2,4-trimethylbenzene	17.738	105	26225	3.70	ug/L	97
110) sec-butylbenzene	17.922	105	30967	3.62	ug/L	98
111) 1,3-dichlorobenzene	18.084	146	16110	3.72	ug/L	97
112) p-isopropyltoluene	18.058	119	25536	3.47	ug/L	98
113) 1,4-dichlorobenzene	18.168	146	16829	3.87	ug/L	99
114) 1,2-dichlorobenzene	18.556	146	16110	3.76	ug/L	95
115) benzyl chloride	18.294	91	11369	3.09	ug/L	99
116) n-butylbenzene	18.477	92	12579	3.45	ug/L	98
117) 1,2-dibromo-3-chloropr...	19.285	157	1428	3.30	ug/L	91
119) 1,3,5-trichlorobenzene	19.468	180	11464	3.42	ug/L	97
120) hexachlorobutadiene	20.160	225	5378	3.56	ug/L	94
121) naphthalene	20.292	128	17973	3.03	ug/L	99
123) 1,2,4-trichlorobenzene	20.045	180	9063	3.12	ug/L	97
124) 1,2,3-trichlorobenzene	20.507	180	8188	3.13	ug/L	94
125) hexachloroethane	18.818	201	4370	3.29	ug/L	91

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7967\
Data File : 2D185351.D
Acq On : 25 Sep 2019 8:54 pm
Operator : brittank
Sample : IC7967-4
Misc : MS37556,V2D7967,5,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Sep 26 10:57:47 2019
Quant Method : C:\msdchem\1\METHODS\M2D7967.M
Quant Title : SW-846 Method 8260C / EPA 624, DB624 60m x 0.25mm Thu Sep 26 10:52:22 2019
QLast Update : Thu Sep 26 10:52:51 2019
Response via : Initial Calibration



7.7.5
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7967\
 Data File : 2D185352.D
 Acq On : 25 Sep 2019 9:23 pm
 Operator : brittank
 Sample : IC7967-8
 Misc : MS37556,V2D7967,5,,,,,1
 ALS Vial : 9 Sample Multiplier: 1

Quant Time: Sep 26 10:53:05 2019

Quant Method : C:\msdchem\1\METHODS\M2D7967.M

Quant Title : SW-846 Method 8260C / EPA 624, DB624 60m x 0.25mm Thu Sep 26 10:52:51 2019

QLast Update : Thu Sep 26 10:52:51 2019

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
Internal Standards							
1) tert butyl alcohol-d9	7.252	65	80551	500.00	ug/L	0.00	
5) pentafluorobenzene	9.957	168	246029	50.00	ug/L	0.00	
52) 1,4-difluorobenzene	11.100	114	373658	50.00	ug/L	0.00	
74) chlorobenzene-d5	15.326	117	338155	50.00	ug/L	0.00	
98) 1,4-dichlorobenzene-d4	18.142	152	178046	50.00	ug/L	0.00	
System Monitoring Compounds							
44) dibromofluoromethane (s)	9.952	113	117172	50.27	ug/L	0.00	
Spiked Amount	50.000	Range	80 - 120	Recovery	=	100.54%	
53) 1,2-dichloroethane-d4 (s)	10.482	65	135272	50.79	ug/L	0.00	
Spiked Amount	50.000	Range	81 - 124	Recovery	=	101.58%	
75) toluene-d8 (s)	13.302	98	429097	51.05	ug/L	0.00	
Spiked Amount	50.000	Range	80 - 120	Recovery	=	102.10%	
99) 4-bromofluorobenzene (s)	16.841	95	160818	50.07	ug/L	0.00	
Spiked Amount	50.000	Range	80 - 120	Recovery	=	100.14%	
Target Compounds							
							Qvalue
2) tertiary butyl alcohol	7.383	59	6050	37.35	ug/L		97
3) ethanol	5.883	45	15127	803.88	ug/L		99
4) 1,4-dioxane	12.039	88	2845	172.39	ug/L		96
6) chlorodifluoromethane	3.849	51	21246	7.72	ug/L		97
7) dichlorodifluoromethane	3.828	85	17395	7.98	ug/L		95
8) chloromethane	4.195	50	24854	8.06	ug/L		99
9) vinyl chloride	4.421	62	23918	7.95	ug/L		99
10) 1,3-butadiene	4.447	54	14799	7.53	ug/L		97
11) bromomethane	5.045	94	15883	8.23	ug/L		93
12) chloroethane	5.202	64	11750	7.99	ug/L		99
13) trichlorofluoromethane	5.679	101	24476	8.35	ug/L		96
14) vinyl bromide	5.553	106	12431	7.81	ug/L		96
15) ethyl ether	6.093	74	8191	7.64	ug/L		99
16) acrolein	6.324	56	2267	7.57	ug/L		91
17) 1,1-dichloroethene	6.513	96	13945	7.89	ug/L		98
18) freon 113	6.518	151	10562	7.40	ug/L		98
19) 2-chloropropane	6.277	43	31560	8.23	ug/L		99
20) acetone	6.560	58	4843	31.60	ug/L #		86
21) acetonitrile	7.021	41	18217	79.19	ug/L		97
22) iodomethane	6.791	142	20008	7.69	ug/L		99
23) carbon disulfide	6.922	76	38699	7.65	ug/L		98
24) methylene chloride	7.273	84	15919	7.84	ug/L		97
25) methyl acetate	7.079	43	10836	7.76	ug/L		100
26) methyl tert butyl ether	7.692	73	38206	7.48	ug/L		98
27) trans-1,2-dichloroethene	7.708	96	14457	7.74	ug/L		99
28) hexane	8.112	57	18759	7.38	ug/L		97
29) di-isopropyl ether	8.411	45	55155	7.57	ug/L		85
30) 2-butanone	9.234	72	5066	28.36	ug/L #		81
31) 1,1-dichloroethane	8.369	63	28720	7.72	ug/L		98
32) chloroprene	8.510	53	22469	7.51	ug/L		98
33) acrylonitrile	7.645	53	4998	7.53	ug/L		92
34) vinyl acetate	8.390	86	2252	6.88	ug/L #		77

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7967\
 Data File : 2D185352.D
 Acq On : 25 Sep 2019 9:23 pm
 Operator : brittank
 Sample : IC7967-8
 Misc : MS37556,V2D7967,5,,,,,1
 ALS Vial : 9 Sample Multiplier: 1

Quant Time: Sep 26 10:53:05 2019

Quant Method : C:\msdchem\1\METHODS\M2D7967.M

Quant Title : SW-846 Method 8260C / EPA 624, DB624 60m x 0.25mm Thu Sep 26 10:52:51 2019

QLast Update : Thu Sep 26 10:52:51 2019

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
35) ethyl tert-butyl ether	8.972	59	46180	7.48	ug/L	96
36) ethyl acetate	9.297	45	1871	7.22	ug/L #	77
37) 2,2-dichloropropane	9.276	77	20471	7.81	ug/L	99
38) cis-1,2-dichloroethene	9.250	96	16388	7.67	ug/L	96
39) propionitrile	9.333	54	18077	73.96	ug/L	98
40) tert-butyl formate	9.790	59	12242	7.24	ug/L	97
41) bromochloromethane	9.617	128	7917	7.54	ug/L	98
42) tetrahydrofuran	9.695	42	4019	7.90	ug/L	93
43) chloroform	9.706	83	28000	7.86	ug/L	98
45) methacrylonitrile	9.580	67	4948	7.02	ug/L	91
46) 1,1,1-trichloroethane	10.041	97	22485	7.70	ug/L	96
47) cyclohexane	10.141	84	20312	8.21	ug/L #	71
48) 1,1-dichloropropene	10.272	75	20299	7.71	ug/L	98
49) isobutyl alcohol	10.293	43	5317	75.55	ug/L	93
50) carbon tetrachloride	10.298	117	18826	7.55	ug/L	95
51) tert-amyl alcohol	10.471	73	2508	33.65	ug/L	94
54) benzene	10.597	78	60995	7.75	ug/L	100
55) iso-octane	10.670	57	39692	7.41	ug/L	97
56) tert-amyl methyl ether	10.697	73	43219	7.56	ug/L	98
57) heptane	10.906	57	8781	7.39	ug/L	96
58) isopropyl acetate	10.571	87	2545	6.93	ug/L	93
59) 1,2-dichloroethane	10.602	62	22379	7.78	ug/L	100
60) n-butyl alcohol	11.279	56	15378	335.63	ug/L	97
61) ethyl acrylate	11.598	55	15843	6.88	ug/L	99
62) trichloroethene	11.530	130	15282	7.68	ug/L	97
63) 2-nitropropane	12.574	41	2733	6.83	ug/L	97
64) 2-chloroethyl vinyl ether	12.637	63	45935	35.22	ug/L	99
65) methyl methacrylate	11.950	69	8425	7.08	ug/L	97
66) 1,2-dichloropropane	11.876	63	16679	7.65	ug/L	99
67) dibromomethane	12.055	93	9618	7.57	ug/L	97
68) methylcyclohexane	11.850	83	21758	7.33	ug/L	94
69) bromodichloromethane	12.249	83	20702	7.45	ug/L	96
70) epichlorohydrin	12.762	57	5766	34.73	ug/L	93
71) cis-1,3-dichloropropene	12.899	75	24157	7.16	ug/L	96
72) 4-methyl-2-pentanone	13.077	58	20104	29.17	ug/L	99
73) 3-methyl-1-butanol	13.103	55	10237	136.59	ug/L	92
76) toluene	13.402	92	36604	7.93	ug/L	98
77) trans-1,3-dichloropropene	13.669	75	20515	7.05	ug/L	98
78) ethyl methacrylate	13.738	69	16124	7.01	ug/L	98
79) 1,1,2-trichloroethane	13.942	83	11512	7.68	ug/L	94
80) tetrachloroethene	14.194	164	12624	7.77	ug/L	93
81) 1,3-dichloropropane	14.188	76	21669	7.45	ug/L	98
82) 2-hexanone	14.241	58	18021	29.39	ug/L	97
83) butyl acetate	14.382	56	8462	7.27	ug/L	99
84) dibromochloromethane	14.524	129	14720	7.33	ug/L	98
85) 1,2-dibromoethane	14.718	107	14857	7.53	ug/L	95
86) n-butyl ether	15.384	57	63234	7.46	ug/L	98
87) chlorobenzene	15.368	112	41178	7.62	ug/L	98
88) 1,1,1,2-tetrachloroethane	15.457	131	14839	7.43	ug/L	98
89) ethylbenzene	15.478	91	69439	7.76	ug/L	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7967\
 Data File : 2D185352.D
 Acq On : 25 Sep 2019 9:23 pm
 Operator : brittank
 Sample : IC7967-8
 Misc : MS37556,V2D7967,5,,,,1
 ALS Vial : 9 Sample Multiplier: 1

Quant Time: Sep 26 10:53:05 2019

Quant Method : C:\msdchem\1\METHODS\M2D7967.M

Quant Title : SW-846 Method 8260C / EPA 624, DB624 60m x 0.25mm Thu Sep 26 10:52:51 2019

QLast Update : Thu Sep 26 10:52:51 2019

Response via : Initial Calibration

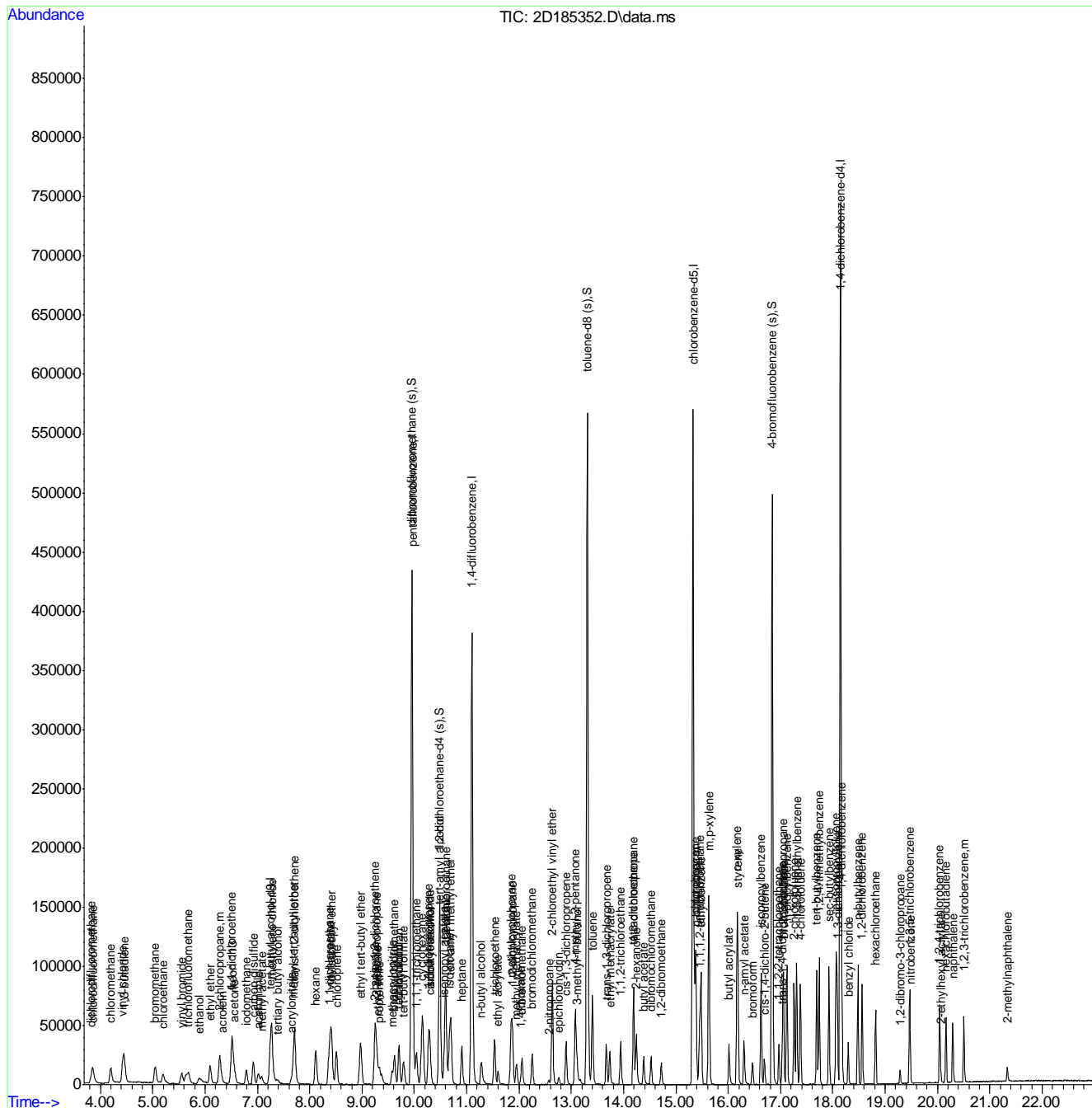
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
90) m,p-xylene	15.630	91	106840	15.30	ug/L	98
91) o-xylene	16.170	106	26229	7.53	ug/L	95
92) styrene	16.181	104	43266	7.34	ug/L	95
93) butyl acrylate	16.013	55	25592	6.60	ug/L	95
94) n-amyl acetate	16.301	70	8994	7.10	ug/L	96
95) bromoform	16.464	173	9438	6.90	ug/L	97
96) isopropylbenzene	16.626	105	63986	7.43	ug/L	99
97) cis-1,4-dichloro-2-butene	16.689	88	4749	6.25	ug/L	94
100) bromobenzene	17.056	156	18922	7.57	ug/L	96
101) 1,1,2,2-tetrachloroethane	16.967	83	17209	7.70	ug/L	95
102) trans-1,4-dichloro-2-b...	17.030	53	3989	6.94	ug/L	90
103) 1,2,3-trichloropropane	17.046	110	4445	7.84	ug/L #	83
104) n-propylbenzene	17.119	91	78737	7.80	ug/L	99
105) 2-chlorotoluene	17.261	126	16871	7.64	ug/L	96
106) 4-chlorotoluene	17.376	91	47891	7.67	ug/L	99
107) 1,3,5-trimethylbenzene	17.308	105	54623	7.58	ug/L	100
108) tert-butylbenzene	17.691	119	44193	7.35	ug/L	99
109) 1,2,4-trimethylbenzene	17.738	105	54536	7.41	ug/L	99
110) sec-butylbenzene	17.927	105	66722	7.51	ug/L	99
111) 1,3-dichlorobenzene	18.084	146	33499	7.47	ug/L	99
112) p-isopropyltoluene	18.058	119	55190	7.22	ug/L	98
113) 1,4-dichlorobenzene	18.168	146	34341	7.61	ug/L	97
114) 1,2-dichlorobenzene	18.556	146	32968	7.42	ug/L	99
115) benzyl chloride	18.294	91	24275	6.37	ug/L	98
116) n-butylbenzene	18.477	92	27174	7.19	ug/L	98
117) 1,2-dibromo-3-chloropr...	19.285	157	3063	6.82	ug/L	94
118) nitrobenzene	19.479	77	245	4.05	ug/L #	32
119) 1,3,5-trichlorobenzene	19.468	180	23936	6.89	ug/L	97
120) hexachlorobutadiene	20.160	225	11398	7.26	ug/L	98
121) naphthalene	20.291	128	38466	6.25	ug/L	99
122) 2-ethylhexyl acrylate	20.061	70	1227	0.92	ug/L	96
123) 1,2,4-trichlorobenzene	20.040	180	19182	6.36	ug/L	97
124) 1,2,3-trichlorobenzene	20.506	180	17914	6.61	ug/L	98
125) hexachloroethane	18.818	201	9484	6.88	ug/L	86
126) 2-methylnaphthalene	21.335	142	6147	2.48	ug/L	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7967\
Data File : 2D185352.D
Acq On : 25 Sep 2019 9:23 pm
Operator : brittank
Sample : IC7967-8
Misc : MS37556,V2D7967,5,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Sep 26 10:53:05 2019
Quant Method : C:\msdchem\1\METHODS\M2D7967.M
Quant Title : SW-846 Method 8260C / EPA 624, DB624 60m x 0.25mm Thu Sep 26 10:52:51 2019
QLast Update : Thu Sep 26 10:52:51 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7967\
 Data File : 2D185353.D
 Acq On : 25 Sep 2019 9:53 pm
 Operator : brittank
 Sample : IC7967-20
 Misc : MS37556,V2D7967,5,,,,,1
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Sep 26 10:53:07 2019
 Quant Method : C:\msdchem\1\METHODS\M2D7967.M
 Quant Title : SW-846 Method 8260C / EPA 624, DB624 60m x 0.25mm Thu Sep 26 10:52:51 2019
 QLast Update : Thu Sep 26 10:52:51 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.247	65	79030	500.00	ug/L	0.00
5) pentafluorobenzene	9.952	168	245797	50.00	ug/L	0.00
52) 1,4-difluorobenzene	11.101	114	371325	50.00	ug/L	0.00
74) chlorobenzene-d5	15.326	117	341114	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	18.142	152	182018	50.00	ug/L	0.00
System Monitoring Compounds						
44) dibromofluoromethane (s)	9.947	113	115705	49.69	ug/L	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	=	99.38%
53) 1,2-dichloroethane-d4 (s)	10.482	65	132252	49.97	ug/L	0.00
Spiked Amount	50.000	Range	81 - 124	Recovery	=	99.94%
75) toluene-d8 (s)	13.303	98	429782	50.69	ug/L	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	=	101.38%
99) 4-bromofluorobenzene (s)	16.836	95	163160	49.69	ug/L	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	=	99.38%
Target Compounds						
2) tertiary butyl alcohol	7.378	59	15270	96.09	ug/L	97
3) ethanol	5.894	45	37234	2016.78	ug/L	97
4) 1,4-dioxane	12.034	88	7464	460.98	ug/L	95
6) chlorodifluoromethane	3.849	51	53608	19.49	ug/L	99
7) dichlorodifluoromethane	3.828	85	42698	19.60	ug/L	95
8) chloromethane	4.195	50	61453	19.94	ug/L	99
9) vinyl chloride	4.421	62	58464	19.46	ug/L	99
10) 1,3-butadiene	4.452	54	38712	19.71	ug/L	95
11) bromomethane	5.045	94	38749	20.10	ug/L	100
12) chloroethane	5.197	64	29334	19.96	ug/L	97
13) trichlorofluoromethane	5.674	101	58810	20.09	ug/L	100
14) vinyl bromide	5.548	106	30811	19.38	ug/L	97
15) ethyl ether	6.093	74	21431	20.02	ug/L	97
16) acrolein	6.324	56	6237	20.83	ug/L	98
17) 1,1-dichloroethene	6.513	96	34834	19.73	ug/L	97
18) freon 113	6.518	151	27644	19.38	ug/L	96
19) 2-chloropropane	6.277	43	77556	20.26	ug/L	96
20) acetone	6.565	58	12163	79.44	ug/L	90
21) acetonitrile	7.011	41	45350	197.33	ug/L	98
22) iodomethane	6.786	142	50230	19.32	ug/L	96
23) carbon disulfide	6.922	76	97964	19.37	ug/L	99
24) methylene chloride	7.273	84	40068	19.76	ug/L	99
25) methyl acetate	7.079	43	28110	20.15	ug/L	99
26) methyl tert butyl ether	7.693	73	97484	19.09	ug/L	98
27) trans-1,2-dichloroethene	7.708	96	36715	19.68	ug/L	98
28) hexane	8.112	57	50338	19.83	ug/L	98
29) di-isopropyl ether	8.411	45	140769	19.35	ug/L	94
30) 2-butanone	9.229	72	13513	75.72	ug/L	94
31) 1,1-dichloroethane	8.364	63	73000	19.65	ug/L	99
32) chloroprene	8.505	53	57843	19.35	ug/L	99
33) acrylonitrile	7.640	53	13007	19.61	ug/L	97
34) vinyl acetate	8.379	86	6430	19.66	ug/L #	90

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7967\
 Data File : 2D185353.D
 Acq On : 25 Sep 2019 9:53 pm
 Operator : brittank
 Sample : IC7967-20
 Misc : MS37556,V2D7967,5,,,,,1
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Sep 26 10:53:07 2019

Quant Method : C:\msdchem\1\METHODS\M2D7967.M

Quant Title : SW-846 Method 8260C / EPA 624, DB624 60m x 0.25mm Thu Sep 26 10:52:51 2019

QLast Update : Thu Sep 26 10:52:51 2019

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
35) ethyl tert-butyl ether	8.967	59	119318	19.34	ug/L	99
36) ethyl acetate	9.286	45	5759	22.25	ug/L	90
37) 2,2-dichloropropane	9.265	77	51376	19.62	ug/L	99
38) cis-1,2-dichloroethene	9.250	96	41461	19.43	ug/L	98
39) propionitrile	9.323	54	46977	192.37	ug/L	97
40) tert-butyl formate	9.790	59	32837	19.45	ug/L	98
41) bromochloromethane	9.622	128	20473	19.53	ug/L	98
42) tetrahydrofuran	9.695	42	9931	19.54	ug/L	97
43) chloroform	9.706	83	69772	19.60	ug/L	98
45) methacrylonitrile	9.570	67	13609	19.33	ug/L	99
46) 1,1,1-trichloroethane	10.041	97	56567	19.38	ug/L	96
47) cyclohexane	10.141	84	49639	20.09	ug/L	84
48) 1,1-dichloropropene	10.272	75	51162	19.44	ug/L	98
49) isobutyl alcohol	10.298	43	14088	200.37	ug/L	95
50) carbon tetrachloride	10.298	117	47928	19.25	ug/L	99
51) tert-amyl alcohol	10.461	73	7027	94.38	ug/L	99
54) benzene	10.597	78	155095	19.82	ug/L	100
55) iso-octane	10.671	57	105332	19.78	ug/L	97
56) tert-amyl methyl ether	10.697	73	111112	19.57	ug/L	100
57) heptane	10.901	57	23802	20.16	ug/L	96
58) isopropyl acetate	10.571	87	6893	18.88	ug/L	97
59) 1,2-dichloroethane	10.597	62	56643	19.82	ug/L	99
60) n-butyl alcohol	11.274	56	42078	924.12	ug/L	99
61) ethyl acrylate	11.593	55	42874	18.73	ug/L	98
62) trichloroethene	11.530	130	38693	19.56	ug/L	97
63) 2-nitropropane	12.569	41	7709	19.40	ug/L	92
64) 2-chloroethyl vinyl ether	12.632	63	123451	95.24	ug/L	99
65) methyl methacrylate	11.945	69	22632	19.14	ug/L	99
66) 1,2-dichloropropane	11.877	63	42669	19.69	ug/L	98
67) dibromomethane	12.055	93	24417	19.33	ug/L	96
68) methylcyclohexane	11.850	83	56004	19.00	ug/L	99
69) bromodichloromethane	12.249	83	52533	19.01	ug/L	99
70) epichlorohydrin	12.757	57	15817	95.87	ug/L	98
71) cis-1,3-dichloropropene	12.894	75	63360	18.91	ug/L	97
72) 4-methyl-2-pentanone	13.072	58	52766	77.05	ug/L	99
73) 3-methyl-1-butanol	13.103	55	28215	378.83	ug/L	95
76) toluene	13.402	92	92113	19.77	ug/L	99
77) trans-1,3-dichloropropene	13.664	75	55797	19.00	ug/L	99
78) ethyl methacrylate	13.733	69	44203	19.05	ug/L	98
79) 1,1,2-trichloroethane	13.942	83	29301	19.37	ug/L	96
80) tetrachloroethene	14.189	164	32569	19.88	ug/L	98
81) 1,3-dichloropropane	14.189	76	57099	19.45	ug/L	99
82) 2-hexanone	14.241	58	47963	77.55	ug/L	99
83) butyl acetate	14.377	56	22845	19.46	ug/L	99
84) dibromochloromethane	14.524	129	38083	18.80	ug/L	100
85) 1,2-dibromoethane	14.718	107	38234	19.22	ug/L	96
86) n-butyl ether	15.379	57	167904	19.64	ug/L	98
87) chlorobenzene	15.363	112	106576	19.56	ug/L	99
88) 1,1,1,2-tetrachloroethane	15.452	131	38465	19.08	ug/L	97
89) ethylbenzene	15.478	91	178163	19.75	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7967\
 Data File : 2D185353.D
 Acq On : 25 Sep 2019 9:53 pm
 Operator : brittank
 Sample : IC7967-20
 Misc : MS37556,V2D7967,5,,,1
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Sep 26 10:53:07 2019

Quant Method : C:\msdchem\1\METHODS\M2D7967.M

Quant Title : SW-846 Method 8260C / EPA 624, DB624 60m x 0.25mm Thu Sep 26 10:52:51 2019

QLast Update : Thu Sep 26 10:52:51 2019

Response via : Initial Calibration

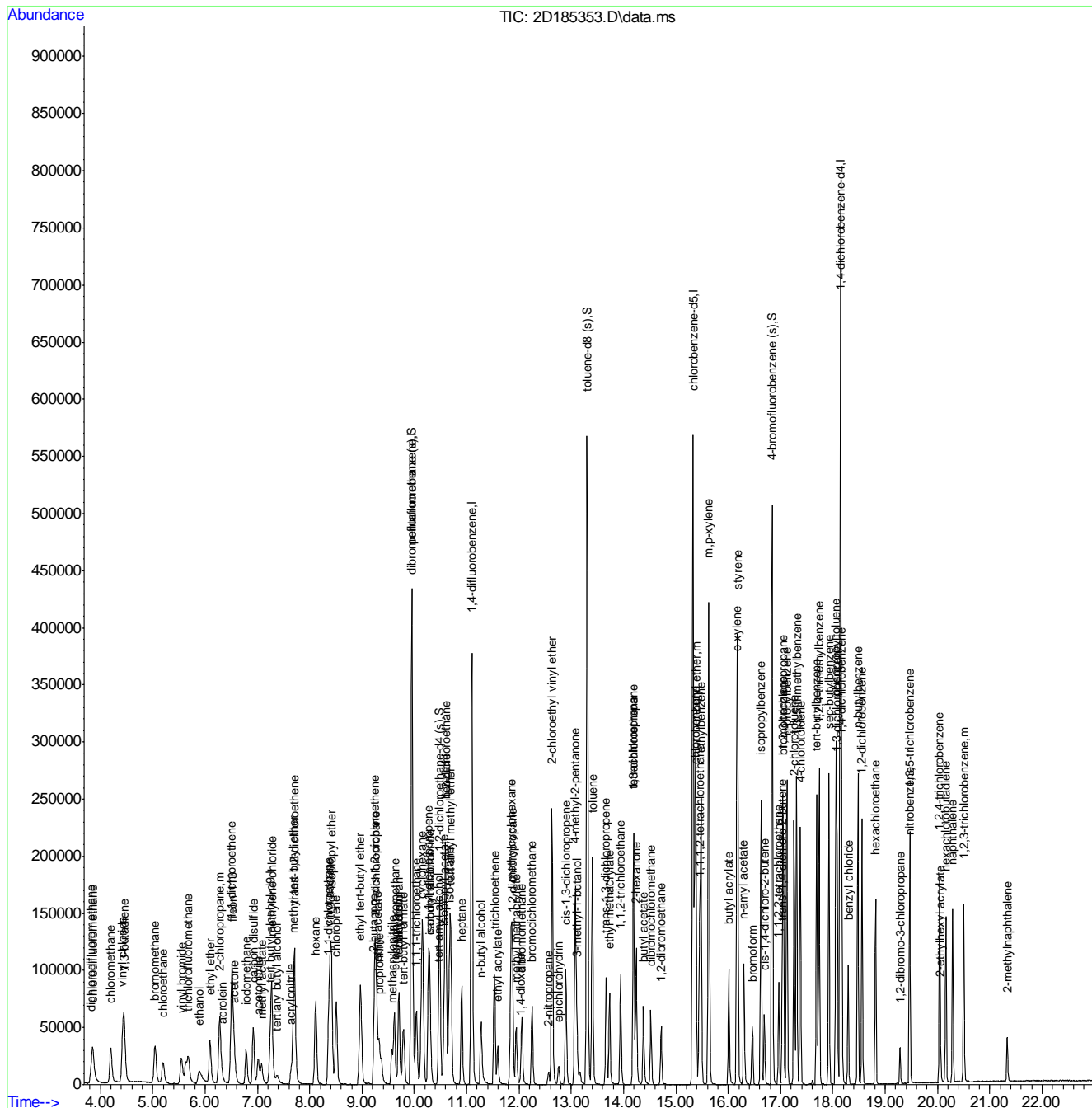
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
90) m,p-xylene	15.625	91	279727	39.72	ug/L	100
91) o-xylene	16.165	106	67847	19.31	ug/L	95
92) styrene	16.176	104	116427	19.58	ug/L	98
93) butyl acrylate	16.008	55	72606	18.55	ug/L	99
94) n-amyl acetate	16.296	70	24009	18.78	ug/L	96
95) bromoform	16.459	173	25840	18.74	ug/L	99
96) isopropylbenzene	16.627	105	170997	19.68	ug/L	99
97) cis-1,4-dichloro-2-butene	16.690	88	13830	18.05	ug/L	99
100) bromobenzene	17.051	156	49228	19.27	ug/L	98
101) 1,1,2,2-tetrachloroethane	16.968	83	44887	19.64	ug/L	97
102) trans-1,4-dichloro-2-b...	17.030	53	11173	19.03	ug/L	95
103) 1,2,3-trichloropropane	17.046	110	11391	19.65	ug/L	95
104) n-propylbenzene	17.120	91	205761	19.94	ug/L	99
105) 2-chlorotoluene	17.256	126	44434	19.69	ug/L	99
106) 4-chlorotoluene	17.376	91	125478	19.66	ug/L	99
107) 1,3,5-trimethylbenzene	17.308	105	144423	19.61	ug/L	100
108) tert-butylbenzene	17.691	119	119927	19.52	ug/L	99
109) 1,2,4-trimethylbenzene	17.738	105	146977	19.53	ug/L	98
110) sec-butylbenzene	17.922	105	178021	19.60	ug/L	99
111) 1,3-dichlorobenzene	18.079	146	89146	19.44	ug/L	100
112) p-isopropyltoluene	18.058	119	150532	19.27	ug/L	99
113) 1,4-dichlorobenzene	18.168	146	89942	19.48	ug/L	99
114) 1,2-dichlorobenzene	18.556	146	87156	19.19	ug/L	100
115) benzyl chloride	18.294	91	69210	17.76	ug/L	99
116) n-butylbenzene	18.478	92	74757	19.34	ug/L	98
117) 1,2-dibromo-3-chloropr...	19.285	157	8377	18.25	ug/L	97
118) nitrobenzene	19.474	77	833	13.47	ug/L	95
119) 1,3,5-trichlorobenzene	19.468	180	66161	18.62	ug/L	100
120) hexachlorobutadiene	20.161	225	29813	18.59	ug/L	99
121) naphthalene	20.286	128	112258	17.84	ug/L	100
122) 2-ethylhexyl acrylate	20.056	70	4061	2.97	ug/L	97
123) 1,2,4-trichlorobenzene	20.040	180	54250	17.60	ug/L	99
124) 1,2,3-trichlorobenzene	20.501	180	49584	17.90	ug/L	99
125) hexachloroethane	18.818	201	25793	18.30	ug/L	97
126) 2-methylnaphthalene	21.335	142	19663	7.75	ug/L	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7967\
Data File : 2D185353.D
Acq On : 25 Sep 2019 9:53 pm
Operator : brittank
Sample : IC7967-20
Misc : MS37556,V2D7967,5,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Sep 26 10:53:07 2019
Quant Method : C:\msdchem\1\METHODS\M2D7967.M
Quant Title : SW-846 Method 8260C / EPA 624, DB624 60m x 0.25mm Thu Sep 26 10:52:51 2019
QLast Update : Thu Sep 26 10:52:51 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7967\
 Data File : 2D185354.D
 Acq On : 25 Sep 2019 10:23 pm
 Operator : brittank
 Sample : ICC7967-50
 Misc : MS37556,V2D7967,5,,,,,1
 ALS Vial : 11 Sample Multiplier: 1

Quant Time: Sep 26 10:53:09 2019
 Quant Method : C:\msdchem\1\METHODS\M2D7967.M
 Quant Title : SW-846 Method 8260C / EPA 624, DB624 60m x 0.25mm Thu Sep 26 10:52:51 2019
 QLast Update : Thu Sep 26 10:52:51 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.252	65	77770	500.00	ug/L	0.00
5) pentafluorobenzene	9.958	168	239034	50.00	ug/L	0.00
52) 1,4-difluorobenzene	11.101	114	363274	50.00	ug/L	0.00
74) chlorobenzene-d5	15.326	117	336866	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	18.142	152	179444	50.00	ug/L	0.00
System Monitoring Compounds						
44) dibromofluoromethane (s)	9.952	113	113230	50.00	ug/L	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	=	100.00%
53) 1,2-dichloroethane-d4 (s)	10.482	65	129461	50.00	ug/L	0.00
Spiked Amount	50.000	Range	81 - 124	Recovery	=	100.00%
75) toluene-d8 (s)	13.308	98	418662	50.00	ug/L	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	=	100.00%
99) 4-bromofluorobenzene (s)	16.836	95	161842	50.00	ug/L	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	=	100.00%
Target Compounds						
2) tertiary butyl alcohol	7.388	59	39096	250.00	ug/L	100
3) ethanol	5.899	45	90839	5000.00	ug/L	100
4) 1,4-dioxane	12.034	88	19917	1250.00	ug/L	100
6) chlorodifluoromethane	3.860	51	133738	50.00	ug/L	100
7) dichlorodifluoromethane	3.834	85	105920	50.00	ug/L	100
8) chloromethane	4.206	50	149873	50.00	ug/L	100
9) vinyl chloride	4.426	62	146107	50.00	ug/L	100
10) 1,3-butadiene	4.458	54	95514	50.00	ug/L	100
11) bromomethane	5.050	94	93744	50.00	ug/L	100
12) chloroethane	5.202	64	71468	50.00	ug/L	100
13) trichlorofluoromethane	5.684	101	142372	50.00	ug/L	100
14) vinyl bromide	5.553	106	77298	50.00	ug/L	100
15) ethyl ether	6.099	74	52063	50.00	ug/L	100
16) acrolein	6.324	56	14557	50.00	ug/L	100
17) 1,1-dichloroethene	6.518	96	85854	50.00	ug/L	100
18) freon 113	6.523	151	69348	50.00	ug/L	100
19) 2-chloropropane	6.282	43	186180	50.00	ug/L	100
20) acetone	6.560	58	29780	200.00	ug/L	100
21) acetonitrile	7.016	41	111750	500.00	ug/L	100
22) iodomethane	6.791	142	126397	50.00	ug/L	100
23) carbon disulfide	6.927	76	245856	50.00	ug/L	100
24) methylene chloride	7.278	84	98616	50.00	ug/L	100
25) methyl acetate	7.084	43	67896	50.05	ug/L	100
26) methyl tert butyl ether	7.698	73	248278	50.00	ug/L	100
27) trans-1,2-dichloroethene	7.713	96	90698	50.00	ug/L	100
28) hexane	8.117	57	123441	50.00	ug/L	100
29) di-isopropyl ether	8.416	45	353757	50.00	ug/L	100
30) 2-butanone	9.234	72	34709	200.00	ug/L	100
31) 1,1-dichloroethane	8.364	63	180616	50.00	ug/L	100
32) chloroprene	8.510	53	145316	50.00	ug/L	100
33) acrylonitrile	7.645	53	32247	50.00	ug/L	100
34) vinyl acetate	8.385	86	15903	50.00	ug/L	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7967\
 Data File : 2D185354.D
 Acq On : 25 Sep 2019 10:23 pm
 Operator : brittank
 Sample : ICC7967-50
 Misc : MS37556,V2D7967,5,,,,,1
 ALS Vial : 11 Sample Multiplier: 1

Quant Time: Sep 26 10:53:09 2019

Quant Method : C:\msdchem\1\METHODS\M2D7967.M

Quant Title : SW-846 Method 8260C / EPA 624, DB624 60m x 0.25mm Thu Sep 26 10:52:51 2019

QLast Update : Thu Sep 26 10:52:51 2019

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
35) ethyl tert-butyl ether	8.977	59	300054	50.00	ug/L	100
36) ethyl acetate	9.292	45	12583	50.00	ug/L	100
37) 2,2-dichloropropane	9.271	77	127298	50.00	ug/L	100
38) cis-1,2-dichloroethene	9.250	96	103751	50.00	ug/L	100
39) propionitrile	9.328	54	118740	500.00	ug/L	100
40) tert-butyl formate	9.795	59	82093	50.00	ug/L	100
41) bromochloromethane	9.622	128	50976	50.00	ug/L	100
42) tetrahydrofuran	9.695	42	24719	50.00	ug/L	100
43) chloroform	9.706	83	173121	50.00	ug/L	100
45) methacrylonitrile	9.570	67	34226	50.00	ug/L	100
46) 1,1,1-trichloroethane	10.041	97	141914	50.00	ug/L	100
47) cyclohexane	10.146	84	120159	50.00	ug/L	100
48) 1,1-dichloropropene	10.272	75	127942	50.00	ug/L	100
49) isobutyl alcohol	10.293	43	34188	500.00	ug/L	100
50) carbon tetrachloride	10.298	117	121051	50.00	ug/L	100
51) tert-amyl alcohol	10.466	73	18102	250.00	ug/L	100
54) benzene	10.597	78	382728	50.00	ug/L	100
55) iso-octane	10.676	57	260538	50.00	ug/L	100
56) tert-amyl methyl ether	10.697	73	277776	50.00	ug/L	100
57) heptane	10.907	57	57751	50.00	ug/L	100
58) isopropyl acetate	10.571	87	17855	50.00	ug/L	100
59) 1,2-dichloroethane	10.597	62	139763	50.00	ug/L	100
60) n-butyl alcohol	11.274	56	111364	2500.00	ug/L	100
61) ethyl acrylate	11.593	55	111973	50.00	ug/L	100
62) trichloroethene	11.530	130	96750	50.00	ug/L	100
63) 2-nitropropane	12.569	41	19442	50.00	ug/L	100
64) 2-chloroethyl vinyl ether	12.637	63	317036	250.00	ug/L	100
65) methyl methacrylate	11.945	69	57836	50.00	ug/L	100
66) 1,2-dichloropropane	11.876	63	105983	50.00	ug/L	100
67) dibromomethane	12.055	93	61786	50.00	ug/L	100
68) methylcyclohexane	11.850	83	144205	50.00	ug/L	100
69) bromodichloromethane	12.254	83	135156	50.00	ug/L	100
70) epichlorohydrin	12.757	57	40353	250.00	ug/L	100
71) cis-1,3-dichloropropene	12.899	75	163912	50.00	ug/L	100
72) 4-methyl-2-pentanone	13.072	58	133999	200.00	ug/L	100
73) 3-methyl-1-butanol	13.098	55	72865	1000.00	ug/L	100
76) toluene	13.402	92	230057	50.00	ug/L	100
77) trans-1,3-dichloropropene	13.664	75	144973	50.00	ug/L	100
78) ethyl methacrylate	13.733	69	114590	50.00	ug/L	100
79) 1,1,2-trichloroethane	13.942	83	74675	50.00	ug/L	100
80) tetrachloroethene	14.189	164	80906	50.00	ug/L	100
81) 1,3-dichloropropane	14.189	76	144934	50.00	ug/L	100
82) 2-hexanone	14.241	58	122161	200.00	ug/L	100
83) butyl acetate	14.377	56	57976	50.00	ug/L	100
84) dibromochloromethane	14.524	129	100014	50.00	ug/L	100
85) 1,2-dibromoethane	14.718	107	98214	50.00	ug/L	100
86) n-butyl ether	15.379	57	422182	50.00	ug/L	100
87) chlorobenzene	15.368	112	269003	50.00	ug/L	100
88) 1,1,1,2-tetrachloroethane	15.457	131	99542	50.00	ug/L	100
89) ethylbenzene	15.478	91	445479	50.00	ug/L	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7967\
 Data File : 2D185354.D
 Acq On : 25 Sep 2019 10:23 pm
 Operator : brittank
 Sample : ICC7967-50
 Misc : MS37556,V2D7967,5,,,,1
 ALS Vial : 11 Sample Multiplier: 1

Quant Time: Sep 26 10:53:09 2019

Quant Method : C:\msdchem\1\METHODS\M2D7967.M

Quant Title : SW-846 Method 8260C / EPA 624, DB624 60m x 0.25mm Thu Sep 26 10:52:51 2019

QLast Update : Thu Sep 26 10:52:51 2019

Response via : Initial Calibration

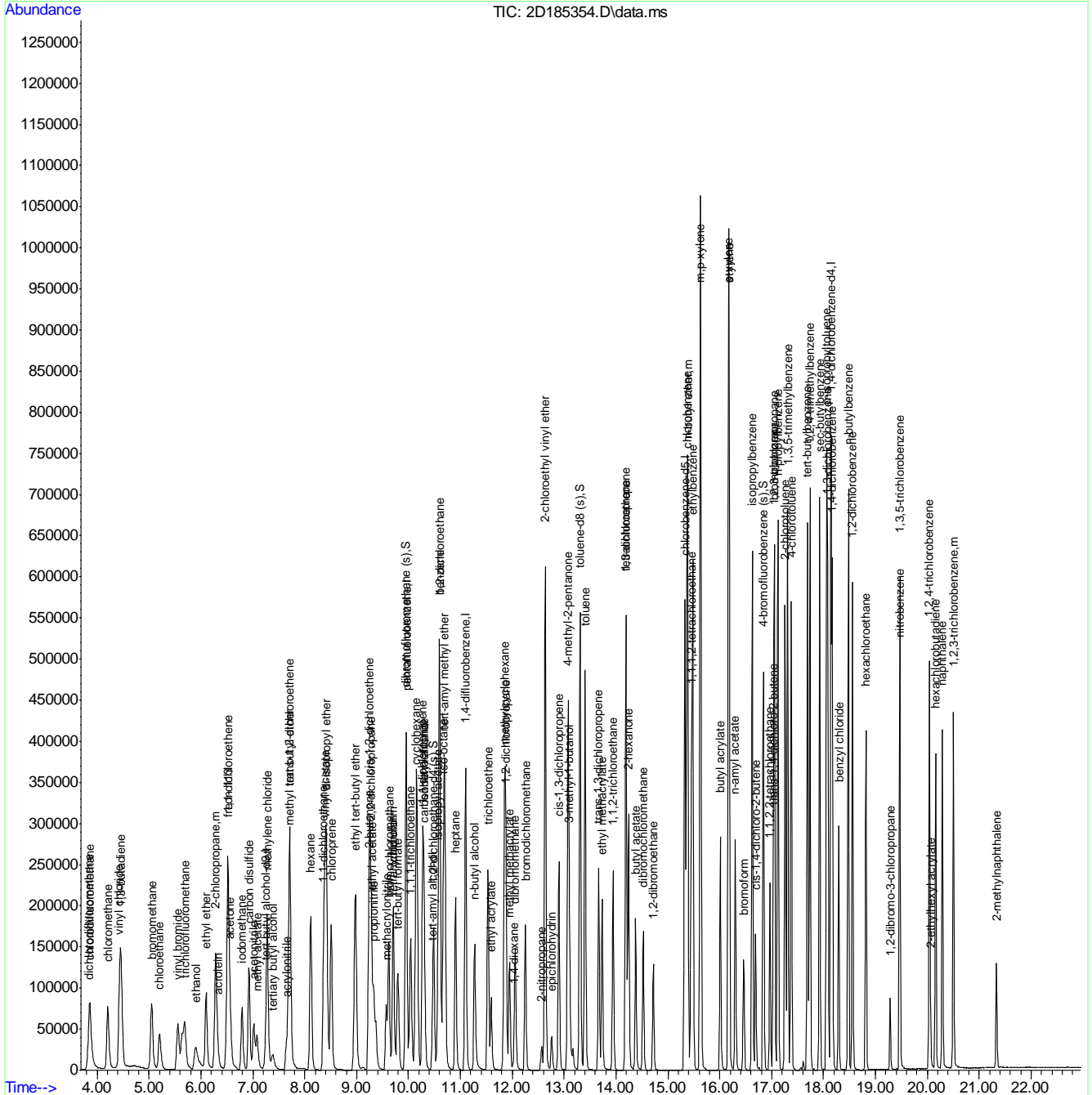
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
90) m,p-xylene	15.625	91	695466	100.00	ug/L	100
91) o-xylene	16.171	106	173496	50.00	ug/L	100
92) styrene	16.176	104	293620	50.00	ug/L	100
93) butyl acrylate	16.008	55	193272	50.00	ug/L	100
94) n-amyl acetate	16.296	70	63114	50.00	ug/L	100
95) bromoform	16.459	173	68085	50.00	ug/L	100
96) isopropylbenzene	16.627	105	428942	50.00	ug/L	100
97) cis-1,4-dichloro-2-butene	16.690	88	37842	50.00	ug/L	100
100) bromobenzene	17.051	156	125895	50.00	ug/L	100
101) 1,1,2,2-tetrachloroethane	16.967	83	112639	50.00	ug/L	100
102) trans-1,4-dichloro-2-b...	17.030	53	28947	50.00	ug/L	100
103) 1,2,3-trichloropropane	17.046	110	28582	50.00	ug/L	100
104) n-propylbenzene	17.120	91	508752	50.00	ug/L	100
105) 2-chlorotoluene	17.256	126	111263	50.00	ug/L	100
106) 4-chlorotoluene	17.376	91	314556	50.00	ug/L	100
107) 1,3,5-trimethylbenzene	17.308	105	363062	50.00	ug/L	100
108) tert-butylbenzene	17.691	119	302865	50.00	ug/L	100
109) 1,2,4-trimethylbenzene	17.738	105	370969	50.00	ug/L	100
110) sec-butylbenzene	17.922	105	447670	50.00	ug/L	100
111) 1,3-dichlorobenzene	18.079	146	226099	50.00	ug/L	100
112) p-isopropyltoluene	18.058	119	385020	50.00	ug/L	100
113) 1,4-dichlorobenzene	18.168	146	227539	50.00	ug/L	100
114) 1,2-dichlorobenzene	18.556	146	223908	50.00	ug/L	100
115) benzyl chloride	18.294	91	192117	50.00	ug/L	100
116) n-butylbenzene	18.477	92	190575	50.00	ug/L	100
117) 1,2-dibromo-3-chloropr...	19.285	157	22621	50.00	ug/L	100
118) nitrobenzene	19.474	77	3048	50.00	ug/L	100
119) 1,3,5-trichlorobenzene	19.468	180	175103	50.00	ug/L	100
120) hexachlorobutadiene	20.160	225	79069	50.00	ug/L	100
121) naphthalene	20.286	128	310203	50.00	ug/L	100
122) 2-ethylhexyl acrylate	20.061	70	13497	10.00	ug/L	100
123) 1,2,4-trichlorobenzene	20.040	180	151966	50.00	ug/L	100
124) 1,2,3-trichlorobenzene	20.501	180	136548	50.00	ug/L	100
125) hexachloroethane	18.818	201	69472	50.00	ug/L	100
126) 2-methylnaphthalene	21.335	142	62559	25.00	ug/L	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7967\
Data File : 2D185354.D
Acq On : 25 Sep 2019 10:23 pm
Operator : britt tank
Sample : ICC7967-50
Misc : MS37556,V2D7967,5,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Sep 26 10:53:09 2019
Quant Method : C:\msdchem\1\METHODS\M2D7967.M
Quant Title : SW-846 Method 8260C / EPA 624, DB624 60m x 0.25mm Thu Sep 26 10:52:51 2019
QLast Update : Thu Sep 26 10:52:51 2019
Response via : Initial Calibration



7.7.8

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7967\
 Data File : 2D185355.D
 Acq On : 25 Sep 2019 10:52 pm
 Operator : brittank
 Sample : IC7967-100
 Misc : MS37556,V2D7967,5,,,,,1
 ALS Vial : 12 Sample Multiplier: 1

Quant Time: Sep 26 10:53:11 2019

Quant Method : C:\msdchem\1\METHODS\M2D7967.M

Quant Title : SW-846 Method 8260C / EPA 624, DB624 60m x 0.25mm Thu Sep 26 10:52:51 2019

QLast Update : Thu Sep 26 10:52:51 2019

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
Internal Standards							
1) tert butyl alcohol-d9	7.252	65	77204	500.00	ug/L	0.00	
5) pentafluorobenzene	9.952	168	235753	50.00	ug/L	0.00	
52) 1,4-difluorobenzene	11.100	114	355705	50.00	ug/L	0.00	
74) chlorobenzene-d5	15.326	117	331412	50.00	ug/L	0.00	
98) 1,4-dichlorobenzene-d4	18.142	152	178719	50.00	ug/L	0.00	
System Monitoring Compounds							
44) dibromofluoromethane (s)	9.952	113	110009	49.25	ug/L	0.00	
Spiked Amount	50.000	Range	80 - 120	Recovery	=	98.50%	
53) 1,2-dichloroethane-d4 (s)	10.482	65	125210	49.39	ug/L	0.00	
Spiked Amount	50.000	Range	81 - 124	Recovery	=	98.78%	
75) toluene-d8 (s)	13.308	98	407202	49.43	ug/L	0.00	
Spiked Amount	50.000	Range	80 - 120	Recovery	=	98.86%	
99) 4-bromofluorobenzene (s)	16.836	95	159598	49.51	ug/L	0.00	
Spiked Amount	50.000	Range	80 - 120	Recovery	=	99.02%	
Target Compounds							
2) tertiary butyl alcohol	7.378	59	80213	516.68	ug/L	91	Qvalue
3) ethanol	5.889	45	176684	9796.42	ug/L	95	
4) 1,4-dioxane	12.034	88	42136	2663.86	ug/L	96	
6) chlorodifluoromethane	3.855	51	278645	105.63	ug/L	99	
7) dichlorodifluoromethane	3.834	85	216206	103.48	ug/L	99	
8) chloromethane	4.201	50	301274	101.91	ug/L	98	
9) vinyl chloride	4.421	62	297499	103.23	ug/L	100	
10) 1,3-butadiene	4.452	54	197654	104.91	ug/L	99	
11) bromomethane	5.039	94	192904	104.32	ug/L	99	
12) chloroethane	5.197	64	146174	103.69	ug/L	98	
13) trichlorofluoromethane	5.679	101	293439	104.49	ug/L	98	
14) vinyl bromide	5.548	106	160109	105.01	ug/L	99	
15) ethyl ether	6.093	74	105002	102.24	ug/L	98	
16) acrolein	6.324	56	28323	98.64	ug/L	99	
17) 1,1-dichloroethene	6.513	96	173294	102.33	ug/L	99	
18) freon 113	6.518	151	140017	102.36	ug/L	98	
19) 2-chloropropane	6.277	43	369911	100.72	ug/L	99	
20) acetone	6.555	58	57740	393.17	ug/L	97	
21) acetonitrile	7.011	41	226951	1029.57	ug/L	99	
22) iodomethane	6.785	142	265461	106.47	ug/L	98	
23) carbon disulfide	6.917	76	510149	105.19	ug/L	99	
24) methylene chloride	7.273	84	201968	103.83	ug/L	97	
25) methyl acetate	7.079	43	138152	103.26	ug/L	100	
26) methyl tert butyl ether	7.698	73	509046	103.94	ug/L	100	
27) trans-1,2-dichloroethene	7.708	96	187154	104.61	ug/L	99	
28) hexane	8.112	57	252037	103.51	ug/L	98	
29) di-isopropyl ether	8.411	45	713557	102.26	ug/L	99	
30) 2-butanone	9.229	72	69776	407.66	ug/L	98	
31) 1,1-dichloroethane	8.364	63	367718	103.21	ug/L	99	
32) chloroprene	8.505	53	295055	102.93	ug/L	99	
33) acrylonitrile	7.640	53	65925	103.64	ug/L	97	
34) vinyl acetate	8.385	86	34792	110.91	ug/L #	92	

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7967\
 Data File : 2D185355.D
 Acq On : 25 Sep 2019 10:52 pm
 Operator : brittank
 Sample : IC7967-100
 Misc : MS37556,V2D7967,5,,,,,1
 ALS Vial : 12 Sample Multiplier: 1

Quant Time: Sep 26 10:53:11 2019

Quant Method : C:\msdchem\1\METHODS\M2D7967.M

Quant Title : SW-846 Method 8260C / EPA 624, DB624 60m x 0.25mm Thu Sep 26 10:52:51 2019

QLast Update : Thu Sep 26 10:52:51 2019

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
35) ethyl tert-butyl ether	8.972	59	610625	103.17	ug/L	97
36) ethyl acetate	9.286	45	25892	104.32	ug/L	95
37) 2,2-dichloropropane	9.271	77	262370	104.49	ug/L	98
38) cis-1,2-dichloroethene	9.244	96	213782	104.46	ug/L	99
39) propionitrile	9.323	54	237687	1014.80	ug/L	99
40) tert-butyl formate	9.795	59	178221	110.06	ug/L	98
41) bromochloromethane	9.617	128	104252	103.68	ug/L	99
42) tetrahydrofuran	9.690	42	48758	100.00	ug/L	98
43) chloroform	9.706	83	349245	102.27	ug/L	98
45) methacrylonitrile	9.569	67	69400	102.80	ug/L	98
46) 1,1,1-trichloroethane	10.036	97	293973	105.02	ug/L	99
47) cyclohexane	10.146	84	250442	105.66	ug/L	95
48) 1,1-dichloropropene	10.272	75	262799	104.13	ug/L	98
49) isobutyl alcohol	10.288	43	71272	1056.86	ug/L	96
50) carbon tetrachloride	10.298	117	254397	106.54	ug/L	98
51) tert-amyl alcohol	10.461	73	37825	529.66	ug/L	97
54) benzene	10.597	78	771031	102.87	ug/L	99
55) iso-octane	10.676	57	518386	101.60	ug/L	98
56) tert-amyl methyl ether	10.697	73	558064	102.59	ug/L	99
57) heptane	10.906	57	115334	101.98	ug/L	99
58) isopropyl acetate	10.571	87	36762	105.14	ug/L	96
59) 1,2-dichloroethane	10.597	62	283039	103.41	ug/L	99
60) n-butyl alcohol	11.268	56	232097	5321.19	ug/L	99
61) ethyl acrylate	11.588	55	231947	105.78	ug/L	100
62) trichloroethene	11.530	130	198997	105.03	ug/L	99
63) 2-nitropropane	12.563	41	41742	109.63	ug/L	98
64) 2-chloroethyl vinyl ether	12.631	63	636885	512.90	ug/L	99
65) methyl methacrylate	11.945	69	117932	104.12	ug/L	99
66) 1,2-dichloropropane	11.871	63	215861	104.00	ug/L	99
67) dibromomethane	12.055	93	125131	103.42	ug/L	96
68) methylcyclohexane	11.850	83	294738	104.37	ug/L	99
69) bromodichloromethane	12.249	83	280511	105.98	ug/L	98
70) epichlorohydrin	12.757	57	82411	521.43	ug/L	98
71) cis-1,3-dichloropropene	12.894	75	338763	105.54	ug/L	99
72) 4-methyl-2-pentanone	13.072	58	273061	416.23	ug/L	97
73) 3-methyl-1-butanol	13.098	55	151553	2124.17	ug/L	97
76) toluene	13.402	92	471421	104.14	ug/L	99
77) trans-1,3-dichloropropene	13.664	75	300324	105.28	ug/L	99
78) ethyl methacrylate	13.732	69	238221	105.66	ug/L	99
79) 1,1,2-trichloroethane	13.942	83	149848	101.98	ug/L	98
80) tetrachloroethene	14.189	164	171842	107.95	ug/L	98
81) 1,3-dichloropropane	14.189	76	295220	103.52	ug/L	99
82) 2-hexanone	14.236	58	249062	414.47	ug/L	100
83) butyl acetate	14.377	56	118862	104.20	ug/L	97
84) dibromochloromethane	14.519	129	210228	106.83	ug/L	99
85) 1,2-dibromoethane	14.713	107	203147	105.12	ug/L	100
86) n-butyl ether	15.379	57	869060	104.62	ug/L	99
87) chlorobenzene	15.363	112	554695	104.80	ug/L	98
88) 1,1,1,2-tetrachloroethane	15.452	131	208106	106.25	ug/L	99
89) ethylbenzene	15.478	91	911780	104.02	ug/L	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7967\
 Data File : 2D185355.D
 Acq On : 25 Sep 2019 10:52 pm
 Operator : brittank
 Sample : IC7967-100
 Misc : MS37556,V2D7967,5,,,1
 ALS Vial : 12 Sample Multiplier: 1

Quant Time: Sep 26 10:53:11 2019

Quant Method : C:\msdchem\1\METHODS\M2D7967.M

Quant Title : SW-846 Method 8260C / EPA 624, DB624 60m x 0.25mm Thu Sep 26 10:52:51 2019

QLast Update : Thu Sep 26 10:52:51 2019

Response via : Initial Calibration

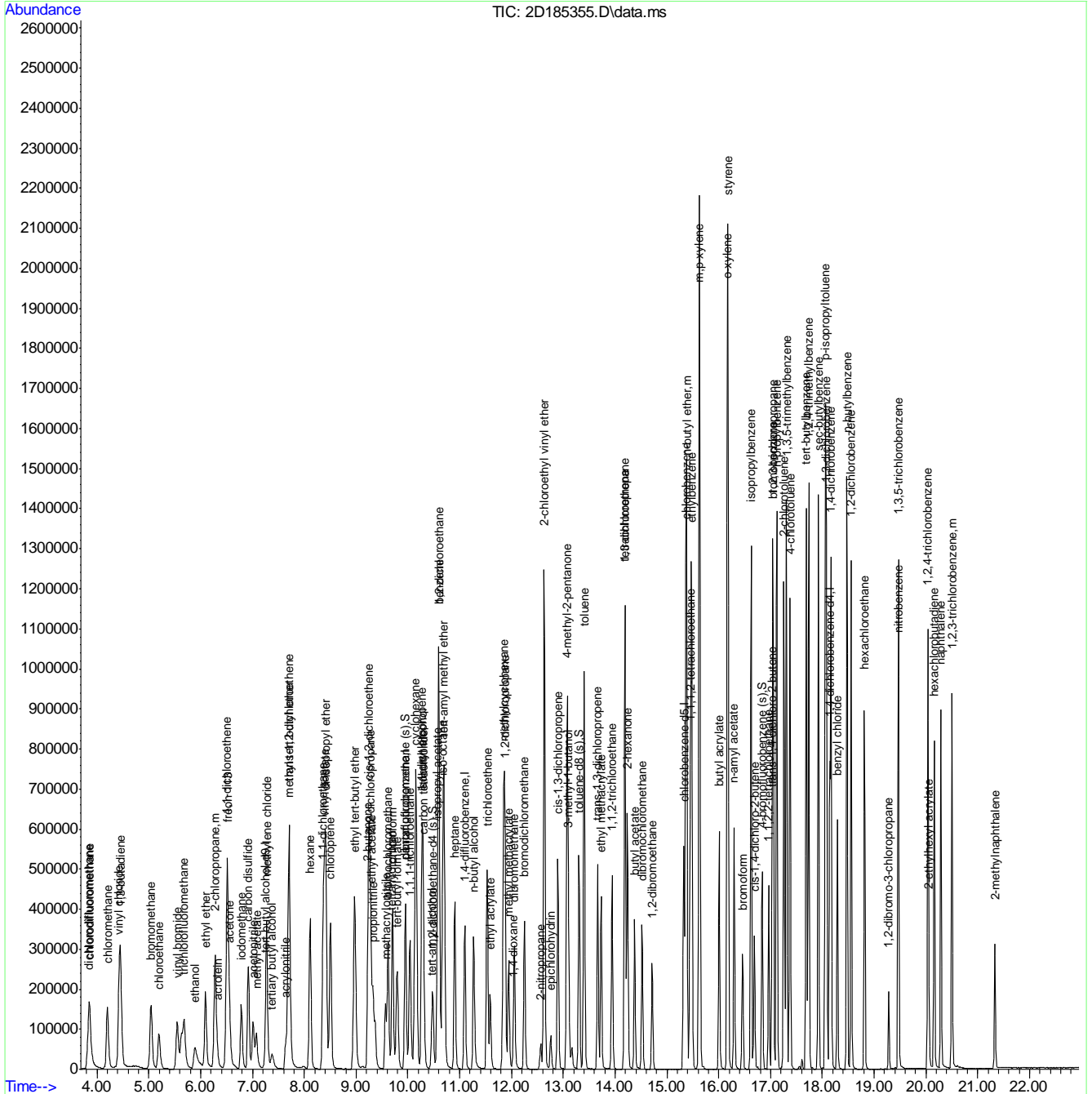
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
90) m,p-xylene	15.625	91	1425418	208.33	ug/L	99
91) o-xylene	16.165	106	358591	105.04	ug/L	97
92) styrene	16.176	104	608876	105.39	ug/L	98
93) butyl acrylate	16.008	55	402689	105.89	ug/L	98
94) n-amyl acetate	16.296	70	132562	106.75	ug/L	98
95) bromoform	16.459	173	145569	108.66	ug/L	98
96) isopropylbenzene	16.627	105	890683	105.53	ug/L	99
97) cis-1,4-dichloro-2-butene	16.690	88	78171	104.99	ug/L	96
100) bromobenzene	17.051	156	261228	104.17	ug/L	99
101) 1,1,2,2-tetrachloroethane	16.967	83	230637	102.79	ug/L	99
102) trans-1,4-dichloro-2-b...	17.030	53	60803	105.45	ug/L	96
103) 1,2,3-trichloropropane	17.046	110	58635	102.99	ug/L #	93
104) n-propylbenzene	17.119	91	1048053	103.42	ug/L	99
105) 2-chlorotoluene	17.256	126	232957	105.11	ug/L	98
106) 4-chlorotoluene	17.376	91	651314	103.95	ug/L	100
107) 1,3,5-trimethylbenzene	17.308	105	760744	105.19	ug/L	99
108) tert-butylbenzene	17.691	119	645239	106.95	ug/L	100
109) 1,2,4-trimethylbenzene	17.738	105	777295	105.19	ug/L	100
110) sec-butylbenzene	17.922	105	943618	105.82	ug/L	99
111) 1,3-dichlorobenzene	18.079	146	471533	104.70	ug/L	98
112) p-isopropyltoluene	18.058	119	819631	106.87	ug/L	100
113) 1,4-dichlorobenzene	18.168	146	477479	105.35	ug/L	99
114) 1,2-dichlorobenzene	18.556	146	468665	105.08	ug/L	99
115) benzyl chloride	18.289	91	405361	105.93	ug/L	100
116) n-butylbenzene	18.472	92	406985	107.21	ug/L	97
117) 1,2-dibromo-3-chloropr...	19.280	157	49026	108.80	ug/L	94
118) nitrobenzene	19.474	77	7614	125.41	ug/L	93
119) 1,3,5-trichlorobenzene	19.468	180	379482	108.80	ug/L	99
120) hexachlorobutadiene	20.160	225	170054	107.97	ug/L	99
121) naphthalene	20.286	128	661931	107.13	ug/L	100
122) 2-ethylhexyl acrylate	20.056	70	34171	25.42	ug/L	92
123) 1,2,4-trichlorobenzene	20.040	180	331884	109.64	ug/L	99
124) 1,2,3-trichlorobenzene	20.501	180	295013	108.46	ug/L	99
125) hexachloroethane	18.818	201	151932	109.79	ug/L	98
126) 2-methylnaphthalene	21.330	142	150385	60.34	ug/L	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7967\
 Data File : 2D185355.D
 Acq On : 25 Sep 2019 10:52 pm
 Operator : brittbank
 Sample : IC7967-100
 Misc : MS37556,V2D7967,5,,,1
 ALS Vial : 12 Sample Multiplier: 1

Quant Time: Sep 26 10:53:11 2019
 Quant Method : C:\msdchem\1\METHODS\M2D7967.M
 Quant Title : SW-846 Method 8260C / EPA 624, DB624 60m x 0.25mm Thu Sep 26 10:52:51 2019
 QLast Update : Thu Sep 26 10:52:51 2019
 Response via : Initial Calibration



7.7.9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7967\
 Data File : 2D185356.D
 Acq On : 25 Sep 2019 11:21 pm
 Operator : brittank
 Sample : IC7967-200
 Misc : MS37556,V2D7967,5,,,,,1
 ALS Vial : 13 Sample Multiplier: 1

Quant Time: Sep 26 10:53:13 2019

Quant Method : C:\msdchem\1\METHODS\M2D7967.M

Quant Title : SW-846 Method 8260C / EPA 624, DB624 60m x 0.25mm Thu Sep 26 10:52:51 2019

QLast Update : Thu Sep 26 10:52:51 2019

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.257	65	84069	500.00	ug/L	0.00
5) pentafluorobenzene	9.957	168	233396	50.00	ug/L	0.00
52) 1,4-difluorobenzene	11.100	114	352562	50.00	ug/L	0.00
74) chlorobenzene-d5	15.326	117	334951	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	18.142	152	181251	50.00	ug/L	0.00
System Monitoring Compounds						
44) dibromofluoromethane (s)	9.952	113	107654	48.69	ug/L	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	=	97.38%
53) 1,2-dichloroethane-d4 (s)	10.487	65	123508	49.15	ug/L	0.00
Spiked Amount	50.000	Range	81 - 124	Recovery	=	98.30%
75) toluene-d8 (s)	13.308	98	404054	48.53	ug/L	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	=	97.06%
99) 4-bromofluorobenzene (s)	16.836	95	160893	49.21	ug/L	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	=	98.42%
Target Compounds						
						Qvalue
2) tertiary butyl alcohol	7.388	59	168593	997.29	ug/L	87
3) ethanol	5.899	45	346567	17646.60	ug/L	100
4) 1,4-dioxane	12.034	88	88671	5148.06	ug/L	100
6) chlorodifluoromethane	3.860	51	536699	205.50	ug/L	99
7) dichlorodifluoromethane	3.834	85	429287	207.54	ug/L	98
8) chloromethane	4.206	50	566087	193.42	ug/L	100
9) vinyl chloride	4.426	62	566085	198.40	ug/L	99
10) 1,3-butadiene	4.457	54	374290	200.67	ug/L	98
11) bromomethane	5.045	94	338696	185.01	ug/L	100
12) chloroethane	5.197	64	264657	189.63	ug/L	98
13) trichlorofluoromethane	5.679	101	563429	202.65	ug/L	99
14) vinyl bromide	5.553	106	299475	198.39	ug/L	99
15) ethyl ether	6.099	74	205955	202.57	ug/L	99
16) acrolein	6.329	56	54451	191.54	ug/L	97
17) 1,1-dichloroethene	6.513	96	333054	198.65	ug/L	97
18) freon 113	6.518	151	276448	204.13	ug/L	97
19) 2-chloropropane	6.282	43	693503	190.74	ug/L	99
20) acetone	6.565	58	114809	789.67	ug/L	97
21) acetonitrile	7.016	41	450623	2064.91	ug/L	98
22) iodomethane	6.791	142	517949	209.84	ug/L	98
23) carbon disulfide	6.922	76	966267	201.26	ug/L	99
24) methylene chloride	7.273	84	387511	201.22	ug/L	98
25) methyl acetate	7.079	43	275230	207.80	ug/L	100
26) methyl tert butyl ether	7.703	73	997414	205.72	ug/L	100
27) trans-1,2-dichloroethene	7.713	96	359607	203.03	ug/L	97
28) hexane	8.112	57	493179	204.59	ug/L	99
29) di-isopropyl ether	8.416	45	1358160	196.60	ug/L	98
30) 2-butanone	9.229	72	143772	848.45	ug/L	98
31) 1,1-dichloroethane	8.364	63	700163	198.51	ug/L	99
32) chloroprene	8.505	53	570420	201.01	ug/L	99
33) acrylonitrile	7.640	53	132153	209.86	ug/L	98
34) vinyl acetate	8.384	86	69699	224.43	ug/L #	90

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7967\
 Data File : 2D185356.D
 Acq On : 25 Sep 2019 11:21 pm
 Operator : brittank
 Sample : IC7967-200
 Misc : MS37556,V2D7967,5,,,,,1
 ALS Vial : 13 Sample Multiplier: 1

Quant Time: Sep 26 10:53:13 2019

Quant Method : C:\msdchem\1\METHODS\M2D7967.M

Quant Title : SW-846 Method 8260C / EPA 624, DB624 60m x 0.25mm Thu Sep 26 10:52:51 2019

QLast Update : Thu Sep 26 10:52:51 2019

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
35) ethyl tert-butyl ether	8.977	59	1162691	198.43	ug/L	97
36) ethyl acetate	9.286	45	51334	208.91	ug/L #	80
37) 2,2-dichloropropane	9.276	77	501762	201.84	ug/L	97
38) cis-1,2-dichloroethene	9.250	96	409507	202.12	ug/L	97
39) propionitrile	9.328	54	477990	2061.38	ug/L	100
40) tert-butyl formate	9.795	59	345349	215.42	ug/L	99
41) bromochloromethane	9.622	128	203574	204.50	ug/L	96
42) tetrahydrofuran	9.695	42	100020	207.20	ug/L	98
43) chloroform	9.706	83	670057	198.20	ug/L	98
45) methacrylonitrile	9.569	67	141392	211.55	ug/L	95
46) 1,1,1-trichloroethane	10.041	97	567784	204.88	ug/L	98
47) cyclohexane	10.151	84	489875	208.77	ug/L #	80
48) 1,1-dichloropropene	10.272	75	508370	203.47	ug/L	98
49) isobutyl alcohol	10.293	43	150774	2258.34	ug/L	98
50) carbon tetrachloride	10.298	117	493289	208.67	ug/L	98
51) tert-amyl alcohol	10.466	73	82019	1160.10	ug/L	97
54) benzene	10.597	78	1469795	197.85	ug/L	100
55) iso-octane	10.681	57	1016498	201.00	ug/L	98
56) tert-amyl methyl ether	10.702	73	1063960	197.33	ug/L	99
57) heptane	10.906	57	229997	205.18	ug/L	98
58) isopropyl acetate	10.571	87	74217	214.15	ug/L	98
59) 1,2-dichloroethane	10.602	62	548761	202.28	ug/L	100
60) n-butyl alcohol	11.273	56	496304	11480.00	ug/L	99
61) ethyl acrylate	11.593	55	478070	219.96	ug/L	100
62) trichloroethene	11.530	130	394742	210.20	ug/L	99
63) 2-nitropropane	12.568	41	87209	231.09	ug/L	95
64) 2-chloroethyl vinyl ether	12.637	63	1270383	1032.20	ug/L	99
65) methyl methacrylate	11.945	69	243120	216.57	ug/L	98
66) 1,2-dichloropropane	11.876	63	413250	200.88	ug/L	98
67) dibromomethane	12.055	93	248274	207.02	ug/L	97
68) methylcyclohexane	11.850	83	583390	208.42	ug/L	100
69) bromodichloromethane	12.254	83	547147	208.56	ug/L	99
70) epichlorohydrin	12.762	57	170254	1086.83	ug/L	97
71) cis-1,3-dichloropropene	12.899	75	664331	208.81	ug/L	99
72) 4-methyl-2-pentanone	13.077	58	560667	862.25	ug/L	96
73) 3-methyl-1-butanol	13.098	55	326045	4610.60	ug/L	98
76) toluene	13.407	92	922516	201.64	ug/L	98
77) trans-1,3-dichloropropene	13.664	75	606212	210.27	ug/L	99
78) ethyl methacrylate	13.732	69	487324	213.85	ug/L	98
79) 1,1,2-trichloroethane	13.942	83	299480	201.67	ug/L	97
80) tetrachloroethene	14.189	164	339160	210.80	ug/L	99
81) 1,3-dichloropropane	14.189	76	585082	203.00	ug/L	99
82) 2-hexanone	14.241	58	520593	857.18	ug/L	97
83) butyl acetate	14.377	56	248400	215.45	ug/L	99
84) dibromochloromethane	14.524	129	423951	213.16	ug/L	99
85) 1,2-dibromoethane	14.718	107	406872	208.32	ug/L	98
86) n-butyl ether	15.384	57	1685196	200.72	ug/L	98
87) chlorobenzene	15.368	112	1095864	204.85	ug/L	98
88) 1,1,1,2-tetrachloroethane	15.457	131	410377	207.31	ug/L	99
89) ethylbenzene	15.478	91	1758967	198.55	ug/L	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7967\
 Data File : 2D185356.D
 Acq On : 25 Sep 2019 11:21 pm
 Operator : brittank
 Sample : IC7967-200
 Misc : MS37556,V2D7967,5,,,1
 ALS Vial : 13 Sample Multiplier: 1

Quant Time: Sep 26 10:53:13 2019

Quant Method : C:\msdchem\1\METHODS\M2D7967.M

Quant Title : SW-846 Method 8260C / EPA 624, DB624 60m x 0.25mm Thu Sep 26 10:52:51 2019

QLast Update : Thu Sep 26 10:52:51 2019

Response via : Initial Calibration

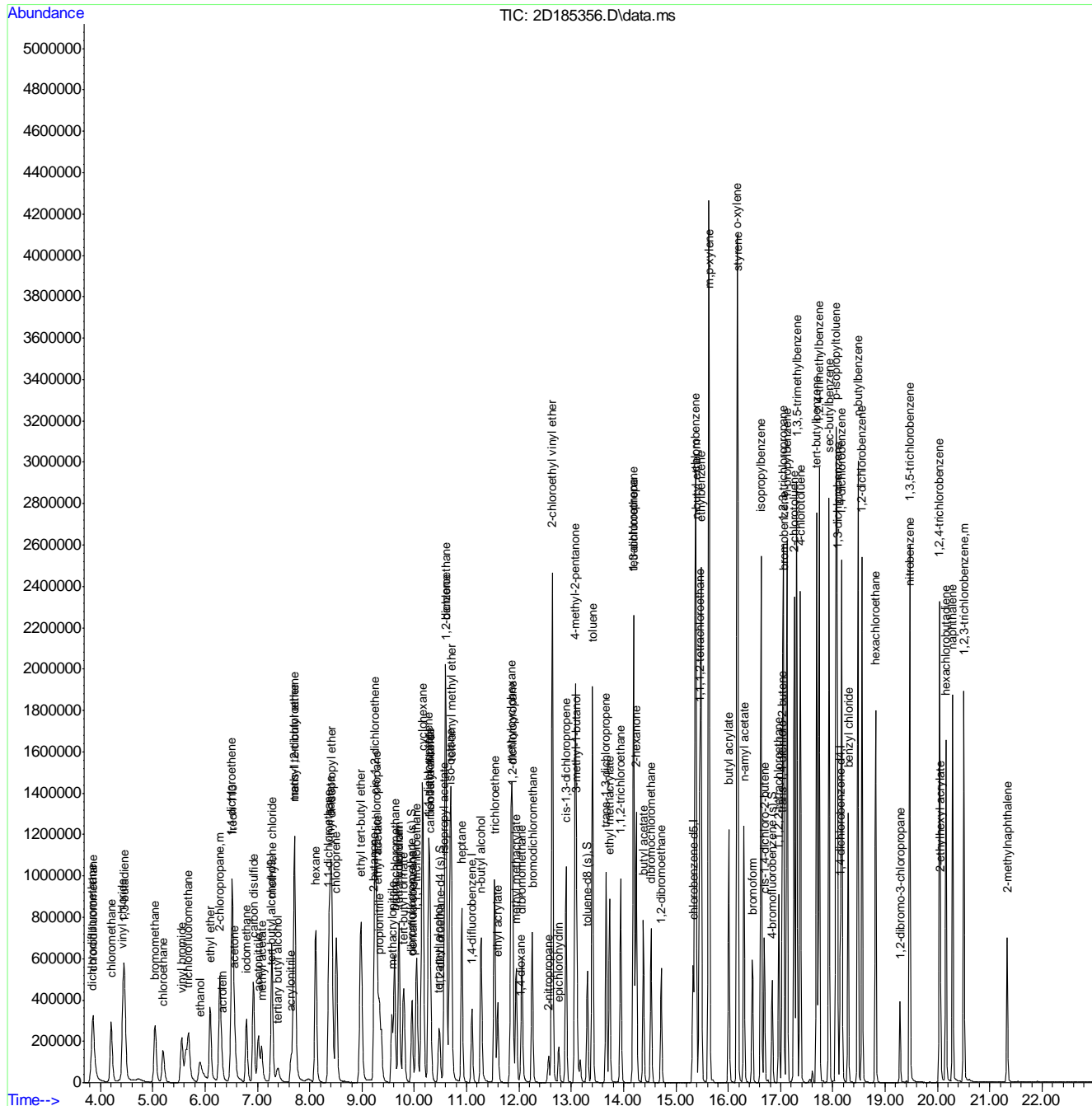
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
90) m,p-xylene	15.630	91	2739164	396.11	ug/L	98
91) o-xylene	16.170	106	700677	203.08	ug/L	99
92) styrene	16.181	104	1185585	203.05	ug/L	96
93) butyl acrylate	16.008	55	834024	217.00	ug/L	98
94) n-amyl acetate	16.301	70	278926	222.23	ug/L	94
95) bromoform	16.464	173	303281	224.00	ug/L	99
96) isopropylbenzene	16.627	105	1735481	203.45	ug/L	99
97) cis-1,4-dichloro-2-butene	16.689	88	167210	222.19	ug/L	94
100) bromobenzene	17.056	156	517362	203.43	ug/L	94
101) 1,1,2,2-tetrachloroethane	16.967	83	462775	203.38	ug/L	99
102) trans-1,4-dichloro-2-b...	17.030	53	126798	216.83	ug/L	94
103) 1,2,3-trichloropropane	17.046	110	121185	209.88	ug/L #	91
104) n-propylbenzene	17.125	91	2025272	197.06	ug/L	97
105) 2-chlorotoluene	17.261	126	462890	205.94	ug/L	92
106) 4-chlorotoluene	17.376	91	1277183	200.99	ug/L	99
107) 1,3,5-trimethylbenzene	17.308	105	1487912	202.87	ug/L	99
108) tert-butylbenzene	17.691	119	1271702	207.85	ug/L	99
109) 1,2,4-trimethylbenzene	17.738	105	1517135	202.44	ug/L	99
110) sec-butylbenzene	17.927	105	1837210	203.15	ug/L	97
111) 1,3-dichlorobenzene	18.084	146	919823	201.38	ug/L	98
112) p-isopropyltoluene	18.058	119	1606251	206.51	ug/L	98
113) 1,4-dichlorobenzene	18.168	146	940571	204.62	ug/L	98
114) 1,2-dichlorobenzene	18.556	146	920048	203.40	ug/L	97
115) benzyl chloride	18.294	91	836551	215.55	ug/L	98
116) n-butylbenzene	18.477	92	805248	209.16	ug/L	97
117) 1,2-dibromo-3-chloropr...	19.285	157	104944	229.65	ug/L	98
118) nitrobenzene	19.474	77	20391	331.16	ug/L	90
119) 1,3,5-trichlorobenzene	19.468	180	760757	215.07	ug/L	99
120) hexachlorobutadiene	20.160	225	340251	213.02	ug/L	99
121) naphthalene	20.286	128	1380312	220.27	ug/L	99
122) 2-ethylhexyl acrylate	20.055	70	76723	56.28	ug/L	93
123) 1,2,4-trichlorobenzene	20.040	180	679566	221.36	ug/L	99
124) 1,2,3-trichlorobenzene	20.506	180	611318	221.62	ug/L	100
125) hexachloroethane	18.818	201	308509	219.82	ug/L	97
126) 2-methylnaphthalene	21.330	142	340581	134.75	ug/L	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7967\
Data File : 2D185356.D
Acq On : 25 Sep 2019 11:21 pm
Operator : brittank
Sample : IC7967-200
Misc : MS37556,V2D7967,5,,,1
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Sep 26 10:53:13 2019
Quant Method : C:\msdchem\1\METHODS\M2D7967.M
Quant Title : SW-846 Method 8260C / EPA 624, DB624 60m x 0.25mm Thu Sep 26 10:52:51 2019
QLast Update : Thu Sep 26 10:52:51 2019
Response via : Initial Calibration



7.7.10
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7967\
 Data File : 2D185359.D
 Acq On : 26 Sep 2019 12:50 am
 Operator : brittank
 Sample : ICV7967-50
 Misc : MS37556,V2D7967,5,,,,,1
 ALS Vial : 16 Sample Multiplier: 1

Quant Time: Sep 26 10:58:43 2019

Quant Method : C:\msdchem\1\METHODS\M2D7967.M

Quant Title : SW-846 Method 8260C / EPA 624, DB624 60m x 0.25mm Thu Sep 26 10:56:39 2019

QLast Update : Thu Sep 26 10:58:10 2019

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
Internal Standards							
1) tert butyl alcohol-d9	7.257	65	78624	500.00	ug/L	0.00	
5) pentafluorobenzene	9.957	168	250505	50.00	ug/L	0.00	
52) 1,4-difluorobenzene	11.100	114	377387	50.00	ug/L	0.00	
74) chlorobenzene-d5	15.326	117	348320	50.00	ug/L	0.00	
98) 1,4-dichlorobenzene-d4	18.142	152	184471	50.00	ug/L	0.00	
System Monitoring Compounds							
44) dibromofluoromethane (s)	9.952	113	116577	49.25	ug/L	0.00	
Spiked Amount	50.000	Range	80 - 120	Recovery	=	98.50%	
53) 1,2-dichloroethane-d4 (s)	10.487	65	131994	48.89	ug/L	0.00	
Spiked Amount	50.000	Range	81 - 124	Recovery	=	97.78%	
75) toluene-d8 (s)	13.308	98	433535	49.60	ug/L	0.00	
Spiked Amount	50.000	Range	80 - 120	Recovery	=	99.20%	
99) 4-bromofluorobenzene (s)	16.836	95	166810	49.93	ug/L	0.00	
Spiked Amount	50.000	Range	80 - 120	Recovery	=	99.86%	
Target Compounds							
2) tertiary butyl alcohol	7.383	59	40306	264.48	ug/L	89	Qvalue
3) ethanol	5.899	45	90300	4769.45	ug/L	98	
4) 1,4-dioxane	12.034	88	20836	1344.59	ug/L	98	
6) chlorodifluoromethane	3.855	51	132544	48.25	ug/L	98	
7) dichlorodifluoromethane	3.834	85	132220	60.60	ug/L	97	
8) chloromethane	4.201	50	155949	48.00	ug/L	98	
9) vinyl chloride	4.426	62	147378	48.23	ug/L	98	
10) 1,3-butadiene	4.463	54	110732	56.46	ug/L	96	
11) bromomethane	5.050	94	119428	56.83	ug/L	98	
12) chloroethane	5.197	64	67786	45.82	ug/L	98	
13) trichlorofluoromethane	5.684	101	155271	52.83	ug/L	99	
14) vinyl bromide	5.553	106	84062	52.58	ug/L	98	
15) ethyl ether	6.099	74	52485	48.61	ug/L	97	
16) acrolein	6.329	56	13907	47.10	ug/L	94	
17) 1,1-dichloroethene	6.518	96	82279	46.02	ug/L	99	
18) freon 113	6.523	151	68637	49.31	ug/L	99	
19) 2-chloropropane	6.282	43	190491	47.27	ug/L	98	
20) acetone	6.560	58	28420	181.38	ug/L	97	
22) iodomethane	6.791	142	166389	63.65	ug/L	99	
23) carbon disulfide	6.927	76	294324	56.76	ug/L	99	
24) methylene chloride	7.273	84	99991	46.32	ug/L	97	
25) methyl acetate	7.079	43	63025	44.38	ug/L	98	
26) methyl tert butyl ether	7.698	73	500173	100.86	ug/L	100	
27) trans-1,2-dichloroethene	7.713	96	91784	49.08	ug/L	96	
28) hexane	8.117	57	125015	50.47	ug/L	100	
29) di-isopropyl ether	8.416	45	348228	48.51	ug/L	99	
30) 2-butanone	9.234	72	34485	206.15	ug/L	95	
31) 1,1-dichloroethane	8.364	63	184192	49.44	ug/L	99	
32) chloroprene	8.510	53	153326	52.50	ug/L	99	
34) vinyl acetate	8.385	86	15918	47.06	ug/L	# 93	
35) ethyl tert-butyl ether	8.972	59	305905	50.80	ug/L	98	
36) ethyl acetate	9.292	45	13163	50.18	ug/L	97	

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7967\
 Data File : 2D185359.D
 Acq On : 26 Sep 2019 12:50 am
 Operator : brittank
 Sample : ICV7967-50
 Misc : MS37556,V2D7967,5,,,,,1
 ALS Vial : 16 Sample Multiplier: 1

Quant Time: Sep 26 10:58:43 2019

Quant Method : C:\msdchem\1\METHODS\M2D7967.M

Quant Title : SW-846 Method 8260C / EPA 624, DB624 60m x 0.25mm Thu Sep 26 10:56:39 2019

QLast Update : Thu Sep 26 10:58:10 2019

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
37) 2,2-dichloropropane	9.276	77	122419	45.94	ug/L	97
38) cis-1,2-dichloroethene	9.250	96	103338	48.58	ug/L	97
39) propionitrile	9.328	54	119870	510.69	ug/L	100
40) tert-butyl formate	9.795	59	61040	36.98	ug/L	98
41) bromochloromethane	9.622	128	51893	49.95	ug/L	99
42) tetrahydrofuran	9.695	42	24177	46.96	ug/L	97
43) chloroform	9.706	83	176681	47.22	ug/L	99
45) methacrylonitrile	9.569	67	34692	51.94	ug/L	97
46) 1,1,1-trichloroethane	10.041	97	142955	48.16	ug/L	98
47) cyclohexane	10.146	84	131377	51.99	ug/L	93
48) 1,1-dichloropropene	10.272	75	129608	49.03	ug/L	98
49) isobutyl alcohol	10.293	43	34471	472.04	ug/L	98
50) carbon tetrachloride	10.298	117	124943	50.18	ug/L	100
51) tert-amyl alcohol	10.466	73	18550	248.81	ug/L	94
54) benzene	10.597	78	390610	48.41	ug/L	100
55) iso-octane	10.676	57	313742	60.89	ug/L	100
56) tert-amyl methyl ether	10.697	73	280181	50.04	ug/L	100
57) heptane	10.906	57	70098	60.53	ug/L	98
58) isopropyl acetate	10.571	87	16966	47.14	ug/L	96
59) 1,2-dichloroethane	10.597	62	137066	44.61	ug/L	98
60) n-butyl alcohol	11.273	56	108661	2421.55	ug/L	98
61) ethyl acrylate	11.593	55	110408	50.48	ug/L	100
62) trichloroethene	11.530	130	99646	51.26	ug/L	98
63) 2-nitropropane	12.568	41	21047	53.01	ug/L	98
64) 2-chloroethyl vinyl ether	12.637	63	333056	279.43	ug/L	99
65) methyl methacrylate	11.945	69	58736	51.83	ug/L	99
66) 1,2-dichloropropane	11.876	63	106584	49.60	ug/L	99
67) dibromomethane	12.060	93	60321	49.68	ug/L	97
68) methylcyclohexane	11.850	83	144342	50.86	ug/L	87
69) bromodichloromethane	12.254	83	133810	49.30	ug/L	99
70) epichlorohydrin	12.757	57	41366	261.50	ug/L	97
71) cis-1,3-dichloropropene	12.899	75	166433	53.08	ug/L	99
72) 4-methyl-2-pentanone	13.072	58	130663	203.85	ug/L	98
73) 3-methyl-1-butanol	13.098	55	70191	988.04	ug/L	97
76) toluene	13.402	92	235254	48.59	ug/L	99
77) trans-1,3-dichloropropene	13.664	75	148701	53.83	ug/L	99
78) ethyl methacrylate	13.732	69	118051	53.75	ug/L	97
79) 1,1,2-trichloroethane	13.942	83	74085	49.90	ug/L	98
81) 1,3-dichloropropane	14.189	76	144866	50.02	ug/L	98
82) 2-hexanone	14.241	58	118008	201.51	ug/L	98
83) butyl acetate	14.377	56	57179	49.69	ug/L	98
84) dibromochloromethane	14.524	129	104192	54.37	ug/L	99
85) 1,2-dibromoethane	14.718	107	98830	50.77	ug/L	100
86) n-butyl ether	15.384	57	436413	53.21	ug/L	99
87) chlorobenzene	15.368	112	277632	50.26	ug/L	99
88) 1,1,1,2-tetrachloroethane	15.452	131	101678	52.43	ug/L	98
89) ethylbenzene	15.478	91	453897	49.33	ug/L	100
90) m,p-xylene	15.630	91	702312	100.61	ug/L	99
91) o-xylene	16.165	106	174865	52.09	ug/L	97
92) styrene	16.181	104	299190	53.20	ug/L	93

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7967\
 Data File : 2D185359.D
 Acq On : 26 Sep 2019 12:50 am
 Operator : brittank
 Sample : ICV7967-50
 Misc : MS37556,V2D7967,5,,,,,1
 ALS Vial : 16 Sample Multiplier: 1

Quant Time: Sep 26 10:58:43 2019

Quant Method : C:\msdchem\1\METHODS\M2D7967.M

Quant Title : SW-846 Method 8260C / EPA 624, DB624 60m x 0.25mm Thu Sep 26 10:56:39 2019

QLast Update : Thu Sep 26 10:58:10 2019

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
93) butyl acrylate	16.008	55	191173	52.10	ug/L	100
94) n-amyl acetate	16.302	70	58713	48.05	ug/L	96
95) bromoform	16.464	173	72957	55.84	ug/L	97
96) isopropylbenzene	16.627	105	433551	50.46	ug/L	99
97) cis-1,4-dichloro-2-butene	16.690	88	36691	50.51	ug/L	97
100) bromobenzene	17.051	156	128271	50.18	ug/L	96
101) 1,1,2,2-tetrachloroethane	16.967	83	111169	47.80	ug/L	97
102) trans-1,4-dichloro-2-b...	17.030	53	28557	49.34	ug/L	97
103) 1,2,3-trichloropropane	17.046	110	27737	47.54	ug/L #	92
104) n-propylbenzene	17.119	91	519852	49.87	ug/L	100
105) 2-chlorotoluene	17.261	126	112013	50.71	ug/L	93
106) 4-chlorotoluene	17.376	91	324588	50.08	ug/L	100
107) 1,3,5-trimethylbenzene	17.308	105	365941	50.45	ug/L	100
108) tert-butylbenzene	17.691	119	308171	50.87	ug/L	98
109) 1,2,4-trimethylbenzene	17.738	105	383868	52.28	ug/L	99
110) sec-butylbenzene	17.922	105	455054	50.92	ug/L	100
111) 1,3-dichlorobenzene	18.079	146	230653	50.32	ug/L	99
112) p-isopropyltoluene	18.058	119	391651	52.42	ug/L	100
113) 1,4-dichlorobenzene	18.168	146	230228	47.81	ug/L	99
114) 1,2-dichlorobenzene	18.556	146	224086	49.83	ug/L	99
115) benzyl chloride	18.294	91	219112	60.92	ug/L	99
116) n-butylbenzene	18.477	92	191247	51.48	ug/L	98
117) 1,2-dibromo-3-chloropr...	19.285	157	21527	49.72	ug/L	97
118) nitrobenzene	19.474	77	2957	46.35	ug/L	94
119) 1,3,5-trichlorobenzene	19.468	180	181249	54.63	ug/L	99
120) hexachlorobutadiene	20.160	225	77511	50.59	ug/L	97
121) naphthalene	20.286	128	302238	52.40	ug/L	99
122) 2-ethylhexyl acrylate	20.061	70	14437	8.84	ug/L	97
123) 1,2,4-trichlorobenzene	20.040	180	146504	52.59	ug/L	99
124) 1,2,3-trichlorobenzene	20.501	180	133167	52.07	ug/L	100
125) hexachloroethane	18.818	201	72026	53.52	ug/L	99
126) 2-methylnaphthalene	21.335	142	63330	21.60	ug/L	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

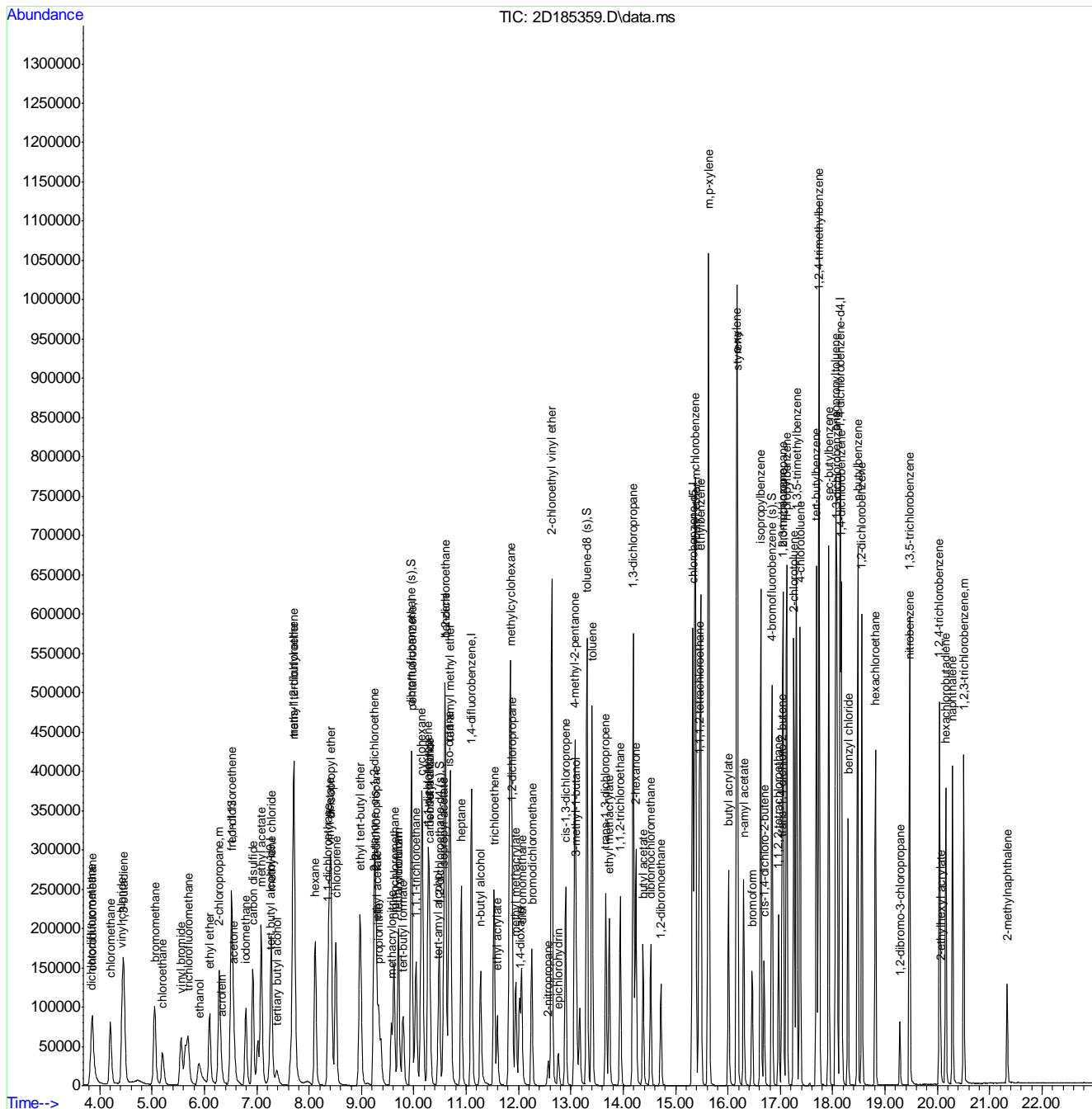
7.7.11

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7967\
 Data File : 2D185359.D
 Acq On : 26 Sep 2019 12:50 am
 Operator : brittink
 Sample : ICV7967-50
 Misc : MS37556,V2D7967,5,,,,,1
 ALS Vial : 16 Sample Multiplier: 1

Quant Time: Sep 26 10:58:43 2019
 Quant Method : C:\msdchem\1\METHODS\M2D7967.M
 Quant Title : SW-846 Method 8260C / EPA 624, DB624 60m x 0.25mm Thu Sep 26 10:56:39 2019
 QLast Update : Thu Sep 26 10:58:10 2019
 Response via : Initial Calibration



7.7.11
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7967\
 Data File : 2D185360.D
 Acq On : 26 Sep 2019 1:19 am
 Operator : brittank
 Sample : ICV7967-50
 Misc : MS37556,V2D7967,5,,,,,1
 ALS Vial : 17 Sample Multiplier: 1

Quant Time: Sep 26 10:59:10 2019
 Quant Method : C:\msdchem\1\METHODS\M2D7967.M
 Quant Title : SW-846 Method 8260C / EPA 624, DB624 60m x 0.25mm Thu Sep 26 10:58:10 2019
 QLast Update : Thu Sep 26 10:58:10 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.247	65	81576	500.00	ug/L	-0.01
5) pentafluorobenzene	9.952	168	254501	50.00	ug/L	0.00
52) 1,4-difluorobenzene	11.100	114	381979	50.00	ug/L	0.00
74) chlorobenzene-d5	15.326	117	344095	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	18.142	152	171813	50.00	ug/L	0.00
System Monitoring Compounds						
44) dibromofluoromethane (s)	9.952	113	118066	49.09	ug/L	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	=	98.18%
53) 1,2-dichloroethane-d4 (s)	10.482	65	133933	49.02	ug/L	0.00
Spiked Amount	50.000	Range	81 - 124	Recovery	=	98.04%
75) toluene-d8 (s)	13.308	98	434885	50.36	ug/L	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	=	100.72%
99) 4-bromofluorobenzene (s)	16.836	95	162091	52.09	ug/L	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	=	104.18%
Target Compounds						
21) acetonitrile	7.011	41	106254	444.30	ug/L	99
33) acrylonitrile	7.640	53	31570	47.16	ug/L	97
80) tetrachloroethene	14.189	164	94266	56.95	ug/L	99

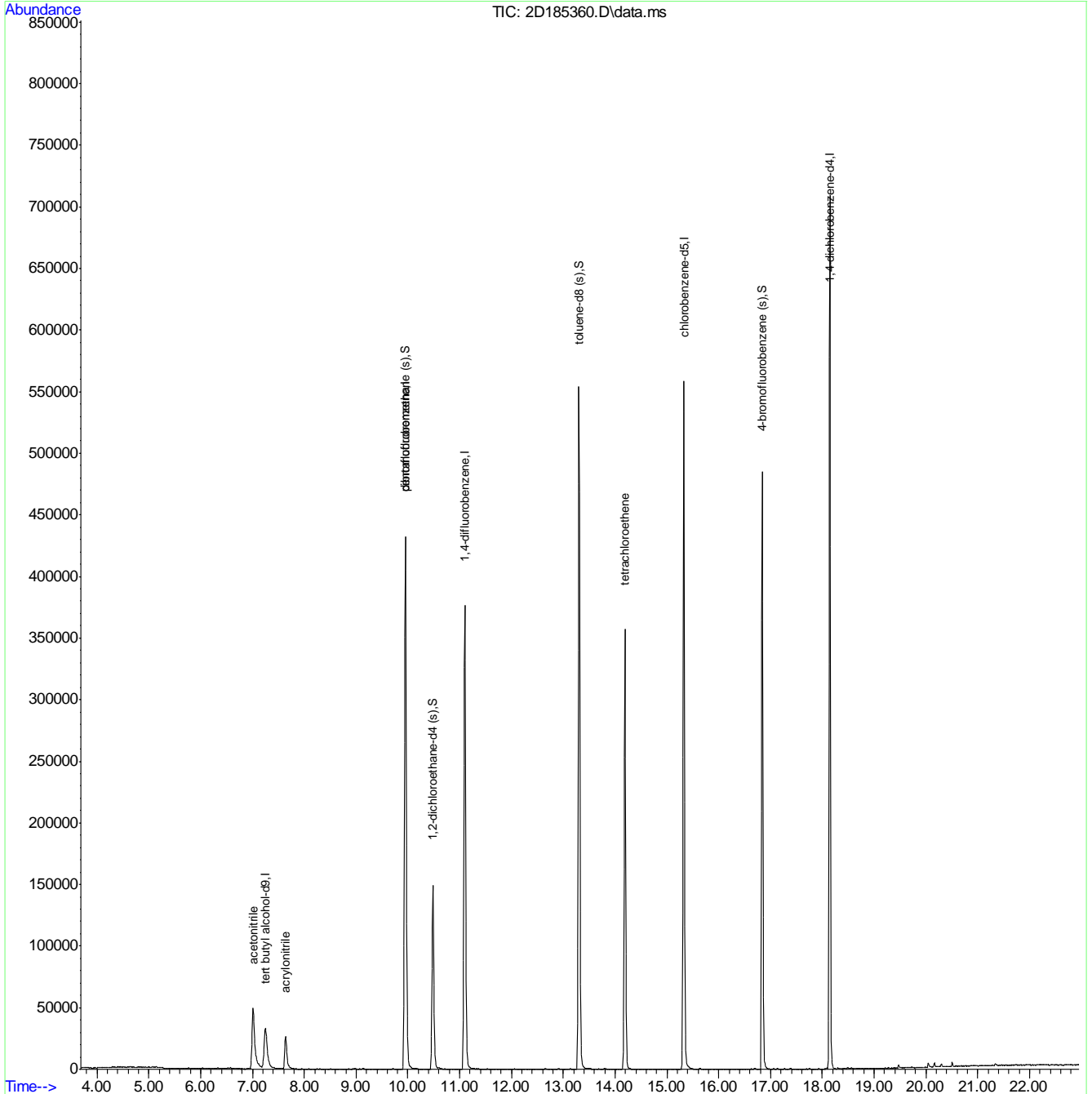
(#) = qualifier out of range (m) = manual integration (+) = signals summed

7.7.12
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7967\
 Data File : 2D185360.D
 Acq On : 26 Sep 2019 1:19 am
 Operator : brittank
 Sample : ICV7967-50
 Misc : MS37556,V2D7967,5,,,,,1
 ALS Vial : 17 Sample Multiplier: 1

Quant Time: Sep 26 10:59:10 2019
 Quant Method : C:\msdchem\1\METHODS\M2D7967.M
 Quant Title : SW-846 Method 8260C / EPA 624, DB624 60m x 0.25mm Thu Sep 26 10:58:10 2019
 QLast Update : Thu Sep 26 10:58:10 2019
 Response via : Initial Calibration



7.7.12
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\nizele\10_oct\10-14-19\v2d7993-rush\
 Data File : 2d185858.d
 Acq On : 11 Oct 2019 3:34 pm
 Operator : edwardd
 Sample : CC7967-20 Inst : MS2D
 Misc : MS38186,V2D7993,5,,,,1
 ALS Vial : 9 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7967.M
 Quant Results File: M2D7967.RES
 Quant Time: Oct 11 23:42:56 2019
 Quant Title : SW-846 Method 8260C / EPA 624, DB624 60m x 0.25mm Thu Sep 26 10:58:10 2019
 QLast Update : Thu Sep 26 10:58:10 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.241	65	64580	500.00	ug/L	-0.02
5) pentafluorobenzene	9.942	168	239965	50.00	ug/L	-0.02
52) 1,4-difluorobenzene	11.085	114	351580	50.00	ug/L	-0.02
74) chlorobenzene-d5	15.316	117	335451	50.00	ug/L	-0.01
98) 1,4-dichlorobenzene-d4	18.136	152	182007	50.00	ug/L	0.00
System Monitoring Compounds						
44) dibromofluoromethane (s)	9.936	113	103571	45.67	ug/L	-0.02
Spiked Amount	50.000	Range	80 - 120	Recovery	=	91.34%
53) 1,2-dichloroethane-d4 (s)	10.471	65	110555	43.96	ug/L	-0.02
Spiked Amount	50.000	Range	81 - 124	Recovery	=	87.92%
75) toluene-d8 (s)	13.297	98	400456	47.57	ug/L	-0.01
Spiked Amount	50.000	Range	80 - 120	Recovery	=	95.14%
99) 4-bromofluorobenzene (s)	16.831	95	155168	47.08	ug/L	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	=	94.16%
Target Compounds						
2) tertiary butyl alcohol	7.367	59	14019	112.00	ug/L	98
3) ethanol	5.873	45	29825	1917.86	ug/L	96
4) 1,4-dioxane	12.023	88	7357	578.01	ug/L	97
6) chlorodifluoromethane	3.849	51	46958	17.84	ug/L	96
7) dichlorodifluoromethane	3.828	85	48417	23.16	ug/L	97
8) chloromethane	4.195	50	52938	17.01	ug/L	99
9) vinyl chloride	4.421	62	51790	17.69	ug/L	98
10) 1,3-butadiene	4.447	54	34052	18.12	ug/L	92
11) bromomethane	5.039	94	34609	17.19	ug/L	100
12) chloroethane	5.191	64	24644	17.39	ug/L	99
13) trichlorofluoromethane	5.669	101	52510	18.65	ug/L	98
14) vinyl bromide	5.548	106	28533	18.63	ug/L	99
15) ethyl ether	6.083	74	17358	16.78	ug/L	90
16) acrolein	6.319	56	4520	15.98	ug/L	91
17) 1,1-dichloroethene	6.507	96	29539	17.25	ug/L	89
18) freon 113	6.502	151	26186	19.64	ug/L	91
19) 2-chloropropane	6.266	43	56255	14.57	ug/L	99
20) acetone	6.549	58	9936	66.20	ug/L	# 77
21) acetonitrile	7.006	41	41317	183.23	ug/L	100
22) iodomethane	6.780	142	48948	19.55	ug/L	96
23) carbon disulfide	6.911	76	91801	18.48	ug/L	97
24) methylene chloride	7.268	84	37640	18.20	ug/L	93
25) methyl acetate	7.068	43	23444	17.23	ug/L	99
26) methyl tert butyl ether	7.682	73	88705	18.67	ug/L	100
27) trans-1,2-dichloroethene	7.703	96	34062	19.01	ug/L	93
28) hexane	8.101	57	48976	20.64	ug/L	97
29) di-isopropyl ether	8.400	45	125040	18.18	ug/L	100
30) 2-butanone	9.218	72	12138	75.75	ug/L	# 85
31) 1,1-dichloroethane	8.353	63	64453	18.06	ug/L	98
32) chloroprene	8.495	53	48424	17.31	ug/L	96
33) acrylonitrile	7.629	53	11428	18.10	ug/L	97
34) vinyl acetate	8.374	86	5587	17.24	ug/L	96
35) ethyl tert-butyl ether	8.961	59	106470	18.46	ug/L	96
36) ethyl acetate	9.281	45	4411	17.55	ug/L	# 73
37) 2,2-dichloropropane	9.260	77	49890	19.54	ug/L	95
38) cis-1,2-dichloroethene	9.234	96	38505	18.90	ug/L	95
39) propionitrile	9.312	54	41903	186.36	ug/L	99
40) tert-butyl formate	9.779	59	26991	17.07	ug/L	94
41) bromochloromethane	9.606	128	18894	18.98	ug/L	94

7.7.13
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\nizele\10_oct\10-14-19\v2d7993-rush\
 Data File : 2d185858.d
 Acq On : 11 Oct 2019 3:34 pm
 Operator : edwardd
 Sample : CC7967-20 Inst : MS2D
 Misc : MS38186,V2D7993,5,,,,1
 ALS Vial : 9 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7967.M
 Quant Results File: M2D7967.RES
 Quant Time: Oct 11 23:42:56 2019
 Quant Title : SW-846 Method 8260C / EPA 624, DB624 60m x 0.25mm Thu Sep 26 10:58:10 2019
 QLast Update : Thu Sep 26 10:58:10 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
42) tetrahydrofuran	9.679	42	8187	16.60	ug/L	98
43) chloroform	9.695	83	62077	17.32	ug/L	98
45) methacrylonitrile	9.559	67	11648	18.20	ug/L	98
46) 1,1,1-trichloroethane	10.026	97	51939	18.27	ug/L	99
47) cyclohexane	10.136	84	47598	19.66	ug/L	95
48) 1,1-dichloropropene	10.256	75	45200	17.85	ug/L	96
49) isobutyl alcohol	10.282	43	12086	172.77	ug/L	97
50) carbon tetrachloride	10.288	117	44978	18.86	ug/L	98
51) tert-amyl alcohol	10.455	73	6022	84.32	ug/L	99
54) benzene	10.581	78	140100	18.64	ug/L	99
55) iso-octane	10.660	57	99442	20.72	ug/L	96
56) tert-amyl methyl ether	10.686	73	100842	19.33	ug/L	99
57) heptane	10.896	57	23355	21.65	ug/L	98
58) isopropyl acetate	10.560	87	6251	18.64	ug/L	# 76
59) 1,2-dichloroethane	10.587	62	47461	16.58	ug/L	99
60) n-butyl alcohol	11.263	56	36770	879.58	ug/L	98
61) ethyl acrylate	11.583	55	37199	18.26	ug/L	98
62) trichloroethene	11.520	130	35449	19.57	ug/L	96
63) 2-nitropropane	12.558	41	5823	15.74	ug/L	96
64) 2-chloroethyl vinyl ether	12.626	63	108308	97.54	ug/L	99
65) methyl methacrylate	11.939	69	20117	19.05	ug/L	89
66) 1,2-dichloropropane	11.861	63	38709	19.34	ug/L	99
67) dibromomethane	12.044	93	22269	19.69	ug/L	95
68) methylcyclohexane	11.840	83	54470	20.60	ug/L	98
69) bromodichloromethane	12.238	83	48131	19.03	ug/L	98
70) epichlorohydrin	12.752	57	14279	96.89	ug/L	96
71) cis-1,3-dichloropropene	12.888	75	59575	20.39	ug/L	95
72) 4-methyl-2-pentanone	13.066	58	48784	81.69	ug/L	93
73) 3-methyl-1-butanol	13.093	55	25686	388.11	ug/L	96
76) toluene	13.392	92	86202	18.49	ug/L	99
77) trans-1,3-dichloropropene	13.654	75	51810	19.47	ug/L	99
78) ethyl methacrylate	13.722	69	39999	18.91	ug/L	97
79) 1,1,2-trichloroethane	13.932	83	27370	19.14	ug/L	97
80) tetrachloroethene	14.178	164	31871	19.75	ug/L	95
81) 1,3-dichloropropane	14.178	76	52922	18.97	ug/L	99
82) 2-hexanone	14.230	58	45288	80.30	ug/L	92
83) butyl acetate	14.372	56	21734	19.61	ug/L	89
84) dibromochloromethane	14.514	129	37249	20.18	ug/L	99
85) 1,2-dibromoethane	14.708	107	36362	19.40	ug/L	95
86) n-butyl ether	15.373	57	157165	19.90	ug/L	99
87) chlorobenzene	15.358	112	103638	19.48	ug/L	97
88) 1,1,1,2-tetrachloroethane	15.442	131	37586	20.12	ug/L	96
89) ethylbenzene	15.468	91	169030	19.07	ug/L	100
90) m,p-xylene	15.620	91	262969	39.12	ug/L	99
91) o-xylene	16.160	106	64763	20.03	ug/L	99
92) styrene	16.170	104	110683	20.44	ug/L	90
93) butyl acrylate	16.003	55	64477	18.24	ug/L	98
94) n-amyl acetate	16.291	70	23168	19.69	ug/L	95
95) bromoform	16.453	173	25341	20.14	ug/L	98
96) isopropylbenzene	16.616	105	162394	19.63	ug/L	98
97) cis-1,4-dichloro-2-butene	16.679	88	10709	15.31	ug/L	98
100) bromobenzene	17.046	156	48945	19.41	ug/L	96
101) 1,1,2,2-tetrachloroethane	16.957	83	43068	18.77	ug/L	100
102) trans-1,4-dichloro-2-b...	17.020	53	8858	15.51	ug/L	90
103) 1,2,3-trichloropropane	17.041	110	10973	19.06	ug/L	# 85
104) n-propylbenzene	17.114	91	195648	19.02	ug/L	99
105) 2-chlorotoluene	17.250	126	43352	19.89	ug/L	99

7.7.13
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\nizele\10_oct\10-14-19\v2d7993-rush\
 Data File : 2d185858.d
 Acq On : 11 Oct 2019 3:34 pm
 Operator : edwardd
 Sample : CC7967-20 Inst : MS2D
 Misc : MS38186,V2D7993,5,,,,,1
 ALS Vial : 9 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7967.M
 Quant Results File: M2D7967.RES
 Quant Time: Oct 11 23:42:56 2019
 Quant Title : SW-846 Method 8260C / EPA 624, DB624 60m x 0.25mm Thu Sep 26 10:58:10 2019
 QLast Update : Thu Sep 26 10:58:10 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
106) 4-chlorotoluene	17.366	91	121467	18.99	ug/L	98
107) 1,3,5-trimethylbenzene	17.298	105	139543	19.50	ug/L	99
108) tert-butylbenzene	17.680	119	115865	19.38	ug/L	99
109) 1,2,4-trimethylbenzene	17.728	105	142943	19.73	ug/L	99
110) sec-butylbenzene	17.916	105	171031	19.40	ug/L	99
111) 1,3-dichlorobenzene	18.074	146	89660	19.82	ug/L	99
112) p-isopropyltoluene	18.053	119	146659	19.90	ug/L	98
113) 1,4-dichlorobenzene	18.163	146	90002	18.94	ug/L	98
114) 1,2-dichlorobenzene	18.551	146	87820	19.79	ug/L	99
115) benzyl chloride	18.283	91	77808	21.93	ug/L	99
116) n-butylbenzene	18.467	92	71644	19.55	ug/L	98
117) 1,2-dibromo-3-chloropr...	19.274	157	8163	19.11	ug/L	94
118) nitrobenzene	19.468	77	1005	15.97	ug/L	100
119) 1,3,5-trichlorobenzene	19.463	180	68747	21.00	ug/L	98
120) hexachlorobutadiene	20.155	225	31192	20.63	ug/L	98
121) naphthalene	20.281	128	103938	18.26	ug/L	100
122) 2-ethylhexyl acrylate	20.055	70	2074	2.43	ug/L	91
123) 1,2,4-trichlorobenzene	20.034	180	55478	20.18	ug/L	98
124) 1,2,3-trichlorobenzene	20.496	180	49285	19.53	ug/L	99
125) hexachloroethane	18.808	201	27234	20.51	ug/L	95
126) 2-methylnaphthalene	21.324	142	14572	7.34	ug/L	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

7.7.13

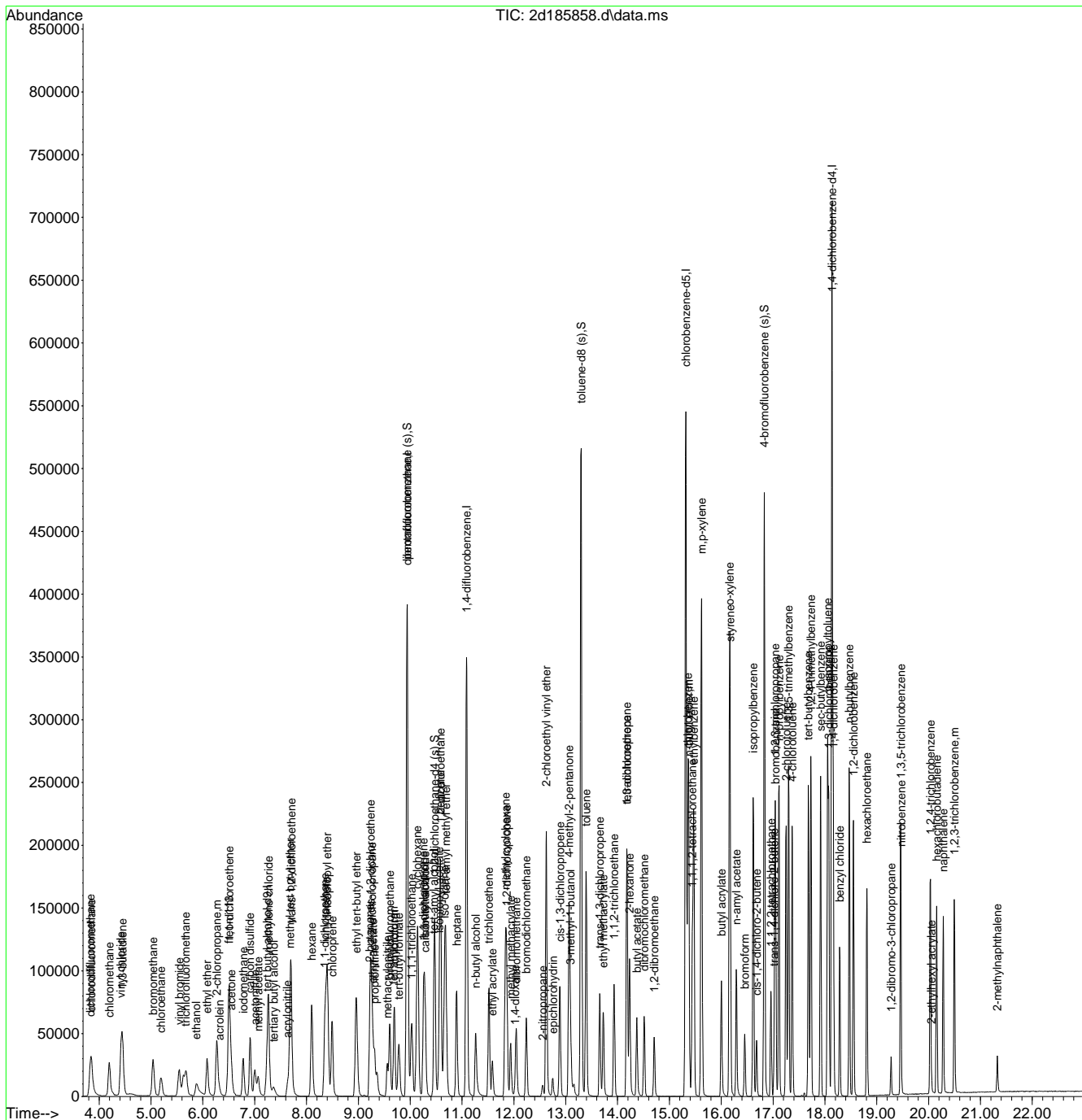
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\nizele\10_oct\10-14-19\v2d7993-rush\
 Data File : 2d185858.d
 Acq On : 11 Oct 2019 3:34 pm
 Operator : edwardd
 Sample : CC7967-20
 Misc : MS38186,V2D7993,5,,,,,1
 ALS Vial : 9 Sample Multiplier: 1

Inst : MS2D

Quant Method : C:\msdchem\1\METHODS\M2D7967.M
 Quant Results File: M2D7967.RES
 Quant Time: Oct 11 23:42:56 2019
 Quant Title : SW-846 Method 8260C / EPA 624, DB624 60m x 0.25mm Thu Sep 26 10:58:10 2019
 QLast Update : Thu Sep 26 10:58:10 2019
 Response via : Initial Calibration



7.7.13
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\10-18-19\v2d8000\
 Data File : 2d186005.d
 Acq On : 17 Oct 2019 8:07 am
 Operator : deving
 Sample : CC7967-20 Inst : MS2D
 Misc : MS38297,V2D8000,5,,,,1
 ALS Vial : 1 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7967.M
 Quant Results File: M2D7967.RES
 Quant Time: Oct 17 08:31:46 2019
 Quant Title : SW-846 Method 8260C / EPA 624, DB624 60m x 0.25mm Thu Sep 26 10:58:10 2019
 QLast Update : Thu Sep 26 10:58:10 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.263	65	79511	500.00	ug/L	0.00
5) pentafluorobenzene	9.973	168	245534	50.00	ug/L	0.02
52) 1,4-difluorobenzene	11.122	114	358101	50.00	ug/L	0.02
74) chlorobenzene-d5	15.347	117	346379	50.00	ug/L	0.02
98) 1,4-dichlorobenzene-d4	18.163	152	188568	50.00	ug/L	0.02
System Monitoring Compounds						
44) dibromofluoromethane (s)	9.968	113	106187	45.76	ug/L	0.02
Spiked Amount	50.000	Range	80 - 120	Recovery	=	91.52%
53) 1,2-dichloroethane-d4 (s)	10.503	65	111604	43.57	ug/L	0.02
Spiked Amount	50.000	Range	81 - 124	Recovery	=	87.14%
75) toluene-d8 (s)	13.324	98	409737	47.14	ug/L	0.02
Spiked Amount	50.000	Range	80 - 120	Recovery	=	94.28%
99) 4-bromofluorobenzene (s)	16.857	95	158511	46.42	ug/L	0.02
Spiked Amount	50.000	Range	80 - 120	Recovery	=	92.84%
Target Compounds						
2) tertiary butyl alcohol	7.404	59	16539	107.32	ug/L	97
3) ethanol	5.905	45	31683	1654.76	ug/L	96
4) 1,4-dioxane	12.060	88	8111	517.58	ug/L	90
6) chlorodifluoromethane	3.870	51	54182	20.12	ug/L	97
7) dichlorodifluoromethane	3.849	85	54481	25.47	ug/L	99
8) chloromethane	4.216	50	59379	18.64	ug/L	99
9) vinyl chloride	4.442	62	59813	19.97	ug/L	99
10) 1,3-butadiene	4.468	54	41906	21.80	ug/L	91
11) bromomethane	5.061	94	38853	18.86	ug/L	98
12) chloroethane	5.223	64	28174	19.43	ug/L	100
13) trichlorofluoromethane	5.700	101	59282	20.58	ug/L	98
14) vinyl bromide	5.569	106	31695	20.23	ug/L	99
15) ethyl ether	6.114	74	19404	18.33	ug/L	90
16) acrolein	6.345	56	5561	19.22	ug/L	98
17) 1,1-dichloroethene	6.534	96	35697	20.37	ug/L	86
18) freon 113	6.534	151	11314	22.95	ug/L	95
19) 2-chloropropane	6.298	43	65269	16.52	ug/L	95
20) acetone	6.576	58	10598	69.01	ug/L	# 84
21) acetonitrile	7.027	41	42010	182.08	ug/L	99
22) iodomethane	6.807	142	54426	21.24	ug/L	99
23) carbon disulfide	6.943	76	100925	19.86	ug/L	97
24) methylene chloride	7.294	84	42679	20.17	ug/L	95
25) methyl acetate	7.095	43	24946	17.92	ug/L	95
26) methyl tert butyl ether	7.719	73	101419	20.86	ug/L	98
27) trans-1,2-dichloroethene	7.729	96	39774	21.70	ug/L	94
28) hexane	8.133	57	54678	22.52	ug/L	97
29) di-isopropyl ether	8.432	45	134859	19.17	ug/L	98
30) 2-butanone	9.245	72	13782	84.05	ug/L	# 84
31) 1,1-dichloroethane	8.385	63	72972	19.99	ug/L	97
32) chloroprene	8.526	53	56323	19.68	ug/L	94
33) acrylonitrile	7.656	53	13375	20.71	ug/L	93
34) vinyl acetate	8.406	86	6355	19.17	ug/L	# 84
35) ethyl tert-butyl ether	8.993	59	117715	19.94	ug/L	97
36) ethyl acetate	9.307	45	5190	20.19	ug/L	# 76
37) 2,2-dichloropropane	9.292	77	57962	22.19	ug/L	92
38) cis-1,2-dichloroethene	9.266	96	43657	20.94	ug/L	93
39) propionitrile	9.344	54	47720	207.42	ug/L	99
40) tert-butyl formate	9.816	59	27004	16.69	ug/L	96
41) bromochloromethane	9.638	128	21592	21.20	ug/L	91

7.7.14
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\10-18-19\v2d8000\
 Data File : 2d186005.d
 Acq On : 17 Oct 2019 8:07 am
 Operator : deving
 Sample : CC7967-20 Inst : MS2D
 Misc : MS38297,V2D8000,5,,,,1
 ALS Vial : 1 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7967.M
 Quant Results File: M2D7967.RES
 Quant Time: Oct 17 08:31:46 2019
 Quant Title : SW-846 Method 8260C / EPA 624, DB624 60m x 0.25mm Thu Sep 26 10:58:10 2019
 QLast Update : Thu Sep 26 10:58:10 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
42) tetrahydrofuran	9.711	42	9425	18.68	ug/L	99
43) chloroform	9.727	83	69279	18.89	ug/L	97
45) methacrylonitrile	9.585	67	13296	20.31	ug/L	95
46) 1,1,1-trichloroethane	10.062	97	59802	20.55	ug/L	99
47) cyclohexane	10.167	84	54961	22.19	ug/L	95
48) 1,1-dichloropropene	10.288	75	51540	19.89	ug/L	96
49) isobutyl alcohol	10.314	43	13642	190.59	ug/L	98
50) carbon tetrachloride	10.319	117	53379	21.87	ug/L	98
51) tert-amyl alcohol	10.487	73	6982	95.54	ug/L	97
54) benzene	10.618	78	159110	20.78	ug/L	100
55) iso-octane	10.697	57	113241	23.16	ug/L	98
56) tert-amyl methyl ether	10.718	73	112600	21.19	ug/L	99
57) heptane	10.928	57	25873	23.55	ug/L	97
58) isopropyl acetate	10.587	87	7438	21.78	ug/L	# 63
59) 1,2-dichloroethane	10.618	62	51364	17.62	ug/L	96
60) n-butyl alcohol	11.295	56	42515	998.49	ug/L	97
61) ethyl acrylate	11.614	55	42885	20.66	ug/L	97
62) trichloroethene	11.551	130	41063	22.26	ug/L	97
63) 2-nitropropane	12.584	41	6639	17.62	ug/L	93
64) 2-chloroethyl vinyl ether	12.658	63	114098	100.88	ug/L	98
65) methyl methacrylate	11.971	69	23312	21.68	ug/L	88
66) 1,2-dichloropropane	11.898	63	41910	20.56	ug/L	96
67) dibromomethane	12.076	93	24920	21.63	ug/L	92
68) methylcyclohexane	11.871	83	63687	23.65	ug/L	97
69) bromodichloromethane	12.270	83	52638	20.44	ug/L	96
70) epichlorohydrin	12.784	57	16187	107.84	ug/L	93
71) cis-1,3-dichloropropene	12.920	75	65377	21.97	ug/L	94
72) 4-methyl-2-pentanone	13.098	58	56523	92.93	ug/L	93
73) 3-methyl-1-butanol	13.124	55	29202	433.20	ug/L	97
76) toluene	13.423	92	98745	20.51	ug/L	100
77) trans-1,3-dichloropropene	13.685	75	56447	20.55	ug/L	98
78) ethyl methacrylate	13.754	69	45868	21.00	ug/L	95
79) 1,1,2-trichloroethane	13.963	83	30982	20.98	ug/L	95
80) tetrachloroethene	14.210	164	37346	22.41	ug/L	98
81) 1,3-dichloropropane	14.210	76	59383	20.62	ug/L	97
82) 2-hexanone	14.262	58	51133	87.80	ug/L	93
83) butyl acetate	14.398	56	24637	21.53	ug/L	94
84) dibromochloromethane	14.545	129	40921	21.47	ug/L	100
85) 1,2-dibromoethane	14.739	107	42192	21.80	ug/L	98
86) n-butyl ether	15.405	57	173209	21.24	ug/L	100
87) chlorobenzene	15.389	112	117629	21.41	ug/L	98
88) 1,1,1,2-tetrachloroethane	15.473	131	42326	21.95	ug/L	98
89) ethylbenzene	15.499	91	194786	21.29	ug/L	99
90) m,p-xylene	15.646	91	301695	43.46	ug/L	98
91) o-xylene	16.186	106	74910	22.44	ug/L	99
92) styrene	16.202	104	123833	22.14	ug/L	89
93) butyl acrylate	16.029	55	72362	19.83	ug/L	98
94) n-amyl acetate	16.317	70	26534	21.84	ug/L	90
95) bromoform	16.485	173	28982	22.31	ug/L	95
96) isopropylbenzene	16.648	105	189300	22.16	ug/L	98
97) cis-1,4-dichloro-2-butene	16.711	88	11546	15.98	ug/L	96
100) bromobenzene	17.072	156	55731	21.33	ug/L	96
101) 1,1,2,2-tetrachloroethane	16.983	83	49098	20.65	ug/L	100
102) trans-1,4-dichloro-2-b...	17.051	53	9507	16.07	ug/L	# 63
103) 1,2,3-trichloropropane	17.067	110	12676	21.26	ug/L	91
104) n-propylbenzene	17.141	91	226409	21.25	ug/L	98
105) 2-chlorotoluene	17.277	126	50018	22.15	ug/L	93

7.7.14
7



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\10-18-19\v2d8000\
 Data File : 2d186005.d
 Acq On : 17 Oct 2019 8:07 am
 Operator : deving
 Sample : CC7967-20 Inst : MS2D
 Misc : MS38297,V2D8000,5,,,,,1
 ALS Vial : 1 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7967.M
 Quant Results File: M2D7967.RES
 Quant Time: Oct 17 08:31:46 2019
 Quant Title : SW-846 Method 8260C / EPA 624, DB624 60m x 0.25mm Thu Sep 26 10:58:10 2019
 QLast Update : Thu Sep 26 10:58:10 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
106) 4-chlorotoluene	17.392	91	137478	20.75	ug/L	99
107) 1,3,5-trimethylbenzene	17.324	105	160847	21.69	ug/L	100
108) tert-butylbenzene	17.707	119	135872	21.94	ug/L	97
109) 1,2,4-trimethylbenzene	17.754	105	163379	21.77	ug/L	98
110) sec-butylbenzene	17.943	105	201130	22.02	ug/L	99
111) 1,3-dichlorobenzene	18.100	146	99937	21.33	ug/L	99
112) p-isopropyltoluene	18.074	119	172246	22.55	ug/L	98
113) 1,4-dichlorobenzene	18.189	146	100857	20.49	ug/L	99
114) 1,2-dichlorobenzene	18.577	146	99286	21.60	ug/L	99
115) benzyl chloride	18.310	91	88721	24.13	ug/L	100
116) n-butylbenzene	18.493	92	82911	21.83	ug/L	97
117) 1,2-dibromo-3-chloropr...	19.301	157	9753	22.04	ug/L	98
118) nitrobenzene	19.495	77	1278	19.60	ug/L	86
119) 1,3,5-trichlorobenzene	19.484	180	77925	22.98	ug/L	100
120) hexachlorobutadiene	20.182	225	36257	23.15	ug/L	96
121) naphthalene	20.307	128	120223	20.39	ug/L	99
122) 2-ethylhexyl acrylate	20.077	70	2093	2.40	ug/L	91
123) 1,2,4-trichlorobenzene	20.061	180	61900	21.74	ug/L	98
124) 1,2,3-trichlorobenzene	20.522	180	55071	21.07	ug/L	98
125) hexachloroethane	18.834	201	32053	23.30	ug/L	98
126) 2-methylnaphthalene	21.356	142	16595	7.77	ug/L	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

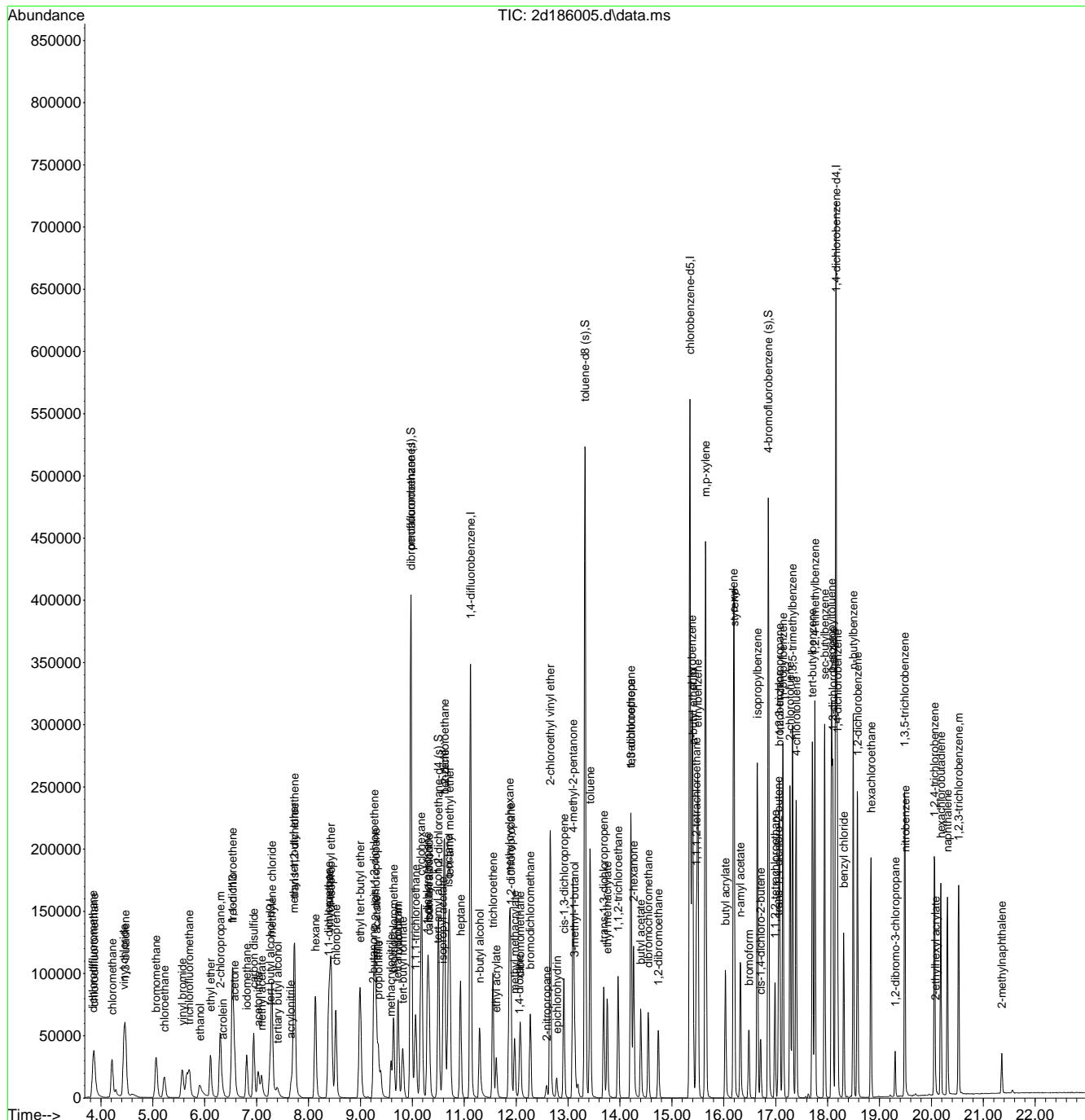
7.7.14

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janelac\10-18-19\v2d8000\
 Data File : 2d186005.d
 Acq On : 17 Oct 2019 8:07 am
 Operator : deving
 Sample : CC7967-20 Inst : MS2D
 Misc : MS38297,V2D8000,5,,,,,1
 ALS Vial : 1 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7967.M
 Quant Results File: M2D7967.RES
 Quant Time: Oct 17 08:31:46 2019
 Quant Title : SW-846 Method 8260C / EPA 624, DB624 60m x 0.25mm Thu Sep 26 10:58:10 2019
 QLast Update : Thu Sep 26 10:58:10 2019
 Response via : Initial Calibration



7.7.14
7



GCMS Volatile Run Log

Standard / Reagents		Lot #		Column
Standards	ABK: V019-2688-22.8	EC: V019-2688-24.12	Acrolein: V019-2659-135.4	DB-624(60mX0.25mmX1.4um)
Standard Concentration	100-10,000ppm	100ppm	100ppm	V8260C
Expiration Date	10/23/19	10/01/2019	09/29/2019	09/25/2019
Standards	Ext. ABK: V019-2659-138.7	Ext. EC: V019-2688-18.2	Ext. Acrolein: V019-2659-135.4	
Standard Concentration	100-10,000ppm	100ppm	100ppm	Analysis Date
Expiration Date	10/03/2019	09/26/2019	10/03/2019	Sequence loaded by
Internal Surrogate	V019-2688-014			Brittany Klimek
Internal Surrogate Concentration	250/2,500ppm			Data processed by
Expiration Date	10/17/2019			Robert Szot
Initial Calibration Method	M2D7967			Batch ID
pH Paper Lot#	217518			V2D7967
				Matrix
				AQ
				Approved By:
				KANYAV
				Approved Date:
				9/26/2019 11:17:11 PM

Data File	Sample ID	Bot #	Dil	Workgroup #	Test	Purge Vol (ml)	CL	pH	ALS #	Status	Comments
2D 185346	BFB		NA			5			1	ok	9/25/19; 6:09PM.
2D 185347	IC7967-0.2		NA		AQ Initial Calibration	5			2	ok	1 uL ABK, EC, Acrolein/500mL DI H2O.
2D 185348	IC7967-0.5		NA		AQ Initial Calibration	5			3	ok	2.5 uL ABK, EC, Acrolein/500mL DI H2O.
2D 185349	IC7967-1		NA		AQ Initial Calibration	5			4	ok	5 uL ABK, EC, Acrolein/500mL DI H2O.
2D 185350	IC7967-2		NA		AQ Initial Calibration	5			5	ok	2uL ABK, EC, Acrolein/100mL DI H2O.
2D 185351	IC7967-4		NA		AQ Initial Calibration	5			6	ok	4uL ABK, EC, Acrolein/100mL DI H2O.
2D 185352	IC7967-8		NA		AQ Initial Calibration	5			7	ok	8uL ABK, EC, Acrolein/100mL DI H2O.
2D 185353	IC7967-20		NA		AQ Initial Calibration	5			8	ok	20uL ABK, EC, Acrolein/100mL DI H2O.
2D 185354	ICC7967-50		NA		AQ Initial Calibration	5			9	ok	50uL ABK, EC, Acrolein/100mL DI H2O.
2D 185355	IC7967-100		NA		AQ Initial Calibration	5			10	ok	100uL ABK, EC, Acrolein/100mL DI H2O.
2D 185356	IC7967-200		NA		AQ Initial Calibration	5			11	ok	200uL ABK, EC, Acrolein/100mL DI H2O.

OR048-01

Rev Date: 12/18/2017

Page 1 of 2

Data File	Sample ID	Bot #	Dil	Workgroup #	Test	Purge Vol (ml)	CL	pH	ALS #	Status	Comments
2D 185357	IB		NA			5			12	ok	
2D 185358	IB		NA			5			13	ok	
2D 185359	ICV7967-50		NA		AQ Initial Calibration	5			14	ok	50µL Ext. ABK, EC, Acrolein/100mL D H2O.
2D 185360	ICV7967-50		NA		AQ Initial Calibration	5			15	ok	50µL Ext. PA/100mL DI H2O.
2D 185361	IB		NA			5			16	ok	

GCMS Volatile Run Log

Standard / Reagents		Lot #		Column
Standards	ABK: V019-2688-22.49	EC: V019-2688-42.6	Acrolein: V019-2688-32.2	Rxi-624(30mx0.25mmx1.4um)
Standard Concentration	100-10,000ppm	100ppm	100ppm	v8260c
Expiration Date	10/23/2019	10/17/2019	10/27/2019	09/16/2019
Internal Surrogate	V019-2688-25			
Internal Surrogate Concentration	250/2500ppm			
Expiration Date	10/26/2019			10/11/2019
				Edward Durner
				nizele/janellec
				V2D7993
				AQ
Rough review by				MEI
Initial Calibration Method	M2D7967			10/16/2019 1:57:46 PM
pH Paper Lot#	204518			

Data File	Sample ID	Bot #	Dil	Workgroup #	Test	Purge Vol (ml)	CL	pH	ALS #	Status	Comments
2D 185850	CC7967-20		NA			5			1	ng	20ul abk.ec.acrolein/100ml
2D 185851	IB		NA			5			2	ok	
2D 185852	IB		NA			5			3	ok	
2D 185853	CC7967-20		NA			5			4	NG	20ul abk.ec.acrolein/100ml
2D 185854	BS		NA			5			5	ng	50ul abk.ec.acrolein/100ml
2D 185855	IB		NA			5			6	ok	
2D 185856	IB		NA			5			7	ok	
2D 185857	BFB/CC7967-20		NA			5			8	ok/ok	20ul abk.ec.acrolein/100ml, 3:05pm
2D 185858	BFB/CC7967-20		NA			5			9	ok	20ul abk.ec.acrolein/100ml
2D 185859	BS		NA			5			10	ok	50ul abk.ec.acrolein/100ml
2D 185860	IB		NA			5			11	ok	

Data File	Sample ID	Bot #	Dil	Workgroup #	Test	Purge Vol (ml)	CL	pH	ALS #	Status	Comments
2D 185861	MB		NA			5			12	ok	
2D 185862	JC96248-4	27	NA	MS38188	V8260TCL20	5		1	13	ok	
2D 185863	JC96248-4MS	28	NA	MS38188	V8260TCL20	5		1	14	ok	20ul abk.ec.acrolein/40ml
2D 185864	JC96248-4MSD	29	NA	MS38188	V8260TCL20	5		1	15	ok	20ul abk.ec.acrolein/40ml
2D 185865	JC96248-4	27	10	MS38188	V8260TCL20	5/50		1	16	ok	
2D 185866	JC96206-5	1	NA	MS38188	V8260TCL20+	5		1	17	ok	rr 1x c/o
2D 185867	JC96206-6	1	NA	MS38188	V8260TCL20+	5		1	18	ok	rr 1x c/o
2D 185868	JC96248-8	9	NA	MS38188	V8260TCL20	5		1	19	ok	rr 1x c/o
2D 185869	JC96248-9	2	NA	MS38188	V8260TCL20	5		1	20	ok	rr 1x c/o
2D 185870	JC96206-1	1	NA	MS38188	V8260TCL20+	5		1	21	ok	rr 1x c/o
2D 185871	JC96206-2	1	NA	MS38188	V8260TCL20+	5		1	22	ok	rr 1x/co
2D 185872	JC96206-3	1	NA	MS38188	V8260TCL20+	5		1	23	ok	
2D 185873	JC96206-4	1	NA	MS38188	V8260TCL20+	5		1	24	ok	
2D 185874	JC96248-1	8	NA	MS38188	V8260TCL20	5		1	25	ok	
2D 185875	JC96248-2	7	NA	MS38188	V8260TCL20	5		1	26	ok	
2D 185876	JC96248-3	7	NA	MS38188	V8260TCL20	5		1	27	ok	
2D 185877	JC96248-5	7	NA	MS38188	V8260TCL20	5		1	28	ok	
2D 185878	JC96248-6	8	NA	MS38188	V8260TCL20	5		1	29	ok	
2D 185879	JC96248-7	8	NA	MS38188	V8260TCL20	5		1	30	ok	1:59am

GCMS Volatile Run Log

Standard / Reagents		Lot #	
Standard	ABK: V019-2688-22.58	EC: V019-2688-42.7	Acrolein: V019-2688-32.3
Standard Concentration	100-10,000ppm	100ppm	100ppm
Expiration Date	10/23/2019	10/17/2019	10/27/2019
Internal Surrogate	V019-2688-46		
Internal Surrogate Concentration	250/2,500ppm		
Expiration Date	11/10/2019		
Rough review by	Krizhka 10/17, 10/18		
Initial Calibration Method	M2D7967		
pH Paper Lot#	217518		
Column	DB-624(60m)x0.25mmx1.4um)		
Method	V8260C		
Init Calib Date	9/25/2019		
Analysis Date	10/17/2019		
Sequence loaded by	Krizhka Cuenta		
Data processed by	janellec		
Batch ID	V2D8000		
Matrix	AQ		
Approved By:	KANYAV		
Approved Date:	10/18/2019 5:46:46 PM		

Data File	Sample ID	Bot #	Dil	Workgroup #	Test	Purge Vol (ml)	CL	pH	ALS #	Status	Comments
2D 186005	BFB/CC7967-20		NA			5			1	OK/OK	20uL ABK, EC, Acrolein/100mL (8:07 am) #7 high
2D 186006	BS		NA			5			2	OK	50uL ABK, EC, Acrolein/100mL
2D 186007	IB		NA			5			3	OK	
2D 186008	MB		NA			5			4	OK	
2D 186009	JC96248-8	8	NA	MS38188	V8260TCL20	5		1	5	OK	
2D 186010	JC96248-9	1	NA	MS38188	V8260TCL20	5		1	6	OK	
2D 186011	JC96538-1	4	NA	MS38298	V8260TCL, 124TMB, CHEX, CUME, HEX,	5		1	7	OK	
2D 186012	JC96552-1	1	NA	MS38298	V8260MDVO, VLS	5		1	8	OK	DO NOT REPORT EPA TCL COMPOUNDS AS TICS.
2D 186013	JC96552-2	1	NA	MS38298	V8260MDVO, VLS	5		1	9	OK	DO NOT REPORT EPA TCL COMPOUNDS AS TICS.
2D 186014	JC96678-1	1	25X	MS38373	V8260TCL20+	2/50		1	10	OK	
2D 186015	JC96678-1	1	2.5X	MS38373	V8260TCL20+	20/50		1	11	OK	+2D186014



Data File	Sample ID	Bot #	Dil	Workgroup #	Test	Purge Vol (ml)	CL	pH	ALS #	Status	Comments
2D 186016	JC96678-23	1	10X	MS38373	V8260TCL20+	5/50		1	12	OK	+2D185979
2D 186017	JC96678-24	1	10X	MS38373	V8260TCL20+	5/50		1	13	OK	+2D185980
2D 186018	JC96678-10	2	10X	MS38373	V8260TCL20+	5/50		1	14	OK	+2D185948
2D 186019	JC96538-1MS	5	NA	MS38298	V8260TCL, 124TMB, CHEX, CUME, HEX,	5		1	15	OK	20ul ABK, EC, Acrolein/40mL
2D 186020	JC96678-3	1	10X	MS38373	V8260TCL20+	5/50		1	16	OK	+2D185944
2D 186021	JC96552-2DUP	2	NA	MS38298	V8260MDVO, VLS	5		1	17	OK	DO NOT REPORT EPA TCL COMPOUNDS AS TICS.
2D 186022	JC96564-1	11	NA	MS38307	V8260TCL20+	5		1	18	OK	
2D 186023	JC96564-12	1	NA	MS38307	V8260TCL20+	5		1	19	OK	
2D 186024	JC96839-6	3	NA	MS38422	V8260TCL20	5		1	20	OK	
2D 186025	JC96620-1	3	NA	MS38298	V8260TCL20+	5		1	21	OK	
2D 186026	JC96620-2	3	NA	MS38298	V8260TCL20+	5		1	22	OK	
2D 186027	JC96620-3	3	NA	MS38298	V8260TCL20+	5		1	23	OK	7:24PM

MS Semi-volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Instrument Performance Checks (DFTPP)
- Internal Standard Area Summaries
- Surrogate Recovery Summaries
- Initial and Continuing Calibration Summaries
- Run Sequence Reports

Method Blank Summary

Job Number: JC96248
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP23230-MB1	M160202.D	1	10/10/19	HSS	10/09/19	OP23230	EM6780

The QC reported here applies to the following samples:

Method: SW846 8270D

JC96248-4, JC96248-5, JC96248-6, JC96248-7, JC96248-8

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	5.0	0.82	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	5.0	0.89	ug/l	
120-83-2	2,4-Dichlorophenol	ND	2.0	1.3	ug/l	
105-67-9	2,4-Dimethylphenol	ND	5.0	2.4	ug/l	
51-28-5	2,4-Dinitrophenol	ND	5.0	1.6	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	5.0	1.3	ug/l	
95-48-7	2-Methylphenol	ND	2.0	0.89	ug/l	
	3&4-Methylphenol	ND	2.0	0.88	ug/l	
88-75-5	2-Nitrophenol	ND	5.0	0.96	ug/l	
100-02-7	4-Nitrophenol	ND	10	1.2	ug/l	
87-86-5	Pentachlorophenol	ND	4.0	1.4	ug/l	
108-95-2	Phenol	ND	2.0	0.39	ug/l	
58-90-2	2,3,4,6-Tetrachlorophenol	ND	5.0	1.5	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	5.0	1.3	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	5.0	0.92	ug/l	
83-32-9	Acenaphthene	ND	1.0	0.19	ug/l	
208-96-8	Acenaphthylene	ND	1.0	0.14	ug/l	
98-86-2	Acetophenone	ND	2.0	0.21	ug/l	
120-12-7	Anthracene	ND	1.0	0.21	ug/l	
1912-24-9	Atrazine	ND	2.0	0.45	ug/l	
100-52-7	Benzaldehyde	ND	5.0	0.29	ug/l	
56-55-3	Benzo(a)anthracene	ND	1.0	0.20	ug/l	
50-32-8	Benzo(a)pyrene	ND	1.0	0.21	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	1.0	0.21	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	1.0	0.34	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	1.0	0.21	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	2.0	0.40	ug/l	
85-68-7	Butyl benzyl phthalate	ND	2.0	0.46	ug/l	
92-52-4	1,1'-Biphenyl	ND	1.0	0.21	ug/l	
91-58-7	2-Chloronaphthalene	ND	2.0	0.24	ug/l	
106-47-8	4-Chloroaniline	ND	5.0	0.34	ug/l	
86-74-8	Carbazole	ND	1.0	0.23	ug/l	
105-60-2	Caprolactam	ND	2.0	0.65	ug/l	
218-01-9	Chrysene	ND	1.0	0.18	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	2.0	0.28	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	2.0	0.25	ug/l	

Method Blank Summary

Job Number: JC96248
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP23230-MB1	M160202.D	1	10/10/19	HSS	10/09/19	OP23230	EM6780

The QC reported here applies to the following samples:

Method: SW846 8270D

JC96248-4, JC96248-5, JC96248-6, JC96248-7, JC96248-8

CAS No.	Compound	Result	RL	MDL	Units	Q
108-60-1	2,2'-Oxybis(1-chloropropane)	ND	2.0	0.40	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	2.0	0.37	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	1.0	0.55	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	1.0	0.48	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	2.0	0.51	ug/l	
123-91-1	1,4-Dioxane	ND	1.0	0.66	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	1.0	0.33	ug/l	
132-64-9	Dibenzofuran	ND	5.0	0.22	ug/l	
84-74-2	Di-n-butyl phthalate	ND	2.0	0.50	ug/l	
117-84-0	Di-n-octyl phthalate	ND	2.0	0.23	ug/l	
84-66-2	Diethyl phthalate	ND	2.0	0.26	ug/l	
131-11-3	Dimethyl phthalate	ND	2.0	0.22	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.0	1.7	ug/l	
206-44-0	Fluoranthene	ND	1.0	0.17	ug/l	
86-73-7	Fluorene	ND	1.0	0.17	ug/l	
118-74-1	Hexachlorobenzene	ND	1.0	0.33	ug/l	
87-68-3	Hexachlorobutadiene	ND	1.0	0.49	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	10	2.8	ug/l	
67-72-1	Hexachloroethane	ND	2.0	0.39	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	1.0	0.33	ug/l	
78-59-1	Isophorone	ND	2.0	0.28	ug/l	
91-57-6	2-Methylnaphthalene	ND	1.0	0.21	ug/l	
88-74-4	2-Nitroaniline	ND	5.0	0.28	ug/l	
99-09-2	3-Nitroaniline	ND	5.0	0.39	ug/l	
100-01-6	4-Nitroaniline	ND	5.0	0.44	ug/l	
91-20-3	Naphthalene	0.57	1.0	0.23	ug/l	J
98-95-3	Nitrobenzene	ND	2.0	0.64	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	2.0	0.48	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.0	0.22	ug/l	
85-01-8	Phenanthrene	ND	1.0	0.18	ug/l	
129-00-0	Pyrene	ND	1.0	0.22	ug/l	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	2.0	0.37	ug/l	

8.1.1
8

Method Blank Summary

Job Number: JC96248
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP23230-MB1	M160202.D	1	10/10/19	HSS	10/09/19	OP23230	EM6780

The QC reported here applies to the following samples:

Method: SW846 8270D

JC96248-4, JC96248-5, JC96248-6, JC96248-7, JC96248-8

CAS No.	Surrogate Recoveries	Limits
367-12-4	2-Fluorophenol	25% 10-110%
4165-62-2	Phenol-d5	18% 10-110%
118-79-6	2,4,6-Tribromophenol	78% 36-151%
4165-60-0	Nitrobenzene-d5	62% 34-128%
321-60-8	2-Fluorobiphenyl	61% 38-119%
1718-51-0	Terphenyl-d14	71% 26-129%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Internal Standards for SIM Test	4.49	4.4	ug/l	J
	unknown acid	5.05	8.5	ug/l	J
	Internal Standards for SIM Test	6.26	4.9	ug/l	J
	Internal Standards for SIM Test	8.44	4.6	ug/l	J
	Internal Standards for SIM Test	12.39	5	ug/l	J
	Internal Standards for SIM Test	17.67	5.2	ug/l	J
	Total TIC, Semi-Volatile		8.5	ug/l	J

8.1.1

8

Method Blank Summary

Job Number: JC96248
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP23204-MB1	M160234.D	1	10/11/19	HSS	10/10/19	OP23204	EM6781

The QC reported here applies to the following samples:

Method: SW846 8270D

JC96248-1, JC96248-2, JC96248-3

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	5.0	0.82	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	5.0	0.89	ug/l	
120-83-2	2,4-Dichlorophenol	ND	2.0	1.3	ug/l	
105-67-9	2,4-Dimethylphenol	ND	5.0	2.4	ug/l	
51-28-5	2,4-Dinitrophenol	ND	5.0	1.6	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	5.0	1.3	ug/l	
95-48-7	2-Methylphenol	ND	2.0	0.89	ug/l	
	3&4-Methylphenol	ND	2.0	0.88	ug/l	
88-75-5	2-Nitrophenol	ND	5.0	0.96	ug/l	
100-02-7	4-Nitrophenol	ND	10	1.2	ug/l	
87-86-5	Pentachlorophenol	ND	4.0	1.4	ug/l	
108-95-2	Phenol	ND	2.0	0.39	ug/l	
58-90-2	2,3,4,6-Tetrachlorophenol	ND	5.0	1.5	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	5.0	1.3	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	5.0	0.92	ug/l	
83-32-9	Acenaphthene	ND	1.0	0.19	ug/l	
208-96-8	Acenaphthylene	ND	1.0	0.14	ug/l	
98-86-2	Acetophenone	ND	2.0	0.21	ug/l	
120-12-7	Anthracene	ND	1.0	0.21	ug/l	
1912-24-9	Atrazine	ND	2.0	0.45	ug/l	
100-52-7	Benzaldehyde	ND	5.0	0.29	ug/l	
56-55-3	Benzo(a)anthracene	ND	1.0	0.20	ug/l	
50-32-8	Benzo(a)pyrene	ND	1.0	0.21	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	1.0	0.21	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	1.0	0.34	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	1.0	0.21	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	2.0	0.40	ug/l	
85-68-7	Butyl benzyl phthalate	ND	2.0	0.46	ug/l	
92-52-4	1,1'-Biphenyl	ND	1.0	0.21	ug/l	
91-58-7	2-Chloronaphthalene	ND	2.0	0.24	ug/l	
106-47-8	4-Chloroaniline	ND	5.0	0.34	ug/l	
86-74-8	Carbazole	ND	1.0	0.23	ug/l	
105-60-2	Caprolactam	ND	2.0	0.65	ug/l	
218-01-9	Chrysene	ND	1.0	0.18	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	2.0	0.28	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	2.0	0.25	ug/l	

Method Blank Summary

Job Number: JC96248
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP23204-MB1	M160234.D	1	10/11/19	HSS	10/10/19	OP23204	EM6781

The QC reported here applies to the following samples:

Method: SW846 8270D

JC96248-1, JC96248-2, JC96248-3

CAS No.	Compound	Result	RL	MDL	Units	Q
108-60-1	2,2'-Oxybis(1-chloropropane)	ND	2.0	0.40	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	2.0	0.37	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	1.0	0.55	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	1.0	0.48	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	2.0	0.51	ug/l	
123-91-1	1,4-Dioxane	ND	1.0	0.66	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	1.0	0.33	ug/l	
132-64-9	Dibenzofuran	ND	5.0	0.22	ug/l	
84-74-2	Di-n-butyl phthalate	ND	2.0	0.50	ug/l	
117-84-0	Di-n-octyl phthalate	ND	2.0	0.23	ug/l	
84-66-2	Diethyl phthalate	ND	2.0	0.26	ug/l	
131-11-3	Dimethyl phthalate	ND	2.0	0.22	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.0	1.7	ug/l	
206-44-0	Fluoranthene	ND	1.0	0.17	ug/l	
86-73-7	Fluorene	ND	1.0	0.17	ug/l	
118-74-1	Hexachlorobenzene	ND	1.0	0.33	ug/l	
87-68-3	Hexachlorobutadiene	ND	1.0	0.49	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	10	2.8	ug/l	
67-72-1	Hexachloroethane	ND	2.0	0.39	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	1.0	0.33	ug/l	
78-59-1	Isophorone	ND	2.0	0.28	ug/l	
91-57-6	2-Methylnaphthalene	ND	1.0	0.21	ug/l	
88-74-4	2-Nitroaniline	ND	5.0	0.28	ug/l	
99-09-2	3-Nitroaniline	ND	5.0	0.39	ug/l	
100-01-6	4-Nitroaniline	ND	5.0	0.44	ug/l	
91-20-3	Naphthalene	ND	1.0	0.23	ug/l	
98-95-3	Nitrobenzene	ND	2.0	0.64	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	2.0	0.48	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.0	0.22	ug/l	
85-01-8	Phenanthrene	ND	1.0	0.18	ug/l	
129-00-0	Pyrene	ND	1.0	0.22	ug/l	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	2.0	0.37	ug/l	

Method Blank Summary

Job Number: JC96248
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP23204-MB1	M160234.D	1	10/11/19	HSS	10/10/19	OP23204	EM6781

The QC reported here applies to the following samples:

Method: SW846 8270D

JC96248-1, JC96248-2, JC96248-3

CAS No.	Surrogate Recoveries	Limits
367-12-4	2-Fluorophenol	25% 10-110%
4165-62-2	Phenol-d5	18% 10-110%
118-79-6	2,4,6-Tribromophenol	76% 36-151%
4165-60-0	Nitrobenzene-d5	66% 34-128%
321-60-8	2-Fluorobiphenyl	70% 38-119%
1718-51-0	Terphenyl-d14	66% 26-129%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Internal standard for SIM test	4.48	4.1	ug/l	J
	unknown acid	5.04	8.6	ug/l	J
	Internal standard for SIM test	6.24	4.7	ug/l	J
	Internal standard for SIM test	8.42	4.5	ug/l	J
	Internal standard for SIM test	12.36	4.7	ug/l	J
	Internal standard for SIM test	17.64	4.4	ug/l	J
	Total TIC, Semi-Volatile		8.6	ug/l	J

8.12
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Blank Spike/Blank Spike Duplicate Summary

Job Number: JC96248
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP23230-BS1	M160203.D	1	10/10/19	HSS	10/09/19	OP23230	EM6780
OP23230-BSD	M160204.D	1	10/10/19	HSS	10/09/19	OP23230	EM6780

The QC reported here applies to the following samples:

Method: SW846 8270D

JC96248-4, JC96248-5, JC96248-6, JC96248-7, JC96248-8

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
95-57-8	2-Chlorophenol	50	25.7	51	26.4	53	3	39-106/27
59-50-7	4-Chloro-3-methyl phenol	50	32.9	66	35.1	70	6	45-118/23
120-83-2	2,4-Dichlorophenol	50	30.7	61	32.0	64	4	43-115/26
105-67-9	2,4-Dimethylphenol	50	36.2	72	37.6	75	4	38-125/23
51-28-5	2,4-Dinitrophenol	100	68.1	68	73.7	74	8	35-137/22
534-52-1	4,6-Dinitro-o-cresol	50	33.8	68	37.0	74	9	45-134/23
95-48-7	2-Methylphenol	50	23.3	47	23.6	47	1	34-106/24
	3&4-Methylphenol	50	22.0	44	22.5	45	2	31-110/25
88-75-5	2-Nitrophenol	50	34.4	69	35.9	72	4	41-118/28
100-02-7	4-Nitrophenol	50	16.5	33	17.8	36	8	10-113/31
87-86-5	Pentachlorophenol	50	37.2	74	38.6	77	4	21-134/25
108-95-2	Phenol	50	12.1	24	12.9	26	6	10-110/27
58-90-2	2,3,4,6-Tetrachlorophenol	50	35.5	71	37.1	74	4	41-129/41
95-95-4	2,4,5-Trichlorophenol	50	31.4	63	33.8	68	7	45-117/26
88-06-2	2,4,6-Trichlorophenol	50	32.1	64	34.8	70	8	47-125/35
83-32-9	Acenaphthene	50	27.4	55	29.3	59	7	40-114/22
208-96-8	Acenaphthylene	50	28.0	56	30.0	60	7	40-109/22
98-86-2	Acetophenone	50	30.1	60	32.4	65	7	43-112/21
120-12-7	Anthracene	50	30.7	61	33.4	67	8	50-113/20
1912-24-9	Atrazine	50	45.2	90	49.1	98	8	46-141/23
100-52-7	Benzaldehyde	50	39.6	79	41.4	83	4	27-116/29
56-55-3	Benzo(a)anthracene	50	33.2	66	36.5	73	9	55-110/22
50-32-8	Benzo(a)pyrene	50	29.7	59	31.7	63	7	52-112/24
205-99-2	Benzo(b)fluoranthene	50	32.0	64	34.3	69	7	53-114/22
191-24-2	Benzo(g,h,i)perylene	50	29.1	58	30.2	60	4	46-115/28
207-08-9	Benzo(k)fluoranthene	50	32.0	64	33.2	66	4	55-115/23
101-55-3	4-Bromophenyl phenyl ether	50	27.6	55	29.7	59	7	47-122/25
85-68-7	Butyl benzyl phthalate	50	37.0	74	40.9	82	10	50-124/22
92-52-4	1,1'-Biphenyl	50	26.3	53	27.8	56	6	42-114/22
91-58-7	2-Chloronaphthalene	50	24.1	48	25.6	51	6	33-112/26
106-47-8	4-Chloroaniline	50	20.9	42	24.9	50	17	17-87/39
86-74-8	Carbazole	50	34.0	68	37.6	75	10	54-118/21
105-60-2	Caprolactam	50	10.2	20	8.8	18	15	10-110/23
218-01-9	Chrysene	50	32.7	65	35.5	71	8	52-107/21
111-91-1	bis(2-Chloroethoxy)methane	50	32.1	64	34.0	68	6	38-116/24
111-44-4	bis(2-Chloroethyl)ether	50	30.5	61	32.9	66	8	38-118/23

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: JC96248
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP23230-BS1	M160203.D	1	10/10/19	HSS	10/09/19	OP23230	EM6780
OP23230-BSD	M160204.D	1	10/10/19	HSS	10/09/19	OP23230	EM6780

The QC reported here applies to the following samples:

Method: SW846 8270D

JC96248-4, JC96248-5, JC96248-6, JC96248-7, JC96248-8

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
108-60-1	2,2'-Oxybis(1-chloropropane)	50	32.7	65	34.9	70	7	29-108/23
7005-72-3	4-Chlorophenyl phenyl ether	50	25.1	50	26.7	53	6	40-122/21
121-14-2	2,4-Dinitrotoluene	50	34.9	70	37.5	75	7	54-129/21
606-20-2	2,6-Dinitrotoluene	50	34.8	70	37.4	75	7	53-131/21
91-94-1	3,3'-Dichlorobenzidine	100	37.7	38	42.5	43	12	28-91/44
123-91-1	1,4-Dioxane	50	10.6	21	10.4	21	2	10-110/30
53-70-3	Dibenzo(a,h)anthracene	50	29.3	59	31.3	63	7	51-117/25
132-64-9	Dibenzofuran	50	26.4	53	28.7	57	8	46-118/16
84-74-2	Di-n-butyl phthalate	50	34.3	69	37.3	75	8	54-124/23
117-84-0	Di-n-octyl phthalate	50	36.6	73	40.2	80	9	41-137/22
84-66-2	Diethyl phthalate	50	31.9	64	35.1	70	10	49-122/20
131-11-3	Dimethyl phthalate	50	31.3	63	33.5	67	7	51-118/20
117-81-7	bis(2-Ethylhexyl)phthalate	50	37.3	75	41.2	82	10	47-128/36
206-44-0	Fluoranthene	50	33.3	67	35.9	72	8	54-118/23
86-73-7	Fluorene	50	28.4	57	31.1	62	9	45-116/20
118-74-1	Hexachlorobenzene	50	29.6	59	31.1	62	5	45-124/23
87-68-3	Hexachlorobutadiene	50	22.5	45	22.4	45	0	10-120/35
77-47-4	Hexachlorocyclopentadiene	100	30.3	30	30.6	31	1	10-110/43
67-72-1	Hexachloroethane	50	21.8	44	21.7	43	0	11-110/38
193-39-5	Indeno(1,2,3-cd)pyrene	50	28.1	56	28.8	58	2	45-123/30
78-59-1	Isophorone	50	35.0	70	37.9	76	8	43-115/20
91-57-6	2-Methylnaphthalene	50	25.1	50	27.1	54	8	37-111/21
88-74-4	2-Nitroaniline	50	38.4	77	42.7	85	11	40-144/18
99-09-2	3-Nitroaniline	50	25.4	51	29.2	58	14	31-104/42
100-01-6	4-Nitroaniline	50	34.6	69	38.7	77	11	48-119/20
91-20-3	Naphthalene	50	28.0	56	29.3	59	5	29-110/23
98-95-3	Nitrobenzene	50	30.2	60	31.8	64	5	35-118/21
621-64-7	N-Nitroso-di-n-propylamine	50	31.9	64	34.7	69	8	38-116/22
86-30-6	N-Nitrosodiphenylamine	50	29.0	58	31.9	64	10	49-114/22
85-01-8	Phenanthrene	50	30.3	61	32.8	66	8	49-116/21
129-00-0	Pyrene	50	32.7	65	34.0	68	4	51-116/21
95-94-3	1,2,4,5-Tetrachlorobenzene	50	20.9	42	22.0	44	5	21-124/32

* = Outside of Control Limits.

82.1
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Blank Spike/Blank Spike Duplicate Summary

Job Number: JC96248
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP23230-BS1	M160203.D	1	10/10/19	HSS	10/09/19	OP23230	EM6780
OP23230-BSD	M160204.D	1	10/10/19	HSS	10/09/19	OP23230	EM6780

The QC reported here applies to the following samples:

Method: SW846 8270D

JC96248-4, JC96248-5, JC96248-6, JC96248-7, JC96248-8

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
367-12-4	2-Fluorophenol	33%	32%	10-110%
4165-62-2	Phenol-d5	23%	22%	10-110%
118-79-6	2,4,6-Tribromophenol	73%	76%	36-151%
4165-60-0	Nitrobenzene-d5	67%	72%	34-128%
321-60-8	2-Fluorobiphenyl	61%	66%	38-119%
1718-51-0	Terphenyl-d14	69%	75%	26-129%

8.2.1
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* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: JC96248
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP23204-BS1	M160407.D	1	10/16/19	HSS	10/10/19	OP23204	EM6787
OP23204-BSD	M160408.D	1	10/16/19	HSS	10/10/19	OP23204	EM6787

The QC reported here applies to the following samples:

Method: SW846 8270D

JC96248-1, JC96248-2, JC96248-3

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
95-57-8	2-Chlorophenol	50	24.1	48	26.3	53	9	39-106/27
59-50-7	4-Chloro-3-methyl phenol	50	33.4	67	38.0	76	13	45-118/23
120-83-2	2,4-Dichlorophenol	50	30.9	62	34.2	68	10	43-115/26
105-67-9	2,4-Dimethylphenol	50	33.0	66	30.5	61	8	38-125/23
51-28-5	2,4-Dinitrophenol	100	78.6	79	82.9	83	5	35-137/22
534-52-1	4,6-Dinitro-o-cresol	50	36.6	73	40.7	81	11	45-134/23
95-48-7	2-Methylphenol	50	21.9	44	22.6	45	3	34-106/24
	3&4-Methylphenol	50	20.6	41	22.7	45	10	31-110/25
88-75-5	2-Nitrophenol	50	34.5	69	36.7	73	6	41-118/28
100-02-7	4-Nitrophenol	50	18.6	37	19.0	38	2	10-113/31
87-86-5	Pentachlorophenol	50	36.6	73	36.7	73	0	21-134/25
108-95-2	Phenol	50	12.2	24	13.3	27	9	10-110/27
58-90-2	2,3,4,6-Tetrachlorophenol	50	36.6	73	39.6	79	8	41-129/41
95-95-4	2,4,5-Trichlorophenol	50	32.7	65	35.7	71	9	45-117/26
88-06-2	2,4,6-Trichlorophenol	50	32.9	66	36.4	73	10	47-125/35
83-32-9	Acenaphthene	50	30.3	61	32.7	65	8	40-114/22
208-96-8	Acenaphthylene	50	30.4	61	31.9	64	5	40-109/22
98-86-2	Acetophenone	50	29.8	60	32.0	64	7	43-112/21
120-12-7	Anthracene	50	33.7	67	35.4	71	5	50-113/20
1912-24-9	Atrazine	50	47.3	95	50.3	101	6	46-141/23
100-52-7	Benzaldehyde	50	33.5	67	37.8	76	12	27-116/29
56-55-3	Benzo(a)anthracene	50	35.0	70	37.9	76	8	55-110/22
50-32-8	Benzo(a)pyrene	50	34.9	70	36.8	74	5	52-112/24
205-99-2	Benzo(b)fluoranthene	50	34.9	70	36.8	74	5	53-114/22
191-24-2	Benzo(g,h,i)perylene	50	34.0	68	35.8	72	5	46-115/28
207-08-9	Benzo(k)fluoranthene	50	33.2	66	35.3	71	6	55-115/23
101-55-3	4-Bromophenyl phenyl ether	50	32.4	65	35.0	70	8	47-122/25
85-68-7	Butyl benzyl phthalate	50	39.0	78	42.8	86	9	50-124/22
92-52-4	1,1'-Biphenyl	50	28.1	56	30.4	61	8	42-114/22
91-58-7	2-Chloronaphthalene	50	26.6	53	28.4	57	7	33-112/26
106-47-8	4-Chloroaniline	50	21.6	43	20.6	41	5	17-87/39
86-74-8	Carbazole	50	35.6	71	37.4	75	5	54-118/21
105-60-2	Caprolactam	50	10.9	22	11.0	22	1	10-110/23
218-01-9	Chrysene	50	34.2	68	37.3	75	9	52-107/21
111-91-1	bis(2-Chloroethoxy)methane	50	32.1	64	33.9	68	5	38-116/24
111-44-4	bis(2-Chloroethyl)ether	50	29.0	58	31.5	63	8	38-118/23

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: JC96248
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP23204-BS1	M160407.D	1	10/16/19	HSS	10/10/19	OP23204	EM6787
OP23204-BSD	M160408.D	1	10/16/19	HSS	10/10/19	OP23204	EM6787

The QC reported here applies to the following samples:

Method: SW846 8270D

JC96248-1, JC96248-2, JC96248-3

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
108-60-1	2,2'-Oxybis(1-chloropropane)	50	32.2	64	34.5	69	7	29-108/23
7005-72-3	4-Chlorophenyl phenyl ether	50	30.7	61	32.9	66	7	40-122/21
121-14-2	2,4-Dinitrotoluene	50	37.2	74	39.9	80	7	54-129/21
606-20-2	2,6-Dinitrotoluene	50	36.5	73	40.0	80	9	53-131/21
91-94-1	3,3'-Dichlorobenzidine	100	52.9	53	50.5	51	5	28-91/44
123-91-1	1,4-Dioxane	50	10	20	10.6	21	6	10-110/30
53-70-3	Dibenzo(a,h)anthracene	50	32.2	64	34.8	70	8	51-117/25
132-64-9	Dibenzofuran	50	31.9	64	34.8	70	9	46-118/16
84-74-2	Di-n-butyl phthalate	50	35.1	70	37.6	75	7	54-124/23
117-84-0	Di-n-octyl phthalate	50	39.4	79	42.1	84	7	41-137/22
84-66-2	Diethyl phthalate	50	34.0	68	36.2	72	6	49-122/20
131-11-3	Dimethyl phthalate	50	32.4	65	35.3	71	9	51-118/20
117-81-7	bis(2-Ethylhexyl)phthalate	50	39.1	78	42.3	85	8	47-128/36
206-44-0	Fluoranthene	50	34.7	69	36.8	74	6	54-118/23
86-73-7	Fluorene	50	32.4	65	35.0	70	8	45-116/20
118-74-1	Hexachlorobenzene	50	32.0	64	34.7	69	8	45-124/23
87-68-3	Hexachlorobutadiene	50	25.1	50	27.3	55	8	10-120/35
77-47-4	Hexachlorocyclopentadiene	100	40.8	41	20.0	20	68* a	10-110/43
67-72-1	Hexachloroethane	50	21.5	43	24.0	48	11	11-110/38
193-39-5	Indeno(1,2,3-cd)pyrene	50	33.1	66	35.2	70	6	45-123/30
78-59-1	Isophorone	50	35.0	70	37.4	75	7	43-115/20
91-57-6	2-Methylnaphthalene	50	30.5	61	32.3	65	6	37-111/21
88-74-4	2-Nitroaniline	50	39.2	78	41.8	84	6	40-144/18
99-09-2	3-Nitroaniline	50	28.4	57	30.3	61	6	31-104/42
100-01-6	4-Nitroaniline	50	37.2	74	38.3	77	3	48-119/20
91-20-3	Naphthalene	50	30.5	61	31.7	63	4	29-110/23
98-95-3	Nitrobenzene	50	30.6	61	31.7	63	4	35-118/21
621-64-7	N-Nitroso-di-n-propylamine	50	30.6	61	33.1	66	8	38-116/22
86-30-6	N-Nitrosodiphenylamine	50	32.9	66	35.6	71	8	49-114/22
85-01-8	Phenanthrene	50	32.1	64	34.6	69	7	49-116/21
129-00-0	Pyrene	50	34.8	70	39.2	78	12	51-116/21
95-94-3	1,2,4,5-Tetrachlorobenzene	50	24.5	49	27.9	56	13	21-124/32

* = Outside of Control Limits.

82.2
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Blank Spike/Blank Spike Duplicate Summary

Job Number: JC96248
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP23204-BS1	M160407.D	1	10/16/19	HSS	10/10/19	OP23204	EM6787
OP23204-BSD	M160408.D	1	10/16/19	HSS	10/10/19	OP23204	EM6787

The QC reported here applies to the following samples:

Method: SW846 8270D

JC96248-1, JC96248-2, JC96248-3

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
367-12-4	2-Fluorophenol	32%	33%	10-110%
4165-62-2	Phenol-d5	22%	25%	10-110%
118-79-6	2,4,6-Tribromophenol	73%	78%	36-151%
4165-60-0	Nitrobenzene-d5	70%	73%	34-128%
321-60-8	2-Fluorobiphenyl	68%	73%	38-119%
1718-51-0	Terphenyl-d14	71%	77%	26-129%

(a) Outside of in house control limits.

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JC96248
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP23230-MS	M160250.D	1	10/11/19	HSS	10/09/19	OP23230	EM6781
OP23230-MSD	M160251.D	1	10/11/19	HSS	10/09/19	OP23230	EM6781
JC96248-4	M160249.D	1	10/11/19	HSS	10/09/19	OP23230	EM6781
JC96248-4	M160281.D	10	10/13/19	JC	10/09/19	OP23230	EM6782

The QC reported here applies to the following samples:

Method: SW846 8270D

JC96248-4, JC96248-5, JC96248-6, JC96248-7, JC96248-8

CAS No.	Compound	JC96248-4 ug/l	Spike Q	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
95-57-8	2-Chlorophenol	ND	50	24.8	50	50	23.7	47	5	36-113/33
59-50-7	4-Chloro-3-methyl phenol	ND	50	33.9	68	50	32.6	65	4	40-126/29
120-83-2	2,4-Dichlorophenol	ND	50	29.4	59	50	27.0	54	9	40-119/30
105-67-9	2,4-Dimethylphenol	241 ^c	50	234	-14* ^a	50	397	312* ^a	52* ^b	34-134/30
51-28-5	2,4-Dinitrophenol	ND	100	63.7	64	100	52.0	52	20	22-157/34
534-52-1	4,6-Dinitro-o-cresol	ND	50	35.1	70	50	29.2	58	18	26-151/37
95-48-7	2-Methylphenol	177 ^c	50	164	-26* ^a	50	236	118	36* ^b	31-119/32
	3&4-Methylphenol	212 ^c	50	204	-16* ^a	50	324	224* ^a	45* ^b	29-118/31
88-75-5	2-Nitrophenol	ND	50	36.2	72	50	36.7	73	1	38-123/34
100-02-7	4-Nitrophenol	ND	50	ND	0* ^d	50	ND	0* ^d	nc	10-161/36
87-86-5	Pentachlorophenol	ND	50	40.6	81	50	35.9	72	12	22-149/36
108-95-2	Phenol	80.2	50	98.8	37	50	150	140* ^d	41* ^b	10-110/35
58-90-2	2,3,4,6-Tetrachlorophenol	ND	50	36.2	72	50	33.3	67	8	43-131/36
95-95-4	2,4,5-Trichlorophenol	ND	50	35.1	70	50	31.6	63	10	45-118/30
88-06-2	2,4,6-Trichlorophenol	ND	50	35.2	70	50	33.0	66	6	48-126/31
83-32-9	Acenaphthene	87.7	50	147	119	50	138	101	6	44-119/28
208-96-8	Acenaphthylene	80.2	50	120	80	50	127	94	6	40-115/28
98-86-2	Acetophenone	2.1	50	36.2	68	50	35.3	66	3	34-127/32
120-12-7	Anthracene	16.1	50	70.4	109	50	60.7	89	15	44-120/30
1912-24-9	Atrazine	ND	50	50.6	101	50	36.3	73	33* ^b	31-149/30
100-52-7	Benzaldehyde	ND	50	36.6	73	50	31.2	62	16	11-132/37
56-55-3	Benzo(a)anthracene	3.6	50	65.9	125* ^d	50	45.3	83	37* ^b	48-116/30
50-32-8	Benzo(a)pyrene	2.6	50	55.3	105	50	40.5	76	31	43-120/31
205-99-2	Benzo(b)fluoranthene	2.9	50	58.3	111	50	40.3	75	37* ^b	42-123/31
191-24-2	Benzo(g,h,i)perylene	1.4	50	48.2	94	50	37.8	73	24	39-121/32
207-08-9	Benzo(k)fluoranthene	1.3	50	45.8	89	50	38.3	74	18	44-123/31
101-55-3	4-Bromophenyl phenyl ether	ND	50	28.6	57	50	26.6	53	7	47-127/31
85-68-7	Butyl benzyl phthalate	ND	50	42.2	84	50	37.4	75	12	41-135/32
92-52-4	1,1'-Biphenyl	20.7	50	53.7	66	50	54.9	68	2	39-124/29
91-58-7	2-Chloronaphthalene	ND	50	26.7	53	50	25.0	50	7	37-120/30
106-47-8	4-Chloroaniline	ND	50	10.8	22	50	8.8	18	20	10-110/49
86-74-8	Carbazole	189 ^c	50	188	-2* ^a	50	218	58	15	46-127/29
105-60-2	Caprolactam	ND	50	8.7	17	50	9.3	19	7	10-110/37
218-01-9	Chrysene	3.2	50	67.6	129* ^d	50	47.5	89	35* ^b	45-113/30
111-91-1	bis(2-Chloroethoxy)methane	ND	50	37.9	76	50	36.1	72	5	33-122/29
111-44-4	bis(2-Chloroethyl)ether	ND	50	31.8	64	50	31.5	63	1	29-132/36

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JC96248
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP23230-MS	M160250.D	1	10/11/19	HSS	10/09/19	OP23230	EM6781
OP23230-MSD	M160251.D	1	10/11/19	HSS	10/09/19	OP23230	EM6781
JC96248-4	M160249.D	1	10/11/19	HSS	10/09/19	OP23230	EM6781
JC96248-4	M160281.D	10	10/13/19	JC	10/09/19	OP23230	EM6782

The QC reported here applies to the following samples:

Method: SW846 8270D

JC96248-4, JC96248-5, JC96248-6, JC96248-7, JC96248-8

CAS No.	Compound	JC96248-4 ug/l	Spike Q	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD	
108-60-1	2,2'-Oxybis(1-chloropropane)	ND		50	71.4	143* d	50	53.9	108	28	27-115/34
7005-72-3	4-Chlorophenyl phenyl ether	ND		50	23.5	47	50	20.8	42* d	12	43-125/30
121-14-2	2,4-Dinitrotoluene	ND		50	37.4	75	50	35.4	71	5	49-135/31
606-20-2	2,6-Dinitrotoluene	ND		50	41.5	83	50	39.1	78	6	50-135/32
91-94-1	3,3'-Dichlorobenzidine	ND		100	ND	0* d	100	ND	0* d	nc	2-115/43
123-91-1	1,4-Dioxane	ND		50	11.1	22	50	11.6	23	4	10-110/42
53-70-3	Dibenzo(a,h)anthracene	0.42	J	50	39.5	78	50	33.9	67	15	44-121/32
132-64-9	Dibenzofuran	64.2		50	110	92	50	104	80	6	43-123/29
84-74-2	Di-n-butyl phthalate	ND		50	36.3	73	50	34.7	69	5	46-133/30
117-84-0	Di-n-octyl phthalate	ND		50	41.4	83	50	38.5	77	7	31-147/32
84-66-2	Diethyl phthalate	ND		50	30.7	61	50	28.8	58	6	46-126/30
131-11-3	Dimethyl phthalate	ND		50	35.3	71	50	33.6	67	5	49-120/29
117-81-7	bis(2-Ethylhexyl)phthalate	ND		50	46.4	93	50	41.3	83	12	35-140/35
206-44-0	Fluoranthene	22.9		50	114	182* d	50	78.7	112	37* b	48-122/30
86-73-7	Fluorene	75.2		50	130	110	50	122	94	6	45-121/30
118-74-1	Hexachlorobenzene	ND		50	32.2	64	50	30.6	61	5	42-129/32
87-68-3	Hexachlorobutadiene	ND		50	20.0	40	50	17.0	34	16	10-129/36
77-47-4	Hexachlorocyclopentadiene	ND		100	24.7	25	100	21.5	22	14	10-111/40
67-72-1	Hexachloroethane	ND		50	17.3	35	50	15.5	31	11	12-116/37
193-39-5	Indeno(1,2,3-cd)pyrene	1.4		50	47.1	91	50	36.9	71	24	39-129/33
78-59-1	Isophorone	ND		50	44.5	89	50	44.1	88	1	37-122/29
91-57-6	2-Methylnaphthalene	97.8		50	112	28* d	50	153	110	31	33-118/31
88-74-4	2-Nitroaniline	ND		50	50.2	100	50	49.3	99	2	32-156/31
99-09-2	3-Nitroaniline	ND		50	19.4	39	50	15.9	32	20	11-114/41
100-01-6	4-Nitroaniline	ND		50	34.9	70	50	33.0	66	6	31-125/30
91-20-3	Naphthalene	973 c	B	50	507	-932* a	50	1060	174* a	71* b	24-119/33
98-95-3	Nitrobenzene	ND		50	38.5	77	50	38.6	77	0	28-130/32
621-64-7	N-Nitroso-di-n-propylamine	ND		50	37.2	74	50	3.2	6* d	168* b	29-128/31
86-30-6	N-Nitrosodiphenylamine	ND		50	40.5	81	50	40.4	81	0	40-128/31
85-01-8	Phenanthrene	136 c		50	245	218* a	50	200	128	20	41-128/30
129-00-0	Pyrene	15.5		50	101	171* d	50	66.8	103	41* b	47-122/30
95-94-3	1,2,4,5-Tetrachlorobenzene	ND		50	22.0	44	50	18.9	38	15	23-134/31

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JC96248
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP23230-MS	M160250.D	1	10/11/19	HSS	10/09/19	OP23230	EM6781
OP23230-MSD	M160251.D	1	10/11/19	HSS	10/09/19	OP23230	EM6781
JC96248-4	M160249.D	1	10/11/19	HSS	10/09/19	OP23230	EM6781
JC96248-4	M160281.D	10	10/13/19	JC	10/09/19	OP23230	EM6782

The QC reported here applies to the following samples:

Method: SW846 8270D

JC96248-4, JC96248-5, JC96248-6, JC96248-7, JC96248-8

CAS No.	Surrogate Recoveries	MS	MSD	JC96248-4	JC96248-4	Limits
367-12-4	2-Fluorophenol	31%	30%	23%	24%	10-110%
4165-62-2	Phenol-d5	24%	23%	17%	19%	10-110%
118-79-6	2,4,6-Tribromophenol	72%	66%	68%	77%	36-151%
4165-60-0	Nitrobenzene-d5	83%	84%	69%	71%	34-128%
321-60-8	2-Fluorobiphenyl	74%	70%	64%	73%	38-119%
1718-51-0	Terphenyl-d14	67%	54%	38%	42%	26-129%

- (a) Outside control limits due to high level in sample relative to spike amount.
- (b) Analytical precision exceeds in-house control limits.
- (c) Result is from Run #2.
- (d) Outside control limits due to matrix interference.

* = Outside of Control Limits.

Instrument Performance Check (DFTPP)

Job Number: JC96248
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample:	EF8050-DFTPP	Injection Date:	09/09/19
Lab File ID:	F186994.D	Injection Time:	11:42
Instrument ID:	GCMSF		

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
51	30.0 - 60.0% of mass 198	19251	36.0	Pass
68	Less than 2.0% of mass 69	0	0.00 (0.00) ^a	Pass
69	Mass 69 relative abundance	26576	49.6	Pass
70	Less than 2.0% of mass 69	109	0.20 (0.41) ^a	Pass
127	40.0 - 60.0% of mass 198	27289	51.0	Pass
197	Less than 1.0% of mass 198	0	0.00	Pass
198	Base peak, 100% relative abundance	53530	100.0	Pass
199	5.0 - 9.0% of mass 198	3396	6.34	Pass
275	10.0 - 30.0% of mass 198	11323	21.2	Pass
365	1.0 - 100.0% of mass 198	1420	2.65	Pass
441	Present, but less than mass 443	3344	6.25 (70.8) ^b	Pass
442	40.0 - 100.0% of mass 198	23777	44.4	Pass
443	17.0 - 23.0% of mass 442	4722	8.82 (19.9) ^c	Pass

(a) Value is % of mass 69

(b) Value is % of mass 443

(c) Value is % of mass 442

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
EF8050-IC8050	F186996.D	09/09/19	15:07	03:25	Initial cal 100
EF8050-IC8050	F186997.D	09/09/19	15:36	03:54	Initial cal 80
EF8050-ICC8050	F186998.D	09/09/19	16:05	04:23	Initial cal 50
EF8050-IC8050	F186999.D	09/09/19	16:34	04:52	Initial cal 25
EF8050-IC8050	F187000.D	09/09/19	17:04	05:22	Initial cal 10
EF8050-IC8050	F187001.D	09/09/19	17:33	05:51	Initial cal 5
EF8050-IC8050	F187002.D	09/09/19	18:02	06:20	Initial cal 2
EF8050-IC8050	F187009.D	09/09/19	18:31	06:49	Initial cal 1
EF8050-ICV8050	F187003.D	09/09/19	19:00	07:18	Initial cal verification 50
EF8050-ICV8050	F187004.D	09/09/19	19:29	07:47	Initial cal verification 50
EF8050-ICV8050	F187005.D	09/09/19	21:02	09:20	Initial cal verification 50
EF8050-ICV8050	F187006.D	09/09/19	21:31	09:49	Initial cal verification 50
EF8050-ICV8050	F187007.D	09/09/19	22:00	10:18	Initial cal verification 50
EF8050-ICV8050	F187008.D	09/09/19	22:29	10:47	Initial cal verification 50

Instrument Performance Check (DFTPP)

Job Number: JC96248
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample:	EF8051-DFTPP	Injection Date:	09/09/19
Lab File ID:	F187010.D	Injection Time:	22:54
Instrument ID:	GCMSF		

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
51	30.0 - 60.0% of mass 198	32371	37.9	Pass
68	Less than 2.0% of mass 69	110	0.13 (0.28) ^a	Pass
69	Mass 69 relative abundance	39802	46.7	Pass
70	Less than 2.0% of mass 69	125	0.15 (0.31) ^a	Pass
127	40.0 - 60.0% of mass 198	43974	51.6	Pass
197	Less than 1.0% of mass 198	0	0.00	Pass
198	Base peak, 100% relative abundance	85301	100.0	Pass
199	5.0 - 9.0% of mass 198	5791	6.79	Pass
275	10.0 - 30.0% of mass 198	20470	24.0	Pass
365	1.0 - 100.0% of mass 198	3126	3.66	Pass
441	Present, but less than mass 443	7257	8.51 (77.4) ^b	Pass
442	40.0 - 100.0% of mass 198	50296	59.0	Pass
443	17.0 - 23.0% of mass 442	9381	11.0 (18.7) ^c	Pass

(a) Value is % of mass 69

(b) Value is % of mass 443

(c) Value is % of mass 442

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
EF8051-IC8051	F187011.D	09/09/19	23:06	00:12	Initial cal 100
EF8051-IC8051	F187012.D	09/09/19	23:35	00:41	Initial cal 80
EF8051-ICC8051	F187013.D	09/10/19	00:04	01:10	Initial cal 50
EF8051-IC8051	F187014.D	09/10/19	00:33	01:39	Initial cal 25
EF8051-IC8051	F187015.D	09/10/19	01:02	02:08	Initial cal 10
EF8051-IC8051	F187016.D	09/10/19	01:32	02:38	Initial cal 5
EF8051-IC8051	F187017.D	09/10/19	02:01	03:07	Initial cal 2
EF8051-IC8051	F187018.D	09/10/19	02:30	03:36	Initial cal 1
EF8051-ICV8051	F187019.D	09/10/19	02:59	04:05	Initial cal verification 50

Instrument Performance Check (DFTPP)

Job Number: JC96248
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample:	EF8052-DFTPP	Injection Date:	09/10/19
Lab File ID:	F187020.D	Injection Time:	03:24
Instrument ID:	GCMSF		

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
51	30.0 - 60.0% of mass 198	32045	37.0	Pass
68	Less than 2.0% of mass 69	85	0.10 (0.21) ^a	Pass
69	Mass 69 relative abundance	41247	47.6	Pass
70	Less than 2.0% of mass 69	208	0.24 (0.50) ^a	Pass
127	40.0 - 60.0% of mass 198	43296	50.0	Pass
197	Less than 1.0% of mass 198	117	0.14	Pass
198	Base peak, 100% relative abundance	86586	100.0	Pass
199	5.0 - 9.0% of mass 198	6005	6.94	Pass
275	10.0 - 30.0% of mass 198	19688	22.7	Pass
365	1.0 - 100.0% of mass 198	2644	3.05	Pass
441	Present, but less than mass 443	7583	8.76 (78.2) ^b	Pass
442	40.0 - 100.0% of mass 198	50101	57.9	Pass
443	17.0 - 23.0% of mass 442	9696	11.2 (19.4) ^c	Pass

(a) Value is % of mass 69

(b) Value is % of mass 443

(c) Value is % of mass 442

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
EF8052-IC8052	F187021.D	09/10/19	03:36	00:12	Initial cal 100
EF8052-IC8052	F187022.D	09/10/19	04:05	00:41	Initial cal 80
EF8052-ICC8052	F187023.D	09/10/19	04:34	01:10	Initial cal 50
EF8052-IC8052	F187024.D	09/10/19	05:04	01:40	Initial cal 25
EF8052-IC8052	F187025.D	09/10/19	05:33	02:09	Initial cal 10
EF8052-IC8052	F187026.D	09/10/19	06:02	02:38	Initial cal 5
EF8052-IC8052	F187027.D	09/10/19	06:31	03:07	Initial cal 2
EF8052-IC8052	F187028.D	09/10/19	07:00	03:36	Initial cal 1
EF8052-ICV8052	F187029.D	09/10/19	07:28	04:04	Initial cal verification 50
EF8052-ICV8052	F187030.D	09/10/19	07:58	04:34	Initial cal verification 50
EF8052-ICV8052	F187031.D	09/10/19	08:26	05:02	Initial cal verification 50

Instrument Performance Check (DFTPP)

Job Number: JC96248
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample:	EF8054-DFTPP	Injection Date:	09/11/19
Lab File ID:	F187053.D	Injection Time:	02:43
Instrument ID:	GCMSF		

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
51	30.0 - 60.0% of mass 198	38586	32.5	Pass
68	Less than 2.0% of mass 69	0	0.00 (0.00) ^a	Pass
69	Mass 69 relative abundance	51915	43.8	Pass
70	Less than 2.0% of mass 69	67	0.06 (0.13) ^a	Pass
127	40.0 - 60.0% of mass 198	57364	48.4	Pass
197	Less than 1.0% of mass 198	106	0.09	Pass
198	Base peak, 100% relative abundance	118581	100.0	Pass
199	5.0 - 9.0% of mass 198	8410	7.09	Pass
275	10.0 - 30.0% of mass 198	27168	22.9	Pass
365	1.0 - 100.0% of mass 198	3712	3.13	Pass
441	Present, but less than mass 443	10381	8.75 (79.3) ^b	Pass
442	40.0 - 100.0% of mass 198	70301	59.3	Pass
443	17.0 - 23.0% of mass 442	13094	11.0 (18.6) ^c	Pass

(a) Value is % of mass 69

(b) Value is % of mass 443

(c) Value is % of mass 442

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
EF8054-IC8054	F187054.D	09/11/19	03:51	01:08	Initial cal 100
EF8054-IC8054	F187055.D	09/11/19	04:21	01:38	Initial cal 80
EF8054-ICC8054	F187056.D	09/11/19	04:50	02:07	Initial cal 50
EF8054-IC8054	F187057.D	09/11/19	05:20	02:37	Initial cal 25
EF8054-IC8054	F187058.D	09/11/19	05:49	03:06	Initial cal 10
EF8054-IC8054	F187059.D	09/11/19	06:18	03:35	Initial cal 5
EF8054-IC8054	F187060.D	09/11/19	06:48	04:05	Initial cal 2
EF8054-IC8054	F187061.D	09/11/19	07:17	04:34	Initial cal 1
EF8054-ICV8054	F187062.D	09/11/19	07:46	05:03	Initial cal verification 50
EF8054-ICV8054	F187063.D	09/11/19	08:15	05:32	Initial cal verification 50
EF8054-ICV8054	F187064.D	09/11/19	08:45	06:02	Initial cal verification 50
EF8054-ICV8054	F187065.D	09/11/19	09:14	06:31	Initial cal verification 50
EF8054-ICV8054	F187066.D	09/11/19	09:43	07:00	Initial cal verification 50

Instrument Performance Check (DFTPP)

Job Number: JC96248
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample:	EF8057-DFTPP	Injection Date:	09/12/19
Lab File ID:	F187091.D	Injection Time:	03:46
Instrument ID:	GCM5F		

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
51	30.0 - 60.0% of mass 198	42890	35.3	Pass
68	Less than 2.0% of mass 69	0	0.00 (0.00) ^a	Pass
69	Mass 69 relative abundance	55629	45.8	Pass
70	Less than 2.0% of mass 69	421	0.35 (0.76) ^a	Pass
127	40.0 - 60.0% of mass 198	62322	51.3	Pass
197	Less than 1.0% of mass 198	316	0.26	Pass
198	Base peak, 100% relative abundance	121405	100.0	Pass
199	5.0 - 9.0% of mass 198	8462	6.97	Pass
275	10.0 - 30.0% of mass 198	26141	21.5	Pass
365	1.0 - 100.0% of mass 198	3567	2.94	Pass
441	Present, but less than mass 443	10000	8.24 (80.1) ^b	Pass
442	40.0 - 100.0% of mass 198	65794	54.2	Pass
443	17.0 - 23.0% of mass 442	12478	10.3 (19.0) ^c	Pass

(a) Value is % of mass 69

(b) Value is % of mass 443

(c) Value is % of mass 442

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
EF8057-IC8057	F187092.D	09/12/19	04:00	00:14	Initial cal 100
EF8057-IC8057	F187093.D	09/12/19	04:40	00:54	Initial cal 80
EF8057-ICC8057	F187094.D	09/12/19	05:09	01:23	Initial cal 50
EF8057-IC8057	F187095.D	09/12/19	05:38	01:52	Initial cal 25
EF8057-IC8057	F187096.D	09/12/19	06:07	02:21	Initial cal 10
EF8057-IC8057	F187097.D	09/12/19	06:36	02:50	Initial cal 5
EF8057-IC8057	F187098.D	09/12/19	07:05	03:19	Initial cal 2
EF8057-IC8057	F187099.D	09/12/19	07:35	03:49	Initial cal 1
EF8057-ICV8057	F187101.D	09/12/19	08:33	04:47	Initial cal verification 50
EF8057-ICV8057	F187102.D	09/12/19	09:02	05:16	Initial cal verification 50
EF8057-ICV8057	F187103.D	09/12/19	09:31	05:45	Initial cal verification 50

Instrument Performance Check (DFTPP)

Job Number: JC96248
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample:	EF8059-DFTPP	Injection Date:	09/12/19
Lab File ID:	F187126.D	Injection Time:	23:42
Instrument ID:	GCMSF		

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
51	30.0 - 60.0% of mass 198	43168	33.3	Pass
68	Less than 2.0% of mass 69	0	0.00 (0.00) ^a	Pass
69	Mass 69 relative abundance	57435	44.3	Pass
70	Less than 2.0% of mass 69	192	0.15 (0.33) ^a	Pass
127	40.0 - 60.0% of mass 198	64088	49.4	Pass
197	Less than 1.0% of mass 198	0	0.00	Pass
198	Base peak, 100% relative abundance	129645	100.0	Pass
199	5.0 - 9.0% of mass 198	8792	6.78	Pass
275	10.0 - 30.0% of mass 198	30086	23.2	Pass
365	1.0 - 100.0% of mass 198	4561	3.52	Pass
441	Present, but less than mass 443	11601	8.95 (76.9) ^b	Pass
442	40.0 - 100.0% of mass 198	79602	61.4	Pass
443	17.0 - 23.0% of mass 442	15086	11.6 (19.0) ^c	Pass

(a) Value is % of mass 69

(b) Value is % of mass 443

(c) Value is % of mass 442

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
EF8059-IC8059	F187127.D	09/13/19	00:00	00:18	Initial cal 100
EF8059-IC8059	F187128.D	09/13/19	00:29	00:47	Initial cal 80
EF8059-ICC8059	F187129.D	09/13/19	00:58	01:16	Initial cal 50
EF8059-IC8059	F187130.D	09/13/19	01:27	01:45	Initial cal 25
EF8059-IC8059	F187131.D	09/13/19	01:56	02:14	Initial cal 10
EF8059-IC8059	F187132.D	09/13/19	02:25	02:43	Initial cal 5
EF8059-IC8059	F187133.D	09/13/19	02:54	03:12	Initial cal 2
EF8059-IC8059	F187134.D	09/13/19	03:23	03:41	Initial cal 1
EF8059-ICV8059	F187135.D	09/13/19	03:52	04:10	Initial cal verification 50
EF8059-ICV8057	F187136.D	09/13/19	04:20	04:38	Initial cal verification 50

Instrument Performance Check (DFTPP)

Job Number: JC96248
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample:	EF8099-DFTPP	Injection Date:	10/19/19
Lab File ID:	F187959.D	Injection Time:	00:16
Instrument ID:	GCMSF		

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
51	30.0 - 60.0% of mass 198	55219	38.2	Pass
68	Less than 2.0% of mass 69	718	0.50 (1.01) ^a	Pass
69	Mass 69 relative abundance	71097	49.2	Pass
70	Less than 2.0% of mass 69	279	0.19 (0.39) ^a	Pass
127	40.0 - 60.0% of mass 198	73691	51.0	Pass
197	Less than 1.0% of mass 198	620	0.43	Pass
198	Base peak, 100% relative abundance	144461	100.0	Pass
199	5.0 - 9.0% of mass 198	9299	6.44	Pass
275	10.0 - 30.0% of mass 198	37208	25.8	Pass
365	1.0 - 100.0% of mass 198	5617	3.89	Pass
441	Present, but less than mass 443	12616	8.73 (74.7) ^b	Pass
442	40.0 - 100.0% of mass 198	89544	62.0	Pass
443	17.0 - 23.0% of mass 442	16883	11.7 (18.9) ^c	Pass

(a) Value is % of mass 69

(b) Value is % of mass 443

(c) Value is % of mass 442

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
EF8099-CC8050	F187960.D	10/19/19	00:29	00:13	Continuing cal 25
EF8099-CC8051	F187961.D	10/19/19	00:58	00:42	Continuing cal 25
EF8099-CC8052	F187962.D	10/19/19	01:27	01:11	Continuing cal 25
EF8099-CC8054	F187963.D	10/19/19	01:56	01:40	Continuing cal 25
EF8099-CC8057	F187964.D	10/19/19	02:24	02:08	Continuing cal 25
OP23404-MB1	F187965.D	10/19/19	03:20	03:04	Method Blank
OP23343-MB1	F187966.D	10/19/19	03:48	03:32	Method Blank
OP23339-MB1	F187967.D	10/19/19	04:39	04:23	Method Blank
OP23339-BS13	F187968.D	10/19/19	05:08	04:52	Blank Spike
OP23339-BS14	F187969.D	10/19/19	05:37	05:21	Blank Spike
OP23339-BS15	F187970.D	10/19/19	06:05	05:49	Blank Spike
ZZZZZZ	F187971.D	10/19/19	06:34	06:18	(unrelated sample)
ZZZZZZ	F187972.D	10/19/19	07:03	06:47	(unrelated sample)
ZZZZZZ	F187973.D	10/19/19	07:32	07:16	(unrelated sample)
JC96248-6	F187974.D	10/19/19	08:00	07:44	MW-113
JC96248-7	F187975.D	10/19/19	08:29	08:13	DUP-100419
ZZZZZZ	F187976.D	10/19/19	08:58	08:42	(unrelated sample)
ZZZZZZ	F187977.D	10/19/19	09:27	09:11	(unrelated sample)
ZZZZZZ	F187978.D	10/19/19	09:55	09:39	(unrelated sample)

Instrument Performance Check (DFTPP)

Job Number: JC96248
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA

Sample:	EF8099-DFTPP	Injection Date:	10/19/19
Lab File ID:	F187959.D	Injection Time:	00:16
Instrument ID:	GCM5F		

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
<i>ZZZZZZ</i>	F187979.D	10/19/19	10:24	10:08	(unrelated sample)
<i>ZZZZZZ</i>	F187980.D	10/19/19	10:53	10:37	(unrelated sample)
<i>ZZZZZZ</i>	F187981.D	10/19/19	11:22	11:06	(unrelated sample)
<i>ZZZZZZ</i>	F187982.D	10/19/19	11:51	11:35	(unrelated sample)

Instrument Performance Check (DFTPP)

Job Number: JC96248
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample:	EM6772-DFTPP	Injection Date:	10/03/19
Lab File ID:	M160086.D	Injection Time:	19:56
Instrument ID:	GCMSM		

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
51	30.0 - 60.0% of mass 198	93148	32.5	Pass
68	Less than 2.0% of mass 69	0	0.00 (0.00) ^a	Pass
69	Mass 69 relative abundance	128856	45.0	Pass
70	Less than 2.0% of mass 69	641	0.22 (0.50) ^a	Pass
127	40.0 - 60.0% of mass 198	135586	47.3	Pass
197	Less than 1.0% of mass 198	0	0.00	Pass
198	Base peak, 100% relative abundance	286464	100.0	Pass
199	5.0 - 9.0% of mass 198	19121	6.67	Pass
275	10.0 - 30.0% of mass 198	73989	25.8	Pass
365	1.0 - 100.0% of mass 198	9736	3.40	Pass
441	Present, but less than mass 443	23667	8.26 (74.3) ^b	Pass
442	40.0 - 100.0% of mass 198	157184	54.9	Pass
443	17.0 - 23.0% of mass 442	31861	11.1 (20.3) ^c	Pass

(a) Value is % of mass 69

(b) Value is % of mass 443

(c) Value is % of mass 442

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
EM6772-IC6772	M160087.D	10/03/19	20:09	00:13	Initial cal 100
EM6772-IC6772	M160088.D	10/03/19	20:37	00:41	Initial cal 80
EM6772-ICC6772	M160089.D	10/03/19	21:06	01:10	Initial cal 50
EM6772-IC6772	M160090.D	10/03/19	21:34	01:38	Initial cal 25
EM6772-IC6772	M160091.D	10/03/19	22:02	02:06	Initial cal 10
EM6772-IC6772	M160092.D	10/03/19	22:30	02:34	Initial cal 5
EM6772-IC6772	M160093.D	10/03/19	22:58	03:02	Initial cal 2
EM6772-IC6772	M160095.D	10/03/19	23:31	03:35	Initial cal 1

Instrument Performance Check (DFTPP)

Job Number: JC96248
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample:	EM6773-DFTPP	Injection Date:	10/04/19
Lab File ID:	M160097.D	Injection Time:	00:23
Instrument ID:	GCMSM		

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
51	30.0 - 60.0% of mass 198	91120	31.6	Pass
68	Less than 2.0% of mass 69	0	0.00 (0.00) ^a	Pass
69	Mass 69 relative abundance	124296	43.1	Pass
70	Less than 2.0% of mass 69	576	0.20 (0.46) ^a	Pass
127	40.0 - 60.0% of mass 198	135613	47.0	Pass
197	Less than 1.0% of mass 198	0	0.00	Pass
198	Base peak, 100% relative abundance	288640	100.0	Pass
199	5.0 - 9.0% of mass 198	19443	6.74	Pass
275	10.0 - 30.0% of mass 198	72549	25.1	Pass
365	1.0 - 100.0% of mass 198	8920	3.09	Pass
441	Present, but less than mass 443	23580	8.17 (75.5) ^b	Pass
442	40.0 - 100.0% of mass 198	160314	55.5	Pass
443	17.0 - 23.0% of mass 442	31242	10.8 (19.5) ^c	Pass

(a) Value is % of mass 69

(b) Value is % of mass 443

(c) Value is % of mass 442

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
EM6773-IC6773	M160098.D	10/04/19	00:36	00:13	Initial cal 100
EM6773-IC6773	M160099.D	10/04/19	01:04	00:41	Initial cal 80
EM6773-ICC6773	M160100.D	10/04/19	01:32	01:09	Initial cal 50
EM6773-IC6773	M160101.D	10/04/19	02:00	01:37	Initial cal 25
EM6773-IC6773	M160102.D	10/04/19	02:28	02:05	Initial cal 10
EM6773-IC6773	M160103.D	10/04/19	02:56	02:33	Initial cal 5
EM6773-IC6773	M160104.D	10/04/19	03:24	03:01	Initial cal 2
EM6773-IC6773	M160105.D	10/04/19	03:52	03:29	Initial cal 1
EM6773-ICV6772	M160106A.D	10/04/19	04:21	03:58	Initial cal verification 50
EM6773-ICV6773	M160106.D	10/04/19	04:21	03:58	Initial cal verification 50
EM6773-ICV6773	M160107.D	10/04/19	04:49	04:26	Initial cal verification 50
EM6773-ICV6773	M160108.D	10/04/19	05:17	04:54	Initial cal verification 50

Instrument Performance Check (DFTPP)

Job Number: JC96248
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample:	EM6777-DFTPP	Injection Date:	10/07/19
Lab File ID:	M160137.D	Injection Time:	09:55
Instrument ID:	GCMSM		

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
51	30.0 - 60.0% of mass 198	105279	32.0	Pass
68	Less than 2.0% of mass 69	477	0.15 (0.36) ^a	Pass
69	Mass 69 relative abundance	130894	39.8	Pass
70	Less than 2.0% of mass 69	437	0.13 (0.33) ^a	Pass
127	40.0 - 60.0% of mass 198	149552	45.5	Pass
197	Less than 1.0% of mass 198	0	0.00	Pass
198	Base peak, 100% relative abundance	328704	100.0	Pass
199	5.0 - 9.0% of mass 198	22592	6.87	Pass
275	10.0 - 30.0% of mass 198	82088	25.0	Pass
365	1.0 - 100.0% of mass 198	10535	3.21	Pass
441	Present, but less than mass 443	36957	11.2 (73.1) ^b	Pass
442	40.0 - 100.0% of mass 198	260672	79.3	Pass
443	17.0 - 23.0% of mass 442	50546	15.4 (19.4) ^c	Pass

(a) Value is % of mass 69

(b) Value is % of mass 443

(c) Value is % of mass 442

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
EM6777-IC6777	M160138.D	10/07/19	10:07	00:12	Initial cal 25
EM6777-IC6777	M160139.D	10/07/19	10:35	00:40	Initial cal 100
EM6777-IC6777	M160140.D	10/07/19	11:04	01:09	Initial cal 80
EM6777-ICC6777	M160141.D	10/07/19	11:33	01:38	Initial cal 50
EM6777-IC6777	M160142.D	10/07/19	12:01	02:06	Initial cal 10
EM6777-IC6777	M160143.D	10/07/19	12:30	02:35	Initial cal 5
EM6777-IC6777	M160144.D	10/07/19	12:59	03:04	Initial cal 2
EM6777-IC6777	M160145.D	10/07/19	13:29	03:34	Initial cal 1
EM6777-ICV6777	M160146.D	10/07/19	13:57	04:02	Initial cal verification 50
EM6777-ICV6777	M160147.D	10/07/19	14:26	04:31	Initial cal verification 50
EM6777-ICV6777	M160148.D	10/07/19	14:55	05:00	Initial cal verification 50
EM6777-ICV6777	M160149.D	10/07/19	15:23	05:28	Initial cal verification 50
EM6777-ICV6777	M160150A.D	10/07/19	15:55	06:00	Initial cal verification 50
EM6777-ICV6777	M160151.D	10/07/19	16:24	06:29	Initial cal verification 50

Instrument Performance Check (DFTPP)

Job Number: JC96248
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample:	EM6780-DFTPP	Injection Date:	10/10/19
Lab File ID:	M160198.D	Injection Time:	08:51
Instrument ID:	GCMSM		

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
51	30.0 - 60.0% of mass 198	101101	35.7	Pass
68	Less than 2.0% of mass 69	1083	0.38 (0.87) ^a	Pass
69	Mass 69 relative abundance	123969	43.8	Pass
70	Less than 2.0% of mass 69	204	0.07 (0.16) ^a	Pass
127	40.0 - 60.0% of mass 198	136912	48.3	Pass
197	Less than 1.0% of mass 198	0	0.00	Pass
198	Base peak, 100% relative abundance	283264	100.0	Pass
199	5.0 - 9.0% of mass 198	20173	7.12	Pass
275	10.0 - 30.0% of mass 198	69986	24.7	Pass
365	1.0 - 100.0% of mass 198	9354	3.30	Pass
441	Present, but less than mass 443	30482	10.8 (75.0) ^b	Pass
442	40.0 - 100.0% of mass 198	207573	73.3	Pass
443	17.0 - 23.0% of mass 442	40664	14.4 (19.6) ^c	Pass

(a) Value is % of mass 69

(b) Value is % of mass 443

(c) Value is % of mass 442

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
EM6780-CC6777	M160199.D	10/10/19	09:03	00:12	Continuing cal 50
EM6780-CC6772	M160200.D	10/10/19	09:31	00:40	Continuing cal 50
EM6780-CC6773	M160201.D	10/10/19	09:59	01:08	Continuing cal 50
OP23230-MB1	M160202.D	10/10/19	10:28	01:37	Method Blank
OP23230-BS1	M160203.D	10/10/19	10:56	02:05	Blank Spike
OP23230-BSD	M160204.D	10/10/19	11:24	02:33	Blank Spike Duplicate
ZZZZZZ	M160205.D	10/10/19	11:53	03:02	(unrelated sample)
ZZZZZZ	M160206.D	10/10/19	12:22	03:31	(unrelated sample)
ZZZZZZ	M160207.D	10/10/19	12:50	03:59	(unrelated sample)
ZZZZZZ	M160208.D	10/10/19	13:19	04:28	(unrelated sample)
ZZZZZZ	M160209.D	10/10/19	13:48	04:57	(unrelated sample)
ZZZZZZ	M160210.D	10/10/19	14:16	05:25	(unrelated sample)
ZZZZZZ	M160211.D	10/10/19	14:45	05:54	(unrelated sample)
ZZZZZZ	M160212.D	10/10/19	15:13	06:22	(unrelated sample)
ZZZZZZ	M160216.D	10/10/19	17:35	08:44	(unrelated sample)
ZZZZZZ	M160218.D	10/10/19	18:34	09:43	(unrelated sample)
ZZZZZZ	M160219.D	10/10/19	19:02	10:11	(unrelated sample)
OP23227-MB1	M160220A.D	10/10/19	19:36	10:45	Method Blank
ZZZZZZ	M160221.D	10/10/19	20:05	11:14	(unrelated sample)

Instrument Performance Check (DFTPP)

Job Number: JC96248
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA

Sample:	EM6780-DFTPP	Injection Date:	10/10/19
Lab File ID:	M160198.D	Injection Time:	08:51
Instrument ID:	GCMSM		

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
ZZZZZZ	M160222.D	10/10/19	20:33	11:42	(unrelated sample)

Instrument Performance Check (DFTPP)

Job Number: JC96248
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample:	EM6781-DFTPP	Injection Date:	10/11/19
Lab File ID:	M160230.D	Injection Time:	11:06
Instrument ID:	GCMSM		

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
51	30.0 - 60.0% of mass 198	113149	34.1	Pass
68	Less than 2.0% of mass 69	2155	0.65 (1.53) ^a	Pass
69	Mass 69 relative abundance	140761	42.4	Pass
70	Less than 2.0% of mass 69	1009	0.30 (0.72) ^a	Pass
127	40.0 - 60.0% of mass 198	158405	47.8	Pass
197	Less than 1.0% of mass 198	0	0.00	Pass
198	Base peak, 100% relative abundance	331648	100.0	Pass
199	5.0 - 9.0% of mass 198	22552	6.80	Pass
275	10.0 - 30.0% of mass 198	85829	25.9	Pass
365	1.0 - 100.0% of mass 198	11436	3.45	Pass
441	Present, but less than mass 443	36157	10.9 (74.2) ^b	Pass
442	40.0 - 100.0% of mass 198	254144	76.6	Pass
443	17.0 - 23.0% of mass 442	48701	14.7 (19.2) ^c	Pass

(a) Value is % of mass 69

(b) Value is % of mass 443

(c) Value is % of mass 442

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
EM6781-CC6777	M160231.D	10/11/19	11:19	00:13	Continuing cal 25
EM6781-CC6772	M160232.D	10/11/19	11:48	00:42	Continuing cal 25
EM6781-CC6773	M160233.D	10/11/19	12:16	01:10	Continuing cal 25
OP23204-MB1	M160234.D	10/11/19	12:44	01:38	Method Blank
ZZZZZZ	M160237.D	10/11/19	14:08	03:02	(unrelated sample)
ZZZZZZ	M160238.D	10/11/19	14:37	03:31	(unrelated sample)
ZZZZZZ	M160239.D	10/11/19	15:05	03:59	(unrelated sample)
ZZZZZZ	M160240.D	10/11/19	15:33	04:27	(unrelated sample)
ZZZZZZ	M160241.D	10/11/19	16:02	04:56	(unrelated sample)
ZZZZZZ	M160242.D	10/11/19	16:30	05:24	(unrelated sample)
ZZZZZZ	M160243.D	10/11/19	16:58	05:52	(unrelated sample)
ZZZZZZ	M160244.D	10/11/19	17:27	06:21	(unrelated sample)
JC96248-5	M160245.D	10/11/19	17:55	06:49	MW-112
JC96248-6	M160246.D	10/11/19	18:23	07:17	MW-113
JC96248-7	M160247.D	10/11/19	18:51	07:45	DUP-100419
JC96248-8	M160248.D	10/11/19	19:19	08:13	FB-100419
JC96248-4	M160249.D	10/11/19	19:47	08:41	MW-111
OP23230-MS	M160250.D	10/11/19	20:16	09:10	Matrix Spike
OP23230-MSD	M160251.D	10/11/19	20:44	09:38	Matrix Spike Duplicate

Instrument Performance Check (DFTPP)

Job Number: JC96248
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample:	EM6782-DFTPP	Injection Date:	10/12/19
Lab File ID:	M160257.D	Injection Time:	15:04
Instrument ID:	GCMSM		

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
51	30.0 - 60.0% of mass 198	106400	34.5	Pass
68	Less than 2.0% of mass 69	1927	0.62 (1.44) ^a	Pass
69	Mass 69 relative abundance	134206	43.5	Pass
70	Less than 2.0% of mass 69	526	0.17 (0.39) ^a	Pass
127	40.0 - 60.0% of mass 198	145898	47.3	Pass
197	Less than 1.0% of mass 198	0	0.00	Pass
198	Base peak, 100% relative abundance	308480	100.0	Pass
199	5.0 - 9.0% of mass 198	21330	6.91	Pass
275	10.0 - 30.0% of mass 198	82576	26.8	Pass
365	1.0 - 100.0% of mass 198	11237	3.64	Pass
441	Present, but less than mass 443	37272	12.1 (77.3) ^b	Pass
442	40.0 - 100.0% of mass 198	250496	81.2	Pass
443	17.0 - 23.0% of mass 442	48208	15.6 (19.2) ^c	Pass

(a) Value is % of mass 69

(b) Value is % of mass 443

(c) Value is % of mass 442

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
EM6782-CC6777	M160258.D	10/12/19	15:15	00:11	Continuing cal 50
EM6782-CC6772	M160259.D	10/12/19	15:45	00:41	Continuing cal 50
EM6782-CC6773	M160260.D	10/12/19	16:13	01:09	Continuing cal 50
OP23240-MB1	M160262.D	10/12/19	17:09	02:05	Method Blank
OP23229-MB1	M160263.D	10/12/19	17:37	02:33	Method Blank
OP23229-BS1	M160264.D	10/12/19	18:05	03:01	Blank Spike
OP23240-BS1	M160265.D	10/12/19	18:33	03:29	Blank Spike
ZZZZZZ	M160266.D	10/12/19	19:01	03:57	(unrelated sample)
ZZZZZZ	M160267.D	10/12/19	19:29	04:25	(unrelated sample)
ZZZZZZ	M160268.D	10/12/19	19:58	04:54	(unrelated sample)
ZZZZZZ	M160269.D	10/12/19	20:26	05:22	(unrelated sample)
ZZZZZZ	M160270.D	10/12/19	20:54	05:50	(unrelated sample)
JC96350-1	M160271.D	10/12/19	21:22	06:18	(used for QC only; not part of job JC96248)
ZZZZZZ	M160272.D	10/12/19	21:50	06:46	(unrelated sample)
ZZZZZZ	M160273.D	10/12/19	22:18	07:14	(unrelated sample)
ZZZZZZ	M160274.D	10/12/19	22:46	07:42	(unrelated sample)
OP23240-MS	M160275.D	10/12/19	23:14	08:10	Matrix Spike
OP23240-MSD	M160276.D	10/12/19	23:42	08:38	Matrix Spike Duplicate
OP23229-BSD	M160277.D	10/13/19	00:10	09:06	Blank Spike Duplicate

Instrument Performance Check (DFTPP)

Job Number: JC96248
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA

Sample:	EM6782-DFTPP	Injection Date:	10/12/19
Lab File ID:	M160257.D	Injection Time:	15:04
Instrument ID:	GCSM		

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
ZZZZZZ	M160279.D	10/13/19	01:06	10:02	(unrelated sample)
ZZZZZZ	M160280.D	10/13/19	01:34	10:30	(unrelated sample)
JC96248-4	M160281.D	10/13/19	02:02	10:58	MW-111
ZZZZZZ	M160282.D	10/13/19	02:29	11:25	(unrelated sample)
ZZZZZZ	M160283.D	10/13/19	02:57	11:53	(unrelated sample)
EM6782-ECC6777	M160284.D	10/13/19	03:25	12:21	Ending cal 50
EM6782-ECC6772	M160285.D	10/13/19	03:53	12:49	Ending cal 50
EM6782-ECC6773	M160286.D	10/13/19	04:21	13:17	Ending cal 50

8.4.13
8

Instrument Performance Check (DFTPP)

Job Number: JC96248
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample:	EM6783-DFTPP	Injection Date:	10/13/19
Lab File ID:	M160287.D	Injection Time:	09:18
Instrument ID:	GCMSM		

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
51	30.0 - 60.0% of mass 198	84083	35.2	Pass
68	Less than 2.0% of mass 69	1623	0.68 (1.53) ^a	Pass
69	Mass 69 relative abundance	106044	44.4	Pass
70	Less than 2.0% of mass 69	444	0.19 (0.42) ^a	Pass
127	40.0 - 60.0% of mass 198	113608	47.6	Pass
197	Less than 1.0% of mass 198	0	0.00	Pass
198	Base peak, 100% relative abundance	238635	100.0	Pass
199	5.0 - 9.0% of mass 198	16363	6.86	Pass
275	10.0 - 30.0% of mass 198	61861	25.9	Pass
365	1.0 - 100.0% of mass 198	8900	3.73	Pass
441	Present, but less than mass 443	26275	11.0 (74.3) ^b	Pass
442	40.0 - 100.0% of mass 198	176213	73.8	Pass
443	17.0 - 23.0% of mass 442	35387	14.8 (20.1) ^c	Pass

(a) Value is % of mass 69

(b) Value is % of mass 443

(c) Value is % of mass 442

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
EM6783-CC6777	M160288.D	10/13/19	09:32	00:14	Continuing cal 25
EM6783-CC6772	M160289.D	10/13/19	10:00	00:42	Continuing cal 25
EM6783-CC6773	M160290.D	10/13/19	10:27	01:09	Continuing cal 25
OP23213-MB1	M160291.D	10/13/19	10:55	01:37	Method Blank
OP23213-BS1	M160292.D	10/13/19	11:23	02:05	Blank Spike
ZZZZZZ	M160294.D	10/13/19	12:19	03:01	(unrelated sample)
ZZZZZZ	M160295.D	10/13/19	12:47	03:29	(unrelated sample)
ZZZZZZ	M160296.D	10/13/19	13:15	03:57	(unrelated sample)
JC96248-1	M160297.D	10/13/19	13:43	04:25	MW-108
JC96248-2	M160298.D	10/13/19	14:11	04:53	MW-109
JC96248-3	M160299.D	10/13/19	14:39	05:21	MW-110
ZZZZZZ	M160300.D	10/13/19	15:07	05:49	(unrelated sample)
ZZZZZZ	M160301.D	10/13/19	15:35	06:17	(unrelated sample)
JC96244-5	M160308.D	10/13/19	18:51	09:33	(used for QC only; not part of job JC96248)
ZZZZZZ	M160309.D	10/13/19	19:19	10:01	(unrelated sample)
ZZZZZZ	M160311.D	10/13/19	20:16	10:58	(unrelated sample)
OP23213-MS	M160312.D	10/13/19	20:44	11:26	Matrix Spike
OP23213-MSD	M160313.D	10/13/19	21:12	11:54	Matrix Spike Duplicate

Instrument Performance Check (DFTPP)

Job Number: JC96248
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample:	EM6787-DFTPP	Injection Date:	10/16/19
Lab File ID:	M160400.D	Injection Time:	10:42
Instrument ID:	GCMSM		

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
51	30.0 - 60.0% of mass 198	85902	37.4	Pass
68	Less than 2.0% of mass 69	128	0.06 (0.12) ^a	Pass
69	Mass 69 relative abundance	104992	45.7	Pass
70	Less than 2.0% of mass 69	650	0.28 (0.62) ^a	Pass
127	40.0 - 60.0% of mass 198	114480	49.9	Pass
197	Less than 1.0% of mass 198	0	0.00	Pass
198	Base peak, 100% relative abundance	229525	100.0	Pass
199	5.0 - 9.0% of mass 198	15694	6.84	Pass
275	10.0 - 30.0% of mass 198	57698	25.1	Pass
365	1.0 - 100.0% of mass 198	8332	3.63	Pass
441	Present, but less than mass 443	24905	10.9 (73.8) ^b	Pass
442	40.0 - 100.0% of mass 198	171968	74.9	Pass
443	17.0 - 23.0% of mass 442	33728	14.7 (19.6) ^c	Pass

(a) Value is % of mass 69

(b) Value is % of mass 443

(c) Value is % of mass 442

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
EM6787-CC6777	M160401.D	10/16/19	10:53	00:11	Continuing cal 25
EM6787-CC6772	M160402.D	10/16/19	11:21	00:39	Continuing cal 25
EM6787-CC6773	M160403.D	10/16/19	11:49	01:07	Continuing cal 25
OP23339-MB1	M160404.D	10/16/19	12:17	01:35	Method Blank
OP23339-BS1	M160405.D	10/16/19	12:45	02:03	Blank Spike
OP23339-BSD	M160406.D	10/16/19	13:14	02:32	Blank Spike Duplicate
OP23204-BS1	M160407.D	10/16/19	13:42	03:00	Blank Spike
OP23204-BSD	M160408.D	10/16/19	14:10	03:28	Blank Spike Duplicate
ZZZZZZ	M160409A.D	10/16/19	15:06	04:24	(unrelated sample)
ZZZZZZ	M160410.D	10/16/19	15:34	04:52	(unrelated sample)
ZZZZZZ	M160411.D	10/16/19	16:03	05:21	(unrelated sample)
ZZZZZZ	M160412.D	10/16/19	16:31	05:49	(unrelated sample)
ZZZZZZ	M160413.D	10/16/19	16:59	06:17	(unrelated sample)
ZZZZZZ	M160414.D	10/16/19	17:28	06:46	(unrelated sample)
ZZZZZZ	M160415.D	10/16/19	17:56	07:14	(unrelated sample)
ZZZZZZ	M160416.D	10/16/19	18:24	07:42	(unrelated sample)
ZZZZZZ	M160417.D	10/16/19	18:53	08:11	(unrelated sample)
ZZZZZZ	M160418.D	10/16/19	19:21	08:39	(unrelated sample)
ZZZZZZ	M160419.D	10/16/19	19:50	09:08	(unrelated sample)

Instrument Performance Check (DFTPP)

Job Number: JC96248
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA

Sample:	EM6787-DFTPP	Injection Date:	10/16/19
Lab File ID:	M160400.D	Injection Time:	10:42
Instrument ID:	GCMSM		

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
EM6787-ECC6777	M160430.D	10/16/19	20:46	10:04	Ending cal 25
EM6787-ECC6772	M160431.D	10/16/19	21:15	10:33	Ending cal 25
EM6787-ECC6773	M160432.D	10/16/19	21:43	11:01	Ending cal 25

8.4.15
8

Internal Standard Area Summary

Job Number: JC96248
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Check Std:	EF8099-CC8050	Injection Date:	10/19/19
Lab File ID:	F187960.D	Injection Time:	00:29
Instrument ID:	GCMSF	Method:	SW846 8270D

	IS 1		IS 2		IS 3		IS 4		IS 5		IS 6	
	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT
Check Std	155488	4.50	533258	5.42	365688	6.77	676247	8.54	703115	13.67	658130	16.69
Upper Limit ^a	310976	5.00	1066516	5.92	731376	7.27	1352494	9.04	1406230	14.17	1316260	17.19
Lower Limit ^b	77744	4.00	266629	4.92	182844	6.27	338124	8.04	351558	13.17	329065	16.19

Lab Sample ID	IS 1		IS 2		IS 3		IS 4		IS 5		IS 6	
	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT
OP23404-MB1	127453	4.50	452851	5.42	289228	6.77	572305	8.54	527328	13.67	544769	16.70
OP23343-MB1	123823	4.50	449390	5.42	287101	6.77	562655	8.54	528796	13.67	563184	16.69
OP23339-MB1	118234	4.50	405389	5.42	267070	6.77	533197	8.54	494857	13.67	516857	16.70
OP23339-BS13	135407	4.50	479778	5.42	321095	6.77	650415	8.54	662658	13.67	676780	16.69
OP23339-BS14	143930	4.50	520510	5.42	341166	6.77	648166	8.53	611263	13.67	628686	16.69
OP23339-BS15	139049	4.50	458916	5.42	316093	6.77	606257	8.54	572551	13.67	582734	16.69
ZZZZZZ	108711	4.50	393233	5.42	247320	6.77	483267	8.54	466878	13.67	489356	16.69
ZZZZZZ	116532	4.50	421187	5.42	269268	6.77	528297	8.54	498939	13.67	526063	16.69
ZZZZZZ	110909	4.50	392604	5.42	253677	6.77	489697	8.54	473454	13.67	496490	16.69
JC96248-6 ^c	117359	4.50	414459	5.42	243407	6.77	441275	8.54	462531	13.67	495561	16.70
JC96248-7 ^c	145203	4.50	524301	5.42	326871	6.77	578107	8.54	554935	13.67	591217	16.69
ZZZZZZ	140067	4.50	491426	5.42	306049	6.77	585772	8.54	582312	13.67	617063	16.69
ZZZZZZ	163918	4.50	541922	5.42	327961	6.77	618561	8.54	625417	13.67	652968	16.69
ZZZZZZ	140018	4.50	493590	5.42	334011	6.77	635213	8.54	617472	13.67	647227	16.69
ZZZZZZ	143890	4.50	517668	5.42	348056	6.77	651023	8.54	612182	13.67	638761	16.69
ZZZZZZ	117898	4.50	398196	5.42	261603	6.77	526707	8.54	536690	13.67	553316	16.70
ZZZZZZ	164503	4.50	565433	5.42	368868	6.77	716445	8.54	690398	13.67	710659	16.70
ZZZZZZ	143378	4.50	486963	5.42	318593	6.77	607975	8.54	590095	13.67	599769	16.69

- IS 1 = 1,4-Dichlorobenzene-d4
- IS 2 = Naphthalene-d8
- IS 3 = Acenaphthene-D10
- IS 4 = Phenanthrene-d10
- IS 5 = Chrysene-d12
- IS 6 = Perylene-d12

- (a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.
- (b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.
- (c) Sample extracted outside the holding time. Confirmation run.

8.5.1
8

Internal Standard Area Summary

Job Number: JC96248
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Check Std:	EM6780-CC6777	Injection Date:	10/10/19
Lab File ID:	M160199.D	Injection Time:	09:03
Instrument ID:	GCMSM	Method:	SW846 8270D

	IS 1		IS 2		IS 3		IS 4		IS 5		IS 6	
	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT
Check Std	211949	4.37	747463	5.42	487696	7.60	836878	10.14	736560	15.24	833408	17.83
Upper Limit ^a	423898	4.87	1494926	5.92	975392	8.10	1673756	10.64	1473120	15.74	1666816	18.33
Lower Limit ^b	105975	3.87	373732	4.92	243848	7.10	418439	9.64	368280	14.74	416704	17.33

Lab Sample ID	IS 1		IS 2		IS 3		IS 4		IS 5		IS 6	
	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT
OP23230-MB1	276175	4.38	942080	5.42	592763	7.60	1083404	10.14	954374	15.23	953468	17.82
OP23230-BS1	227152	4.37	772379	5.42	496860	7.60	874554	10.14	777518	15.23	860753	17.83
OP23230-BSD	228352	4.38	784118	5.42	498209	7.60	881975	10.14	774303	15.23	866085	17.82
ZZZZZZ	267769	4.37	894403	5.42	548568	7.61	978148	10.14	911780	15.22	931399	17.82
ZZZZZZ	270115	4.38	923282	5.42	582064	7.60	1065811	10.13	927162	15.23	947293	17.82
ZZZZZZ	278151	4.37	946848	5.42	598836	7.60	1081665	10.13	949164	15.22	982569	17.82
ZZZZZZ	306749	4.37	1050999	5.42	662209	7.60	824552	10.14	1041848	15.22	1100881	17.82
ZZZZZZ	293507	4.37	969441	5.42	620969	7.60	1121655	10.13	1016579	15.22	1047361	17.82
ZZZZZZ	238443	4.38	761948	5.43	508144	7.60	920071	10.14	876425	15.23	953027	17.82
ZZZZZZ	233027	4.38	748301	5.43	496670	7.60	880667	10.14	835440	15.23	892970	17.82
ZZZZZZ	227945	4.37	587686	5.45	465414	7.61	853346	10.14	758477	15.23	814276	17.83
ZZZZZZ	240916	4.37	622269	5.42	345797	7.61	572177	10.14	640290	15.22	720626	17.82
ZZZZZZ	289763	4.38	988335	5.42	633444	7.60	1147966	10.13	1026645	15.22	1062513	17.82
ZZZZZZ	281093	4.37	981718	5.42	629738	7.60	1139232	10.13	1039827	15.22	1077702	17.82
OP23227-MB1	296285	4.38	1025303	5.42	619121	7.60	1097255	10.13	948761	15.22	973620	17.82
ZZZZZZ	330017	4.37	1137945	5.42	694921	7.60	1194326	10.13	886437	15.22	885469	17.82
ZZZZZZ	296671	4.37	1020332	5.42	601795	7.60	1036027	10.13	773954	15.23	813634	17.83

- IS 1 = 1,4-Dichlorobenzene-d4
- IS 2 = Naphthalene-d8
- IS 3 = Acenaphthene-D10
- IS 4 = Phenanthrene-d10
- IS 5 = Chrysene-d12
- IS 6 = Perylene-d12

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.

(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

8.5.2
8

Internal Standard Area Summary

Job Number: JC96248
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Check Std:	EM6781-CC6777	Injection Date:	10/11/19
Lab File ID:	M160231.D	Injection Time:	11:19
Instrument ID:	GCM5M	Method:	SW846 8270D

	IS 1		IS 2		IS 3		IS 4		IS 5		IS 6	
	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT
Check Std	240506	4.36	801395	5.41	505116	7.58	906472	10.11	786457	15.20	879467	17.79
Upper Limit ^a	481012	4.86	1602790	5.91	1010232	8.08	1812944	10.61	1572914	15.70	1758934	18.29
Lower Limit ^b	120253	3.86	400698	4.91	252558	7.08	453236	9.61	393229	14.70	439734	17.29

Lab Sample ID	IS 1		IS 2		IS 3		IS 4		IS 5		IS 6	
	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT
OP23204-MB1	292616	4.36	965650	5.40	586339	7.58	1030859	10.11	908379	15.19	972223	17.79
ZZZZZZ	273311	4.36	906753	5.40	558556	7.58	995399	10.11	886750	15.19	954229	17.78
ZZZZZZ	282684	4.36	926850	5.40	563599	7.58	980875	10.10	867210	15.19	939270	17.79
ZZZZZZ	289522	4.36	970169	5.41	592920	7.58	1045319	10.11	927019	15.19	1016987	17.78
ZZZZZZ	288186	4.36	934538	5.40	571200	7.58	1002035	10.10	907372	15.19	986608	17.78
ZZZZZZ	229759	4.36	700568	5.41	481509	7.58	831093	10.11	549428	15.20	536290	17.81
ZZZZZZ	258123	4.36	893781	5.41	543344	7.58	962735	10.11	723967	15.19	768286	17.79
ZZZZZZ	296920	4.36	994907	5.40	622836	7.58	1106772	10.11	942218	15.19	954840	17.79
ZZZZZZ	282562	4.36	952158	5.40	598392	7.58	1056505	10.11	948803	15.19	963036	17.79
JC96248-5	294623	4.36	974867	5.41	578138	7.58	997482	10.11	874928	15.19	936212	17.78
JC96248-6	302470	4.36	1002821	5.40	592021	7.58	1005043	10.11	837272	15.20	935114	17.79
JC96248-7	291483	4.36	968249	5.40	579934	7.58	998972	10.11	875888	15.19	942261	17.79
JC96248-8	298366	4.36	971962	5.40	599508	7.58	1050302	10.10	930184	15.19	985658	17.78
JC96248-4	248896	4.36	724232	5.41	473725	7.58	784295	10.11	714755	15.20	817311	17.80
OP23230-MS	197474	4.36	610630	5.41	381504	7.58	621394	10.12	521081	15.21	628823	17.80
OP23230-MSD	207083	4.37	625390	5.42	394990	7.59	626956	10.12	569919	15.21	665428	17.80

- IS 1 = 1,4-Dichlorobenzene-d4
- IS 2 = Naphthalene-d8
- IS 3 = Acenaphthene-D10
- IS 4 = Phenanthrene-d10
- IS 5 = Chrysene-d12
- IS 6 = Perylene-d12

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.
 (b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

8.5.3
8

Internal Standard Area Summary

Job Number: JC96248
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Check Std:	EM6782-CC6777	Injection Date:	10/12/19
Lab File ID:	M160258.D	Injection Time:	15:15
Instrument ID:	GCM5M	Method:	SW846 8270D

	IS 1		IS 2		IS 3		IS 4		IS 5		IS 6	
	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT
Check Std	247559	4.34	857596	5.38	564021	7.55	1005553	10.07	846955	15.16	994233	17.74
Upper Limit ^a	495118	4.84	1715192	5.88	1128042	8.05	2011106	10.57	1693910	15.66	1988466	18.24
Lower Limit ^b	123780	3.84	428798	4.88	282011	7.05	502777	9.57	423478	14.66	497117	17.24

Lab Sample ID	IS 1		IS 2		IS 3		IS 4		IS 5		IS 6	
	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT
OP23240-MB1	265451	4.34	879034	5.38	570375	7.54	1034913	10.06	929090	15.14	973059	17.73
OP23229-MB1	289318	4.34	952629	5.38	619650	7.54	1139172	10.06	1015742	15.14	1070784	17.73
OP23229-BS1	224410	4.34	756582	5.38	493241	7.54	883530	10.07	766303	15.15	876709	17.73
OP23240-BS1	225734	4.34	763006	5.38	489418	7.54	881648	10.06	763733	15.15	871281	17.73
ZZZZZZ	262342	4.34	878025	5.38	564863	7.54	1038406	10.06	929755	15.14	989242	17.73
ZZZZZZ	266238	4.34	897098	5.38	571106	7.54	1044657	10.06	923343	15.14	981007	17.73
ZZZZZZ	254906	4.34	863375	5.38	537379	7.54	980019	10.06	887373	15.14	949142	17.73
ZZZZZZ	265144	4.34	903487	5.38	569961	7.54	1031277	10.06	917820	15.14	994027	17.73
ZZZZZZ	276957	4.34	922848	5.38	583894	7.54	1064736	10.06	944928	15.14	997756	17.73
JC96350-1	272399	4.34	914236	5.38	575684	7.54	1047964	10.06	932280	15.14	992367	17.72
ZZZZZZ	281476	4.34	953086	5.38	599031	7.54	1098986	10.06	963771	15.13	1026250	17.73
ZZZZZZ	275600	4.34	937733	5.38	590510	7.54	1072886	10.06	966489	15.13	1032224	17.73
ZZZZZZ	251963	4.34	805964	5.38	500582	7.54	873868	10.06	830767	15.14	959139	17.73
OP23240-MS	219812	4.34	755678	5.38	489988	7.54	880283	10.06	771118	15.14	868496	17.73
OP23240-MSD	214723	4.34	740057	5.38	478309	7.54	857240	10.07	745013	15.15	834205	17.73
OP23229-BSD	210144	4.34	723200	5.38	468152	7.54	834472	10.06	735815	15.14	827911	17.73
ZZZZZZ	256428	4.34	879381	5.38	540872	7.54	887842	10.06	849856	15.14	904876	17.73
ZZZZZZ	251876	4.34	841680	5.38	557142	7.54	1022942	10.06	910074	15.14	953431	17.73
JC96248-4	282652	4.34	871391	5.38	574191	7.54	999100	10.06	950147	15.14	1029078	17.73
ZZZZZZ	248602	4.34	863134	5.38	560448	7.54	1031400	10.06	923752	15.14	969879	17.73
ZZZZZZ	284440	4.34	923472	5.38	539043	7.54	981443	10.06	903047	15.14	1008600	17.73
EM6782-ECC6777244008	4.34		836034	5.38	549929	7.54	982804	10.07	849171	15.15	974794	17.73
EM6782-ECC6772282355	4.34		992841	5.38	644376	7.54	1042807	10.06	1017808	15.14	1068225	17.73
EM6782-ECC6773289290	4.34		981820	5.38	605729	7.54	1110819	10.06	983029	15.14	1022930	17.72

- IS 1 = 1,4-Dichlorobenzene-d4
- IS 2 = Naphthalene-d8
- IS 3 = Acenaphthene-D10
- IS 4 = Phenanthrene-d10
- IS 5 = Chrysene-d12
- IS 6 = Perylene-d12

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.
 (b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

8.5.4
8

Internal Standard Area Summary

Job Number: JC96248
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Check Std:	EM6783-CC6777	Injection Date:	10/13/19
Lab File ID:	M160288.D	Injection Time:	09:32
Instrument ID:	GCM5M	Method:	SW846 8270D

	IS 1		IS 2		IS 3		IS 4		IS 5		IS 6	
	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT
Check Std	169623	4.33	579549	5.37	356619	7.53	644062	10.05	569727	15.13	636350	17.71
Upper Limit ^a	339246	4.83	1159098	5.87	713238	8.03	1288124	10.55	1139454	15.63	1272700	18.21
Lower Limit ^b	84812	3.83	289775	4.87	178310	7.03	322031	9.55	284864	14.63	318175	17.21

Lab Sample ID	IS 1		IS 2		IS 3		IS 4		IS 5		IS 6	
	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT
OP23213-MB1	243028	4.33	855092	5.37	512721	7.53	902605	10.05	799589	15.13	860464	17.71
OP23213-BS1	213388	4.33	714151	5.37	448984	7.53	808612	10.05	700629	15.13	769779	17.71
ZZZZZZ	250696	4.33	833865	5.37	505526	7.53	909625	10.05	805184	15.12	871191	17.71
ZZZZZZ	244779	4.33	810975	5.37	500256	7.53	899132	10.05	811426	15.13	889328	17.71
ZZZZZZ	260981	4.33	846626	5.37	514653	7.53	933967	10.05	855155	15.12	913190	17.72
JC96248-1	271470	4.33	890446	5.37	533901	7.53	932185	10.05	848902	15.13	929278	17.71
JC96248-2	252196	4.33	834980	5.37	512249	7.53	895087	10.05	817721	15.13	893759	17.72
JC96248-3	267341	4.33	871085	5.37	513895	7.53	891993	10.05	810197	15.13	900023	17.71
ZZZZZZ	246197	4.33	793887	5.37	482920	7.53	862090	10.05	778469	15.13	831120	17.71
ZZZZZZ	260832	4.33	860675	5.37	549108	7.53	979126	10.05	877971	15.13	921486	17.72
JC96244-5	271660	4.34	913982	5.37	536823	7.54	871137	10.05	638326	15.13	664189	17.72
ZZZZZZ	173169	4.34	539068	5.38	424656	7.54	690421	10.06	689030	15.13	728080	17.72
ZZZZZZ	257650	4.34	864364	5.37	502690	7.54	831895	10.05	618175	15.14	604331	17.73
OP23213-MS	226535	4.34	753488	5.38	452220	7.54	746460	10.06	532541	15.15	564297	17.73
OP23213-MSD	215263	4.34	709104	5.37	426184	7.54	712767	10.06	521769	15.15	549640	17.74

- IS 1 = 1,4-Dichlorobenzene-d4
- IS 2 = Naphthalene-d8
- IS 3 = Acenaphthene-D10
- IS 4 = Phenanthrene-d10
- IS 5 = Chrysene-d12
- IS 6 = Perylene-d12

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.

(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

8.5.5
8

Internal Standard Area Summary

Job Number: JC96248
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Check Std:	EM6787-CC6777	Injection Date:	10/16/19
Lab File ID:	M160401.D	Injection Time:	10:53
Instrument ID:	GCMSM	Method:	SW846 8270D

	IS 1		IS 2		IS 3		IS 4		IS 5		IS 6	
	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT
Check Std	246281	4.30	842761	5.33	538107	7.48	995836	9.99	845244	15.07	944310	17.66
Upper Limit ^a	492562	4.80	1685522	5.83	1076214	7.98	1991672	10.49	1690488	15.57	1888620	18.16
Lower Limit ^b	123141	3.80	421381	4.83	269054	6.98	497918	9.49	422622	14.57	472155	17.16

Lab Sample ID	IS 1		IS 2		IS 3		IS 4		IS 5		IS 6	
	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT
OP23339-MB1	283537	4.30	953802	5.33	594421	7.47	1033753	9.99	933520	15.07	1001224	17.66
OP23339-BS1	250360	4.30	833249	5.33	537669	7.48	980232	9.99	831007	15.07	946790	17.66
OP23339-BSD	245011	4.30	799276	5.33	516888	7.48	937993	9.99	795606	15.07	915511	17.66
OP23204-BS1	246690	4.30	803756	5.33	522904	7.48	936422	9.99	819693	15.07	898402	17.66
OP23204-BSD	251687	4.30	847618	5.33	548009	7.48	985034	9.99	845947	15.07	947188	17.66
ZZZZZZ	310157	4.30	996763	5.33	581151	7.48	976036	9.99	860444	15.07	978275	17.66
ZZZZZZ	249236	4.30	849885	5.33	438410	7.48	827946	9.99	748114	15.07	840499	17.66
ZZZZZZ	301646	4.30	1005101	5.33	620754	7.48	1108355	9.99	993861	15.07	1056719	17.66
ZZZZZZ	286156	4.30	1017445	5.33	634255	7.48	1132107	9.99	1025881	15.07	1090282	17.66
ZZZZZZ	318174	4.30	1069412	5.33	668209	7.48	1180009	9.99	1047089	15.07	1112661	17.65
ZZZZZZ	254432	4.30	757239	5.33	485319	7.48	921290	10.00	898652	15.07	982378	17.66
ZZZZZZ	312075	4.30	1028610	5.33	630055	7.48	1103538	9.99	965056	15.06	1022184	17.66
ZZZZZZ	196822	4.31	762746	5.33	506811	7.49	868170	10.00	598270	15.10	600016	17.71
ZZZZZZ	269160	4.30	937994	5.33	542772	7.49	955222	10.00	768554	15.08	824622	17.67
ZZZZZZ	309979	4.30	1057154	5.33	666258	7.48	1161655	10.00	949747	15.08	960587	17.67
ZZZZZZ	334512	4.30	1140452	5.33	704689	7.48	1261729	10.00	1083688	15.08	1086338	17.67
EM6787-ECC6777255772	4.30	842785	5.33	562049	7.48	999852	10.00	824854	15.08	923219	17.67	
EM6787-ECC6772330151	4.30	1127302	5.33	699192	7.48	1172322	10.00	1061554	15.08	1086739	17.67	
EM6787-ECC6773324834	4.30	1071439	5.33	642918	7.48	1166567	10.00	1002979	15.07	1038975	17.66	

- IS 1 = 1,4-Dichlorobenzene-d4
- IS 2 = Naphthalene-d8
- IS 3 = Acenaphthene-D10
- IS 4 = Phenanthrene-d10
- IS 5 = Chrysene-d12
- IS 6 = Perylene-d12

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.
 (b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

8.5.6
8

Surrogate Recovery Summary

Job Number: JC96248
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Method: SW846 8270D	Matrix: AQ
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Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3	S4	S5	S6
JC96248-1	M160297.D	24	17	81	71	77	55
JC96248-2	M160298.D	26	18	79	73	75	47
JC96248-3	M160299.D	22	15	76	73	80	50
JC96248-4	M160249.D	23	17	68	69	64	38
JC96248-4	M160281.D	24	19	77	71	73	42
JC96248-5	M160245.D	24	17	77	64	65	46
JC96248-6	F187974.D	35	27	98	91	74	85
JC96248-6	M160246.D	26	19	80	68	70	47
JC96248-7	F187975.D	35	27	89	80	68	80
JC96248-7	M160247.D	24	17	81	63	64	52
JC96248-8	M160248.D	25	17	78	66	61	63
OP23204-BS1	M160407.D	32	22	73	70	68	71
OP23204-BSD	M160408.D	33	25	78	73	73	77
OP23204-MB1	M160234.D	25	18	76	66	70	66
OP23230-BS1	M160203.D	33	23	73	67	61	69
OP23230-BSD	M160204.D	32	22	76	72	66	75
OP23230-MB1	M160202.D	25	18	78	62	61	71
OP23230-MS	M160250.D	31	24	72	83	74	67
OP23230-MSD	M160251.D	30	23	66	84	70	54

Surrogate Compounds	Recovery Limits
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S1 = 2-Fluorophenol	10-110%
S2 = Phenol-d5	10-110%
S3 = 2,4,6-Tribromophenol	36-151%
S4 = Nitrobenzene-d5	34-128%
S5 = 2-Fluorobiphenyl	38-119%
S6 = Terphenyl-d14	26-129%

8.6.1
8

Initial Calibration Summary

Job Number: JC96248
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: EF8050-ICC8050
 Lab FileID: F186998.D

Response Factor Report GCMSF

Method : C:\MSDCHEM\1\METHODS\MF8050.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Tue Sep 10 09:21:05 2019
 Response via : Initial Calibration

Calibration Files

2 =F187002.D 5 =F187001.D 25 =F186999.D 80 =F186997.D
 100 =F186996.D 50 =F186998.D 10 =F187000.D 1 =F187009.D

Compound	2	5	25	80	100	50	10	1	Avg	%RSD
1) I 1,4-Dichlorobenzene-d	-----ISTD-----									
2) 1,4-Dioxane	0.829	0.789	0.700	0.648	0.689	0.667	0.716	0.732	0.721	8.48
3) Pyridine	1.834	1.880	1.786	1.672	1.775	1.705	1.764	1.838	1.782	3.90
4) N-Nitrosodim	0.859	0.835	0.768	0.704	0.743	0.702	0.715	0.781	0.763	7.78
5) 2-Fluorophen	1.585	1.616	1.490	1.396	1.426	1.429	1.543	1.371	1.482	6.13
6) Indene	2.473	2.535	2.294	1.931	1.921	2.059	2.430	2.539	2.273	11.66
7) Cumene	4.171	4.374	3.802	3.359	3.400	3.497	3.907	4.026	3.817	9.77
8) Phenol-d5	1.857	2.030	1.843	1.732	1.756	1.788	1.966	1.692	1.833	6.35
9) Phenol	2.281	2.403	2.180	1.903	1.911	2.035	2.240	2.170	2.140	8.31
10) Aniline	2.660	2.645	2.413	2.170	2.158	2.266	2.497	2.331	2.393	8.22
11) bis(2-Chloro	1.699	1.686	1.528	1.331	1.392	1.418	1.622	1.671	1.543	9.52
12) 2-Chlorophen	1.504	1.641	1.543	1.403	1.409	1.455	1.528	1.480	1.495	5.21
13) Decane	1.546	1.547	1.400	1.171	1.178	1.250	1.481	1.494	1.383	11.60
14) 1,3-Dichloro	1.923	1.954	1.755	1.506	1.544	1.634	1.820	1.834	1.746	9.64
15) 1,4-Dichloro	1.960	1.976	1.765	1.555	1.547	1.630	1.858	2.016	1.788	10.76
16) Benzyl alcoh	0.862	0.947	0.922	0.857	0.862	0.861	0.921	0.803	0.880	5.33
17) 1,2-Dichloro	1.908	1.932	1.657	1.486	1.495	1.533	1.731	1.876	1.702	11.02
18) Acetophenone	2.499	2.482	2.118	1.734	1.736	1.853	2.255	2.318	2.125	14.88
19) 2-Methylphen	1.506	1.503	1.387	1.170	1.170	1.238	1.434	1.396	1.350	10.30
20) 2,2'-oxybis(	0.462	0.411	0.431	0.383	0.385	0.391	0.435	0.386	0.410	7.16
21) 3&4-Methylph	1.479	1.546	1.369	1.125	1.137	1.211	1.441	1.293	1.325	12.01
22) n-Nitroso-di	1.271	1.298	1.119	0.895	0.883	0.972	1.210	1.216	1.108	15.22
23) Hexachloroet	0.669	0.725	0.648	0.611	0.614	0.627	0.643	0.716	0.657	6.66
24) I Naphthalene-d8	-----ISTD-----									
25) Nitrobenzene	0.460	0.495	0.479	0.456	0.461	0.463	0.490	0.400	0.463	6.31
26) Nitrobenzene	0.467	0.529	0.492	0.456	0.452	0.471	0.514	0.432	0.477	6.86
27) Quinoline	0.844	0.843	0.772	0.706	0.709	0.725	0.802	0.709	0.764	7.83
28) Isophorone	0.815	0.914	0.831	0.759	0.772	0.779	0.844	0.746	0.808	6.85
29) 2-Nitropheno	0.124	0.187	0.199	0.198	0.202	0.201	0.189	0.122	0.178	19.26
30) 2,4-Dimethyl	0.420	0.458	0.451	0.403	0.406	0.421	0.466	0.441	0.433	5.55
31) Benzoic acid			0.270	0.318	0.338	0.303	0.198		0.285	19.28
32) bis(2-Chloro	0.544	0.590	0.534	0.458	0.465	0.485	0.531	0.528	0.517	8.59
33) 2,4-Dichloro	0.319	0.366	0.356	0.318	0.322	0.331	0.356	0.317	0.336	6.06
34) 2,6-Dichloro	0.365	0.372	0.343	0.303	0.297	0.313	0.356	0.298	0.331	9.54
35) 1,3,5-Trichl	0.464	0.473	0.409	0.355	0.349	0.378	0.428	0.460	0.415	12.05
36) 1,2,4-Trichl	0.455	0.432	0.390	0.344	0.347	0.365	0.408	0.394	0.392	10.10
37) 1,2,3-Trichl	0.426	0.437	0.385	0.340	0.334	0.356	0.399	0.408	0.386	10.09
38) Naphthalene	1.315	1.360	1.158	0.993	0.991	1.053	1.247	1.285	1.175	12.59
39) 4-Chloroanil	0.534	0.557	0.510	0.450	0.441	0.469	0.528	0.485	0.497	8.47
40) 2,3-Dichloro	0.443	0.466	0.417	0.357	0.358	0.384	0.431	0.423	0.410	9.68
41) Caprolactam	0.111	0.163	0.170	0.162	0.170	0.161	0.168	0.096	0.150	19.46
42) Hexachlorobu	0.269	0.292	0.250	0.222	0.224	0.234	0.256	0.267	0.252	9.67
43) 4-Chloro-3-m	0.345	0.384	0.383	0.349	0.354	0.352	0.387	0.309	0.358	7.34
44) 2-Methylnaph	0.630	0.672	0.610	0.523	0.523	0.557	0.621	0.594	0.591	9.00
45) 1-Methylnaph	0.826	0.860	0.788	0.684	0.677	0.708	0.810	0.841	0.774	9.50

87.1
8

Initial Calibration Summary

Job Number: JC96248
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA

Sample: EF8050-ICC8050
Lab FileID: F186998.D

46)	Dimethylnaph	0.767	0.800	0.735	0.647	0.641	0.690	0.749	0.759	0.723	8.00
47)	I Acenaphthene-d10	-----ISTD-----									
48)	Hexachlorocy	0.394	0.460	0.461	0.413	0.416	0.435	0.454	0.361	0.424	8.34
49)	2,4,6-Trichl	0.454	0.486	0.447	0.403	0.400	0.428	0.467	0.352	0.430	10.08
50)	2,4,5-Trichl	0.476	0.516	0.503	0.462	0.461	0.461	0.498	0.353	0.466	10.86
51)	2-Fluorobiph	1.688	1.698	1.531	1.379	1.371	1.416	1.597	1.663	1.543	9.01
52)	2-Chloronaph	1.534	1.526	1.360	1.214	1.192	1.241	1.413	1.436	1.364	9.99
53)	Biphenyl	1.826	1.870	1.652	1.456	1.455	1.504	1.700	1.771	1.654	10.05
54)	2-Nitroanili	0.374	0.425	0.477	0.446	0.446	0.448	0.449	0.311	0.422	12.74
55)	Dimethylphth	1.525	1.621	1.491	1.356	1.349	1.380	1.496	1.480	1.462	6.45
56)	Acenaphthyle	1.958	2.151	2.008	1.827	1.798	1.861	2.035	1.800	1.930	6.68
57)	2,6-Dinitrot	0.207	0.274	0.311	0.316	0.310	0.314	0.290	0.117	0.267	26.57
	----- Quadratic regression -----	Coefficient = 0.9999									
	Response Ratio = -0.00702 + 0.32839 *A + -0.00562 *A^2										
58)	3-Nitroanili	0.243	0.305	0.350	0.343	0.351	0.345	0.335	0.325	12.15	
59)	Acenaphthene	1.462	1.459	1.304	1.162	1.139	1.195	1.384	1.366	1.309	9.94
60)	2,4-Dinitrop	0.037	0.068	0.147	0.181	0.189	0.166	0.096	0.126	47.06	
	----- Quadratic regression -----	Coefficient = 0.9998									
	Response Ratio = -0.02085 + 0.15352 *A + 0.00797 *A^2										
61)	4-Nitropheno	0.190	0.232	0.238	0.252	0.233	0.208	0.225	9.96		
62)	Dibenzofuran	1.893	1.951	1.740	1.552	1.525	1.593	1.829	1.868	1.744	9.58
63)	2,4-Dinitrot	0.225	0.360	0.432	0.433	0.431	0.422	0.406	0.171	0.360	28.85
	----- Quadratic regression -----	Coefficient = 0.9999									
	Response Ratio = -0.00795 + 0.43474 *A + 0.00000 *A^2										
64)	2,3,4,6-Tetr	0.277	0.393	0.385	0.369	0.380	0.376	0.380	0.231	0.349	17.25
65)	Diethylphtha	1.506	1.634	1.513	1.413	1.398	1.420	1.537	1.389	1.476	5.81
66)	Fluorene	1.513	1.548	1.375	1.204	1.190	1.251	1.449	1.492	1.378	10.50
67)	4-Chlorophen	0.797	0.801	0.699	0.621	0.608	0.648	0.743	0.707	0.703	10.58
68)	4-Nitroanili	0.238	0.319	0.355	0.362	0.365	0.359	0.339	0.334	13.57	
69)	I Phenanthrene-d10	-----ISTD-----									
70)	4,6-Dinitro-	0.049	0.074	0.137	0.157	0.164	0.151	0.101	0.119	37.49	
	----- Quadratic regression -----	Coefficient = 0.9997									
	Response Ratio = -0.00758 + 0.14249 *A + 0.00972 *A^2										
71)	n-Nitrosodip	0.621	0.648	0.612	0.550	0.553	0.565	0.605	0.551	0.588	6.49
72)	1,2-Diphenyl	0.939	1.040	0.967	0.851	0.875	0.901	0.979	0.888	0.930	6.78
73)	2,4,6-Tribro	0.095	0.124	0.140	0.131	0.137	0.133	0.126	0.073	0.120	19.64
74)	4-Bromopheny	0.251	0.262	0.243	0.227	0.234	0.232	0.244	0.203	0.237	7.43
75)	Hexachlorobe	0.283	0.283	0.271	0.243	0.249	0.251	0.267	0.273	0.265	5.85
76)	Pentachlorop	0.106	0.149	0.169	0.165	0.167	0.167	0.162	0.155	14.73	
77)	Phenanthrene	1.317	1.322	1.193	1.035	1.056	1.078	1.223	1.370	1.199	10.97
78)	Anthracene	1.192	1.277	1.186	1.087	1.091	1.132	1.257	1.097	1.165	6.44
79)	Carbazole	1.101	1.183	1.109	1.007	1.026	1.031	1.134	0.910	1.063	8.10
80)	Di-n-butylph	1.048	1.293	1.401	1.328	1.370	1.346	1.349	0.824	1.245	16.26
81)	Fluoranthene	1.109	1.261	1.230	1.121	1.168	1.160	1.255	0.997	1.163	7.60
82)	Octadecane	0.453	0.533	0.525	0.448	0.465	0.475	0.520	0.393	0.477	10.00
83)	I Chrysene-d12	-----ISTD-----									
84)	Pyrene	1.449	1.647	1.500	1.405	1.439	1.477	1.574	1.311	1.475	6.97
85)	Terphenyl-d1	0.873	1.000	0.985	0.929	0.920	0.948	0.985	0.861	0.938	5.55
86)	Butylbenzylp	0.369	0.514	0.680	0.673	0.688	0.679	0.586	0.599	20.08	
	----- Quadratic regression -----	Coefficient = 0.9998									
	Response Ratio = -0.01802 + 0.68802 *A + 0.00141 *A^2										
87)	Benzo[a]anth	1.281	1.349	1.362	1.314	1.335	1.319	1.313	1.223	1.312	3.32

Initial Calibration Summary

Job Number: JC96248
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA

Sample: EF8050-ICC8050
Lab FileID: F186998.D

88)	3,3'-Dichlor	0.270	0.385	0.501	0.503	0.503	0.499	0.416	0.440	20.26
	----- Quadratic regression -----								Coefficient =	0.9999
									Response Ratio =	-0.01656 + 0.51908 *A + -0.00399 *A^2
89)	Chrysene	1.477	1.570	1.450	1.347	1.340	1.393	1.484	1.318	6.14
90)	bis(2-Ethylh	0.466	0.680	0.921	0.944	0.947	0.929	0.795	0.812	22.42
	----- Quadratic regression -----								Coefficient =	1.0000
									Response Ratio =	-0.03104 + 0.95524 *A + 0.00178 *A^2
91)	I Perylene-d12								-----ISTD-----	
92)	Di-n-octylph	0.685	0.990	1.405	1.464	1.514	1.460	1.141	1.237	25.15
	----- Quadratic regression -----								Coefficient =	0.9997
									Response Ratio =	-0.05117 + 1.43972 *A + 0.03477 *A^2
93)	Benzo[b]fluo	1.119	1.300	1.288	1.234	1.263	1.233	1.251	0.917	10.58
94)	Benzo[k]fluo	1.237	1.349	1.333	1.213	1.217	1.259	1.312	1.117	6.08
95)	Benzo[a]pyre	0.834	1.108	1.168	1.127	1.147	1.121	1.113	0.621	19.04
96)	Indeno[1,2,3	0.771	0.990	1.061	1.077	1.107	1.039	1.002	0.581	19.15
97)	Dibenz(a,h)a	0.654	0.832	0.975	0.963	0.998	0.951	0.891	0.895	13.46
98)	Dibenz[a,h]a	0.921	1.058	1.136	1.125	1.181	1.095	1.042	0.745	13.67
99)	7,12-Dimethy	0.435	0.572	0.619	0.576	0.587	0.600	0.578	0.351	17.49
100)	Benzo[g,h,i]	0.893	1.067	1.078	1.067	1.104	1.073	1.046	0.704	13.69

(#) = Out of Range ### Number of calibration levels exceeded format ###

MF8050.M

Tue Sep 10 10:03:51 2019

8.7.1

8

Initial Calibration Verification

Job Number: JC96248
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: EF8050-ICV8050
 Lab FileID: F187003.D

Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\EF8050\F187003.D Vial: 10
 Acq On : 9 Sep 2019 7:00 pm Operator: angelar
 Sample : icv8050-50 Inst : GCMSF
 Misc : op21602,ef8050,1000,,,1,1 Multiplr: 1.00
 MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MF8050.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Tue Sep 10 09:21:05 2019
 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	104	0.00	4.61
4 t	N-Nitrosodimethylamine	0.763	0.764	-0.1	113	0.00	2.44
11 t	bis(2-Chloroethyl)ether	1.543	1.477	4.3	108	0.00	4.41
14 t	1,3-Dichlorobenzene	1.746	1.583	9.3	101	0.00	4.56
15 t	1,4-Dichlorobenzene	1.788	1.635	8.6	104	0.00	4.62
17 t	1,2-Dichlorobenzene	1.702	1.532	10.0	104	0.00	4.73
20 t	2,2'-oxybis(1-Chloropropa	0.410	0.473	-15.4	126	0.00	4.80
22	n-Nitroso-di-n-propylamin	1.108	1.131	-2.1	121	0.00	4.90
23 t	Hexachloroethane	0.657	0.588	10.5	97	0.00	4.98
24 I	Naphthalene-d8	1.000	1.000	0.0	101	0.00	5.53
26 t	Nitrobenzene	0.477	0.443	7.1	95	0.00	5.02
28 t	Isophorone	0.808	0.822	-1.7	107	0.00	5.19
32 t	bis(2-Chloroethoxy)methan	0.517	0.512	1.0	107	0.00	5.34
36 t	1,2,4-Trichlorobenzene	0.392	0.364	7.1	101	0.00	5.48
38 t	Naphthalene	1.175	1.114	5.2	107	0.00	5.54
42 t	Hexachlorobutadiene	0.252	0.235	6.7	102	0.00	5.63
47 I	Acenaphthene-d10	1.000	1.000	0.0	100	0.00	6.90
48 t	Hexachlorocyclopentadiene	0.424	0.391	7.8	90	0.00	6.16
52 t	2-Chloronaphthalene	1.364	1.205	11.7	97	0.00	6.41
55 t	Dimethylphthalate	1.462	1.337	8.5	97	0.00	6.65
56 t	Acenaphthylene	1.930	1.891	2.0	102	0.00	6.77
	----- True Calc. % Drift -----						
57 t	2,6-Dinitrotoluene	50.000	42.033	15.9	84	0.01	6.70
	----- AvgRF CCRF % Dev -----						
59 t	Acenaphthene	1.309	1.194	8.8	100	0.00	6.94
	----- True Calc. % Drift -----						
63 t	2,4-Dinitrotoluene	50.000	37.490	25.0	76	0.00	7.09
	----- AvgRF CCRF % Dev -----						
65 t	Diethylphthalate	1.476	1.386	6.1	98	0.00	7.35
66 t	Fluorene	1.378	1.272	7.7	102	0.00	7.48
67 t	4-Chlorophenyl-phenylethe	0.703	0.633	10.0	98	0.00	7.48
69 I	Phenanthrene-d10	1.000	1.000	0.0	97	0.00	8.73
71 t	n-Nitrosodiphenylamine	0.588	0.559	4.9	96	0.00	7.62
72 t	1,2-Diphenylhydrazine	0.930	0.962	-3.4	103	0.00	7.67

Initial Calibration Verification

Job Number: JC96248
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: EF8050-ICV8050
 Lab FileID: F187003.D

74	t	4-Bromophenyl-phenylether	0.237	0.233	1.7	97	0.00	8.10
75	t	Hexachlorobenzene	0.265	0.258	2.6	99	0.00	8.19
77	t	Phenanthrene	1.199	1.125	6.2	101	0.00	8.77
78	t	Anthracene	1.165	1.150	1.3	98	0.00	8.85
80	t	Di-n-butylphthalate	1.245	1.340	-7.6	96	0.01	9.82
81	t	Fluoranthene	1.163	1.197	-2.9	100	0.01	10.87
83	I	Chrysene-d12	1.000	1.000	0.0	93	0.01	13.94
84	t	Pyrene	1.475	1.538	-4.3	97	0.01	11.31
			----- True	Calc.	% Drift	-----		
86	t	Butylbenzylphthalate	50.000	50.638	-1.3	94	0.00	12.91
			----- AvgRF	CCRF	% Dev	-----		
87	t	Benzo[a]anthracene	1.312	1.329	-1.3	94	0.00	13.92
89	t	Chrysene	1.422	1.400	1.5	94	0.01	13.99
			----- True	Calc.	% Drift	-----		
90	t	bis(2-Ethylhexyl)phthalat	50.000	50.301	-0.6	94	0.00	14.32
			----- AvgRF	CCRF	% Dev	-----		
91	I	Perylene-d12	1.000	1.000	0.0	89	0.00	16.96
			----- True	Calc.	% Drift	-----		
92	t	Di-n-octylphthalate	50.000	52.250	-4.5	92	0.00	15.76
			----- AvgRF	CCRF	% Dev	-----		
93	t	Benzo[b]fluoranthene	1.201	1.236	-2.9	89	0.01	16.22
94	t	Benzo[k]fluoranthene	1.255	1.286	-2.5	90	0.02	16.27
95	t	Benzo[a]pyrene	1.030	1.142	-10.9	90	0.01	16.85
96	t	Indeno[1,2,3-cd]pyrene	0.954	1.032	-8.2	88	0.01	18.90
98	t	Dibenz[a,h]anthracene	1.038	1.052	-1.3	85	0.02	18.96
100	t	Benzo[g,h,i]perylene	1.004	1.095	-9.1	90	0.02	19.32

(#) = Out of Range
 F186998.D MF8050.M

SPCC's out = 0 CCC's out = 0
 Tue Sep 10 10:04:08 2019

87.2
 8

Initial Calibration Verification

Job Number: JC96248
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: EF8050-ICV8050
 Lab FileID: F187004.D

Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\EF8050\F187004.D Vial: 11
 Acq On : 9 Sep 2019 7:29 pm Operator: angular
 Sample : icv8050-50 Inst : GCMSF
 Misc : op21602,ef8050,1000,,,1,1 Multiplr: 1.00
 MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MF8050.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Tue Sep 10 09:21:05 2019
 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	115	0.00	4.60
2 t	1,4-Dioxane	0.721	0.662	8.2	114	0.02	2.16
6 t	Indene	2.273	2.374	-4.4	133	0.00	4.79
7 t	Cumene	3.817	3.448	9.7	113	0.00	4.01
13 t	Decane	1.383	1.251	9.5	115	0.00	4.49
18 t	Acetophenone	2.125	2.064	2.9	128	0.00	4.89
24 I	Naphthalene-d8	1.000	1.000	0.0	126	0.00	5.52
27 t	Quinoline	0.764	0.634	17.0	110	0.00	5.77
40 t	2,3-Dichloroaniline	0.410	0.315	23.2	103	0.00	6.24
41 t	Caprolactam	0.150	0.137	8.7	108	0.01	5.80
45 t	1-Methylnaphthalene	0.774	0.596	23.0	106	0.00	6.11
47 I	Acenaphthene-d10	1.000	1.000	0.0	108	0.00	6.90
53 t	Biphenyl	1.654	1.526	7.7	110	0.00	6.39
69 I	Phenanthrene-d10	1.000	1.000	0.0	108	0.00	8.73
82 t	Octadecane	0.477	0.481	-0.8	110	0.00	8.65
91 I	Perylene-d12	1.000	1.000	0.0	87	0.00	16.96
99 t	7,12-Dimethylbenz(a)anthr	0.540	0.569	-5.4	82	0.01	16.24

(#) = Out of Range
 F186998.D MF8050.M

SPCC's out = 0 CCC's out = 0
 Tue Sep 10 10:04:10 2019

Initial Calibration Verification

Job Number: JC96248
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: EF8050-ICV8050
 Lab FileID: F187005.D

Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\EF8050\F187005.D Vial: 12
 Acq On : 9 Sep 2019 9:02 pm Operator: angular
 Sample : icv8050-50 Inst : GCMSF
 Misc : op21602,ef8050,1000,,,1,1 Multiplr: 1.00
 MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MF8050.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Tue Sep 10 09:21:05 2019
 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	125	0.00	4.61
9 t	Phenol	2.140	1.771	17.2	109	0.00	4.35
12 t	2-Chlorophenol	1.495	1.352	9.6	117	0.00	4.45
19 t	2-Methylphenol	1.350	1.224	9.3	124	0.00	4.79
21 t	3&4-Methylphenol	1.325	1.324	0.1	137	0.00	4.90
24 I	Naphthalene-d8	1.000	1.000	0.0	126	0.00	5.53
29 t	2-Nitrophenol	0.178	0.180	-1.1	113	0.00	5.25
30 t	2,4-Dimethylphenol	0.433	0.388	10.4	116	0.00	5.28
31 t	Benzoic acid	0.285	0.248	13.0	103	0.06	5.36
33 t	2,4-Dichlorophenol	0.336	0.300	10.7	114	0.00	5.42
34	2,6-Dichlorophenol	0.331	0.303	8.5	122	0.00	5.58
43 t	4-Chloro-3-methylphenol	0.358	0.331	7.5	118	0.00	5.92
47 I	Acenaphthene-d10	1.000	1.000	0.0	119	0.00	6.91
49 t	2,4,6-Trichlorophenol	0.430	0.423	1.6	117	0.00	6.25
50 t	2,4,5-Trichlorophenol	0.466	0.424	9.0	109	0.00	6.27
	----- True Calc. % Drift -----						
60 t	2,4-Dinitrophenol	50.000	40.602	18.8	95	0.00	6.96
	----- AvgRF CCRF % Dev -----						
61 t	4-Nitrophenol	0.225	0.207	8.0	105	0.00	7.02
	----- AvgRF CCRF % Dev -----						
64	2,3,4,6-Tetrachlorophenol	0.349	0.351	-0.6	111	0.01	7.25
69 I	Phenanthrene-d10	1.000	1.000	0.0	116	0.01	8.74
	----- True Calc. % Drift -----						
70 t	4,6-Dinitro-2-methylpheno	50.000	41.352	17.3	92	0.00	7.54
76 t	Pentachlorophenol	0.155	0.177	-14.2	124	0.01	8.47

(#) = Out of Range
 F186998.D MF8050.M

SPCC's out = 0 CCC's out = 0
 Tue Sep 10 10:04:12 2019

Initial Calibration Verification

Job Number: JC96248
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: EF8050-ICV8050
 Lab FileID: F187006.D

Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\EF8050\F187006.D Vial: 13
 Acq On : 9 Sep 2019 9:31 pm Operator: angelar
 Sample : icv8050-50 Inst : GCMSF
 Misc : op21602,ef8050,1000,,,1,1 Multiplr: 1.00
 MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MF8050.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Tue Sep 10 09:21:05 2019
 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	116	0.00	4.60
3 t	Pyridine	1.782	1.850	-3.8	126	-0.03	2.45
10 t	Aniline	2.393	2.415	-0.9	124	0.00	4.36
16 t	Benzyl alcohol	0.880	0.956	-8.6	129	0.00	4.70
24 I	Naphthalene-d8	1.000	1.000	0.0	114	0.00	5.52
39 t	4-Chloroaniline	0.497	0.483	2.8	117	0.00	5.57
44 t	2-Methylnaphthalene	0.591	0.585	1.0	119	0.00	6.03
47 I	Acenaphthene-d10	1.000	1.000	0.0	102	0.00	6.90
54 t	2-Nitroaniline	0.422	0.400	5.2	91	0.00	6.49
58 t	3-Nitroaniline	0.325	0.369	-13.5	109	0.00	6.86
62 t	Dibenzofuran	1.744	1.824	-4.6	117	0.00	7.11
68 t	4-Nitroaniline	0.334	0.363	-8.7	103	0.01	7.50
69 I	Phenanthrene-d10	1.000	1.000	0.0	111	0.00	8.73
79 t	Carbazole	1.063	1.064	-0.1	114	0.01	9.12

(#) = Out of Range
 F186998.D MF8050.M

SPCC's out = 0 CCC's out = 0
 Tue Sep 10 10:04:14 2019

Initial Calibration Verification

Job Number: JC96248
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: EF8050-ICV8050
 Lab FileID: F187007.D

Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\EF8050\F187007.D Vial: 14
 Acq On : 9 Sep 2019 10:00 pm Operator: angular
 Sample : icv8050-50 Inst : GCMSF
 Misc : op21602,ef8050,1000,,,1,1 Multiplr: 1.00
 MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MF8050.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Tue Sep 10 09:21:05 2019
 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	118	0.00	4.61
5 S	2-Fluorophenol	1.482	1.334	10.0	110	0.00	3.62
8 S	Phenol-d5	1.833	1.622	11.5	107	0.00	4.33
24 I	Naphthalene-d8	1.000	1.000	0.0	114	0.00	5.52
25 S	Nitrobenzene-d5	0.463	0.430	7.1	106	0.00	5.00
47 I	Acenaphthene-d10	1.000	1.000	0.0	108	0.00	6.90
51 S	2-Fluorobiphenyl	1.543	1.298	15.9	99	0.00	6.31
69 I	Phenanthrene-d10	1.000	1.000	0.0	104	0.00	8.73
73 S	2,4,6-Tribromophenol	0.120	0.106	11.7	83	0.00	7.77
83 I	Chrysene-d12	1.000	1.000	0.0	94	0.00	13.93
85 S	Terphenyl-d14	0.938	1.001	-6.7	99	0.00	11.74

(#) = Out of Range
 F186998.D MF8050.M

SPCC's out = 0 CCC's out = 0
 Tue Sep 10 10:04:16 2019

Initial Calibration Verification

Job Number: JC96248
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: EF8050-ICV8050
 Lab FileID: F187008.D

Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\EF8050\F187008.D Vial: 15
 Acq On : 9 Sep 2019 10:29 pm Operator: angelar
 Sample : icv8050-50 Inst : GCMSF
 Misc : op21602,ef8050,1000,,,1,1 Multiplr: 1.00
 MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MF8050.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Tue Sep 10 09:21:05 2019
 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 30% Max. Rel. Area : 200%

Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
83 I Chrysene-d12	1.000	1.000	0.0	96	0.00	13.93
88 t 3,3'-Dichlorobenzidine	50.000	45.523	9.0	88	0.00	13.96

(#) = Out of Range SPCC's out = 0 CCC's out = 0
 F186998.D MF8050.M Tue Sep 10 10:04:18 2019

Initial Calibration Summary

Job Number: JC96248
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: EF8051-ICC8051
 Lab FileID: F187013.D

Response Factor Report GCMSEF

Method : C:\MSDCHEM\1\METHODS\MF8051.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Tue Sep 10 10:32:05 2019
 Response via : Initial Calibration

Calibration Files

2 =F187017.D 5 =F187016.D 25 =F187014.D 80 =F187012.D
 100 =F187011.D 50 =F187013.D 10 =F187015.D 1 =F187018.D

Compound	2	5	25	80	100	50	10	1	Avg %RSD
----------	---	---	----	----	-----	----	----	---	----------

101) I	1,4-Dichlorobenzene-d	-----ISTD-----									
102)	Benzaldehyde	1.246	1.271	1.255	1.136	1.103	1.170	1.226	1.279	1.211	5.44
103) I	Phenanthrene-d10b	-----ISTD-----									
104)	Atrazine	0.113	0.134	0.166	0.185	0.178	0.182	0.148	0.127	0.154	17.71

 (#) = Out of Range ### Number of calibration levels exceeded format ###

MF8050.M Tue Sep 10 10:34:21 2019

8.7.8
8

Initial Calibration Verification

Job Number: JC96248
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: EF8051-ICV8051
 Lab FileID: F187019.D

Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\EF8050\F187019.D Vial: 24
 Acq On : 10 Sep 2019 2:59 am Operator: angelar
 Sample : icv8051-50 Inst : GCMSF
 Misc : op21602,ef8051,1000,,,1,1 Multiplr: 1.00
 MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MF8050.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Tue Sep 10 10:32:05 2019
 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 30% Max. Rel. Area : 200%

Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
101 I 1,4-Dichlorobenzene-d4b	1.000	1.000	0.0	84	0.00	4.60
102 Benzaldehyde	1.211	1.174	3.1	84	0.00	4.28
103 I Phenanthrene-d10b	1.000	1.000	0.0	96	0.00	8.74
104 Atrazine	0.154	0.195	-26.6	103	0.01	8.35

(#) = Out of Range
 F187013A.D MF8050.M

SPCC's out = 0 CCC's out = 0
 Tue Sep 10 10:34:31 2019

Initial Calibration Summary

Job Number: JC96248
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: EF8052-ICC8052
 Lab FileID: F187023.D

Response Factor Report GCMSEF

Method : C:\MSDCHEM\1\METHODS\MF8052.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Tue Sep 10 10:49:57 2019
 Response via : Initial Calibration

Calibration Files

2 =F187027.D 5 =F187026.D 25 =F187024.D 80 =F187022.D
 100 =F187021.D 50 =F187023.D 10 =F187025.D 1 =F187028.D

Compound	2	5	25	80	100	50	10	1	Avg %RSD
----------	---	---	----	----	-----	----	----	---	----------

105) I	Chrysene-d12b										
106)	Benzidine	0.652	0.578	0.573	0.682	0.499		0.597	12.10		
107) I	Naphthalene-d8b										
108)	Hydroquinone	0.267	0.329	0.333	0.321	0.214		0.293	17.56		
109) I	Acenaphthene-d10b										
110)	1,2,4,5-Tetr	0.660	0.607	0.600	0.569	0.547	0.588	0.615	0.662	0.606	6.65

(#) = Out of Range ### Number of calibration levels exceeded format ###

MF8050.M

Tue Sep 10 10:52:39 2019

8.7.10

8

Initial Calibration Verification

Job Number: JC96248
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: EF8052-ICV8052
 Lab FileID: F187029.D

Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\EF8050\F187029.D Vial: 33
 Acq On : 10 Sep 2019 7:28 am Operator: angular
 Sample : icv8052-50 Inst : GCMSF
 Misc : op21602,ef8052,1000,,,1,1 Multiplr: 1.00
 MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MF8050.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Tue Sep 10 10:49:57 2019
 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 30% Max. Rel. Area : 200%

Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
109 I Acenaphthene-d10b	1.000	1.000	0.0	88	0.00	6.90
110 1,2,4,5-Tetrachlorobenzen	0.606	0.543	10.4	81	0.00	6.16

(#) = Out of Range SPCC's out = 0 CCC's out = 0
 F187023A.D MF8050.M Tue Sep 10 10:52:26 2019

8.7.11

8

Initial Calibration Verification

Job Number: JC96248
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: EF8052-ICV8052
 Lab FileID: F187030.D

Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\EF8050\F187030.D Vial: 34
 Acq On : 10 Sep 2019 7:58 am Operator: angelar
 Sample : icv8052-50 Inst : GCMSF
 Misc : op21602,ef8052,1000,,,1,1 Multiplr: 1.00
 MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MF8050.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Tue Sep 10 10:49:57 2019
 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 30% Max. Rel. Area : 200%

Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
105 I Chrysene-d12b	1.000	1.000	0.0	104	0.00	13.93
106 Benzidine	0.597	0.694	-16.2	105	0.02	11.21

(#) = Out of Range SPCC's out = 0 CCC's out = 0
 F187023A.D MF8050.M Tue Sep 10 10:52:28 2019

Initial Calibration Verification

Job Number: JC96248
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: EF8052-ICV8052
 Lab FileID: F187031.D

Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\EF8050\F187031.D Vial: 35
 Acq On : 10 Sep 2019 8:26 am Operator: angelar
 Sample : icv8052-50 Inst : GCMSF
 Misc : op21602,ef8052,1000,,,1,1 Multiplr: 1.00
 MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MF8050.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Tue Sep 10 10:49:57 2019
 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 30% Max. Rel. Area : 200%

Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
107 I Naphthalene-d8b	1.000	1.000	0.0	140	0.00	5.53
108 Hydroquinone	0.293	0.317	-8.2	138	0.02	5.81

(#) = Out of Range SPCC's out = 0 CCC's out = 0
 F187023A.D MF8050.M Tue Sep 10 10:52:30 2019

8.7.13
8

Initial Calibration Summary

Job Number: JC96248
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: EF8054-ICC8054
 Lab FileID: F187056.D

Response Factor Report GCMSF

Method : C:\MSDCHEM\1\METHODS\MF8054.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Wed Sep 11 09:54:58 2019
 Response via : Initial Calibration

Calibration Files

2 =F187060.D 5 =F187059.D 25 =F187057.D 80 =F187055.D
 100 =F187054.D 50 =F187056.D 10 =F187058.D 1 =F187061.D

Compound	2	5	25	80	100	50	10	1	Avg	%RSD
101) I 1,4-Dichlorobenzene-d	-----ISTD-----									
102) 2-Picoline	1.632	1.490	1.467	1.473	1.477	1.461	1.500	1.328	1.478	5.57
103) Pentachloroe	0.553	0.528	0.530	0.519	0.495	0.532	0.529	0.526	0.527	3.05
104) Methyl metha	0.987	0.917	0.877	0.862	0.860	0.883	0.897	0.851	0.892	4.94
105) N-Nitrosodie	0.678	0.698	0.680	0.660	0.635	0.669	0.673	0.500	0.649	9.69
106) N-Nitrosomet	0.720	0.663	0.649	0.659	0.656	0.659	0.674	0.767	0.681	6.06
107) Ethyl methan	1.161	1.039	1.028	1.018	0.986	1.018	1.077	1.152	1.060	6.10
108) N-Nitrosopyr	0.593	0.538	0.542	0.521	0.294	0.552	0.557	0.599	0.524	18.46
109) N-Nitrosomor	0.934	0.890	0.774	0.647	0.574	0.667	0.856	0.804	0.769	16.61
110) o-Toluidine	2.377	2.158	2.098	1.889	1.681	1.943	2.185	2.119	2.056	10.35
111) I Naphthalene-d8A	-----ISTD-----									
112) O,O,O-Trieth	0.183	0.181	0.175	0.161	0.152	0.163	0.173	0.179	0.171	6.46
113) N-Nitrosopip	0.272	0.234	0.237	0.222	0.217	0.230	0.238	0.224	0.234	7.28
114) A,A-Dimethyl	0.824	0.762	0.859	0.905	0.871	0.881	0.840	0.709	0.831	7.88
115) Hexachloropr	0.258	0.242	0.258	0.244	0.237	0.249	0.246	0.219	0.244	5.07
116) N-Nitrosodi-	0.305	0.276	0.270	0.255	0.247	0.266	0.284	0.297	0.275	7.23
117) p-Phenylened	0.134	0.147	0.082	0.145		0.091	0.124		0.121	23.04
	----- Quadratic regression -----									
	Response Ratio = 0.01656 + 0.00274 *A + 0.06638 *A^2									Coefficient = 0.9938
118) Safrole	0.273	0.270	0.263	0.243	0.234	0.250	0.260	0.234	0.254	6.09
119) Isosafrole	0.199	0.190	0.185	0.178	0.173	0.179	0.168	0.134	0.176	11.10
120) Acenaphthene-d10A	-----ISTD-----									
121) Thionazin	0.163	0.168	0.170	0.159	0.151	0.161	0.157		0.161	4.12
122) Tetraethyl d	0.190	0.177	0.203	0.198	0.190	0.197	0.176	0.141	0.184	10.75
123) Phorate	0.925	0.877	0.879	0.777	0.733	0.792	0.878	0.724	0.823	9.24
124) Phenacetin	0.655	0.666	0.717	0.708	0.685	0.714	0.665	0.412	0.653	15.36
125) 1,4-Naphthoq	0.342	0.328	0.407	0.363	0.330	0.386	0.340	0.245	0.342	14.09
126) m-Dinitroben	0.145	0.156	0.194	0.196	0.197	0.202	0.175		0.181	12.31
127) Pentachlorob	0.582	0.538	0.515	0.472	0.455	0.485	0.535	0.577	0.520	9.02
128) 2-Naphthylam	1.083	0.988	1.100	1.046	0.964	1.062	0.983	0.785	1.001	10.04
129) 1-Naphthylam	0.760	0.713	0.689	0.669	0.640	0.661	0.708	0.660	0.688	5.61
130) 5-Nitro-o-to	0.359	0.339	0.374	0.356	0.348	0.365	0.355	0.196	0.337	17.16
131) I Phenanthrene-d10A	-----ISTD-----									
132) Disulfoton	0.394	0.369	0.367	0.342	0.319	0.324	0.384	0.308	0.351	9.12
133) Dinoseb	0.085	0.090	0.158	0.178	0.174	0.182	0.111		0.140	30.62
	----- Quadratic regression -----									
	Response Ratio = -0.01368 + 0.19569 *A + -0.00600 *A^2									Coefficient = 0.9988
134) Dimethoate	0.280	0.276	0.315	0.282	0.268	0.290	0.301	0.191	0.275	13.54
135) 4-Aminobiphe	0.651	0.610	0.668	0.703	0.648	0.699	0.653	0.442	0.634	13.11
136) Methyl parat	0.131	0.138	0.183	0.175	0.169	0.181	0.153		0.162	13.06
137) Parathion	0.139	0.131	0.161	0.140	0.128	0.144	0.146		0.141	7.78

8.7.14

8

Initial Calibration Summary

Job Number: JC96248
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA

Sample: EF8054-ICC8054
Lab FileID: F187056.D

138)	Diphenylamin	0.581	0.550	0.533	0.488	0.461	0.498	0.547	0.529	0.524	7.37
139)	Isodrin	0.125	0.123	0.123	0.119	0.110	0.118	0.117	0.115	0.119	4.20
140)	Diallate	0.267	0.267	0.249	0.219	0.214	0.231	0.262	0.269	0.247	9.21
141)	Pentachloron	0.040	0.040	0.040	0.038	0.036	0.038	0.040		0.039#	4.39
142)	Pronamide	0.291	0.285	0.326	0.315	0.303	0.321	0.298	0.198	0.292	13.94
143)	4-Nitroquino	0.055	0.054	0.109	0.117	0.111	0.117	0.078		0.091	31.51
	----- Quadratic regression -----									Coefficient =	0.9989
										Response Ratio =	-0.03697 + 0.13280 *A + -0.00170 *A^2
144)	Methapyrilin	0.316	0.307	0.297	0.218		0.217	0.335	0.216	0.272	19.43
145)	sym-Trinitro	0.035	0.034	0.064	0.075	0.077	0.077	0.046		0.058	33.53
	----- Quadratic regression -----									Coefficient =	0.9988
										Response Ratio =	-0.00525 + 0.07696 *A + 0.00086 *A^2
146)	I Chrysene-d12A										
	-----ISTD-----										
147)	Aramite	0.052	0.059	0.077	0.077	0.077	0.075	0.062		0.069	15.16
148)	p-(Dimethyla	0.260	0.282	0.371	0.344	0.335	0.348	0.313		0.322	12.20
149)	Kepone	0.094	0.089	0.090	0.033	0.030	0.059	0.101	0.079	0.072	38.75
150)	Famphur	0.466	0.469	0.384	0.203	0.167	0.225	0.452		0.338	39.87
151)	2-Acetylamin		0.310	0.498	0.509	0.502	0.506	0.373		0.450	19.16
152)	Chlorobenzil	0.292	0.284	0.349	0.340	0.329	0.347	0.312	0.188	0.305	17.51
153)	I Perylene-d12A										
	-----ISTD-----										
154)	Hexachloroph			0.027	0.056	0.063	0.049	0.004		0.040#	59.97
155)	3-Methylchol	0.160	0.170	0.212	0.209	0.207	0.208	0.192	0.109	0.183	19.58

(#) = Out of Range ### Number of calibration levels exceeded format ###

MF8050AP9.M

Wed Sep 11 10:17:53 2019

8.7.14

8

Initial Calibration Verification

Job Number: JC96248
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: EF8054-ICV8054
 Lab FileID: F187062.D

Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\EF8054\F187062.D Vial: 10
 Acq On : 11 Sep 2019 7:46 am Operator: chriss2
 Sample : icv8054-50 Inst : GCMSF
 Misc : op21602,ef8054,1000,,,1,1 Multiplr: 1.00
 MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MF8050AP9.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Wed Sep 11 09:54:58 2019
 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 30% Max. Rel. Area : 200%

Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
101 I 1,4-Dichlorobenzene-d4A	1.000	1.000	0.0	75	0.00	4.59
102 M 2-Picoline	1.478	1.335	9.7	68	-0.05	3.10
105 M N-Nitrosodiethylamine	0.649	0.560	13.7	63	-0.01	3.77
106 M N-Nitrosomethylethylamine	0.681	0.583	14.4	66	-0.02	3.20
108 M N-Nitrosopyrrolidine	0.524	0.473	9.7	64	0.00	4.86
109 M N-Nitrosomorpholine	0.769	0.695	9.6	78	0.00	4.89
110 M o-Toluidine	2.056	1.896	7.8	73	0.00	4.91
111 I Naphthalene-d8A	1.000	1.000	0.0	76	0.00	5.51
113 M N-Nitrosopiperidine	0.234	0.201	14.1	66	0.00	5.11
116 M N-Nitrosodi-n-butylamine	0.275	0.241	12.4	68	0.00	5.80
----- True Calc. % Drift -----						
117 p-Phenylenediamine	50.000	107.192	-114.4#	333	-0.04	5.80
120 Acenaphthene-d10A	1.000	1.000	0.0	76	0.00	6.89
128 M 2-Naphthylamine	1.001	1.073	-7.2	77	0.00	7.25
129 M 1-Naphthylamine	0.688	1.043	-51.6#	120	0.00	7.17
130 M 5-Nitro-o-toluidine	0.337	0.318	5.6	66	0.01	7.47
131 I Phenanthrene-d10A	1.000	1.000	0.0	75	0.00	8.70
135 M 4-Aminobiphenyl	0.634	0.664	-4.7	72	0.00	8.43
146 I Chrysene-d12A	1.000	1.000	0.0	76	0.00	13.89
148 M p-(Dimethylamine)azobenze	0.322	0.292	9.3	64	0.01	12.02
151 M 2-Acetylaminofluorene	0.450	0.423	6.0	64	0.01	13.28

(#) = Out of Range SPCC's out = 0 CCC's out = 0
 F187056A.D MF8050AP9.M Wed Sep 11 10:18:07 2019

8.7.15

8

Initial Calibration Verification

Job Number: JC96248
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: EF8054-ICV8054
 Lab FileID: F187063.D

Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\EF8054\F187063.D Vial: 11
 Acq On : 11 Sep 2019 8:15 am Operator: chriss2
 Sample : icv8054-50 Inst : GCMSF
 Misc : op21602,ef8054,1000,,,1,1 Multiplr: 1.00
 MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MF8050AP9.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Wed Sep 11 09:54:58 2019
 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 30% Max. Rel. Area : 200%

Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
101 I	1,4-Dichlorobenzene-d4A	1.000	1.000	0.0	78	4.59
103	Pentachloroethane	0.527	0.439	16.7	64	4.38
104 M	Methyl methanesulfonate	0.892	0.764	14.3	68	3.46
107 M	Ethyl methanesulfonate	1.060	0.937	11.6	72	4.01
111 I	Naphthalene-d8A	1.000	1.000	0.0	77	5.51
115 M	Hexachloropropene	0.244	0.207	15.2	64	5.59
118 M	Safrole	0.254	0.226	11.0	70	5.95
119	Isosafrole	0.176	0.235	-33.5#	101	6.35
120	Acenaphthene-d10A	1.000	1.000	0.0	80	6.89
124 M	Phenacetin	0.653	0.574	12.1	64	8.00
125 M	1,4-Naphthoquinone	0.342	0.400	-17.0	82	6.54
127 M	Pentachlorobenzene	0.520	0.423	18.7	69	7.05
131 I	Phenanthrene-d10A	1.000	1.000	0.0	75	8.70
139 M	Isodrin	0.119	0.109	8.4	69	10.55
140 M	Diallate	0.247	0.216	12.6	70	7.97
141 M	Pentachloronitrobenzene	0.039	0.034#	12.8	86	8.46
142 M	Pronamide	0.292	0.283	3.1	66	8.55
143 M	4-Nitroquinoline 1-oxide	50.000	36.267	27.5	66	10.05
145 M	sym-Trinitrobenzene	50.000	35.008	30.0	49	7.92
146 I	Chrysene-d12A	1.000	1.000	0.0	74	13.89
147	Aramite	0.069	0.065	5.8	64	11.93
149	Kepone	0.072	0.091	-26.3	70	12.72
152 M	Chlorobenzilate	0.305	0.298	2.3	63	12.16
153 I	Perylene-d12A	1.000	1.000	0.0	74	16.92
155	3-Methylcholanthrene	0.183	0.199	-8.7	71	17.53

Initial Calibration Verification

Job Number: JC96248
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA

Sample: EF8054-ICV8054
Lab FileID: F187063.D

(#) = Out of Range
F187056A.D MF8050AP9.M

SPCC's out = 0 CCC's out = 0
Wed Sep 11 10:18:09 2019

Initial Calibration Verification

Job Number: JC96248
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: EF8054-ICV8054
 Lab FileID: F187064.D

Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\EF8054\F187064.D Vial: 12
 Acq On : 11 Sep 2019 8:45 am Operator: chriss2
 Sample : icv8054-50 Inst : GCMSF
 Misc : op21602,ef8054,1000,,,1,1 Multiplr: 1.00
 MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MF8050AP9.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Wed Sep 11 09:54:58 2019
 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 30% Max. Rel. Area : 200%

Compound		AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
120	Acenaphthene-d10A	1.000	1.000	0.0	78	0.00	6.89
126 M	m-Dinitrobenzene	0.181	0.177	2.2	69	0.00	6.65
131 I	Phenanthrene-d10A	1.000	1.000	0.0	76	0.00	8.70
138 M	Diphenylamine	0.524	0.533	-1.7	100	0.00	7.60

 (#) = Out of Range SPCC's out = 0 CCC's out = 0
 F187056A.D MF8050AP9.M Wed Sep 11 10:18:11 2019

8.7.17
8

Initial Calibration Verification

Job Number: JC96248
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: EF8054-ICV8054
 Lab FileID: F187065.D

Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\EF8054\F187065.D Vial: 13
 Acq On : 11 Sep 2019 9:14 am Operator: chriss2
 Sample : icv8054-50 Inst : GCMSF
 Misc : op21602,ef8054,1000,,,1,1 Multiplr: 1.00
 MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MF8050AP9.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Wed Sep 11 09:54:58 2019
 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 30% Max. Rel. Area : 200%

Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
111 I Naphthalene-d8A	1.000	1.000	0.0	74	0.00	5.51
112 M O,O,O-Triethyl phosphorot	0.171	0.175	-2.3	79	0.00	5.31
120 Acenaphthene-d10A	1.000	1.000	0.0	68	0.00	6.89
121 M Thionazin	0.161	0.188	-16.8	80	0.17	7.42
122 M Tetraethyl dithiopyrophos	0.184	0.234	-27.2	81	0.00	7.81
123 M Phorate	0.823	0.983	-19.4	84	0.00	7.98
131 I Phenanthrene-d10A	1.000	1.000	0.0	73	0.00	8.70
132 M Disulfoton	0.351	0.415	-18.2	93	0.00	8.74
----- AvgRF CCRF % Dev -----						
134 M Dimethoate	0.275	0.320	-16.4	81	0.00	8.20
136 M Methyl parathion	0.162	0.197	-21.6	79	0.00	9.35
137 M Parathion	0.141	0.158	-12.1	80	0.00	10.08
----- AvgRF CCRF % Dev -----						
146 I Chrysene-d12A	1.000	1.000	0.0	76	0.00	13.89
150 M Famphur	0.338	0.473	-39.9#	70	-0.03	12.68

(#) = Out of Range SPCC's out = 0 CCC's out = 0
 F187056A.D MF8050AP9.M Wed Sep 11 10:18:13 2019

8.7.18

8

Initial Calibration Verification

Job Number: JC96248
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: EF8054-ICV8054
 Lab FileID: F187066.D

Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\EF8054\F187066.D Vial: 14
 Acq On : 11 Sep 2019 9:43 am Operator: chriss2
 Sample : icv8054-50 Inst : GCMSF
 Misc : op21602,ef8054,1000,,,1,1 Multiplr: 1.00
 MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MF8050AP9.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Wed Sep 11 09:54:58 2019
 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 30% Max. Rel. Area : 200%

Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
131 I Phenanthrene-d10A	1.000	1.000	0.0	74	0.01	8.71
----- True Calc. % Drift -----						
133 M Dinoseb	50.000	46.944	6.1	68	0.01	8.74

(#) = Out of Range SPCC's out = 0 CCC's out = 0
 F187056A.D MF8050AP9.M Wed Sep 11 10:18:15 2019

8.7.19
8

Initial Calibration Summary

Job Number: JC96248
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: EF8057-ICC8057
 Lab FileID: F187094.D

Response Factor Report GCMSF

Method : C:\MSDCHEM\1\METHODS\MF8057.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Thu Sep 12 16:38:40 2019
 Response via : Initial Calibration

Calibration Files

2 =F187098.D 5 =F187097.D 25 =F187095.D 80 =F187093.D
 100 =F187092.D 50 =F187094.D 10 =F187096.D 1 =F187099.D

Compound	2	5	25	80	100	50	10	1	Avg %RSD
----------	---	---	----	----	-----	----	----	---	----------

166) I	Naphthalene-d8c	-----ISTD-----									
167)	Catechol	0.251	0.348	0.384	0.395	0.389	0.379	0.387	0.248	0.348	17.92
168)	2-Chloroanil	0.473	0.514	0.470	0.460	0.438	0.454	0.507	0.503	0.477	5.79
169)	3-Chloroanil	0.451	0.464	0.436	0.404	0.390	0.402	0.479	0.473	0.437	7.99
170)	1-chloro-2-n	0.268	0.309	0.287	0.263	0.244	0.277	0.300	0.251	0.275	8.26
171) I	1,4-Dichlorobenzene-d	-----ISTD-----									
172)	m-Toluidine	2.032	2.029	1.957	1.561	1.479	1.594	2.079	1.790	1.815	13.33
173) I	Chrysene-d12c	-----ISTD-----									
174)	bis(2-Ethylh	0.249	0.278	0.423	0.454	0.445	0.427	0.361		0.377	22.09
	----- Quadratic regression -----									Coefficient =	0.9995
	Response Ratio =	-0.01752 + 0.44524 *A + 0.00414 *A^2									

(#) = Out of Range ### Number of calibration levels exceeded format ###

MF8050AP9.M

Thu Sep 12 16:49:01 2019

8.7.20

8

Initial Calibration Verification

Job Number: JC96248
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: EF8057-ICV8057
 Lab FileID: F187101.D

Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\EF8057\F187101.D Vial: 11
 Acq On : 12 Sep 2019 8:33 am Operator: chriss2
 Sample : icv8057-50 Inst : GCMSF
 Misc : op21602,ef8057,1000,,,1,1 Multiplr: 1.00
 MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MF8050AP9.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Thu Sep 12 16:38:40 2019
 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 30% Max. Rel. Area : 200%

Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
171 I 1,4-Dichlorobenzene-d4c	1.000	1.000	0.0	95	0.00	4.57
172 m-Toluidine	1.815	1.442	20.6	86	0.00	4.92

(#) = Out of Range SPCC's out = 0 CCC's out = 0
 F187094A.D MF8050AP9.M Thu Sep 12 16:48:46 2019

Initial Calibration Verification

Job Number: JC96248
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: EF8057-ICV8057
 Lab FileID: F187102.D

Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\EF8057\F187102.D Vial: 12
 Acq On : 12 Sep 2019 9:02 am Operator: chriss2
 Sample : icv8057-50 Inst : GCMSF
 Misc : op21602,ef8057,1000,,,1,1 Multiplr: 1.00
 MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MF8050AP9.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Thu Sep 12 16:38:40 2019
 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 30% Max. Rel. Area : 200%

Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
173 I Chrysene-d12c	1.000	1.000	0.0	115	0.00	13.86
	----- True	Calc.	% Drift	-----		
174 bis(2-Ethylhexyl)adipate	50.000	42.936	14.1	100	0.00	13.15

(#) = Out of Range SPC's out = 0 CCC's out = 0
 F187094A.D MF8050AP9.M Thu Sep 12 16:48:48 2019

8.7.22
8

Initial Calibration Verification

Job Number: JC96248
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: EF8057-ICV8057
 Lab FileID: F187103.D

Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\EF8057\F187103.D Vial: 13
 Acq On : 12 Sep 2019 9:31 am Operator: chriss2
 Sample : icv8057-50 Inst : GCMSF
 Misc : op21602,ef8057,1000,,,1,1 Multiplr: 1.00
 MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MF8050AP9.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Thu Sep 12 16:38:40 2019
 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 30% Max. Rel. Area : 200%

Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
166 I Naphthalene-d8c	1.000	1.000	0.0	110	0.00	5.49
167 Catechol	0.348	0.353	-1.4	103	-0.01	5.45

(#) = Out of Range SPCC's out = 0 CCC's out = 0
 F187094A.D MF8050AP9.M Thu Sep 12 16:48:50 2019

Initial Calibration Verification

Job Number: JC96248
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: EF8059-ICV8057
 Lab FileID: F187136.D

Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\EF8059\F187136.D Vial: 11
 Acq On : 13 Sep 2019 4:20 am Operator: chriss2
 Sample : icv8057-50 Inst : GCMSF
 Misc : op21602,ef8059,1000,,,1,1 Multiplr: 1.00
 MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MF8050AP9.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Fri Sep 13 10:00:50 2019
 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 30% Max. Rel. Area : 200%

Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
166 I Naphthalene-d8c	1.000	1.000	0.0	121	-0.01	5.48
168 2-Chloroaniline	0.477	0.407	14.7	109	-0.01	5.18
169 3-Chloroaniline	0.437	0.392	10.3	118	-0.01	5.52

(#) = Out of Range SPCC's out = 0 CCC's out = 0
 F187129A.D MF8050AP9.M Fri Sep 13 10:10:43 2019

8.7.24
8

Continuing Calibration Summary

Job Number: JC96248
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: EF8099-CC8050
 Lab FileID: F187960.D

Evaluate Continuing Calibration Report

Data File : X:\svoa-gcms\complet...meel\ef8099\f187960.d Vial: 2
 Acq On : 19 Oct 2019 12:29 am Operator: chriss2
 Sample : cc8050-25 Inst : GCMSF
 Misc : op21602,ef8099,1000,,,1,1 Multiplr: 1.00
 MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MF8050.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Fri Oct 18 03:06:44 2019
 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	97	0.04	4.50
2 t	1,4-Dioxane	0.721	0.590	18.2	82	-0.06	2.01
3 t	Pyridine	1.782	1.452	18.5	79	-0.06	2.35
4 t	N-Nitrosodimethylamine	0.763	0.785	-2.9	99	-0.05	2.32
5 S	2-Fluorophenol	1.482	1.267	14.5	82	0.02	3.52
6 t	Indene	2.273	2.195	3.4	93	0.05	4.69
7 t	Cumene	3.817	3.840	-0.6	98	0.02	3.90
8 S	Phenol-d5	1.833	1.784	2.7	94	0.06	4.25
9 t	Phenol	2.140	1.983	7.3	88	0.06	4.26
10 t	Aniline	2.393	2.008	16.1	81	0.05	4.26
11 t	bis(2-Chloroethyl)ether	1.543	1.363	11.7	86	0.04	4.30
12 t	2-Chlorophenol	1.495	1.388	7.2	87	0.04	4.35
13 t	Decane	1.383	1.250	9.6	87	0.04	4.39
14 t	1,3-Dichlorobenzene	1.746	1.753	-0.4	97	0.04	4.46
15 t	1,4-Dichlorobenzene	1.788	1.757	1.7	97	0.05	4.51
16 t	Benzyl alcohol	0.880	0.849	3.5	89	0.06	4.61
17 t	1,2-Dichlorobenzene	1.702	1.678	1.4	98	0.05	4.62
18 t	Acetophenone	2.125	2.229	-4.9	102	0.06	4.80
19 t	2-Methylphenol	1.350	1.319	2.3	92	0.06	4.69
20 t	2,2'-oxybis(1-Chloropropa	0.410	0.408	0.5	92	0.05	4.70
21 t	3&4-Methylphenol	1.325	1.290	2.6	91	0.07	4.81
22	n-Nitroso-di-n-propylamin	1.108	1.190	-7.4	103	0.06	4.80
23 t	Hexachloroethane	0.657	0.724	-10.2	108	0.05	4.87
24 I	Naphthalene-d8	1.000	1.000	0.0	94	0.04	5.42
25 S	Nitrobenzene-d5	0.463	0.533	-15.1	104	0.03	4.90
26 t	Nitrobenzene	0.477	0.553	-15.9	105	0.03	4.92
27 t	Quinoline	0.764	0.793	-3.8	96	0.05	5.68
28 t	Isophorone	0.808	0.893	-10.5	101	0.04	5.09
29 t	2-Nitrophenol	0.178	0.235	-32.0#	111	0.04	5.15
30 t	2,4-Dimethylphenol	0.433	0.459	-6.0	95	0.05	5.19
31 t	Benzoic acid	0.285	0.348	-22.1#	121	0.11	5.27
32 t	bis(2-Chloroethoxy)methan	0.517	0.481	7.0	84	0.04	5.24
33 t	2,4-Dichlorophenol	0.336	0.386	-14.9	102	0.05	5.32
34	2,6-Dichlorophenol	0.331	0.372	-12.4	102	0.04	5.48
35	1,3,5-Trichlorobenzene	0.415	0.453	-9.2	104	0.03	5.15
36 t	1,2,4-Trichlorobenzene	0.392	0.433	-10.5	104	0.04	5.38
37	1,2,3-Trichlorobenzene	0.386	0.446	-15.5	109	0.04	5.54
38 t	Naphthalene	1.175	1.152	2.0	93	0.04	5.43
39 t	4-Chloroaniline	0.497	0.480	3.4	88	0.04	5.47
40 t	2,3-Dichloroaniline	0.410	0.475	-15.9	107	0.06	6.14
41 t	Caprolactam	0.150	0.173	-15.3	95	0.08	5.73

Continuing Calibration Summary

Job Number: JC96248
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: EF8099-CC8050
 Lab FileID: F187960.D

42 t	Hexachlorobutadiene	0.252	0.315	-25.0#	118	0.04	5.53
43 t	4-Chloro-3-methylphenol	0.358	0.436	-21.8#	107	0.07	5.83
44 t	2-Methylnaphthalene	0.591	0.620	-4.9	95	0.05	5.92
45 t	1-Methylnaphthalene	0.774	0.836	-8.0	99	0.05	6.00
46 t	Dimethylnaphthalene	0.723	0.826	-14.2	105	0.05	6.40
47 I	Acenaphthene-d10	1.000	1.000	0.0	112	0.05	6.77
48 t	Hexachlorocyclopentadiene	0.424	0.473	-11.6	115	0.05	6.05
49 t	2,4,6-Trichlorophenol	0.430	0.489	-13.7	122	0.06	6.14
50 t	2,4,5-Trichlorophenol	0.466	0.490	-5.2	109	0.07	6.17
51 S	2-Fluorobiphenyl	1.543	1.569	-1.7	114	0.06	6.20
52 t	2-Chloronaphthalene	1.364	1.304	4.4	107	0.06	6.29
53 t	Biphenyl	1.654	1.574	4.8	106	0.06	6.28
54 t	2-Nitroaniline	0.422	0.579	-37.2#	136	0.06	6.38
55 t	Dimethylphthalate	1.462	1.522	-4.1	114	0.06	6.52
56 t	Acenaphthylene	1.930	1.890	2.1	105	0.05	6.64
		----- True	Calc.	% Drift	-----		
57 t	2,6-Dinitrotoluene	25.000	26.611	-6.4	120	0.06	6.57
		----- AvgRF	CCRF	% Dev	-----		
58 t	3-Nitroaniline	0.325	0.336	-3.4	107	0.06	6.73
59 t	Acenaphthene	1.309	1.237	5.5	106	0.05	6.80
		----- True	Calc.	% Drift	-----		
60 t	2,4-Dinitrophenol	50.000	69.845	-39.7#	165	0.06	6.83
		----- AvgRF	CCRF	% Dev	-----		
61 t	4-Nitrophenol	0.225	0.311	-38.2#	149	0.07	6.90
62 t	Dibenzofuran	1.744	1.773	-1.7	114	0.05	6.96
		----- True	Calc.	% Drift	-----		
63 t	2,4-Dinitrotoluene	25.000	28.619	-14.5	125	0.06	6.95
		----- AvgRF	CCRF	% Dev	-----		
64	2,3,4,6-Tetrachlorophenol	0.349	0.433	-24.1#	126	0.06	7.10
65 t	Diethylphthalate	1.476	1.632	-10.6	120	0.05	7.20
66 t	Fluorene	1.378	1.491	-8.2	121	0.05	7.32
67 t	4-Chlorophenyl-phenylethe	0.703	0.842	-19.8	134	0.04	7.32
68 t	4-Nitroaniline	0.334	0.317	5.1	99	0.07	7.35
69 I	Phenanthrene-d10	1.000	1.000	0.0	119	0.06	8.54
		----- True	Calc.	% Drift	-----		
70 t	4,6-Dinitro-2-methylpheno	25.000	31.357	-25.4#	152	0.08	7.39
		----- AvgRF	CCRF	% Dev	-----		
71 t	n-Nitrosodiphenylamine	0.588	0.595	-1.2	115	0.07	7.46
72 t	1,2-Diphenylhydrazine	0.930	0.920	1.1	113	0.07	7.50
73 S	2,4,6-Tribromophenol	0.120	0.154	-28.3#	130	0.07	7.61
74 t	4-Bromophenyl-phenylether	0.237	0.279	-17.7	136	0.07	7.92
75 t	Hexachlorobenzene	0.265	0.292	-10.2	128	0.07	8.01
76 t	Pentachlorophenol	0.155	0.202	-30.3#	142	0.07	8.28
77 t	Phenanthrene	1.199	1.133	5.5	113	0.07	8.57
78 t	Anthracene	1.165	1.155	0.9	116	0.07	8.65
79 t	Carbazole	1.063	1.068	-0.5	114	0.08	8.91
80 t	Di-n-butylphthalate	1.245	1.494	-20.0	127	0.08	9.59
81 t	Fluoranthene	1.163	1.443	-24.1#	139	0.10	10.63
82 t	Octadecane	0.477	0.469	1.7	106	0.06	8.45

8.7.25

8

Continuing Calibration Summary

Job Number: JC96248
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: EF8099-CC8050
 Lab FileID: F187960.D

83	I	Chrysene-d12	1.000	1.000	0.0	142	0.08	13.67
84	t	Pyrene	1.475	1.426	3.3	135	0.04	11.06
85	S	Terphenyl-d14	0.938	0.980	-4.5	141	0.04	11.49
			----- True	Calc.	% Drift	-----		
86	t	Butylbenzylphthalate	25.000	24.285	2.9	133	0.06	12.65
			----- AvgRF	CCRF	% Dev	-----		
87	t	Benzo[a]anthracene	1.312	1.407	-7.2	146	0.07	13.65
			----- True	Calc.	% Drift	-----		
88	t	3,3'-Dichlorobenzidine	25.000	25.805	-3.2	143	0.08	13.70
			----- AvgRF	CCRF	% Dev	-----		
89	t	Chrysene	1.422	1.350	5.1	132	0.08	13.72
			----- True	Calc.	% Drift	-----		
90	t	bis(2-Ethylhexyl)phthalat	25.000	22.862	8.6	127	0.08	14.05
			----- AvgRF	CCRF	% Dev	-----		
91	I	Perylene-d12	1.000	1.000	0.0	126	0.09	16.69
			----- True	Calc.	% Drift	-----		
92	t	Di-n-octylphthalate	25.000	27.473	-9.9	137	0.06	15.48
			----- AvgRF	CCRF	% Dev	-----		
93	t	Benzo[b]fluoranthene	1.201	1.441	-20.0	141	0.08	15.94
94	t	Benzo[k]fluoranthene	1.255	1.294	-3.1	122	0.09	16.00
95	t	Benzo[a]pyrene	1.030	1.224	-18.8	132	0.08	16.56
96	t	Indeno[1,2,3-cd]pyrene	0.954	1.103	-15.6	131	0.13	18.62
97	t	Dibenz(a,h)acridine	0.895	1.056	-18.0	136	0.12	18.26
98	t	Dibenz[a,h]anthracene	1.038	1.085	-4.5	120	0.13	18.68
99	t	7,12-Dimethylbenz(a)anthr	0.540	0.627	-16.1	127	0.08	15.96
100	t	Benzo[g,h,i]perylene	1.004	1.058	-5.4	124	0.15	19.04

(#) = Out of Range
 F187024A.D MF8050.M

SPCC's out = 0 CCC's out = 0
 Tue Oct 22 12:41:28 2019

8.7.25

8

Continuing Calibration Summary

Job Number: JC96248
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: EF8099-CC8051
 Lab FileID: F187961.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\da...meel\ef8099\f187961.d Vial: 3
 Acq On : 19 Oct 2019 12:58 am Operator: chriss2
 Sample : cc8051-25 Inst : GCMSF
 Misc : op21602,ef8099,1000,,,1,1 Multiplr: 1.00
 MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MF8050.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Mon Oct 21 05:12:34 2019
 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 20% Max. Rel. Area : 200%

Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
101 I 1,4-Dichlorobenzene-d4b	1.000	1.000	0.0	160	0.00	4.50
102 Benzaldehyde	1.211	1.029	15.0	132	0.00	4.18
103 I Phenanthrene-d10b	1.000	1.000	0.0	185	0.00	8.53
104 Atrazine	0.154	0.205	-33.1#	227#	0.00	8.17

(#) = Out of Range SPCC's out = 0 CCC's out = 0
 f187960.d MF8050.M Mon Oct 21 05:23:39 2019

8.7.26

8

Continuing Calibration Summary

Job Number: JC96248
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: EF8099-CC8052
 Lab FileID: F187962.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\da...meel\ef8099\f187962.d Vial: 4
 Acq On : 19 Oct 2019 1:27 am Operator: chriss2
 Sample : cc8052-25 Inst : GCMSF
 Misc : op21602,ef8099,1000,,,1,1 Multiplr: 1.00
 MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MF8050.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Mon Oct 21 05:12:34 2019
 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
105 I	Chrysene-d12b	1.000	1.000	0.0	139	0.00	13.67
106	Benzidine	0.597	0.569	4.7	121	0.00	10.97
107 I	Naphthalene-d8b	1.000	1.000	0.0	98	0.00	5.42
108	Hydroquinone	0.293	0.312	-6.5	115	0.00	5.72
109 I	Acenaphthene-d10b	1.000	1.000	0.0	110	0.00	6.77
110	1,2,4,5-Tetrachlorobenzen	0.606	0.675	-11.4	124	0.00	6.05

(#) = Out of Range
 f187960.d MF8050.M

SPCC's out = 0 CCC's out = 0
 Mon Oct 21 05:23:42 2019

Continuing Calibration Summary

Job Number: JC96248
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: EF8099-CC8054
 Lab FileID: F187963.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\da...meel\ef8099\f187963.d Vial: 5
 Acq On : 19 Oct 2019 1:56 am Operator: chriss2
 Sample : cc8054-25 Inst : GCMSF
 Misc : op21602,ef8099,1000,,,1,1 Multiplr: 1.00
 MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MF8050AP9.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Mon Oct 21 06:56:22 2019
 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
101 I	1,4-Dichlorobenzene-d4A	1.000	1.000	0.0	89	0.00	4.50
102 M	2-Picoline	1.478	1.240	16.1	75	0.00	3.02
103	Pentachloroethane	0.527	0.526	0.2	88	0.00	4.29
104 M	Methyl methanesulfonate	0.892	0.893	-0.1	91	0.00	3.38
105 M	N-Nitrosodiethylamine	0.649	0.539	16.9	70	0.00	3.69
106 M	N-Nitrosomethylethylamine	0.681	0.681	0.0	93	0.00	3.12
107 M	Ethyl methanesulfonate	1.060	0.898	15.3	78	0.00	3.93
108 M	N-Nitrosopyrrolidine	0.524	0.469	10.5	77	0.00	4.78
109 M	N-Nitrosomorpholine	0.769	0.827	-7.5	95	0.00	4.80
110 M	o-Toluidine	2.056	1.682	18.2	71	0.00	4.82
111 I	Naphthalene-d8A	1.000	1.000	0.0	78	0.00	5.42
112 M	O,O,O-Triethyl phosphorot	0.171	0.219	-28.1#	98	0.00	5.22
113 M	N-Nitrosopiperidine	0.234	0.293	-25.2#	97	0.00	5.02
114 M	A,A-Dimethylphenethylamin	0.831	0.680	18.2	62	-0.66#	5.31
115 M	Hexachloropropene	0.244	0.343	-40.6#	104	0.00	5.50
116 M	N-Nitrosodi-n-butylamine	0.275	0.274	0.4	79	0.00	5.71
117	p-Phenylenediamine	25.000	34.801	-39.2#	105	0.00	5.73
118 M	Safrole	0.254	0.276	-8.7	82	0.00	5.86
119	Isosafrole	0.176	0.173	1.7	73	0.00	6.24
120	Acenaphthene-d10A	1.000	1.000	0.0	97	0.00	6.77
121 M	Thionazin	0.161	0.147	8.7	84	0.00	7.29
122 M	Tetraethyl dithiopyrophos	0.184	0.227	-23.4#	108	0.00	7.66
123 M	Phorate	0.823	1.324	-60.9#	146	0.00	7.83
124 M	Phenacetin	0.653	0.684	-4.7	92	0.00	7.86
125 M	1,4-Naphthoquinone	0.342	0.321	6.1	77	0.00	6.43
126 M	m-Dinitrobenzene	0.181	0.186	-2.8	93	0.00	6.55
127 M	Pentachlorobenzene	0.520	0.547	-5.2	103	0.00	6.93
128 M	2-Naphthylamine	1.001	0.895	10.6	79	0.00	7.12
129 M	1-Naphthylamine	0.688	0.558	18.9	78	0.00	7.04
130 M	5-Nitro-o-toluidine	0.337	0.313	7.1	81	0.00	7.34
131 I	Phenanthrene-d10A	1.000	1.000	0.0	104	0.00	8.54
132 M	Disulfoton	0.351	0.320	8.8	91	0.00	8.57

----- True Calc. % Drift -----

Continuing Calibration Summary

Job Number: JC96248
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA

Sample: EF8099-CC8054
Lab FileID: F187963.D

133 M	Dinoseb	25.000	27.425	-9.7	124	0.00	8.57
	----- AvgRF	CCRF	% Dev	-----			
134 M	Dimethoate	0.275	0.240	12.7	79	0.00	8.05
135 M	4-Aminobiphenyl	0.634	0.679	-7.1	106	0.00	8.28
136 M	Methyl parathion	0.162	0.170	-4.9	97	0.00	9.18
137 M	Parathion	0.141	0.163	-15.6	105	0.00	9.89
138 M	Diphenylamine	0.524	0.476	9.2	93	0.00	7.46
139 M	Isodrin	0.119	0.129	-8.4	109	0.00	10.34
140 M	Diallate	0.247	0.226	8.5	94	0.00	7.82
141 M	Pentachloronitrobenzene	0.039	0.044#	-12.8	115	0.00	8.30
142 M	Pronamide	0.292	0.340	-16.4	109	0.00	8.40
	----- True	Calc.	% Drift	-----			
143 M	4-Nitroquinoline 1-oxide	100.000	100.564	-0.6	109	0.00	9.89
	----- AvgRF	CCRF	% Dev	-----			
144 M	Methapyriline	0.272	0.192	29.4#	67	0.00	10.08
	----- True	Calc.	% Drift	-----			
145 M	sym-Trinitrobenzene	25.000	27.091	-8.4	123	0.00	7.81
	----- AvgRF	CCRF	% Dev	-----			
146 I	Chrysene-d12A	1.000	1.000	0.0	124	0.00	13.67
147	Aramite	0.069	0.074	-7.2	118	0.00	11.72
148 M	p-(Dimethylamine)azobenze	0.322	0.298	7.5	100	0.00	11.80
149	Kepone	0.072	0.068	5.6	94	0.00	12.49
150 M	Famphur	0.338	0.352	-4.1	114	0.00	12.48
151 M	2-Acetylaminofluorene	0.450	0.446	0.9	112	0.00	13.08
152 M	Chlorobenzilate	0.305	0.344	-12.8	122	0.00	11.95
153 I	Perylene-d12A	1.000	1.000	0.0	112	0.00	16.69
154	Hexachlorophene	0.040	0.022#	45.0#	88	0.00	16.46
155	3-Methylcholanthrene	0.183	0.192	-4.9	101	0.00	17.29

(#) = Out of Range SPCC's out = 0 CCC's out = 0
f187963.d MF8050AP9.M Mon Oct 21 07:07:02 2019

8.7.28
8

Continuing Calibration Summary

Page 1 of 1

Job Number: JC96248
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: EF8099-CC8057
 Lab FileID: F187964.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\da...meel\ef8099\f187964.d Vial: 6
 Acq On : 19 Oct 2019 2:24 am Operator: chriss2
 Sample : cc8057-25 Inst : GCMSF
 Misc : op21602,ef8099,1000,,,1,1 Multiplr: 1.00
 MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MF8050AP9.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Mon Oct 21 06:56:22 2019
 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 20% Max. Rel. Area : 200%

Compound		AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
166 I	Naphthalene-d8c	1.000	1.000	0.0	126	0.00	5.42
167	Catechol	0.348	0.324	6.9	106	0.00	5.38
168	2-Chloroaniline	0.477	0.452	5.2	121	-0.10	5.12
169	3-Chloroaniline	0.437	0.418	4.3	120	-0.02	5.46
170	1-chloro-2-nitrobenzene	0.275	0.341	-24.0#	149	0.00	5.67
171 I	1,4-Dichlorobenzene-d4c	1.000	1.000	0.0	141	0.00	4.50
172	m-Toluidine	1.815	1.734	4.5	125	0.03	4.85
173 I	Chrysene-d12c	1.000	1.000	0.0	169	0.00	13.67
----- True Calc. % Drift -----							
174	bis(2-Ethylhexyl)adipate	25.000	23.265	6.9	155	-0.19	12.96

(#) = Out of Range SPCC's out = 0 CCC's out = 0
 f187963.d MF8050AP9.M Mon Oct 21 07:07:05 2019

8.7.29

8

Initial Calibration Summary

Job Number: JC96248
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: EM6772-ICC6772
 Lab FileID: M160089.D

Response Factor Report MSM

Method : C:\MSDCHEM\1\METHODS\MM6772.M (RTE Integrator)
 Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 Last Update : Fri Oct 04 12:15:56 2019
 Response via : Initial Calibration

Calibration Files

2 =m160093.D 5 =m160092.D 100 =m160087.D 50 =m160089.D
 1 =m160095.D 10 =m160091.D 80 =m160088.D 25 =m160090.D

Compound	2	5	100	50	1	10	80	25	Avg %RSD
----------	---	---	-----	----	---	----	----	----	----------

101) I	1,4-Dichlorobenzene-d										
102)	Benzaldehyde	1.105	1.083	1.044	1.077	1.046	1.107	1.053	1.118	1.079	2.71
103) I	Acenaphthene-d10a										
104)	Atrazine	0.160	0.179	0.176	0.191	0.139	0.194	0.184	0.197	0.177	11.05
110) I	Phenanthrene-d10a										
111)	Pentachloron	0.036	0.042	0.048	0.053		0.051	0.050	0.054	0.048#	13.33

(#) = Out of Range ### Number of calibration levels exceeded format ###

MM6771.M

Fri Oct 04 12:18:49 2019

8.7.30

8

Initial Calibration Summary

Job Number: JC96248
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: EM6773-ICC6773
 Lab FileID: M160100.D

Response Factor Report MSM

Method : C:\MSDCHEM\1\METHODS\MM6773.M (RTE Integrator)
 Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 Last Update : Fri Oct 04 13:19:40 2019
 Response via : Initial Calibration

Calibration Files

2 =m160104.D 5 =m160103.D 100 =m160098.D 50 =m160100.D
 1 =m160105.D 10 =m160102.D 80 =m160099.D 25 =m160101.D

Compound	2	5	100	50	1	10	80	25	Avg	%RSD
105) Acenaphthene-d10b										
106) 1,2,4,5-Tetr	0.739	0.690	0.545	0.608	0.701	0.692	0.576	0.673	0.653	10.43
107) I Chrysene-d12a										
108) Benzidine	0.546	0.594	0.693	0.767		0.770	0.725	0.813	0.701	13.98
109) 1-chloroocta	0.265	0.265	0.260	0.279	0.213	0.307	0.262	0.302	0.269	10.80
112) Phenanthrene-d10b										
113) o-terphenyl	0.594	0.583	0.470	0.530	0.546	0.609	0.489	0.570	0.549	9.07
114) I Naphthalene-d8a										
115) Hydroquinone			0.343	0.364		0.280	0.353	0.338	0.336	9.71

(#) = Out of Range ### Number of calibration levels exceeded format ###

MM6771.M Fri Oct 04 13:25:49 2019

8.7.31

8

Initial Calibration Verification

Job Number: JC96248
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: EM6773-ICV6772
 Lab FileID: M160106A.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EM6773\m160106A.D Vial: 33
 Acq On : 4 Oct 2019 4:21 am Operator: hennys
 Sample : icv6772-50 Inst : MSM
 Misc : op21044,em6773,1000,,,1,1 Multiplr: 1.00
 MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MM6771.M (RTE Integrator)
 Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 Last Update : Fri Oct 04 13:19:40 2019
 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 30% Max. Rel. Area : 200%

Compound		AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
101 I	1,4-Dichlorobenzene-d4a	1.000	1.000	0.0	104	0.00	4.42
102 t	Benzaldehyde	1.079	1.048	2.9	101	0.00	4.10
103 I	Acenaphthene-d10a	1.000	1.000	0.0	102	0.00	7.68
104 t	Atrazine	0.177	0.192	-8.5	103	0.00	9.87
110 I	Phenanthrene-d10a	1.000	1.000	0.0	104	0.00	10.23
111	Pentachloronitrobenzene	0.048	0.044#	8.3	86	0.00	9.94

(#) = Out of Range SPCC's out = 0 CCC's out = 0
 m160100A.D MM6771.M Fri Oct 04 13:26:17 2019

Initial Calibration Verification

Job Number: JC96248
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: EM6773-ICV6773
 Lab FileID: M160106.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EM6773\m160106.D Vial: 33
 Acq On : 4 Oct 2019 4:21 am Operator: hennys
 Sample : icv6773-50 Inst : MSM
 Misc : op21044,em6773,1000,,,1,1 Multiplr: 1.00
 MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MM6771.M (RTE Integrator)
 Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 Last Update : Fri Oct 04 13:19:40 2019
 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
105	Acenaphthene-d10b	1.000	1.000	0.0	90	0.00	7.68
106	1,2,4,5-Tetrachlorobenzen	0.653	0.581	11.0	86	0.00	6.46

(#) = Out of Range
 m160100A.D MM6771.M

SPCC's out = 0 CCC's out = 0
 Fri Oct 04 13:26:14 2019

Initial Calibration Verification

Job Number: JC96248
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: EM6773-ICV6773
 Lab FileID: M160107.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EM6773\m160107.D Vial: 34
 Acq On : 4 Oct 2019 4:49 am Operator: hennys
 Sample : icv6773-50 Inst : MSM
 Misc : op21044,em6773,1000,,,1,1 Multiplr: 1.00
 MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MM6771.M (RTE Integrator)
 Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 Last Update : Fri Oct 04 13:19:40 2019
 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 30% Max. Rel. Area : 200%

Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
114 I Naphthalene-d8a	1.000	1.000	0.0	92	0.00	5.48
115 Hydroquinone	0.336	0.350	-4.2	88	-0.01	5.97

(#) = Out of Range SPCC's out = 0 CCC's out = 0
 m160100A.D MM6771.M Fri Oct 04 13:26:19 2019

8.7.34
8

Initial Calibration Verification

Job Number: JC96248
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: EM6773-ICV6773
 Lab FileID: M160108.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EM6773\m160108.D Vial: 35
 Acq On : 4 Oct 2019 5:17 am Operator: hennys
 Sample : icv6773-50 Inst : MSM
 Misc : op21044,em6773,1000,,,1,1 Multiplr: 1.00
 MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MM6771.M (RTE Integrator)
 Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 Last Update : Fri Oct 04 13:19:40 2019
 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 30% Max. Rel. Area : 200%

Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
107 I Chrysene-d12a	1.000	1.000	0.0	100	0.00	15.31
108 t Benzidine	0.701	0.798	-13.8	104	0.00	12.91

(#) = Out of Range SPCC's out = 0 CCC's out = 0
 m160100A.D MM6771.M Fri Oct 04 13:26:21 2019

Initial Calibration Summary

Job Number: JC96248
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: EM6777-ICC6777
 Lab FileID: M160141.D

Response Factor Report MSM

Method : C:\MSDCHEM\1\METHODS\MM6777.M (RTE Integrator)
 Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 Last Update : Fri Oct 11 13:05:55 2019
 Response via : Initial Calibration

Calibration Files

2 =m160144.D 5 =m160143.D 100 =m160139.D 50 =m160141.D
 1 =m160145.D 10 =m160142.D 80 =m160140.D 25 =m160138.D

Compound	2	5	100	50	1	10	80	25	Avg	%RSD

1) I 1,4-Dichlorobenzene-d	-----ISTD-----									
2) 1,4-Dioxane	0.902	0.975	1.016	0.967	0.813	0.963	1.004	1.044	0.960	7.63
3) Pyridine	2.149	2.385	2.077	2.302	2.000	2.366	2.176	2.203	2.207	6.17
4) N-Nitrosodim	1.028	1.079	0.974	0.938	0.979	1.041	0.996	0.926	0.995	5.23
5) 2-Fluorophen	1.717	1.865	1.758	1.795	1.524	1.813	1.773	1.820	1.758	5.94
6) Indene	2.629	2.585	2.100	2.179	2.454	2.461	2.125	2.312	2.356	8.79
7) Cumene	4.694	4.624	3.616	3.874	4.335	4.356	3.678	4.129	4.163	9.87
8) Phenol-d5	2.187	2.223	1.821	1.904	2.002	2.165	1.858	2.003	2.021	7.71
9) Phenol	2.657	2.607	1.939	2.096	2.409	2.491	2.015	2.157	2.296	12.14
10) Aniline	2.674	2.716	1.968	2.006	2.600	2.495	2.034	2.087	2.322	14.09
11) bis(2-Chloro	1.836	1.809	1.370	1.448	1.727	1.693	1.382	1.528	1.599	11.88
12) 2-Chlorophen	1.820	1.764	1.426	1.466	1.624	1.650	1.421	1.576	1.593	9.46
13) Decane	1.662	1.682	1.131	1.232	1.698	1.489	1.161	1.351	1.426	16.77
14) 1,3-Dichloro	2.070	1.952	1.499	1.557	2.071	1.799	1.506	1.706	1.770	13.64
15) 1,4-Dichloro	1.745	1.749	1.406	1.452	1.631	1.584	1.406	1.571	1.568	8.82
16) Benzyl alcoh	0.840	0.911	0.809	0.867	0.632	0.822	0.856	0.903	0.830	10.55
17) 1,2-Dichloro	1.780	1.781	1.374	1.424	1.689	1.677	1.369	1.578	1.584	11.00
18) Acetophenone	2.424	2.414	1.914	2.014	2.246	2.299	1.973	2.098	2.173	9.21
19) 2-Methylphen	1.457	1.431	1.139	1.193	1.370	1.411	1.169	1.271	1.305	9.78
20) 2,2'-oxybis(	0.506	0.463	0.362	0.374	0.438	0.421	0.366	0.403	0.417	12.25
21) 3&4-Methylph	1.588	1.512	1.255	1.304	1.416	1.471	1.291	1.321	1.395	8.64
22) n-Nitroso-di	1.376	1.392	1.037	1.139	1.303	1.330	1.090	1.154	1.228	11.27
23) Hexachloroet	0.743	0.715	0.582	0.596	0.706	0.682	0.576	0.641	0.655	9.97

24) I Naphthalene-d8	-----ISTD-----									
25) Nitrobenzene	0.549	0.559	0.477	0.486	0.510	0.544	0.482	0.508	0.515	6.33
26) Nitrobenzene	0.578	0.591	0.449	0.477	0.573	0.558	0.464	0.515	0.526	10.80
27) Quinoline	0.948	0.967	0.818	0.842	0.881	0.924	0.818	0.887	0.886	6.48
28) Isophorone	0.993	1.017	0.838	0.884	0.908	0.993	0.858	0.930	0.928	7.28
29) 2-Nitropheno	0.230	0.243	0.201	0.214	0.191	0.244	0.208	0.239	0.221	9.30
30) 2,4-Dimethyl	0.343	0.377	0.390	0.395	0.333	0.399	0.399	0.402	0.380	7.12
31) Benzoic acid	0.186	0.229	0.349	0.337		0.288	0.355	0.333	0.297	22.19
----- Quadratic regression -----										Coefficient = 0.9996
Response Ratio = -0.01306 + 0.35021 *A + 0.00250 *A^2										
32) bis(2-Chloro	0.628	0.635	0.498	0.522	0.612	0.604	0.507	0.557	0.570	9.85
33) 2,4-Dichloro	0.408	0.432	0.330	0.345	0.399	0.408	0.336	0.389	0.381	10.13
34) 2,6-Dichloro	0.377	0.364	0.308	0.319	0.355	0.360	0.310	0.354	0.343	7.79
35) 1,3,5-Trichl	0.503	0.509	0.364	0.380	0.498	0.469	0.368	0.437	0.441	14.20
36) 1,2,4-Trichl	0.483	0.487	0.357	0.369	0.447	0.449	0.357	0.425	0.422	12.80
37) 1,2,3-Trichl	0.460	0.440	0.323	0.339	0.463	0.407	0.327	0.382	0.392	14.95
38) Naphthalene	1.184	1.226	0.975	1.007	1.168	1.133	0.992	1.105	1.099	8.76
39) 4-Chloroanil	0.580	0.568	0.420	0.437	0.541	0.537	0.430	0.489	0.500	12.97
40) 2,3-Dichloro	0.547	0.532	0.407	0.425	0.538	0.501	0.411	0.471	0.479	12.28
41) Caprolactam	0.190	0.216	0.203	0.208	0.199	0.220	0.208	0.207	0.206	4.53
42) Hexachlorobu	0.275	0.275	0.213	0.222	0.265	0.255	0.215	0.241	0.245	10.59

8.7.36
8

Initial Calibration Summary

Job Number: JC96248
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA

Sample: EM6777-ICC6777
Lab FileID: M160141.D

43)	4-Chloro-3-m	0.419	0.453	0.388	0.412	0.399	0.446	0.399	0.429	0.418	5.55
44)	2-Methylnaph	0.795	0.775	0.578	0.621	0.752	0.727	0.589	0.690	0.691	12.35
45)	1-Methylnaph	0.999	0.999	0.745	0.791	0.999	0.916	0.761	0.857	0.883	12.45
46)	Dimethylnaph	0.901	0.865		0.638	0.864	0.785	0.624	0.721	0.771	14.64
47)	I Acenaphthene-d10										
48)	Hexachlorocy	0.418	0.452	0.377	0.385	0.400	0.439	0.380	0.427	0.410	6.93
49)	2,4,6-Trichl	0.487	0.489	0.380	0.405	0.418	0.477	0.391	0.457	0.438	10.20
50)	2,4,5-Trichl	0.519	0.512	0.421	0.433	0.447	0.503	0.432	0.474	0.468	8.47
51)	2-Fluorobiph			1.244	1.307		1.633	1.258	1.498	1.388	12.29
52)	2-Chloronaph	1.628	1.559	1.036	1.090	1.548	1.383	1.059	1.269	1.322	18.36
53)	Biphenyl	2.007	1.952		1.473	2.001	1.805	1.426	1.668	1.762	13.90
54)	2-Nitroanili	0.434	0.481	0.386	0.412	0.389	0.466	0.404	0.428	0.425	8.14
55)	Dimethylphth	1.953	1.851	1.478	1.550	1.798	1.787	1.502	1.684	1.700	10.33
56)	Acenaphthyle	2.376	2.364	1.685	1.802	2.096	2.209	1.727	2.036	2.037	13.52
57)	2,6-Dinitrot	0.326	0.340	0.332	0.336	0.282	0.375	0.341	0.360	0.336	8.08
58)	3-Nitroanili	0.349	0.378	0.356	0.350	0.296	0.392	0.356	0.378	0.357	8.19
59)	Acenaphthene	1.383	1.359	1.065	1.123	1.304	1.291	1.095	1.223	1.230	10.00
60)	2,4-Dinitrop	0.094	0.123	0.196	0.188		0.155	0.196	0.187	0.163	24.94
	----- Quadratic regression -----										
	Response Ratio = -0.01437 + 0.19202 *A + 0.00156 *A^2										Coefficient = 0.9998
61)	4-Nitropheno	0.185	0.213	0.206	0.213		0.230	0.209	0.223	0.211	6.74
62)	Dibenzofuran	2.255	2.223	1.649	1.734	2.039	2.098	1.687	1.942	1.953	12.30
63)	2,4-Dinitrot	0.398	0.470	0.421	0.431	0.327	0.487	0.428	0.477	0.430	12.07
64)	2,3,4,6-Tetr	0.389	0.422	0.375	0.375	0.338	0.424	0.378	0.414	0.389	7.52
65)	Diethylphtha	1.827	1.920	1.458	1.558	1.714	1.826	1.516	1.672	1.686	9.83
66)	Fluorene	1.805	1.769	1.292	1.351	1.702	1.662	1.311	1.513	1.551	13.64
67)	4-Chlorophen	0.928	0.883	0.612	0.643	0.877	0.818	0.615	0.731	0.763	17.00
68)	4-Nitroanili	0.355	0.395	0.366	0.372	0.296	0.397	0.371	0.376	0.366	8.67
69)	I Phenanthrene-d10										
70)	4,6-Dinitro-		0.123	0.158	0.157		0.135	0.153	0.157	0.147	9.97
71)	n-Nitrosodip	0.690	0.688	0.567	0.579	0.693	0.634	0.559	0.633	0.630	8.98
72)	1,2-Diphenyl	1.078	1.086	0.868	0.904	0.982	1.017	0.877	0.952	0.970	8.82
73)	2,4,6-Tribr	0.153	0.163	0.162	0.158	0.130	0.165	0.155	0.173	0.157	8.09
74)	4-Bromopheny	0.320	0.312	0.268	0.276	0.318	0.303	0.263	0.296	0.295	7.76
75)	Hexachlorobe	0.354	0.363	0.283	0.288	0.355	0.334	0.273	0.320	0.321	11.14
76)	Pentachlorop	0.144	0.178	0.198	0.196		0.190	0.191	0.211	0.187	11.46
77)	Phenanthrene	1.239	1.214	1.004	1.029	1.219	1.150	0.993	1.115	1.120	9.05
78)	Anthracene	1.269	1.297	1.060	1.097	1.146	1.216	1.051	1.189	1.166	7.97
79)	Carbazole	1.418	1.421	1.154	1.199	1.303	1.339	1.162	1.294	1.286	8.26
80)	Di-n-butylph	1.627	1.753	1.593	1.662	1.472	1.786	1.597	1.731	1.653	6.23
81)	Fluoranthene	1.641	1.654	1.385	1.444	1.457	1.606	1.371	1.525	1.510	7.48
82)	Octadecane	0.475	0.507	0.474	0.481	0.464	0.491	0.474	0.487	0.482	2.74
83)	I Chrysene-d12										
84)	Pyrene	1.917	1.830	1.453	1.518	1.728	1.732	1.437	1.678	1.662	10.60
85)	Terphenyl-d1		1.198	1.022	1.050		1.151	1.017	1.095	1.089	6.74
86)	Butylbenzylp	0.703	0.793	0.823	0.832	0.573	0.844	0.820	0.858	0.781	12.37
87)	Benzo[a]anth	1.536	1.572	1.427	1.457	1.526	1.530	1.420	1.510	1.497	3.71
88)	3,3'-Dichlor	0.447	0.519	0.511	0.502	0.398	0.508	0.501	0.522	0.488	8.90
89)	Chrysene	1.397	1.359	1.124	1.142	1.312	1.268	1.121	1.246	1.246	8.68
90)	bis(2-Ethylh	0.875	1.011	1.027	1.059	0.664	1.055	1.030	1.106	0.978	14.69
91)	I Perylene-d12										
92)	Di-n-octylph	1.315	1.624	1.530	1.653		1.735	1.562	1.713	1.590	8.93
93)	Benzo[b]fluo	1.517	1.537	1.223	1.280	1.398	1.484	1.206	1.359	1.376	9.50
94)	Benzo[k]fluo	1.486	1.435	0.953	1.035	1.451	1.303	0.978	1.156	1.225	18.12
95)	Benzo[a]pyre	1.311	1.374	1.082	1.137	1.195	1.296	1.088	1.230	1.214	8.91

Initial Calibration Summary

Job Number: JC96248
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA

Sample: EM6777-ICC6777
Lab FileID: M160141.D

96)	Indeno[1,2,3	1.239	1.283	1.113	1.126	1.121	1.262	1.086	1.229	1.182	6.61
97)	Dibenz(a,h)a	1.115	1.218	1.044	1.079	1.039	1.188	1.036	1.161	1.110	6.48
98)	Dibenz[a,h]a	1.256	1.288	1.060	1.107	1.230	1.244	1.047	1.196	1.178	7.97
99)	7,12-Dimethy	0.419	0.482	0.492	0.496	0.394	0.527	0.493	0.532	0.479	10.11
100)	Benzo[g,h,i]	1.276	1.301	1.078	1.098	1.185	1.228	1.058	1.218	1.180	7.82

(#) = Out of Range ### Number of calibration levels exceeded format ###

MM6777.M

Fri Oct 11 13:06:58 2019

Initial Calibration Verification

Job Number: JC96248
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: EM6777-ICV6777
 Lab FileID: M160146.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EM6777\m160146.D Vial: 10
 Acq On : 7 Oct 2019 1:57 pm Operator: hennys
 Sample : icv6777-50 Inst : MSM
 Misc : op21044,em6777,1000,,,1,1 Multiplr: 1.00
 MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MM6777.M (RTE Integrator)
 Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 Last Update : Fri Oct 11 14:37:12 2019
 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	96	0.02	4.39
4 t	N-Nitrosodimethylamine	0.995	0.886	11.0	91	0.03	2.19
11 t	bis(2-Chloroethyl)ether	1.599	1.767	-10.5	117	0.01	4.20
14 t	1,3-Dichlorobenzene	1.770	1.646	7.0	101	0.02	4.35
15 t	1,4-Dichlorobenzene	1.568	1.446	7.8	96	0.02	4.41
17 t	1,2-Dichlorobenzene	1.584	1.449	8.5	98	0.02	4.52
20 t	2,2'-oxybis(1-Chloropropa	0.417	0.455	-9.1	117	0.01	4.60
22 t	n-Nitroso-di-n-propylamin	1.228	1.154	6.0	97	0.01	4.70
23 t	Hexachloroethane	0.655	0.584	10.8	94	0.02	4.77
24 I	Naphthalene-d8	1.000	1.000	0.0	90	0.02	5.44
26 t	Nitrobenzene	0.526	0.475	9.7	89	0.02	4.84
28 t	Isophorone	0.928	0.887	4.4	90	0.01	5.03
32 t	bis(2-Chloroethoxy)methan	0.570	0.559	1.9	96	0.02	5.22
36 t	1,2,4-Trichlorobenzene	0.422	0.396	6.2	96	0.02	5.39
38 t	Naphthalene	1.099	1.058	3.7	94	0.02	5.46
42 t	Hexachlorobutadiene	0.245	0.234	4.5	94	0.02	5.60
47 I	Acenaphthene-d10	1.000	1.000	0.0	90	0.03	7.63
48 t	Hexachlorocyclopentadiene	0.410	0.399	2.7	80	0.03	6.41
52 t	2-Chloronaphthalene	1.322	1.285	2.8	106	0.02	6.83
55 t	Dimethylphthalate	1.700	1.515	10.9	88	0.03	7.29
56 t	Acenaphthylene	2.037	1.779	12.7	89	0.02	7.41
57 t	2,6-Dinitrotoluene	0.336	0.306	8.9	82	0.02	7.37
59 t	Acenaphthene	1.230	1.057	14.1	85	0.02	7.68
63 t	2,4-Dinitrotoluene	0.430	0.422	1.9	88	0.02	7.99
65 t	Diethylphthalate	1.686	1.506	10.7	87	0.02	8.43
66 t	Fluorene	1.551	1.352	12.8	90	0.03	8.52
67 t	4-Chlorophenyl-phenylethe	0.763	0.626	18.0	88	0.03	8.56
69 I	Phenanthrene-d10	1.000	1.000	0.0	100	0.03	10.17
71 t	n-Nitrosodiphenylamine	0.630	0.516	18.1	90	0.02	8.78
72 t	1,2-Diphenylhydrazine	0.970	0.773	20.3	86	0.03	8.83
74 t	4-Bromophenyl-phenylether	0.295	0.240	18.6	87	0.03	9.41
75 t	Hexachlorobenzene	0.321	0.252	21.5	88	0.02	9.48
77 t	Phenanthrene	1.120	0.953	14.9	93	0.02	10.21
78 t	Anthracene	1.166	0.960	17.7	88	0.02	10.30
80 t	Di-n-butylphthalate	1.653	1.380	16.5	83	0.02	11.46
81 t	Fluoranthene	1.510	1.240	17.9	86	0.02	12.46
83 I	Chrysene-d12	1.000	1.000	0.0	85	0.02	15.26
84 t	Pyrene	1.662	1.452	12.6	81	0.02	12.87

Initial Calibration Verification

Job Number: JC96248
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA

Sample: EM6777-ICV6777
Lab FileID: M160146.D

86	t	Butylbenzylphthalate	0.781	0.806	-3.2	82	0.02	14.36
87	t	Benzo[a]anthracene	1.497	1.424	4.9	83	0.02	15.23
89	t	Chrysene	1.246	1.122	10.0	83	0.02	15.30
90	t	bis(2-Ethylhexyl)phthalat	0.978	0.977	0.1	78	0.02	15.57
91	I	Perylene-d12	1.000	1.000	0.0	83	0.01	17.84
92	t	Di-n-octylphthalate	1.590	1.545	2.8	78	0.02	16.77
93	t	Benzo[b]fluoranthene	1.376	1.204	12.5	78	0.01	17.21
94	t	Benzo[k]fluoranthene	1.225	1.105	9.8	89	0.00	17.25
95	t	Benzo[a]pyrene	1.214	1.142	5.9	83	0.00	17.74
96	t	Indeno[1,2,3-cd]pyrene	1.182	1.097	7.2	81	0.00	19.47
98	t	Dibenz[a,h]anthracene	1.178	1.028	12.7	77	0.00	19.51
100	t	Benzo[g,h,i]perylene	1.180	1.085	8.1	82	0.00	19.84

(#) = Out of Range
m160199.D MM6777.M

SPCC's out = 0 CCC's out = 0
Fri Oct 11 19:39:09 2019

8.7.37

8

Initial Calibration Verification

Job Number: JC96248
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: EM6777-ICV6777
 Lab FileID: M160147.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EM6777\m160147.D Vial: 11
 Acq On : 7 Oct 2019 2:26 pm Operator: hennys
 Sample : icv6777-50 Inst : MSM
 Misc : op21044,em6777,1000,,,1,1 Multiplr: 1.00
 MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MM6777.M (RTE Integrator)
 Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 Last Update : Fri Oct 11 13:05:55 2019
 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	95	0.02	4.39
2 t	1,4-Dioxane	0.960	0.877	8.6	86	0.03	1.88
6 t	Indene	2.356	2.517	-6.8	110	0.02	4.58
7 t	Cumene	4.163	3.810	8.5	93	0.02	3.79
13 t	Decane	1.426	1.339	6.1	103	0.02	4.27
18 t	Acetophenone	2.173	2.005	7.7	95	0.01	4.70
24 I	Naphthalene-d8	1.000	1.000	0.0	102	0.02	5.44
27 t	Quinoline	0.886	0.764	13.8	92	0.00	5.81
40 t	2,3-Dichloroaniline	0.479	0.376	21.5	90	0.02	6.58
41 t	Caprolactam	0.206	0.163	20.9	79	-0.01	5.89
45 t	1-Methylnaphthalene	0.883	0.717	18.8	92	0.03	6.33
46 t	Dimethylnaphthalene	0.771	0.645	16.3	103	0.02	7.02
47 I	Acenaphthene-d10	1.000	1.000	0.0	96	0.03	7.63
53 t	Biphenyl	1.762	1.458	17.3	95	0.02	6.81
69 I	Phenanthrene-d10	1.000	1.000	0.0	92	0.03	10.16
82 t	Octadecane	0.482	0.468	2.9	89	0.03	10.17
91 I	Perylene-d12	1.000	1.000	0.0	86	0.00	17.84
99 t	7,12-Dimethylbenz(a)anthr	0.479	0.589	-23.0	102	0.00	17.22

(#) = Out of Range
 m160199.D MM6777.M

SPCC's out = 0 CCC's out = 0
 Fri Oct 11 14:07:23 2019

Initial Calibration Verification

Job Number: JC96248
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: EM6777-ICV6777
 Lab FileID: M160148.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EM6777\m160148.D Vial: 12
 Acq On : 7 Oct 2019 2:55 pm Operator: hennys
 Sample : icv6777-50 Inst : MSM
 Misc : op21044,em6777,1000,,,1,1 Multiplr: 1.00
 MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MM6777.M (RTE Integrator)
 Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 Last Update : Mon Oct 07 17:22:56 2019
 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	98	0.00	4.39
3 t	Pyridine	2.207	2.198	0.4	94	0.02	2.30
10 t	Aniline	2.322	2.623	-13.0	128	0.00	4.17
16 t	Benzyl alcohol	0.830	0.950	-14.5	108	0.00	4.52
24 I	Naphthalene-d8	1.000	1.000	0.0	102	0.00	5.44
39 t	4-Chloroaniline	0.500	0.477	4.6	112	0.00	5.54
44 t	2-Methylnaphthalene	0.691	0.612	11.4	101	0.00	6.21
47 I	Acenaphthene-d10	1.000	1.000	0.0	92	0.00	7.63
54 t	2-Nitroaniline	0.425	0.448	-5.4	100	0.00	7.01
58 t	3-Nitroaniline	0.357	0.370	-3.6	98	0.00	7.63
62 t	Dibenzofuran	1.953	1.859	4.8	99	0.00	7.96
68 t	4-Nitroaniline	0.366	0.416	-13.7	103	0.00	8.63
69 I	Phenanthrene-d10	1.000	1.000	0.0	100	0.00	10.16
79 t	Carbazole	1.286	1.166	9.3	97	0.00	10.67

(#) = Out of Range
 m160141.D MM6777.M

SPCC's out = 0 CCC's out = 0
 Tue Oct 08 11:20:37 2019

Initial Calibration Verification

Job Number: JC96248
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: EM6777-ICV6777
 Lab FileID: M160149.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EM6777\m160149.D Vial: 13
 Acq On : 7 Oct 2019 3:23 pm Operator: hennys
 Sample : icv6777-50 Inst : MSM
 Misc : op21044,em6777,1000,,,1,1 Multiplr: 1.00
 MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MM6777.M (RTE Integrator)
 Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 Last Update : Mon Oct 07 17:22:56 2019
 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	110	0.00	4.39
9 t	Phenol	2.296	1.982	13.7	104	0.00	4.18
12 t	2-Chlorophenol	1.593	1.375	13.7	103	0.00	4.25
19 t	2-Methylphenol	1.305	1.248	4.4	115	0.00	4.61
21 t	3&4-Methylphenol	1.395	1.259	9.7	106	0.00	4.73
24 I	Naphthalene-d8	1.000	1.000	0.0	102	0.00	5.44
29 t	2-Nitrophenol	0.221	0.223	-0.9	106	0.00	5.10
30 t	2,4-Dimethylphenol	0.380	0.385	-1.3	99	0.00	5.16
	----- True Calc. % Drift -----						
31 t	Benzoic acid	50.000	21.311	57.4#	42	0.06	5.29
	----- AvgRF CCRF % Dev -----						
33 t	2,4-Dichlorophenol	0.381	0.332	12.9	98	0.00	5.32
34 t	2,6-Dichlorophenol	0.343	0.327	4.7	104	0.00	5.54
43 t	4-Chloro-3-methylphenol	0.418	0.385	7.9	95	0.00	6.08
47 I	Acenaphthene-d10	1.000	1.000	0.0	109	0.00	7.63
49 t	2,4,6-Trichlorophenol	0.438	0.387	11.6	105	0.00	6.58
50 t	2,4,5-Trichlorophenol	0.468	0.375	19.9	95	0.00	6.63
	----- True Calc. % Drift -----						
60 t	2,4-Dinitrophenol	50.000	37.535	24.9	74	0.00	7.78
	----- AvgRF CCRF % Dev -----						
61 t	4-Nitrophenol	0.211	0.193	8.5	99	0.00	8.00
64 t	2,3,4,6-Tetrachlorophenol	0.389	0.330	15.2	96	0.00	8.19
69 I	Phenanthrene-d10	1.000	1.000	0.0	108	0.00	10.16
70 t	4,6-Dinitro-2-methylpheno	0.147	0.131	10.9	90	0.00	8.66
76 t	Pentachlorophenol	0.187	0.174	7.0	84	0.00	9.88

(#) = Out of Range
 m160141.D MM6777.M

SPCC's out = 0 CCC's out = 0
 Tue Oct 08 11:20:39 2019

Initial Calibration Verification

Job Number: JC96248
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: EM6777-ICV6777
 Lab FileID: M160150A.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EM6777\m160150a.D Vial: 14
 Acq On : 7 Oct 2019 3:55 pm Operator: hennys
 Sample : icv6777-50 Inst : MSM
 Misc : op21044,em6777,1000,,,1,1 Multiplr: 1.00
 MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MM6777.M (RTE Integrator)
 Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 Last Update : Fri Oct 11 13:05:55 2019
 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	126	0.02	4.39
5 S	2-Fluorophenol	1.758	1.423	19.1	100	0.01	3.43
8 S	Phenol-d5	2.021	1.637	19.0	108	0.00	4.17
24 I	Naphthalene-d8	1.000	1.000	0.0	127	0.02	5.44
25 S	Nitrobenzene-d5	0.515	0.424	17.7	110	0.02	4.82
47 I	Acenaphthene-d10	1.000	1.000	0.0	120	0.03	7.63
51 S	2-Fluorobiphenyl	1.388	1.236	11.0	113	0.03	6.69
69 I	Phenanthrene-d10	1.000	1.000	0.0	122	0.02	10.16
73 S	2,4,6-Tribromophenol	0.157	0.124	21.0	96	0.02	8.94
83 I	Chrysene-d12	1.000	1.000	0.0	115	0.00	15.24
85 S	Terphenyl-d14	1.089	0.890	18.3	97	0.02	13.30

(#) = Out of Range
 m160199.D MM6777.M

SPCC's out = 0 CCC's out = 0
 Fri Oct 11 14:07:25 2019

Initial Calibration Verification

Job Number: JC96248
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: EM6777-ICV6777
 Lab FileID: M160151.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EM6777\m160151.D Vial: 15
 Acq On : 7 Oct 2019 4:24 pm Operator: hennys
 Sample : icv6777-50 Inst : MSM
 Misc : op21044,em6777,1000,,,1,1 Multiplr: 1.00
 MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MM6777.M (RTE Integrator)
 Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 Last Update : Fri Oct 11 13:05:55 2019
 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 30% Max. Rel. Area : 200%

Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
83 I Chrysene-d12	1.000	1.000	0.0	115	0.00	15.25
88 t 3,3'-Dichlorobenzidine	0.488	0.445	8.8	102	0.02	15.30

(#) = Out of Range SPCC's out = 0 CCC's out = 0
 m160199.D MM6777.M Fri Oct 11 14:07:27 2019

Continuing Calibration Summary

Job Number: JC96248
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: EM6780-CC6777
 Lab FileID: M160199.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EM6780\m160199.D Vial: 2
 Acq On : 10 Oct 2019 9:03 am Operator: hennys
 Sample : cc6777-50 Inst : MSM
 Misc : op21044,em6780,1000,,,1,1 Multiplr: 1.00
 MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MM6777.M (RTE Integrator)
 Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 Last Update : Fri Oct 11 14:33:58 2019
 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	89	0.00	4.37
2 t	1,4-Dioxane	0.960	0.964	-0.4	89	0.00	1.85
3 t	Pyridine	2.207	2.302	-4.3	89	0.15	2.20
4 t	N-Nitrosodimethylamine	0.995	1.020	-2.5	97	0.00	2.16
5 S	2-Fluorophenol	1.758	1.857	-5.6	92	0.00	3.42
6 t	Indene	2.356	2.363	-0.3	97	0.00	4.56
7 t	Cumene	4.163	4.082	1.9	94	0.00	3.77
8 S	Phenol-d5	2.021	2.007	0.7	94	0.00	4.16
9 t	Phenol	2.296	2.270	1.1	97	0.00	4.17
10 t	Aniline	2.322	2.695	-16.1	120	0.00	4.15
11 t	bis(2-Chloroethyl)ether	1.599	1.519	5.0	94	0.00	4.19
12 t	2-Chlorophenol	1.593	1.580	0.8	96	0.00	4.23
13 t	Decane	1.426	1.348	5.5	98	0.00	4.25
14 t	1,3-Dichlorobenzene	1.770	1.701	3.9	97	0.00	4.33
15 t	1,4-Dichlorobenzene	1.568	1.575	-0.4	97	0.00	4.39
16 t	Benzyl alcohol	0.830	0.957	-15.3	98	0.00	4.50
17 t	1,2-Dichlorobenzene	1.584	1.537	3.0	96	0.00	4.50
18 t	Acetophenone	2.173	2.146	1.2	95	0.00	4.69
19 t	2-Methylphenol	1.305	1.330	-1.9	99	0.00	4.60
20 t	2,2'-oxybis(1-Chloropropa	0.417	0.410	1.7	98	0.00	4.59
21 t	3&4-Methylphenol	1.395	1.425	-2.2	97	0.00	4.72
22 t	n-Nitroso-di-n-propylamin	1.228	1.201	2.2	94	0.00	4.69
23 t	Hexachloroethane	0.655	0.649	0.9	97	0.00	4.76
24 I	Naphthalene-d8	1.000	1.000	0.0	91	0.00	5.42
25 S	Nitrobenzene-d5	0.515	0.520	-1.0	97	0.00	4.80
26 t	Nitrobenzene	0.526	0.505	4.0	96	0.00	4.82
27 t	Quinoline	0.886	0.899	-1.5	97	0.00	5.80
28 t	Isophorone	0.928	0.967	-4.2	99	0.00	5.01
29 t	2-Nitrophenol	0.221	0.241	-9.0	102	0.00	5.09
30 t	2,4-Dimethylphenol	0.380	0.449	-18.2	103	0.00	5.15
	----- True Calc. % Drift -----						
31 t	Benzoic acid	50.000	57.662	-15.3	107	0.00	5.29
	----- AvgRF CCRF % Dev -----						
32 t	bis(2-Chloroethoxy)methan	0.570	0.559	1.9	97	0.00	5.21
33 t	2,4-Dichlorophenol	0.381	0.376	1.3	99	0.00	5.31
34 t	2,6-Dichlorophenol	0.343	0.344	-0.3	98	0.00	5.52
35 t	1,3,5-Trichlorobenzene	0.441	0.411	6.8	98	0.00	5.08
36 t	1,2,4-Trichlorobenzene	0.422	0.401	5.0	98	0.00	5.37
37 t	1,2,3-Trichlorobenzene	0.392	0.363	7.4	97	0.00	5.59

Continuing Calibration Summary

Job Number: JC96248
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: EM6780-CC6777
 Lab FileID: M160199.D

38 t	Naphthalene	1.099	1.101	-0.2	99	0.00	5.45
39 t	4-Chloroaniline	0.500	0.509	-1.8	105	0.00	5.52
40 t	2,3-Dichloroaniline	0.479	0.463	3.3	99	0.00	6.56
41 t	Caprolactam	0.206	0.222	-7.8	97	0.00	5.90
42 t	Hexachlorobutadiene	0.245	0.241	1.6	98	0.00	5.57
43 t	4-Chloro-3-methylphenol	0.418	0.443	-6.0	97	0.00	6.08
44 t	2-Methylnaphthalene	0.691	0.661	4.3	96	0.00	6.18
45 t	1-Methylnaphthalene	0.883	0.846	4.2	97	0.00	6.30
46 t	Dimethylnaphthalene	0.771	0.694	10.0	98	0.00	7.00
47 I	Acenaphthene-d10	1.000	1.000	0.0	92	0.00	7.60
48 t	Hexachlorocyclopentadiene	0.410	0.418	-2.0	100	0.00	6.39
49 t	2,4,6-Trichlorophenol	0.438	0.432	1.4	98	0.00	6.56
50 t	2,4,5-Trichlorophenol	0.468	0.470	-0.4	100	0.00	6.62
51 S	2-Fluorobiphenyl	1.388	1.375	0.9	97	0.00	6.66
52 t	2-Chloronaphthalene	1.322	1.163	12.0	99	0.00	6.80
53 t	Biphenyl	1.762	1.559	11.5	98	0.00	6.79
54 t	2-Nitroaniline	0.425	0.435	-2.4	98	0.00	6.99
55 t	Dimethylphthalate	1.700	1.624	4.5	97	0.00	7.26
56 t	Acenaphthylene	2.037	1.916	5.9	98	0.00	7.39
57 t	2,6-Dinitrotoluene	0.336	0.372	-10.7	102	0.00	7.34
58 t	3-Nitroaniline	0.357	0.371	-3.9	98	0.00	7.61
59 t	Acenaphthene	1.230	1.167	5.1	96	0.00	7.66
		----- True	Calc.	% Drift	-----		
60 t	2,4-Dinitrophenol	100.000	110.526	-10.5	104	0.00	7.76
		----- AvgRF	CCRF	% Dev	-----		
61 t	4-Nitrophenol	0.211	0.218	-3.3	95	0.00	7.99
62 t	Dibenzofuran	1.953	1.850	5.3	99	0.00	7.93
63 t	2,4-Dinitrotoluene	0.430	0.471	-9.5	101	0.00	7.97
64 t	2,3,4,6-Tetrachlorophenol	0.389	0.416	-6.9	103	0.00	8.17
65 t	Diethylphthalate	1.686	1.638	2.8	97	0.00	8.41
66 t	Fluorene	1.551	1.432	7.7	98	0.00	8.49
67 t	4-Chlorophenyl-phenylethe	0.763	0.689	9.7	99	0.00	8.53
68 t	4-Nitroaniline	0.366	0.376	-2.7	93	0.00	8.62
69 I	Phenanthrene-d10	1.000	1.000	0.0	92	0.00	10.14
70 t	4,6-Dinitro-2-methylpheno	0.147	0.171	-16.3	100	0.00	8.65
71 t	n-Nitrosodiphenylamine	0.630	0.610	3.2	97	0.00	8.76
72 t	1,2-Diphenylhydrazine	0.970	0.958	1.2	97	0.00	8.80
73 S	2,4,6-Tribromophenol	0.157	0.180	-14.6	104	0.00	8.92
74 t	4-Bromophenyl-phenylether	0.295	0.296	-0.3	98	0.00	9.38
75 t	Hexachlorobenzene	0.321	0.308	4.0	98	0.00	9.45
76 t	Pentachlorophenol	0.187	0.210	-12.3	98	0.00	9.86
77 t	Phenanthrene	1.120	1.102	1.6	98	0.00	10.18
78 t	Anthracene	1.166	1.184	-1.5	99	0.00	10.27
79 t	Carbazole	1.286	1.234	4.0	94	0.00	10.64
80 t	Di-n-butylphthalate	1.653	1.723	-4.2	95	0.00	11.44
81 t	Fluoranthene	1.510	1.485	1.7	94	0.00	12.43
82 t	Octadecane	0.482	0.512	-6.2	97	0.00	10.14
83 I	Chrysene-d12	1.000	1.000	0.0	87	0.00	15.24
84 t	Pyrene	1.662	1.604	3.5	92	0.00	12.85
85 S	Terphenyl-d14	1.089	1.125	-3.3	93	0.00	13.28
86 t	Butylbenzylphthalate	0.781	0.892	-14.2	93	0.00	14.34
87 t	Benzo[a]anthracene	1.497	1.515	-1.2	90	0.00	15.22
88 t	3,3'-Dichlorobenzidine	0.488	0.541	-10.9	93	0.00	15.28
89 t	Chrysene	1.246	1.220	2.1	93	0.00	15.29
90 t	bis(2-Ethylhexyl)phthalat	0.978	1.148	-17.4	94	0.00	15.54

8.7.43

8

Continuing Calibration Summary

Job Number: JC96248
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA

Sample: EM6780-CC6777
Lab FileID: M160199.D

91	I	Perylene-d12	1.000	1.000	0.0	83	0.00	17.83
92	t	Di-n-octylphthalate	1.590	1.736	-9.2	87	0.00	16.75
93	t	Benzo[b]fluoranthene	1.376	1.333	3.1	87	0.00	17.19
94	t	Benzo[k]fluoranthene	1.225	1.109	9.5	89	0.00	17.25
95	t	Benzo[a]pyrene	1.214	1.171	3.5	86	0.00	17.73
96	t	Indeno[1,2,3-cd]pyrene	1.182	1.049	11.3	77	0.00	19.46
97	t	Dibenz(a,h)acridine	1.110	1.010	9.0	78	0.00	19.15
98	t	Dibenz[a,h]anthracene	1.178	1.071	9.1	80	0.00	19.50
99	t	7,12-Dimethylbenz(a)anthr	0.479	0.570	-19.0	95	0.00	17.21
100	t	Benzo[g,h,i]perylene	1.180	1.024	13.2	77	0.00	19.84

(#) = Out of Range
m160199.D MM6777.M

SPCC's out = 0 CCC's out = 0
Fri Oct 11 14:36:18 2019

8.7.43

8

Continuing Calibration Summary

Job Number: JC96248
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: EM6780-CC6772
 Lab FileID: M160200.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EM6780\m160200.D Vial: 3
 Acq On : 10 Oct 2019 9:31 am Operator: hennys
 Sample : cc6772-50 Inst : MSM
 Misc : op21044,em6780,1000,,,1,1 Multiplr: 1.00
 MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MM6777.M (RTE Integrator)
 Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 Last Update : Tue Oct 08 15:55:00 2019
 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 20% Max. Rel. Area : 200%

Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
101 I 1,4-Dichlorobenzene-d4a	1.000	1.000	0.0	91	-0.05	4.37
102 t Benzaldehyde	1.079	1.117	-3.5	94	-0.05	4.05
103 I Acenaphthene-d10a	1.000	1.000	0.0	87	-0.08	7.60
104 t Atrazine	0.177	0.202	-14.1	93	-0.07	9.79
110 I Phenanthrene-d10a	1.000	1.000	0.0	90	-0.09	10.14
111 Pentachloronitrobenzene	0.048	0.055	-14.6	94	-0.09	9.86

(#) = Out of Range SPCC's out = 0 CCC's out = 0
 m160100A.D MM6777.M Thu Oct 10 16:41:05 2019

8.7.44

8

Continuing Calibration Summary

Job Number: JC96248
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: EM6780-CC6773
 Lab FileID: M160201.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EM6780\m160201.D Vial: 4
 Acq On : 10 Oct 2019 9:59 am Operator: hennys
 Sample : cc6773-50 Inst : MSM
 Misc : op21044,em6780,1000,,,1,1 Multiplr: 1.00
 MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MM6777.M (RTE Integrator)
 Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 Last Update : Tue Oct 08 15:55:00 2019
 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
105	Acenaphthene-d10b	1.000	1.000	0.0	75	-0.08	7.60
106	1,2,4,5-Tetrachlorobenzen	0.653	0.573	12.3	71	-0.06	6.39
107 I	Chrysene-d12a	1.000	1.000	0.0	70	-0.09	15.23
108 t	Benzidine	0.701	0.766	-9.3	69	-0.08	12.81
109 s	1-chlorooctadecane	0.269	0.363	-34.9#	91	-0.07	12.45
112	Phenanthrene-d10b	1.000	1.000	0.0	74	-0.09	10.13
113 s	o-terphenyl	0.549	0.530	3.5	73	-0.08	10.95
114 I	Naphthalene-d8a	1.000	1.000	0.0	72	-0.06	5.42
115	Hydroquinone	0.336	0.443	-31.8#	87	-0.05	5.91

(#) = Out of Range SPCC's out = 0 CCC's out = 0
 m160100A.D MM6777.M Thu Oct 10 16:41:07 2019

Continuing Calibration Summary

Job Number: JC96248
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: EM6781-CC6777
 Lab FileID: M160231.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\jeryllr\em6781\m160231.d Vial: 2
 Acq On : 11 Oct 2019 11:19 am Operator: hennys
 Sample : cc6777-25 Inst : MSM
 Misc : op21044,em6781,1000,,,1,1 Multiplr: 1.00
 MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MM6777.M (RTE Integrator)
 Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 Last Update : Fri Oct 11 13:05:55 2019
 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	90	0.00	4.36
2 t	1,4-Dioxane	0.960	0.951	0.9	82	-0.02	1.83
3 t	Pyridine	2.207	2.241	-1.5	91	-0.02	2.18
4 t	N-Nitrosodimethylamine	0.995	0.963	3.2	94	-0.01	2.15
5 S	2-Fluorophenol	1.758	1.793	-2.0	89	-0.02	3.40
6 t	Indene	2.356	2.320	1.5	90	-0.01	4.55
7 t	Cumene	4.163	4.197	-0.8	91	-0.01	3.76
8 S	Phenol-d5	2.021	2.001	1.0	90	-0.02	4.14
9 t	Phenol	2.296	2.276	0.9	95	-0.02	4.15
10 t	Aniline	2.322	2.626	-13.1	113	-0.01	4.13
11 t	bis(2-Chloroethyl)ether	1.599	1.572	1.7	92	-0.01	4.18
12 t	2-Chlorophenol	1.593	1.575	1.1	90	-0.01	4.22
13 t	Decane	1.426	1.429	-0.2	95	0.00	4.25
14 t	1,3-Dichlorobenzene	1.770	1.714	3.2	90	-0.01	4.32
15 t	1,4-Dichlorobenzene	1.568	1.571	-0.2	90	-0.01	4.37
16 t	Benzyl alcohol	0.830	0.909	-9.5	91	-0.02	4.48
17 t	1,2-Dichlorobenzene	1.584	1.579	0.3	90	0.00	4.49
18 t	Acetophenone	2.173	2.124	2.3	91	-0.02	4.67
19 t	2-Methylphenol	1.305	1.299	0.5	92	-0.02	4.58
20 t	2,2'-oxybis(1-Chloropropa	0.417	0.397	4.8	89	-0.01	4.57
21 t	3&4-Methylphenol	1.395	1.366	2.1	93	-0.02	4.70
22 t	n-Nitroso-di-n-propylamin	1.228	1.200	2.3	93	-0.01	4.67
23 t	Hexachloroethane	0.655	0.639	2.4	90	-0.01	4.74
24 I	Naphthalene-d8	1.000	1.000	0.0	90	-0.02	5.41
25 S	Nitrobenzene-d5	0.515	0.520	-1.0	93	-0.01	4.79
26 t	Nitrobenzene	0.526	0.520	1.1	91	-0.01	4.81
27 t	Quinoline	0.886	0.871	1.7	89	-0.02	5.77
28 t	Isophorone	0.928	0.947	-2.0	92	-0.02	4.99
29 t	2-Nitrophenol	0.221	0.247	-11.8	93	-0.02	5.07
30 t	2,4-Dimethylphenol	0.380	0.456	-20.0#	103	-0.02	5.13
	----- True Calc. % Drift -----						
31 t	Benzoic acid	25.000	26.469	-5.9	95	-0.05	5.25
	----- AvgRF CCRF % Dev -----						
32 t	bis(2-Chloroethoxy)methan	0.570	0.561	1.6	91	-0.01	5.19
33 t	2,4-Dichlorophenol	0.381	0.388	-1.8	90	-0.02	5.29
34 t	2,6-Dichlorophenol	0.343	0.352	-2.6	90	-0.02	5.50
35 t	1,3,5-Trichlorobenzene	0.441	0.437	0.9	90	-0.01	5.07
36 t	1,2,4-Trichlorobenzene	0.422	0.418	0.9	89	-0.02	5.35
37 t	1,2,3-Trichlorobenzene	0.392	0.372	5.1	88	-0.02	5.57

Continuing Calibration Summary

Job Number: JC96248
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: EM6781-CC6777
 Lab FileID: M160231.D

38 t	Naphthalene	1.099	1.102	-0.3	90	-0.02	5.43
39 t	4-Chloroaniline	0.500	0.517	-3.4	96	-0.02	5.50
40 t	2,3-Dichloroaniline	0.479	0.466	2.7	89	-0.02	6.53
41 t	Caprolactam	0.206	0.207	-0.5	90	-0.04	5.86
42 t	Hexachlorobutadiene	0.245	0.244	0.4	92	-0.02	5.56
43 t	4-Chloro-3-methylphenol	0.418	0.432	-3.3	91	-0.03	6.05
44 t	2-Methylnaphthalene	0.691	0.678	1.9	89	-0.02	6.16
45 t	1-Methylnaphthalene	0.883	0.862	2.4	91	-0.02	6.28
46 t	Dimethylnaphthalene	0.771	0.724	6.1	91	-0.02	6.98
47 I	Acenaphthene-d10	1.000	1.000	0.0	91	-0.02	7.58
48 t	Hexachlorocyclopentadiene	0.410	0.441	-7.6	94	-0.02	6.37
49 t	2,4,6-Trichlorophenol	0.438	0.455	-3.9	91	-0.02	6.54
50 t	2,4,5-Trichlorophenol	0.468	0.468	0.0	90	-0.02	6.60
51 S	2-Fluorobiphenyl	1.388	1.482	-6.8	90	-0.02	6.64
52 t	2-Chloronaphthalene	1.322	1.260	4.7	90	-0.02	6.78
53 t	Biphenyl	1.762	1.634	7.3	89	-0.02	6.77
54 t	2-Nitroaniline	0.425	0.441	-3.8	94	-0.03	6.96
55 t	Dimethylphthalate	1.700	1.659	2.4	90	-0.02	7.24
56 t	Acenaphthylene	2.037	2.000	1.8	89	-0.03	7.36
57 t	2,6-Dinitrotoluene	0.336	0.366	-8.9	93	-0.03	7.31
58 t	3-Nitroaniline	0.357	0.368	-3.1	89	-0.03	7.58
59 t	Acenaphthene	1.230	1.198	2.6	89	-0.03	7.63
		----- True	Calc.	% Drift	-----		
60 t	2,4-Dinitrophenol	50.000	53.775	-7.5	96	-0.03	7.73
		----- AvgRF	CCRF	% Dev	-----		
61 t	4-Nitrophenol	0.211	0.217	-2.8	88	-0.03	7.95
62 t	Dibenzofuran	1.953	1.912	2.1	90	-0.03	7.91
63 t	2,4-Dinitrotoluene	0.430	0.461	-7.2	88	-0.03	7.94
64 t	2,3,4,6-Tetrachlorophenol	0.389	0.409	-5.1	90	-0.02	8.15
65 t	Diethylphthalate	1.686	1.660	1.5	90	-0.02	8.38
66 t	Fluorene	1.551	1.515	2.3	91	-0.03	8.46
67 t	4-Chlorophenyl-phenylethe	0.763	0.711	6.8	89	-0.02	8.50
68 t	4-Nitroaniline	0.366	0.377	-3.0	91	-0.04	8.58
69 I	Phenanthrene-d10	1.000	1.000	0.0	94	-0.03	10.11
70 t	4,6-Dinitro-2-methylpheno	0.147	0.155	-5.4	93	-0.04	8.61
71 t	n-Nitrosodiphenylamine	0.630	0.598	5.1	88	-0.03	8.72
72 t	1,2-Diphenylhydrazine	0.970	0.950	2.1	93	-0.03	8.77
73 S	2,4,6-Tribromophenol	0.157	0.167	-6.4	90	-0.03	8.88
74 t	4-Bromophenyl-phenylether	0.295	0.282	4.4	89	-0.03	9.35
75 t	Hexachlorobenzene	0.321	0.303	5.6	88	-0.03	9.42
76 t	Pentachlorophenol	0.187	0.190	-1.6	84	-0.03	9.82
77 t	Phenanthrene	1.120	1.048	6.4	88	-0.03	10.15
78 t	Anthracene	1.166	1.142	2.1	90	-0.03	10.24
79 t	Carbazole	1.286	1.254	2.5	91	-0.03	10.61
80 t	Di-n-butylphthalate	1.653	1.655	-0.1	89	-0.03	11.41
81 t	Fluoranthene	1.510	1.441	4.6	88	-0.03	12.40
82 t	Octadecane	0.482	0.492	-2.1	95	-0.03	10.11
83 I	Chrysene-d12	1.000	1.000	0.0	88	-0.04	15.20
84 t	Pyrene	1.662	1.602	3.6	84	-0.03	12.82
85 S	Terphenyl-d14	1.089	1.107	-1.7	89	-0.03	13.24
86 t	Butylbenzylphthalate	0.781	0.847	-8.5	87	-0.03	14.31
87 t	Benzo[a]anthracene	1.497	1.476	1.4	86	-0.04	15.18
88 t	3,3'-Dichlorobenzidine	0.488	0.505	-3.5	85	-0.03	15.25
89 t	Chrysene	1.246	1.226	1.6	86	-0.04	15.25
90 t	bis(2-Ethylhexyl)phthalat	0.978	1.067	-9.1	85	-0.03	15.51

8.7.46

8

Continuing Calibration Summary

Job Number: JC96248
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA

Sample: EM6781-CC6777
Lab FileID: M160231.D

91	I	Perylene-d12	1.000	1.000	0.0	84	-0.04	17.79
92	t	Di-n-octylphthalate	1.590	1.728	-8.7	85	-0.03	16.72
93	t	Benzo[b]fluoranthene	1.376	1.381	-0.4	85	-0.05	17.15
94	t	Benzo[k]fluoranthene	1.225	1.166	4.8	84	-0.05	17.20
95	t	Benzo[a]pyrene	1.214	1.241	-2.2	85	-0.05	17.68
96	t	Indeno[1,2,3-cd]pyrene	1.182	1.160	1.9	79	-0.05	19.41
97	t	Dibenz(a,h)acridine	1.110	1.098	1.1	79	-0.05	19.10
98	t	Dibenz[a,h]anthracene	1.178	1.107	6.0	78	-0.05	19.45
99	t	7,12-Dimethylbenz(a)anthr	0.479	0.590	-23.2#	93	-0.05	17.17
100	t	Benzo[g,h,i]perylene	1.180	1.128	4.4	78	-0.06	19.78

(#) = Out of Range
m160101A.D MM6777.M

SPCC's out = 0 CCC's out = 0
Mon Oct 14 04:55:07 2019

Continuing Calibration Summary

Job Number: JC96248
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: EM6781-CC6772
 Lab FileID: M160232.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\jeryllr\em6781\m160232.d Vial: 3
 Acq On : 11 Oct 2019 11:48 am Operator: hennys
 Sample : cc6772-25 Inst : MSM
 Misc : op21044,em6781,1000,,,1,1 Multiplr: 1.00
 MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MM6777.M (RTE Integrator)
 Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 Last Update : Fri Oct 11 13:05:55 2019
 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
101 I	1,4-Dichlorobenzene-d4a	1.000	1.000	0.0	89	-0.01	4.36
102 t	Benzaldehyde	1.079	1.164	-7.9	93	-0.06	4.04
103 I	Acenaphthene-d10a	1.000	1.000	0.0	84	-0.03	7.58
104 t	Atrazine	0.177	0.198	-11.9	85	-0.11	9.76
110 I	Phenanthrene-d10a	1.000	1.000	0.0	80	-0.03	10.11
111	Pentachloronitrobenzene	0.048	0.058	-20.8#	86	-0.11	9.83

(#) = Out of Range
 m160101A.D MM6777.M

SPCC's out = 0 CCC's out = 0
 Mon Oct 14 04:55:09 2019

Continuing Calibration Summary

Job Number: JC96248
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: EM6781-CC6773
 Lab FileID: M160233.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\jeryllr\em6781\m160233.d Vial: 4
 Acq On : 11 Oct 2019 12:16 pm Operator: hennys
 Sample : cc6773-25 Inst : MSM
 Misc : op21044,em6781,1000,,,1,1 Multiplr: 1.00
 MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MM6777.M (RTE Integrator)
 Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 Last Update : Fri Oct 11 13:05:55 2019
 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
105	Acenaphthene-d10b	1.000	1.000	0.0	77	-0.03	7.58
106	1,2,4,5-Tetrachlorobenzen	0.653	0.670	-2.6	77	-0.09	6.37
107 I	Chrysene-d12a	1.000	1.000	0.0	73	-0.04	15.20
108 t	Benzidine	0.701	0.740	-5.6	67	-0.11	12.79
109 s	1-chlorooctadecane	0.269	0.401	-49.1#	98	-0.10	12.42
112	Phenanthrene-d10b	1.000	1.000	0.0	75	-0.03	10.10
113 s	o-terphenyl	0.549	0.589	-7.3	78	-0.11	10.92
114 I	Naphthalene-d8a	1.000	1.000	0.0	78	-0.02	5.40
115	Hydroquinone	0.336	0.421	-25.3#	97	-0.07	5.89

(#) = Out of Range
 m160101A.D MM6777.M

SPCC's out = 0 CCC's out = 0
 Mon Oct 14 04:55:12 2019

Continuing Calibration Summary

Job Number: JC96248
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: EM6782-CC6777
 Lab FileID: M160258.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\altheam\em6782\m160258.d Vial: 2
 Acq On : 12 Oct 2019 3:15 pm Operator: jamescl
 Sample : cc6777-50 Inst : MSM
 Misc : op21044,em6782,1000,,,1,1 Multiplr: 1.00
 MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MM6777.M (RTE Integrator)
 Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 Last Update : Mon Oct 14 03:17:37 2019
 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	104	0.00	4.34
2 t	1,4-Dioxane	0.960	0.900	6.2	97	0.00	1.82
3 t	Pyridine	2.207	1.961	11.1	89	0.00	2.16
4 t	N-Nitrosodimethylamine	0.995	0.928	6.7	103	0.00	2.13
5 S	2-Fluorophenol	1.758	1.721	2.1	100	0.00	3.38
6 t	Indene	2.356	2.100	10.9	100	0.00	4.53
7 t	Cumene	4.163	3.717	10.7	100	0.00	3.74
8 S	Phenol-d5	2.021	1.798	11.0	98	0.00	4.13
9 t	Phenol	2.296	2.018	12.1	100	0.00	4.14
10 t	Aniline	2.322	2.342	-0.9	122	0.00	4.12
11 t	bis(2-Chloroethyl)ether	1.599	1.390	13.1	100	0.00	4.16
12 t	2-Chlorophenol	1.593	1.414	11.2	100	0.00	4.20
13 t	Decane	1.426	1.207	15.4	102	0.00	4.23
14 t	1,3-Dichlorobenzene	1.770	1.532	13.4	103	0.00	4.30
15 t	1,4-Dichlorobenzene	1.568	1.389	11.4	100	0.00	4.36
16 t	Benzyl alcohol	0.830	0.848	-2.2	102	0.00	4.47
17 t	1,2-Dichlorobenzene	1.584	1.389	12.3	102	0.00	4.47
18 t	Acetophenone	2.173	1.940	10.7	100	0.00	4.65
19 t	2-Methylphenol	1.305	1.160	11.1	101	0.00	4.57
20 t	2,2'-oxybis(1-Chloropropa	0.417	0.361	13.4	101	0.00	4.55
21 t	3&4-Methylphenol	1.395	1.278	8.4	102	0.00	4.69
22 t	n-Nitroso-di-n-propylamin	1.228	1.091	11.2	100	0.00	4.66
23 t	Hexachloroethane	0.655	0.579	11.6	101	0.00	4.72
24 I	Naphthalene-d8	1.000	1.000	0.0	104	0.00	5.38
25 S	Nitrobenzene-d5	0.515	0.477	7.4	102	0.00	4.77
26 t	Nitrobenzene	0.526	0.460	12.5	100	0.00	4.78
27 t	Quinoline	0.886	0.817	7.8	101	0.00	5.76
28 t	Isophorone	0.928	0.880	5.2	104	0.00	4.98
29 t	2-Nitrophenol	0.221	0.214	3.2	104	0.00	5.05
30 t	2,4-Dimethylphenol	0.380	0.398	-4.7	105	0.00	5.11
	----- True Calc. % Drift -----						
31 t	Benzoic acid	50.000	52.647	-5.3	112	0.00	5.25
	----- AvgRF CCRF % Dev -----						
32 t	bis(2-Chloroethoxy)methan	0.570	0.513	10.0	102	0.00	5.17
33 t	2,4-Dichlorophenol	0.381	0.341	10.5	103	0.00	5.27
34 t	2,6-Dichlorophenol	0.343	0.315	8.2	103	0.00	5.48
35 t	1,3,5-Trichlorobenzene	0.441	0.379	14.1	104	0.00	5.05
36 t	1,2,4-Trichlorobenzene	0.422	0.366	13.3	103	0.00	5.33
37 t	1,2,3-Trichlorobenzene	0.392	0.328	16.3	101	0.00	5.55

Continuing Calibration Summary

Job Number: JC96248
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: EM6782-CC6777
 Lab FileID: M160258.D

38 t	Naphthalene	1.099	0.978	11.0	101	0.00	5.40
39 t	4-Chloroaniline	0.500	0.459	8.2	109	0.00	5.48
40 t	2,3-Dichloroaniline	0.479	0.423	11.7	103	0.00	6.51
41 t	Caprolactam	0.206	0.203	1.5	101	0.00	5.86
42 t	Hexachlorobutadiene	0.245	0.217	11.4	102	0.00	5.53
43 t	4-Chloro-3-methylphenol	0.418	0.399	4.5	101	0.00	6.03
44 t	2-Methylnaphthalene	0.691	0.603	12.7	101	0.00	6.13
45 t	1-Methylnaphthalene	0.883	0.771	12.7	101	0.00	6.25
46 t	Dimethylnaphthalene	0.771	0.631	18.2	103	0.00	6.95
47 I	Acenaphthene-d10	1.000	1.000	0.0	107	0.00	7.55
48 t	Hexachlorocyclopentadiene	0.410	0.380	7.3	105	0.00	6.34
49 t	2,4,6-Trichlorophenol	0.438	0.386	11.9	102	0.00	6.51
50 t	2,4,5-Trichlorophenol	0.468	0.422	9.8	104	0.00	6.57
51 S	2-Fluorobiphenyl	1.388	1.214	12.5	99	0.00	6.61
52 t	2-Chloronaphthalene	1.322	1.046	20.9#	102	0.00	6.75
53 t	Biphenyl	1.762	1.408	20.1#	102	0.00	6.74
54 t	2-Nitroaniline	0.425	0.394	7.3	102	0.00	6.94
55 t	Dimethylphthalate	1.700	1.467	13.7	101	0.00	7.21
56 t	Acenaphthylene	2.037	1.716	15.8	102	0.00	7.33
57 t	2,6-Dinitrotoluene	0.336	0.331	1.5	105	0.00	7.28
58 t	3-Nitroaniline	0.357	0.336	5.9	103	0.00	7.55
59 t	Acenaphthene	1.230	1.063	13.6	101	0.00	7.60
		----- True	Calc.	% Drift	-----		
60 t	2,4-Dinitrophenol	100.000	104.187	-4.2	113	0.00	7.70
		----- AvgRF	CCRF	% Dev	-----		
61 t	4-Nitrophenol	0.211	0.206	2.4	103	0.00	7.93
62 t	Dibenzofuran	1.953	1.678	14.1	103	0.00	7.88
63 t	2,4-Dinitrotoluene	0.430	0.432	-0.5	107	0.00	7.91
64 t	2,3,4,6-Tetrachlorophenol	0.389	0.383	1.5	109	0.00	8.11
65 t	Diethylphthalate	1.686	1.486	11.9	102	0.00	8.35
66 t	Fluorene	1.551	1.309	15.6	104	0.00	8.43
67 t	4-Chlorophenyl-phenylethe	0.763	0.623	18.3	104	0.00	8.47
68 t	4-Nitroaniline	0.366	0.355	3.0	102	0.00	8.57
69 I	Phenanthrene-d10	1.000	1.000	0.0	110	0.00	10.07
70 t	4,6-Dinitro-2-methylpheno	0.147	0.155	-5.4	109	0.00	8.59
71 t	n-Nitrosodiphenylamine	0.630	0.536	14.9	102	0.00	8.69
72 t	1,2-Diphenylhydrazine	0.970	0.849	12.5	103	0.00	8.74
73 S	2,4,6-Tribromophenol	0.157	0.159	-1.3	111	0.00	8.85
74 t	4-Bromophenyl-phenylether	0.295	0.260	11.9	104	0.00	9.31
75 t	Hexachlorobenzene	0.321	0.275	14.3	105	0.00	9.38
76 t	Pentachlorophenol	0.187	0.187	0.0	105	0.00	9.79
77 t	Phenanthrene	1.120	0.929	17.1	99	0.00	10.11
78 t	Anthracene	1.166	1.009	13.5	101	0.00	10.21
79 t	Carbazole	1.286	1.107	13.9	102	0.00	10.58
80 t	Di-n-butylphthalate	1.653	1.520	8.0	101	0.00	11.37
81 t	Fluoranthene	1.510	1.301	13.8	99	0.00	12.36
82 t	Octadecane	0.482	0.436	9.5	100	0.00	10.08
83 I	Chrysene-d12	1.000	1.000	0.0	100	0.00	15.16
84 t	Pyrene	1.662	1.471	11.5	97	0.00	12.78
85 S	Terphenyl-d14	1.089	1.037	4.8	99	0.00	13.20
86 t	Butylbenzylphthalate	0.781	0.826	-5.8	99	0.00	14.27
87 t	Benzo[a]anthracene	1.497	1.387	7.3	95	0.00	15.14
88 t	3,3'-Dichlorobenzidine	0.488	0.492	-0.8	98	0.00	15.21
89 t	Chrysene	1.246	1.114	10.6	97	0.00	15.21
90 t	bis(2-Ethylhexyl)phthalat	0.978	1.041	-6.4	98	0.00	15.47

8.7.49

8

Continuing Calibration Summary

Job Number: JC96248
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA

Sample: EM6782-CC6777
Lab FileID: M160258.D

91	I	Perylene-d12	1.000	1.000	0.0	99	0.00	17.74
92	t	Di-n-octylphthalate	1.590	1.608	-1.1	96	0.00	16.68
93	t	Benzo[b]fluoranthene	1.376	1.197	13.0	93	0.00	17.11
94	t	Benzo[k]fluoranthene	1.225	0.992	19.0	95	0.00	17.16
95	t	Benzo[a]pyrene	1.214	1.078	11.2	94	0.00	17.64
96	t	Indeno[1,2,3-cd]pyrene	1.182	1.035	12.4	91	0.00	19.36
97	t	Dibenz(a,h)acridine	1.110	0.976	12.1	90	0.00	19.06
98	t	Dibenz[a,h]anthracene	1.178	1.025	13.0	92	0.00	19.41
99	t	7,12-Dimethylbenz(a)anthr	0.479	0.506	-5.6	101	0.00	17.12
100	t	Benzo[g,h,i]perylene	1.180	0.993	15.8	90	0.00	19.74

(#) = Out of Range
m160259.d MM6777.M

SPCC's out = 0 CCC's out = 0
Mon Oct 14 03:19:23 2019

8.7.49

8

Continuing Calibration Summary

Job Number: JC96248
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: EM6782-CC6772
 Lab FileID: M160259.D

Evaluate Continuing Calibration Report

Data File : X:\svoa-gcms\complet...heam\em6782\m160259.d Vial: 3
 Acq On : 12 Oct 2019 3:45 pm Operator: jamescl
 Sample : cc6772-50 Inst : MSM
 Misc : op21044,em6782,1000,,,1,1 Multiplr: 1.00
 MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MM6777.M (RTE Integrator)
 Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 Last Update : Wed Oct 16 23:17:46 2019
 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 50% Max. Rel. Area : 200%

Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
101 I 1,4-Dichlorobenzene-d4a	1.000	1.000	0.0	90	0.00	4.34
102 t Benzaldehyde	1.079	1.199	-11.1	101	0.00	4.02
103 I Acenaphthene-d10a	1.000	1.000	0.0	93	0.00	7.55
104 t Atrazine	0.177	0.198	-11.9	97	0.00	9.73
110 I Phenanthrene-d10a	1.000	1.000	0.0	94	0.00	10.07
111 Pentachloronitrobenzene	0.048	0.057	-18.8	102	0.00	9.78

(#) = Out of Range SPCC's out = 0 CCC's out = 0
 m160259.d MM6777.M Wed Oct 16 23:20:10 2019

8.7.50
8

Continuing Calibration Summary

Job Number: JC96248
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: EM6782-CC6773
 Lab FileID: M160260.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\altheam\em6782\m160260.d Vial: 4
 Acq On : 12 Oct 2019 4:13 pm Operator: jamescl
 Sample : cc6773-50 Inst : MSM
 Misc : op21044,em6782,1000,,,1,1 Multiplr: 1.00
 MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MM6777.M (RTE Integrator)
 Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 Last Update : Mon Oct 14 03:17:37 2019
 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
105	Acenaphthene-d10b	1.000	1.000	0.0	79	0.00	7.54
106	1,2,4,5-Tetrachlorobenzen	0.653	0.594	9.0	77	0.00	6.34
107 I	Chrysene-d12a	1.000	1.000	0.0	75	0.00	15.14
108 t	Benzidine	0.701	0.772	-10.1	76	0.00	12.74
109 s	1-chlorooctadecane	0.269	0.364	-35.3#	98	0.00	12.38
112	Phenanthrene-d10b	1.000	1.000	0.0	78	0.00	10.06
113 s	o-terphenyl	0.549	0.538	2.0	79	0.00	10.88
114 I	Naphthalene-d8a	1.000	1.000	0.0	75	0.00	5.38
115	Hydroquinone	0.336	0.452	-34.5#	94	0.00	5.87

(#) = Out of Range
 m160259.d MM6777.M

SPCC's out = 0 CCC's out = 0
 Mon Oct 14 03:19:29 2019

Continuing Calibration Summary

Job Number: JC96248
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: EM6782-ECC6777
 Lab FileID: M160284.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\altheam\em6782\m160284.d Vial: 2
 Acq On : 13 Oct 2019 3:25 am Operator: jamescl
 Sample : ecc6777-50 Inst : MSM
 Misc : op21044,em6782,1000,,,1,1 Multiplr: 1.00
 MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MM6777.M (RTE Integrator)
 Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 Last Update : Mon Oct 14 03:17:37 2019
 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 50% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	103	0.00	4.34
2 t	1,4-Dioxane	0.960	0.945	1.6	100	0.00	1.81
3 t	Pyridine	2.207	2.019	8.5	90	0.00	2.15
4 t	N-Nitrosodimethylamine	0.995	1.062	-6.7	116	0.00	2.12
5 S	2-Fluorophenol	1.758	1.758	0.0	101	0.00	3.38
6 t	Indene	2.356	2.129	9.6	100	0.00	4.53
7 t	Cumene	4.163	3.853	7.4	102	0.00	3.74
8 S	Phenol-d5	2.021	1.866	7.7	101	0.00	4.13
9 t	Phenol	2.296	2.098	8.6	103	0.00	4.13
10 t	Aniline	2.322	2.449	-5.5	125	0.00	4.11
11 t	bis(2-Chloroethyl)ether	1.599	1.403	12.3	100	0.00	4.16
12 t	2-Chlorophenol	1.593	1.416	11.1	99	0.00	4.20
13 t	Decane	1.426	1.277	10.4	106	0.00	4.22
14 t	1,3-Dichlorobenzene	1.770	1.523	14.0	100	0.00	4.30
15 t	1,4-Dichlorobenzene	1.568	1.421	9.4	100	0.00	4.36
16 t	Benzyl alcohol	0.830	0.853	-2.8	101	0.00	4.46
17 t	1,2-Dichlorobenzene	1.584	1.382	12.8	100	0.00	4.47
18 t	Acetophenone	2.173	1.990	8.4	101	0.00	4.65
19 t	2-Methylphenol	1.305	1.187	9.0	102	0.00	4.56
20 t	2,2'-oxybis(1-Chloropropa	0.417	0.368	11.8	101	0.00	4.55
21 t	3&4-Methylphenol	1.395	1.261	9.6	99	0.00	4.68
22 t	n-Nitroso-di-n-propylamin	1.228	1.132	7.8	102	0.00	4.65
23 t	Hexachloroethane	0.655	0.569	13.1	98	0.00	4.72
24 I	Naphthalene-d8	1.000	1.000	0.0	101	0.00	5.38
25 S	Nitrobenzene-d5	0.515	0.490	4.9	102	0.00	4.77
26 t	Nitrobenzene	0.526	0.486	7.6	103	0.00	4.78
27 t	Quinoline	0.886	0.822	7.2	99	0.00	5.75
28 t	Isophorone	0.928	0.925	0.3	106	0.00	4.98
29 t	2-Nitrophenol	0.221	0.211	4.5	100	0.00	5.04
30 t	2,4-Dimethylphenol	0.380	0.414	-8.9	106	0.00	5.11
	----- True Calc. % Drift -----						
31 t	Benzoic acid	50.000	46.113	7.8	95	0.00	5.25
	----- AvgRF CCRF % Dev -----						
32 t	bis(2-Chloroethoxy)methan	0.570	0.518	9.1	100	0.00	5.17
33 t	2,4-Dichlorophenol	0.381	0.344	9.7	101	0.00	5.27
34 t	2,6-Dichlorophenol	0.343	0.315	8.2	100	0.00	5.48
35 t	1,3,5-Trichlorobenzene	0.441	0.387	12.2	103	0.00	5.04
36 t	1,2,4-Trichlorobenzene	0.422	0.371	12.1	102	0.00	5.33
37 t	1,2,3-Trichlorobenzene	0.392	0.328	16.3	98	0.00	5.55

Continuing Calibration Summary

Job Number: JC96248
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: EM6782-ECC6777
 Lab FileID: M160284.D

38	t	Naphthalene	1.099	0.998	9.2	100	0.00	5.40
39	t	4-Chloroaniline	0.500	0.466	6.8	108	0.00	5.48
40	t	2,3-Dichloroaniline	0.479	0.426	11.1	101	0.00	6.50
41	t	Caprolactam	0.206	0.213	-3.4	103	0.00	5.86
42	t	Hexachlorobutadiene	0.245	0.221	9.8	101	0.00	5.53
43	t	4-Chloro-3-methylphenol	0.418	0.412	1.4	101	0.00	6.03
44	t	2-Methylnaphthalene	0.691	0.610	11.7	100	0.00	6.13
45	t	1-Methylnaphthalene	0.883	0.791	10.4	101	0.00	6.25
46	t	Dimethylnaphthalene	0.771	0.627	18.7	100	0.00	6.94
47	I	Acenaphthene-d10	1.000	1.000	0.0	104	0.00	7.54
48	t	Hexachlorocyclopentadiene	0.410	0.367	10.5	99	0.00	6.34
49	t	2,4,6-Trichlorophenol	0.438	0.384	12.3	99	0.00	6.51
50	t	2,4,5-Trichlorophenol	0.468	0.412	12.0	99	0.00	6.57
51	S	2-Fluorobiphenyl	1.388	1.232	11.2	98	0.00	6.61
52	t	2-Chloronaphthalene	1.322	1.053	20.3	101	0.00	6.75
53	t	Biphenyl	1.762	1.418	19.5	100	0.00	6.73
54	t	2-Nitroaniline	0.425	0.407	4.2	103	0.00	6.93
55	t	Dimethylphthalate	1.700	1.474	13.3	99	0.00	7.21
56	t	Acenaphthylene	2.037	1.710	16.1	99	0.00	7.33
57	t	2,6-Dinitrotoluene	0.336	0.323	3.9	100	0.00	7.28
58	t	3-Nitroaniline	0.357	0.337	5.6	100	0.00	7.55
59	t	Acenaphthene	1.230	1.067	13.3	99	0.00	7.59
			----- True	Calc.	% Drift	-----		
60	t	2,4-Dinitrophenol	100.000	92.650	7.3	97	0.00	7.69
			----- AvgRF	CCRF	% Dev	-----		
61	t	4-Nitrophenol	0.211	0.209	0.9	102	0.00	7.92
62	t	Dibenzofuran	1.953	1.664	14.8	100	0.00	7.87
63	t	2,4-Dinitrotoluene	0.430	0.417	3.0	101	0.00	7.90
64	t	2,3,4,6-Tetrachlorophenol	0.389	0.363	6.7	101	0.00	8.11
65	t	Diethylphthalate	1.686	1.472	12.7	98	0.00	8.34
66	t	Fluorene	1.551	1.304	15.9	101	0.00	8.43
67	t	4-Chlorophenyl-phenylethe	0.763	0.612	19.8	99	0.00	8.46
68	t	4-Nitroaniline	0.366	0.348	4.9	97	0.00	8.56
69	I	Phenanthrene-d10	1.000	1.000	0.0	108	0.00	10.07
70	t	4,6-Dinitro-2-methylpheno	0.147	0.137	6.8	94	0.00	8.58
71	t	n-Nitrosodiphenylamine	0.630	0.536	14.9	99	0.00	8.69
72	t	1,2-Diphenylhydrazine	0.970	0.874	9.9	104	0.00	8.74
73	S	2,4,6-Tribromophenol	0.157	0.147	6.4	100	0.00	8.85
74	t	4-Bromophenyl-phenylether	0.295	0.254	13.9	99	0.00	9.31
75	t	Hexachlorobenzene	0.321	0.271	15.6	101	0.00	9.38
76	t	Pentachlorophenol	0.187	0.170	9.1	93	0.00	9.78
77	t	Phenanthrene	1.120	0.920	17.9	96	0.00	10.11
78	t	Anthracene	1.166	1.004	13.9	98	0.00	10.20
79	t	Carbazole	1.286	1.117	13.1	100	0.00	10.57
80	t	Di-n-butylphthalate	1.653	1.539	6.9	100	0.00	11.37
81	t	Fluoranthene	1.510	1.323	12.4	99	-0.01	12.35
82	t	Octadecane	0.482	0.461	4.4	103	0.00	10.07
83	I	Chrysene-d12	1.000	1.000	0.0	100	0.00	15.15
84	t	Pyrene	1.662	1.418	14.7	93	0.00	12.77
85	S	Terphenyl-d14	1.089	1.020	6.3	97	0.00	13.20
86	t	Butylbenzylphthalate	0.781	0.819	-4.9	98	0.00	14.26
87	t	Benzo[a]anthracene	1.497	1.395	6.8	96	-0.01	15.13
88	t	3,3'-Dichlorobenzidine	0.488	0.485	0.6	97	0.00	15.20
89	t	Chrysene	1.246	1.087	12.8	95	0.00	15.20
90	t	bis(2-Ethylhexyl)phthalat	0.978	1.027	-5.0	97	0.00	15.46

8.7.52

8

Continuing Calibration Summary

Job Number: JC96248
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA

Sample: EM6782-ECC6777
Lab FileID: M160284.D

91	I	Perylene-d12	1.000	1.000	0.0	97	0.00	17.73
92	t	Di-n-octylphthalate	1.590	1.631	-2.6	96	0.00	16.67
93	t	Benzo[b]fluoranthene	1.376	1.247	9.4	95	-0.01	17.10
94	t	Benzo[k]fluoranthene	1.225	0.983	19.8	92	0.00	17.16
95	t	Benzo[a]pyrene	1.214	1.097	9.6	94	-0.01	17.63
96	t	Indeno[1,2,3-cd]pyrene	1.182	1.036	12.4	89	0.00	19.36
97	t	Dibenz(a,h)acridine	1.110	1.004	9.5	90	0.00	19.05
98	t	Dibenz[a,h]anthracene	1.178	1.023	13.2	90	0.00	19.40
99	t	7,12-Dimethylbenz(a)anthr	0.479	0.515	-7.5	101	0.00	17.12
100	t	Benzo[g,h,i]perylene	1.180	1.000	15.3	88	-0.01	19.72

(#) = Out of Range
m160259.d MM6777.M

SPCC's out = 0 CCC's out = 0
Mon Oct 14 05:13:07 2019

Continuing Calibration Summary

Job Number: JC96248
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: EM6782-ECC6772
 Lab FileID: M160285.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\altheam\em6782\m160285.d Vial: 3
 Acq On : 13 Oct 2019 3:53 am Operator: jamescl
 Sample : ecc6772-50 Inst : MSM
 Misc : op21044,em6782,1000,,,1,1 Multiplr: 1.00
 MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MM6777.M (RTE Integrator)
 Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 Last Update : Mon Oct 14 03:17:37 2019
 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 50% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
101 I	1,4-Dichlorobenzene-d4a	1.000	1.000	0.0	93	0.00	4.34
102 t	Benzaldehyde	1.079	1.206	-11.8	105	0.00	4.02
103 I	Acenaphthene-d10a	1.000	1.000	0.0	97	0.00	7.54
104 t	Atrazine	0.177	0.193	-9.0	98	0.00	9.72
110 I	Phenanthrene-d10a	1.000	1.000	0.0	94	0.00	10.06
111	Pentachloronitrobenzene	0.048	0.058	-20.8	103	0.00	9.78

(#) = Out of Range SPCC's out = 0 CCC's out = 0
 m160259.d MM6777.M Mon Oct 14 05:13:10 2019

Continuing Calibration Summary

Job Number: JC96248
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: EM6782-ECC6773
 Lab FileID: M160286.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\altheam\em6782\m160286.d Vial: 4
 Acq On : 13 Oct 2019 4:21 am Operator: jamescl
 Sample : ecc6773-50 Inst : MSM
 Misc : op21044,em6782,1000,,,1,1 Multiplr: 1.00
 MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MM6777.M (RTE Integrator)
 Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 Last Update : Mon Oct 14 03:17:37 2019
 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 50% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
105	Acenaphthene-d10b	1.000	1.000	0.0	80	0.00	7.54
106	1,2,4,5-Tetrachlorobenzen	0.653	0.575	11.9	76	0.00	6.34
107 I	Chrysene-d12a	1.000	1.000	0.0	75	-0.01	15.14
108 t	Benzidine	0.701	0.801	-14.3	79	0.00	12.74
109 s	1-chlorooctadecane	0.269	0.368	-36.8	100	0.00	12.37
112	Phenanthrene-d10b	1.000	1.000	0.0	78	-0.01	10.06
113 s	o-terphenyl	0.549	0.536	2.4	79	0.00	10.87
114 I	Naphthalene-d8a	1.000	1.000	0.0	77	0.00	5.38
115	Hydroquinone	0.336	0.423	-25.9	90	0.00	5.87

(#) = Out of Range
 m160259.d MM6777.M

SPCC's out = 0 CCC's out = 0
 Mon Oct 14 05:13:13 2019

Continuing Calibration Summary

Job Number: JC96248
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: EM6783-CC6777
 Lab FileID: M160288.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\jo...1519\em6783\m160288.d Vial: 2
 Acq On : 13 Oct 2019 9:32 am Operator: hennys
 Sample : cc6777-25 Inst : MSM
 Misc : op21044,em6783,1000,,,1,1 Multiplr: 1.00
 MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MM6777.M (RTE Integrator)
 Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 Last Update : Fri Oct 11 13:05:55 2019
 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	63	-0.04	4.33
2 t	1,4-Dioxane	0.960	0.977	-1.8	59	-0.06	1.79
3 t	Pyridine	2.207	2.269	-2.8	65	-0.06	2.14
4 t	N-Nitrosodimethylamine	0.995	0.934	6.1	64	-0.05	2.11
5 S	2-Fluorophenol	1.758	1.762	-0.2	61	-0.05	3.37
6 t	Indene	2.356	2.361	-0.2	65	-0.04	4.52
7 t	Cumene	4.163	4.228	-1.6	65	-0.05	3.73
8 S	Phenol-d5	2.021	2.016	0.2	64	-0.05	4.11
9 t	Phenol	2.296	2.376	-3.5	70	-0.05	4.12
10 t	Aniline	2.322	2.629	-13.2	80	-0.04	4.11
11 t	bis(2-Chloroethyl)ether	1.599	1.583	1.0	66	-0.04	4.15
12 t	2-Chlorophenol	1.593	1.579	0.9	64	-0.04	4.19
13 t	Decane	1.426	1.549	-8.6	73	-0.04	4.22
14 t	1,3-Dichlorobenzene	1.770	1.737	1.9	65	-0.04	4.29
15 t	1,4-Dichlorobenzene	1.568	1.610	-2.7	65	-0.04	4.35
16 t	Benzyl alcohol	0.830	0.892	-7.5	63	-0.05	4.45
17 t	1,2-Dichlorobenzene	1.584	1.598	-0.9	64	-0.04	4.46
18 t	Acetophenone	2.173	2.102	3.3	64	-0.05	4.64
19 t	2-Methylphenol	1.305	1.329	-1.8	66	-0.05	4.55
20 t	2,2'-oxybis(1-Chloropropa	0.417	0.414	0.7	65	-0.04	4.54
21 t	3&4-Methylphenol	1.395	1.331	4.6	64	-0.05	4.67
22 t	n-Nitroso-di-n-propylamin	1.228	1.239	-0.9	68	-0.05	4.64
23 t	Hexachloroethane	0.655	0.650	0.8	64	-0.04	4.71
24 I	Naphthalene-d8	1.000	1.000	0.0	65	-0.05	5.37
25 S	Nitrobenzene-d5	0.515	0.520	-1.0	67	-0.05	4.76
26 t	Nitrobenzene	0.526	0.513	2.5	65	-0.05	4.77
27 t	Quinoline	0.886	0.852	3.8	63	-0.06	5.73
28 t	Isophorone	0.928	0.953	-2.7	67	-0.05	4.96
29 t	2-Nitrophenol	0.221	0.233	-5.4	64	-0.05	5.04
30 t	2,4-Dimethylphenol	0.380	0.446	-17.4	73	-0.05	5.09
	----- True Calc. % Drift -----						
31 t	Benzoic acid	25.000	25.518	-2.1	66	-0.08	5.21
	----- AvgRF CCRF % Dev -----						
32 t	bis(2-Chloroethoxy)methan	0.570	0.561	1.6	66	-0.05	5.16
33 t	2,4-Dichlorophenol	0.381	0.372	2.4	63	-0.05	5.26
34 t	2,6-Dichlorophenol	0.343	0.345	-0.6	64	-0.05	5.47
35 t	1,3,5-Trichlorobenzene	0.441	0.436	1.1	65	-0.05	5.04
36 t	1,2,4-Trichlorobenzene	0.422	0.411	2.6	63	-0.05	5.32
37 t	1,2,3-Trichlorobenzene	0.392	0.373	4.8	64	-0.05	5.54

Continuing Calibration Summary

Job Number: JC96248
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: EM6783-CC6777
 Lab FileID: M160288.D

38 t	Naphthalene	1.099	1.115	-1.5	66	-0.06	5.39
39 t	4-Chloroaniline	0.500	0.511	-2.2	68	-0.06	5.46
40 t	2,3-Dichloroaniline	0.479	0.456	4.8	63	-0.06	6.49
41 t	Caprolactam	0.206	0.199	3.4	63	-0.09	5.81
42 t	Hexachlorobutadiene	0.245	0.237	3.3	64	-0.05	5.52
43 t	4-Chloro-3-methylphenol	0.418	0.403	3.6	61	-0.06	6.01
44 t	2-Methylnaphthalene	0.691	0.660	4.5	63	-0.06	6.12
45 t	1-Methylnaphthalene	0.883	0.851	3.6	65	-0.06	6.24
46 t	Dimethylnaphthalene	0.771	0.705	8.6	64	-0.07	6.93
47 I	Acenaphthene-d10	1.000	1.000	0.0	64	-0.07	7.53
48 t	Hexachlorocyclopentadiene	0.410	0.446	-8.8	67	-0.06	6.33
49 t	2,4,6-Trichlorophenol	0.438	0.452	-3.2	64	-0.06	6.50
50 t	2,4,5-Trichlorophenol	0.468	0.472	-0.9	64	-0.07	6.55
51 S	2-Fluorobiphenyl	1.388	1.510	-8.8	65	-0.06	6.59
52 t	2-Chloronaphthalene	1.322	1.274	3.6	65	-0.07	6.73
53 t	Biphenyl	1.762	1.642	6.8	63	-0.06	6.72
54 t	2-Nitroaniline	0.425	0.441	-3.8	66	-0.07	6.92
55 t	Dimethylphthalate	1.700	1.655	2.6	63	-0.07	7.19
56 t	Acenaphthylene	2.037	2.003	1.7	63	-0.07	7.32
57 t	2,6-Dinitrotoluene	0.336	0.350	-4.2	63	-0.08	7.26
58 t	3-Nitroaniline	0.357	0.355	0.6	60	-0.08	7.53
59 t	Acenaphthene	1.230	1.220	0.8	64	-0.08	7.58
		----- True	Calc.	% Drift	-----		
60 t	2,4-Dinitrophenol	50.000	48.810	2.4	61	-0.08	7.68
		----- AvgRF	CCRF	% Dev	-----		
61 t	4-Nitrophenol	0.211	0.222	-5.2	64	-0.08	7.90
62 t	Dibenzofuran	1.953	1.906	2.4	63	-0.08	7.86
63 t	2,4-Dinitrotoluene	0.430	0.460	-7.0	62	-0.08	7.89
64 t	2,3,4,6-Tetrachlorophenol	0.389	0.387	0.5	60	-0.08	8.09
65 t	Diethylphthalate	1.686	1.649	2.2	63	-0.08	8.33
66 t	Fluorene	1.551	1.525	1.7	65	-0.08	8.41
67 t	4-Chlorophenyl-phenylethe	0.763	0.721	5.5	63	-0.07	8.45
68 t	4-Nitroaniline	0.366	0.375	-2.5	64	-0.10	8.53
69 I	Phenanthrene-d10	1.000	1.000	0.0	66	-0.08	10.05
70 t	4,6-Dinitro-2-methylpheno	0.147	0.141	4.1	60	-0.10	8.56
71 t	n-Nitrosodiphenylamine	0.630	0.587	6.8	62	-0.08	8.67
72 t	1,2-Diphenylhydrazine	0.970	0.966	0.4	67	-0.08	8.72
73 S	2,4,6-Tribromophenol	0.157	0.159	-1.3	61	-0.08	8.83
74 t	4-Bromophenyl-phenylether	0.295	0.275	6.8	62	-0.08	9.29
75 t	Hexachlorobenzene	0.321	0.303	5.6	63	-0.09	9.36
76 t	Pentachlorophenol	0.187	0.171	8.6	54	-0.09	9.77
77 t	Phenanthrene	1.120	1.075	4.0	64	-0.10	10.09
78 t	Anthracene	1.166	1.148	1.5	64	-0.10	10.18
79 t	Carbazole	1.286	1.228	4.5	63	-0.09	10.55
80 t	Di-n-butylphthalate	1.653	1.597	3.4	61	-0.08	11.35
81 t	Fluoranthene	1.510	1.402	7.2	61	-0.10	12.33
82 t	Octadecane	0.482	0.505	-4.8	69	-0.08	10.06
83 I	Chrysene-d12	1.000	1.000	0.0	64	-0.11	15.13
84 t	Pyrene	1.662	1.563	6.0	59	-0.10	12.75
85 S	Terphenyl-d14	1.089	1.077	1.1	62	-0.10	13.18
86 t	Butylbenzylphthalate	0.781	0.805	-3.1	60	-0.10	14.24
87 t	Benzo[a]anthracene	1.497	1.441	3.7	61	-0.11	15.11
88 t	3,3'-Dichlorobenzidine	0.488	0.503	-3.1	61	-0.10	15.18
89 t	Chrysene	1.246	1.265	-1.5	64	-0.11	15.17
90 t	bis(2-Ethylhexyl)phthalat	0.978	1.020	-4.3	59	-0.09	15.45

8.7.55

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Continuing Calibration Summary

Job Number: JC96248
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA

Sample: EM6783-CC6777
Lab FileID: M160288.D

91	I	Perylene-d12	1.000	1.000	0.0	61	-0.12	17.71
92	t	Di-n-octylphthalate	1.590	1.622	-2.0	57	-0.10	16.65
93	t	Benzo[b]fluoranthene	1.376	1.355	1.5	60	-0.12	17.07
94	t	Benzo[k]fluoranthene	1.225	1.188	3.0	62	-0.13	17.12
95	t	Benzo[a]pyrene	1.214	1.220	-0.5	60	-0.12	17.61
96	t	Indeno[1,2,3-cd]pyrene	1.182	1.140	3.6	56	-0.13	19.33
97	t	Dibenz(a,h)acridine	1.110	1.097	1.2	57	-0.13	19.03
98	t	Dibenz[a,h]anthracene	1.178	1.159	1.6	59	-0.13	19.37
99	t	7,12-Dimethylbenz(a)anthr	0.479	0.588	-22.8#	67	-0.12	17.09
100	t	Benzo[g,h,i]perylene	1.180	1.170	0.8	58	-0.14	19.69

(#) = Out of Range
m160101A.D MM6777.M

SPCC's out = 0 CCC's out = 0
Mon Oct 14 23:27:26 2019

8.7.55

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Continuing Calibration Summary

Page 1 of 1

Job Number: JC96248
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: EM6783-CC6772
 Lab FileID: M160289.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\jo...1519\em6783\m160289.d Vial: 3
 Acq On : 13 Oct 2019 10:00 am Operator: hennys
 Sample : cc6772-25 Inst : MSM
 Misc : op21044,em6783,1000,,,1,1 Multiplr: 1.00
 MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MM6777.M (RTE Integrator)
 Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 Last Update : Fri Oct 11 13:05:55 2019
 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
101 I	1,4-Dichlorobenzene-d4a	1.000	1.000	0.0	54	-0.04	4.33
102 t	Benzaldehyde	1.079	1.138	-5.5	55	-0.09	4.01
103 I	Acenaphthene-d10a	1.000	1.000	0.0	50	-0.07	7.53
104 t	Atrazine	0.177	0.189	-6.8	48#	-0.17	9.70
110 I	Phenanthrene-d10a	1.000	1.000	0.0	50#	-0.09	10.05
111	Pentachloronitrobenzene	0.048	0.057	-18.8	52	-0.17	9.77

(#) = Out of Range
 m160101A.D MM6777.M

SPCC's out = 0 CCC's out = 0
 Mon Oct 14 23:27:39 2019

8.7.56

8

Continuing Calibration Summary

Job Number: JC96248
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: EM6783-CC6773
 Lab FileID: M160290.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\jo...1519\em6783\m160290.d Vial: 4
 Acq On : 13 Oct 2019 10:27 am Operator: hennys
 Sample : cc6773-25 Inst : MSM
 Misc : op21044,em6783,1000,,,1,1 Multiplr: 1.00
 MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MM6777.M (RTE Integrator)
 Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 Last Update : Fri Oct 11 13:05:55 2019
 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
105	Acenaphthene-d10b	1.000	1.000	0.0	57	-0.07	7.53
106	1,2,4,5-Tetrachlorobenzen	0.653	0.661	-1.2	56	-0.13	6.33
107 I	Chrysene-d12a	1.000	1.000	0.0	56	-0.11	15.13
108 t	Benzidine	0.701	0.744	-6.1	51	-0.17	12.72
109 s	1-chlorooctadecane	0.269	0.383	-42.4#	71	-0.16	12.36
112	Phenanthrene-d10b	1.000	1.000	0.0	55	-0.09	10.05
113 s	o-terphenyl	0.549	0.592	-7.8	57	-0.17	10.86
114 I	Naphthalene-d8a	1.000	1.000	0.0	58	-0.05	5.37
115	Hydroquinone	0.336	0.418	-24.4#	71	-0.10	5.86

(#) = Out of Range
 m160101A.D MM6777.M

SPCC's out = 0 CCC's out = 0
 Mon Oct 14 23:27:42 2019

Continuing Calibration Summary

Job Number: JC96248
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: EM6787-CC6777
 Lab FileID: M160401.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EM6787\m160401.D Vial: 2
 Acq On : 16 Oct 2019 10:53 am Operator: hennys
 Sample : cc6777-25 Inst : MSM
 Misc : op21044,em6787,1000,,,1,1 Multiplr: 1.00
 MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MM6777.M (RTE Integrator)
 Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 Last Update : Tue Oct 15 07:52:46 2019
 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	92	-0.02	4.30
2 t	1,4-Dioxane	0.960	1.020	-6.3	90	-0.02	1.75
3 t	Pyridine	2.207	2.188	0.9	91	-0.03	2.09
4 t	N-Nitrosodimethylamine	0.995	1.075	-8.0	107	-0.03	2.06
5 S	2-Fluorophenol	1.758	1.810	-3.0	92	-0.02	3.33
6 t	Indene	2.356	2.343	0.6	93	-0.02	4.49
7 t	Cumene	4.163	4.269	-2.5	95	-0.02	3.69
8 S	Phenol-d5	2.021	2.004	0.8	92	-0.02	4.08
9 t	Phenol	2.296	2.315	-0.8	99	-0.02	4.09
10 t	Aniline	2.322	2.650	-14.1	117	-0.02	4.07
11 t	bis(2-Chloroethyl)ether	1.599	1.583	1.0	95	-0.02	4.11
12 t	2-Chlorophenol	1.593	1.545	3.0	90	-0.02	4.16
13 t	Decane	1.426	1.406	1.4	96	-0.02	4.18
14 t	1,3-Dichlorobenzene	1.770	1.722	2.7	93	-0.02	4.26
15 t	1,4-Dichlorobenzene	1.568	1.589	-1.3	93	-0.02	4.31
16 t	Benzyl alcohol	0.830	0.908	-9.4	93	-0.02	4.42
17 t	1,2-Dichlorobenzene	1.584	1.642	-3.7	96	-0.01	4.43
18 t	Acetophenone	2.173	2.145	1.3	94	-0.02	4.61
19 t	2-Methylphenol	1.305	1.315	-0.8	95	-0.02	4.53
20 t	2,2'-oxybis(1-Chloropropa	0.417	0.407	2.4	93	-0.02	4.51
21 t	3&4-Methylphenol	1.395	1.410	-1.1	98	-0.02	4.64
22 t	n-Nitroso-di-n-propylamin	1.228	1.230	-0.2	98	-0.02	4.61
23 t	Hexachloroethane	0.655	0.663	-1.2	95	-0.02	4.68
24 I	Naphthalene-d8	1.000	1.000	0.0	95	-0.03	5.33
25 S	Nitrobenzene-d5	0.515	0.528	-2.5	99	-0.02	4.72
26 t	Nitrobenzene	0.526	0.517	1.7	96	-0.02	4.74
27 t	Quinoline	0.886	0.884	0.2	95	-0.03	5.69
28 t	Isophorone	0.928	0.973	-4.8	100	-0.02	4.93
29 t	2-Nitrophenol	0.221	0.247	-11.8	99	-0.02	5.00
30 t	2,4-Dimethylphenol	0.380	0.449	-18.2	106	-0.02	5.06
	----- True Calc. % Drift -----						
31 t	Benzoic acid	25.000	26.842	-7.4	102	-0.02	5.17
	----- AvgRF CCRF % Dev -----						
32 t	bis(2-Chloroethoxy)methan	0.570	0.563	1.2	96	-0.02	5.12
33 t	2,4-Dichlorophenol	0.381	0.388	-1.8	95	-0.02	5.22
34 t	2,6-Dichlorophenol	0.343	0.345	-0.6	93	-0.02	5.43
35 t	1,3,5-Trichlorobenzene	0.441	0.444	-0.7	97	-0.02	5.00
36 t	1,2,4-Trichlorobenzene	0.422	0.422	0.0	94	-0.02	5.28
37 t	1,2,3-Trichlorobenzene	0.392	0.386	1.5	96	-0.02	5.49

Continuing Calibration Summary

Job Number: JC96248
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 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: EM6787-CC6777
 Lab FileID: M160401.D

38 t	Naphthalene	1.099	1.107	-0.7	95	-0.02	5.35
39 t	4-Chloroaniline	0.500	0.515	-3.0	100	-0.02	5.42
40 t	2,3-Dichloroaniline	0.479	0.483	-0.8	98	-0.03	6.44
41 t	Caprolactam	0.206	0.211	-2.4	97	-0.03	5.78
42 t	Hexachlorobutadiene	0.245	0.249	-1.6	98	-0.02	5.48
43 t	4-Chloro-3-methylphenol	0.418	0.435	-4.1	97	-0.03	5.97
44 t	2-Methylnaphthalene	0.691	0.681	1.4	94	-0.02	6.08
45 t	1-Methylnaphthalene	0.883	0.871	1.4	97	-0.03	6.19
46 t	Dimethylnaphthalene	0.771	0.718	6.9	95	-0.03	6.88
47 I	Acenaphthene-d10	1.000	1.000	0.0	97	-0.03	7.48
48 t	Hexachlorocyclopentadiene	0.410	0.407	0.7	93	-0.03	6.28
49 t	2,4,6-Trichlorophenol	0.438	0.463	-5.7	98	-0.03	6.45
50 t	2,4,5-Trichlorophenol	0.468	0.475	-1.5	97	-0.03	6.51
51 S	2-Fluorobiphenyl	1.388	1.497	-7.9	97	-0.03	6.55
52 t	2-Chloronaphthalene	1.322	1.243	6.0	95	-0.03	6.68
53 t	Biphenyl	1.762	1.651	6.3	96	-0.03	6.67
54 t	2-Nitroaniline	0.425	0.453	-6.6	103	-0.03	6.87
55 t	Dimethylphthalate	1.700	1.690	0.6	97	-0.03	7.14
56 t	Acenaphthylene	2.037	1.998	1.9	95	-0.03	7.26
57 t	2,6-Dinitrotoluene	0.336	0.364	-8.3	98	-0.03	7.21
58 t	3-Nitroaniline	0.357	0.369	-3.4	95	-0.03	7.48
59 t	Acenaphthene	1.230	1.214	1.3	96	-0.03	7.53
		----- True	Calc.	% Drift	-----		
60 t	2,4-Dinitrophenol	50.000	54.109	-8.2	103	-0.03	7.63
		----- AvgRF	CCRF	% Dev	-----		
61 t	4-Nitrophenol	0.211	0.234	-10.9	102	-0.03	7.85
62 t	Dibenzofuran	1.953	1.939	0.7	97	-0.03	7.80
63 t	2,4-Dinitrotoluene	0.430	0.481	-11.9	98	-0.03	7.84
64 t	2,3,4,6-Tetrachlorophenol	0.389	0.410	-5.4	96	-0.03	8.04
65 t	Diethylphthalate	1.686	1.703	-1.0	99	-0.03	8.27
66 t	Fluorene	1.551	1.535	1.0	98	-0.03	8.36
67 t	4-Chlorophenyl-phenylethe	0.763	0.714	6.4	95	-0.03	8.40
68 t	4-Nitroaniline	0.366	0.385	-5.2	99	-0.03	8.48
69 I	Phenanthrene-d10	1.000	1.000	0.0	103	-0.03	9.99
70 t	4,6-Dinitro-2-methylpheno	0.147	0.160	-8.8	105	-0.03	8.51
71 t	n-Nitrosodiphenylamine	0.630	0.590	6.3	96	-0.03	8.62
72 t	1,2-Diphenylhydrazine	0.970	0.944	2.7	102	-0.03	8.66
73 S	2,4,6-Tribromophenol	0.157	0.161	-2.5	96	-0.03	8.77
74 t	4-Bromophenyl-phenylether	0.295	0.272	7.8	94	-0.03	9.24
75 t	Hexachlorobenzene	0.321	0.296	7.8	95	-0.03	9.31
76 t	Pentachlorophenol	0.187	0.196	-4.8	95	-0.03	9.71
77 t	Phenanthrene	1.120	1.041	7.1	96	-0.03	10.03
78 t	Anthracene	1.166	1.132	2.9	98	-0.03	10.12
79 t	Carbazole	1.286	1.214	5.6	96	-0.03	10.49
80 t	Di-n-butylphthalate	1.653	1.680	-1.6	100	-0.03	11.29
81 t	Fluoranthene	1.510	1.429	5.4	96	-0.03	12.27
82 t	Octadecane	0.482	0.463	3.9	98	-0.03	10.00
83 I	Chrysene-d12	1.000	1.000	0.0	94	-0.03	15.07
84 t	Pyrene	1.662	1.654	0.5	93	-0.03	12.69
85 S	Terphenyl-d14	1.089	1.124	-3.2	97	-0.03	13.12
86 t	Butylbenzylphthalate	0.781	0.892	-14.2	98	-0.03	14.18
87 t	Benzo[a]anthracene	1.497	1.510	-0.9	94	-0.03	15.05
88 t	3,3'-Dichlorobenzidine	0.488	0.535	-9.6	97	-0.03	15.12
89 t	Chrysene	1.246	1.266	-1.6	96	-0.03	15.12
90 t	bis(2-Ethylhexyl)phthalat	0.978	1.138	-16.4	97	-0.03	15.39

8.7.58

8

Continuing Calibration Summary

Job Number: JC96248
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA

Sample: EM6787-CC6777
Lab FileID: M160401.D

91	I	Perylene-d12	1.000	1.000	0.0	90	-0.03	17.66
92	t	Di-n-octylphthalate	1.590	1.797	-13.0	94	-0.03	16.60
93	t	Benzo[b]fluoranthene	1.376	1.384	-0.6	92	-0.03	17.02
94	t	Benzo[k]fluoranthene	1.225	1.166	4.8	91	-0.03	17.07
95	t	Benzo[a]pyrene	1.214	1.234	-1.6	90	-0.03	17.56
96	t	Indeno[1,2,3-cd]pyrene	1.182	1.118	5.4	82	-0.03	19.28
97	t	Dibenz(a,h)acridine	1.110	1.071	3.5	83	-0.03	18.97
98	t	Dibenz[a,h]anthracene	1.178	1.108	5.9	83	-0.03	19.32
99	t	7,12-Dimethylbenz(a)anthr	0.479	0.581	-21.3#	98	-0.03	17.04
100	t	Benzo[g,h,i]perylene	1.180	1.101	6.7	81	-0.03	19.64

(#) = Out of Range
m160345.D MM6777.M

SPCC's out = 0 CCC's out = 0
Wed Oct 16 12:29:41 2019

Continuing Calibration Summary

Job Number: JC96248
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: EM6787-CC6772
 Lab FileID: M160402.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EM6787\m160402.D Vial: 3
 Acq On : 16 Oct 2019 11:21 am Operator: hennys
 Sample : cc6772-25 Inst : MSM
 Misc : op21044,em6787,1000,,,1,1 Multiplr: 1.00
 MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MM6777.M (RTE Integrator)
 Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 Last Update : Tue Oct 15 07:52:46 2019
 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
101 I	1,4-Dichlorobenzene-d4a	1.000	1.000	0.0	92	-0.02	4.30
102 t	Benzaldehyde	1.079	1.193	-10.6	98	-0.12	3.98
103 I	Acenaphthene-d10a	1.000	1.000	0.0	88	-0.03	7.48
104 t	Atrazine	0.177	0.209	-18.1	94	-0.03	9.64
110 I	Phenanthrene-d10a	1.000	1.000	0.0	86	-0.04	9.99
111	Pentachloronitrobenzene	0.048	0.062	-29.2#	99	-0.23	9.71

(#) = Out of Range SPC's out = 0 CCC's out = 0
 m160345.D MM6777.M Wed Oct 16 12:30:49 2019

Continuing Calibration Summary

Job Number: JC96248
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: EM6787-CC6773
 Lab FileID: M160403.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EM6787\m160403.D Vial: 4
 Acq On : 16 Oct 2019 11:49 am Operator: hennys
 Sample : cc6773-25 Inst : MSM
 Misc : op21044,em6787,1000,,,1,1 Multiplr: 1.00
 MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MM6777.M (RTE Integrator)
 Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 Last Update : Tue Oct 15 07:52:46 2019
 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
105	Acenaphthene-d10b	1.000	1.000	0.0	87	-0.03	7.48
106	1,2,4,5-Tetrachlorobenzen	0.653	0.666	-2.0	86	-0.18	6.28
107 I	Chrysene-d12a	1.000	1.000	0.0	84	-0.04	15.06
108 t	Benzidine	0.701	0.787	-12.3	81	-0.23	12.66
109 s	1-chlorooctadecane	0.269	0.395	-46.8#	109	-0.22	12.30
112	Phenanthrene-d10b	1.000	1.000	0.0	84	-0.04	9.99
113 s	o-terphenyl	0.549	0.602	-9.7	89	-0.23	10.80
114 I	Naphthalene-d8a	1.000	1.000	0.0	87	-0.02	5.33
115	Hydroquinone	0.336	0.420	-25.0#	108	-0.15	5.82

(#) = Out of Range SPCC's out = 0 CCC's out = 0
 m160345.D MM6777.M Wed Oct 16 12:31:46 2019

8.7.60
8

Continuing Calibration Summary

Job Number: JC96248
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: EM6787-ECC6777
 Lab FileID: M160430.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\jeryllr\em6787\m160430.d Vial: 2
 Acq On : 16 Oct 2019 8:46 pm Operator: hennys
 Sample : ecc6777-25 Inst : MSM
 Misc : op21044,em6787,1000,,,1,1 Multiplr: 1.00
 MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MM6777.M (RTE Integrator)
 Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 Last Update : Thu Oct 17 04:20:14 2019
 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 50% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	96	0.00	4.30
2 t	1,4-Dioxane	0.960	0.943	1.8	86	0.00	1.76
3 t	Pyridine	2.207	2.200	0.3	95	0.00	2.10
4 t	N-Nitrosodimethylamine	0.995	1.020	-2.5	105	0.00	2.07
5 S	2-Fluorophenol	1.758	1.785	-1.5	94	0.02	3.36
6 t	Indene	2.356	2.371	-0.6	98	0.00	4.49
7 t	Cumene	4.163	4.222	-1.4	98	0.00	3.69
8 S	Phenol-d5	2.021	1.971	2.5	94	0.03	4.11
9 t	Phenol	2.296	2.071	9.8	92	0.02	4.12
10 t	Aniline	2.322	2.595	-11.8	119	0.00	4.08
11 t	bis(2-Chloroethyl)ether	1.599	1.554	2.8	97	0.00	4.12
12 t	2-Chlorophenol	1.593	1.568	1.6	95	0.01	4.17
13 t	Decane	1.426	1.438	-0.8	102	0.00	4.19
14 t	1,3-Dichlorobenzene	1.770	1.718	2.9	96	0.00	4.26
15 t	1,4-Dichlorobenzene	1.568	1.559	0.6	95	0.00	4.31
16 t	Benzyl alcohol	0.830	0.899	-8.3	95	0.00	4.43
17 t	1,2-Dichlorobenzene	1.584	1.617	-2.1	98	0.00	4.43
18 t	Acetophenone	2.173	2.158	0.7	98	0.00	4.61
19 t	2-Methylphenol	1.305	1.319	-1.1	99	0.02	4.54
20 t	2,2'-oxybis(1-Chloropropa	0.417	0.404	3.1	96	0.00	4.51
21 t	3&4-Methylphenol	1.395	1.414	-1.4	102	0.02	4.66
22 t	n-Nitroso-di-n-propylamin	1.228	1.244	-1.3	103	0.00	4.61
23 t	Hexachloroethane	0.655	0.639	2.4	95	0.00	4.68
24 I	Naphthalene-d8	1.000	1.000	0.0	95	0.00	5.33
25 S	Nitrobenzene-d5	0.515	0.551	-7.0	103	0.00	4.73
26 t	Nitrobenzene	0.526	0.539	-2.5	100	0.00	4.74
27 t	Quinoline	0.886	0.903	-1.9	97	0.00	5.69
28 t	Isophorone	0.928	1.014	-9.3	104	0.00	4.93
29 t	2-Nitrophenol	0.221	0.245	-10.9	98	0.00	5.00
30 t	2,4-Dimethylphenol	0.380	0.468	-23.2	111	0.02	5.08
	----- True Calc. % Drift -----						
31 t	Benzoic acid	25.000	24.602	1.6	93	0.02	5.20
	----- AvgRF CCRF % Dev -----						
32 t	bis(2-Chloroethoxy)methan	0.570	0.563	1.2	96	0.00	5.13
33 t	2,4-Dichlorophenol	0.381	0.399	-4.7	98	0.02	5.24
34 t	2,6-Dichlorophenol	0.343	0.357	-4.1	96	0.00	5.44
35 t	1,3,5-Trichlorobenzene	0.441	0.452	-2.5	98	0.00	5.00
36 t	1,2,4-Trichlorobenzene	0.422	0.431	-2.1	97	0.00	5.28
37 t	1,2,3-Trichlorobenzene	0.392	0.381	2.8	95	0.00	5.50

Continuing Calibration Summary

Job Number: JC96248
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: EM6787-ECC6777
 Lab FileID: M160430.D

38 t	Naphthalene	1.099	1.129	-2.7	97	0.00	5.36
39 t	4-Chloroaniline	0.500	0.532	-6.4	103	0.00	5.43
40 t	2,3-Dichloroaniline	0.479	0.503	-5.0	102	0.00	6.45
41 t	Caprolactam	0.206	0.225	-9.2	104	0.01	5.79
42 t	Hexachlorobutadiene	0.245	0.261	-6.5	103	0.00	5.48
43 t	4-Chloro-3-methylphenol	0.418	0.455	-8.9	101	0.03	6.00
44 t	2-Methylnaphthalene	0.691	0.689	0.3	95	0.00	6.08
45 t	1-Methylnaphthalene	0.883	0.855	3.2	95	0.00	6.20
46 t	Dimethylnaphthalene	0.771	0.741	3.9	98	0.00	6.88
47 I	Acenaphthene-d10	1.000	1.000	0.0	101	0.00	7.48
48 t	Hexachlorocyclopentadiene	0.410	0.307	25.1	73	0.00	6.28
49 t	2,4,6-Trichlorophenol	0.438	0.441	-0.7	98	0.02	6.47
50 t	2,4,5-Trichlorophenol	0.468	0.470	-0.4	101	0.03	6.54
51 S	2-Fluorobiphenyl	1.388	1.427	-2.8	97	0.00	6.55
52 t	2-Chloronaphthalene	1.322	1.233	6.7	98	0.00	6.69
53 t	Biphenyl	1.762	1.585	10.0	96	0.00	6.68
54 t	2-Nitroaniline	0.425	0.434	-2.1	103	0.01	6.88
55 t	Dimethylphthalate	1.700	1.669	1.8	100	0.01	7.15
56 t	Acenaphthylene	2.037	1.975	3.0	98	0.00	7.27
57 t	2,6-Dinitrotoluene	0.336	0.354	-5.4	100	0.01	7.23
58 t	3-Nitroaniline	0.357	0.355	0.6	95	0.02	7.49
59 t	Acenaphthene	1.230	1.228	0.2	102	0.00	7.53
		----- True	Calc.	% Drift	-----		
60 t	2,4-Dinitrophenol	50.000	20.714	58.6#	37	0.01	7.64
		----- AvgRF	CCRF	% Dev	-----		
61 t	4-Nitrophenol	0.211	0.231	-9.5	105	0.00	7.91
62 t	Dibenzofuran	1.953	1.911	2.2	100	0.00	7.81
63 t	2,4-Dinitrotoluene	0.430	0.475	-10.5	101	0.00	7.85
64 t	2,3,4,6-Tetrachlorophenol	0.389	0.372	4.4	91	0.02	8.06
65 t	Diethylphthalate	1.686	1.689	-0.2	102	0.00	8.28
66 t	Fluorene	1.551	1.482	4.4	99	0.00	8.36
67 t	4-Chlorophenyl-phenylethe	0.763	0.712	6.7	99	0.00	8.40
68 t	4-Nitroaniline	0.366	0.384	-4.9	104	0.01	8.49
69 I	Phenanthrene-d10	1.000	1.000	0.0	103	0.01	10.00
70 t	4,6-Dinitro-2-methylpheno	0.147	0.094	36.1	62	0.00	8.52
71 t	n-Nitrosodiphenylamine	0.630	0.606	3.8	99	0.00	8.63
72 t	1,2-Diphenylhydrazine	0.970	0.969	0.1	105	0.00	8.67
73 S	2,4,6-Tribromophenol	0.157	0.162	-3.2	97	0.01	8.79
74 t	4-Bromophenyl-phenylether	0.295	0.284	3.7	99	0.00	9.25
75 t	Hexachlorobenzene	0.321	0.301	6.2	97	0.00	9.31
76 t	Pentachlorophenol	0.187	0.111	40.6	54	0.02	9.73
77 t	Phenanthrene	1.120	1.058	5.5	98	0.00	10.04
78 t	Anthracene	1.166	1.174	-0.7	102	0.00	10.13
79 t	Carbazole	1.286	1.259	2.1	100	0.02	10.51
80 t	Di-n-butylphthalate	1.653	1.722	-4.2	103	0.00	11.30
81 t	Fluoranthene	1.510	1.450	4.0	98	0.00	12.28
82 t	Octadecane	0.482	0.498	-3.3	106	0.00	10.01
83 I	Chrysene-d12	1.000	1.000	0.0	92	0.02	15.08
84 t	Pyrene	1.662	1.699	-2.2	93	0.00	12.70
85 S	Terphenyl-d14	1.089	1.159	-6.4	97	0.00	13.13
86 t	Butylbenzylphthalate	0.781	0.928	-18.8	100	0.01	14.20
87 t	Benzo[a]anthracene	1.497	1.526	-1.9	93	0.01	15.06
88 t	3,3'-Dichlorobenzidine	0.488	0.552	-13.1	97	0.01	15.13
89 t	Chrysene	1.246	1.294	-3.9	96	0.00	15.13
90 t	bis(2-Ethylhexyl)phthalat	0.978	1.182	-20.9	98	0.00	15.40

8.7.61

8

Continuing Calibration Summary

Job Number: JC96248
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA

Sample: EM6787-ECC6777
Lab FileID: M160430.D

91	I	Perylene-d12	1.000	1.000	0.0	88	0.02	17.67
92	t	Di-n-octylphthalate	1.590	1.820	-14.5	93	0.00	16.61
93	t	Benzo[b]fluoranthene	1.376	1.329	3.4	86	0.01	17.03
94	t	Benzo[k]fluoranthene	1.225	1.201	2.0	91	0.01	17.08
95	t	Benzo[a]pyrene	1.214	1.224	-0.8	88	0.00	17.56
96	t	Indeno[1,2,3-cd]pyrene	1.182	1.076	9.0	77	0.01	19.29
97	t	Dibenz(a,h)acridine	1.110	1.024	7.7	78	0.01	18.98
98	t	Dibenz[a,h]anthracene	1.178	1.066	9.5	78	0.01	19.34
99	t	7,12-Dimethylbenz(a)anthr	0.479	0.590	-23.2	98	0.00	17.04
100	t	Benzo[g,h,i]perylene	1.180	1.039	11.9	75	0.01	19.65

(#) = Out of Range
m160403.d MM6777.M

SPCC's out = 0 CCC's out = 0
Thu Oct 17 05:40:06 2019

8.7.61

8

Continuing Calibration Summary

Page 1 of 1

Job Number: JC96248
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: EM6787-ECC6772
 Lab FileID: M160431.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\jeryllr\em6787\m160431.d Vial: 3
 Acq On : 16 Oct 2019 9:15 pm Operator: hennys
 Sample : ecc6772-25 Inst : MSM
 Misc : op21044,em6787,1000,,,1,1 Multiplr: 1.00
 MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MM6777.M (RTE Integrator)
 Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 Last Update : Thu Oct 17 04:20:14 2019
 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 50% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
101 I	1,4-Dichlorobenzene-d4a	1.000	1.000	0.0	98	0.00	4.30
102 t	Benzaldehyde	1.079	1.187	-10.0	105	0.00	3.98
103 I	Acenaphthene-d10a	1.000	1.000	0.0	97	0.00	7.48
104 t	Atrazine	0.177	0.208	-17.5	102	0.01	9.65
110 I	Phenanthrene-d10a	1.000	1.000	0.0	94	0.00	10.00
111	Pentachloronitrobenzene	0.048	0.058	-20.8	102	0.00	9.72

(#) = Out of Range
 m160403.d MM6777.M

SPCC's out = 0 CCC's out = 0
 Thu Oct 17 05:40:09 2019

8.7.62

8

Continuing Calibration Summary

Job Number: JC96248
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: EM6787-ECC6773
 Lab FileID: M160432.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\jeryllr\em6787\m160432.d Vial: 4
 Acq On : 16 Oct 2019 9:43 pm Operator: hennys
 Sample : ecc6773-25 Inst : MSM
 Misc : op21044,em6787,1000,,,1,1 Multiplr: 1.00
 MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MM6777.M (RTE Integrator)
 Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 Last Update : Thu Oct 17 04:20:14 2019
 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 50% Max. Rel. Area : 200%

Compound		AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
105	Acenaphthene-d10b	1.000	1.000	0.0	89	0.00	7.48
106	1,2,4,5-Tetrachlorobenzen	0.653	0.671	-2.8	88	0.00	6.28
107 I	Chrysene-d12a	1.000	1.000	0.0	83	0.00	15.07
108 t	Benzidine	0.701	0.796	-13.6	81	0.00	12.67
109 s	1-chlorooctadecane	0.269	0.421	-56.5#	115	0.00	12.30
112	Phenanthrene-d10b	1.000	1.000	0.0	87	0.00	10.00
113 s	o-terphenyl	0.549	0.593	-8.0	91	0.00	10.81
114 I	Naphthalene-d8a	1.000	1.000	0.0	89	0.00	5.33
115	Hydroquinone	0.336	0.455	-35.4	119	0.04	5.85

(#) = Out of Range
 m160403.d MM6777.M

SPCC's out = 0 CCC's out = 0
 Thu Oct 17 05:40:15 2019

Run Sequence Report

Job Number: JC96248
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Run ID: EF8050	Method: SW846 8270D	Instrument ID: GCMSF
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Lab Sample ID	Lab File ID	Date/Time Analyzed	Prep QC Batch	Client Sample ID
EF8050-DFTPP	F186994.D	09/09/19 11:42	n/a	DFTPP Tune
EF8050-IC8050	F186996.D	09/09/19 15:07	n/a	Initial cal 100
EF8050-IC8050	F186997.D	09/09/19 15:36	n/a	Initial cal 80
EF8050-ICC8050	F186998.D	09/09/19 16:05	n/a	Initial cal 50
EF8050-IC8050	F186999.D	09/09/19 16:34	n/a	Initial cal 25
EF8050-IC8050	F187000.D	09/09/19 17:04	n/a	Initial cal 10
EF8050-IC8050	F187001.D	09/09/19 17:33	n/a	Initial cal 5
EF8050-IC8050	F187002.D	09/09/19 18:02	n/a	Initial cal 2
EF8050-IC8050	F187009.D	09/09/19 18:31	n/a	Initial cal 1
EF8050-ICV8050	F187003.D	09/09/19 19:00	n/a	Initial cal verification 50
EF8050-ICV8050	F187004.D	09/09/19 19:29	n/a	Initial cal verification 50
EF8050-ICV8050	F187005.D	09/09/19 21:02	n/a	Initial cal verification 50
EF8050-ICV8050	F187006.D	09/09/19 21:31	n/a	Initial cal verification 50
EF8050-ICV8050	F187007.D	09/09/19 22:00	n/a	Initial cal verification 50
EF8050-ICV8050	F187008.D	09/09/19 22:29	n/a	Initial cal verification 50

Run Sequence Report

Job Number: JC96248
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Run ID: EF8051	Method: SW846 8270D	Instrument ID: GCMSF
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Lab Sample ID	Lab File ID	Date/Time Analyzed	Prep QC Batch	Client Sample ID
EF8051-DFTPP	F187010.D	09/09/19 22:54	n/a	DFTPP Tune
EF8051-IC8051	F187011.D	09/09/19 23:06	n/a	Initial cal 100
EF8051-IC8051	F187012.D	09/09/19 23:35	n/a	Initial cal 80
EF8051-ICC8051	F187013.D	09/10/19 00:04	n/a	Initial cal 50
EF8051-IC8051	F187014.D	09/10/19 00:33	n/a	Initial cal 25
EF8051-IC8051	F187015.D	09/10/19 01:02	n/a	Initial cal 10
EF8051-IC8051	F187016.D	09/10/19 01:32	n/a	Initial cal 5
EF8051-IC8051	F187017.D	09/10/19 02:01	n/a	Initial cal 2
EF8051-IC8051	F187018.D	09/10/19 02:30	n/a	Initial cal 1
EF8051-ICV8051	F187019.D	09/10/19 02:59	n/a	Initial cal verification 50

Run Sequence Report

Job Number: JC96248
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Run ID: EF8052	Method: SW846 8270D	Instrument ID: GCMSF
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Lab Sample ID	Lab File ID	Date/Time Analyzed	Prep QC Batch	Client Sample ID
EF8052-DFTPP	F187020.D	09/10/19 03:24	n/a	DFTPP Tune
EF8052-IC8052	F187021.D	09/10/19 03:36	n/a	Initial cal 100
EF8052-IC8052	F187022.D	09/10/19 04:05	n/a	Initial cal 80
EF8052-ICC8052	F187023.D	09/10/19 04:34	n/a	Initial cal 50
EF8052-IC8052	F187024.D	09/10/19 05:04	n/a	Initial cal 25
EF8052-IC8052	F187025.D	09/10/19 05:33	n/a	Initial cal 10
EF8052-IC8052	F187026.D	09/10/19 06:02	n/a	Initial cal 5
EF8052-IC8052	F187027.D	09/10/19 06:31	n/a	Initial cal 2
EF8052-IC8052	F187028.D	09/10/19 07:00	n/a	Initial cal 1
EF8052-ICV8052	F187029.D	09/10/19 07:28	n/a	Initial cal verification 50
EF8052-ICV8052	F187030.D	09/10/19 07:58	n/a	Initial cal verification 50
EF8052-ICV8052	F187031.D	09/10/19 08:26	n/a	Initial cal verification 50

Run Sequence Report

Job Number: JC96248

Account: BBLNYS Arcadis

Project: National Grid, Philly Coke, Philadelphia, PA

Run ID: EF8054	Method: SW846 8270D	Instrument ID: GCMSF
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Lab Sample ID	Lab File ID	Date/Time Analyzed	Prep QC Batch	Client Sample ID
EF8054-DFTPP	F187053.D	09/11/19 02:43	n/a	DFTPP Tune
EF8054-IC8054	F187054.D	09/11/19 03:51	n/a	Initial cal 100
EF8054-IC8054	F187055.D	09/11/19 04:21	n/a	Initial cal 80
EF8054-ICC8054	F187056.D	09/11/19 04:50	n/a	Initial cal 50
EF8054-IC8054	F187057.D	09/11/19 05:20	n/a	Initial cal 25
EF8054-IC8054	F187058.D	09/11/19 05:49	n/a	Initial cal 10
EF8054-IC8054	F187059.D	09/11/19 06:18	n/a	Initial cal 5
EF8054-IC8054	F187060.D	09/11/19 06:48	n/a	Initial cal 2
EF8054-IC8054	F187061.D	09/11/19 07:17	n/a	Initial cal 1
EF8054-ICV8054	F187062.D	09/11/19 07:46	n/a	Initial cal verification 50
EF8054-ICV8054	F187063.D	09/11/19 08:15	n/a	Initial cal verification 50
EF8054-ICV8054	F187064.D	09/11/19 08:45	n/a	Initial cal verification 50
EF8054-ICV8054	F187065.D	09/11/19 09:14	n/a	Initial cal verification 50
EF8054-ICV8054	F187066.D	09/11/19 09:43	n/a	Initial cal verification 50

Run Sequence Report

Job Number: JC96248
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Run ID: EF8057	Method: SW846 8270D	Instrument ID: GCMSF		
Lab Sample ID	Lab File ID	Date/Time Analyzed	Prep QC Batch	Client Sample ID
EF8057-DFTPP	F187091.D	09/12/19 03:46	n/a	DFTPP Tune
EF8057-IC8057	F187092.D	09/12/19 04:00	n/a	Initial cal 100
EF8057-IC8057	F187093.D	09/12/19 04:40	n/a	Initial cal 80
EF8057-ICC8057	F187094.D	09/12/19 05:09	n/a	Initial cal 50
EF8057-IC8057	F187095.D	09/12/19 05:38	n/a	Initial cal 25
EF8057-IC8057	F187096.D	09/12/19 06:07	n/a	Initial cal 10
EF8057-IC8057	F187097.D	09/12/19 06:36	n/a	Initial cal 5
EF8057-IC8057	F187098.D	09/12/19 07:05	n/a	Initial cal 2
EF8057-IC8057	F187099.D	09/12/19 07:35	n/a	Initial cal 1
EF8057-ICV8057	F187101.D	09/12/19 08:33	n/a	Initial cal verification 50
EF8057-ICV8057	F187102.D	09/12/19 09:02	n/a	Initial cal verification 50
EF8057-ICV8057	F187103.D	09/12/19 09:31	n/a	Initial cal verification 50

Run Sequence Report

Job Number: JC96248
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Run ID: EF8059	Method: SW846 8270D	Instrument ID: GCMSF
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Lab Sample ID	Lab File ID	Date/Time Analyzed	Prep QC Batch	Client Sample ID
EF8059-DFTPP	F187126.D	09/12/19 23:42	n/a	DFTPP Tune
EF8059-IC8059	F187127.D	09/13/19 00:00	n/a	Initial cal 100
EF8059-IC8059	F187128.D	09/13/19 00:29	n/a	Initial cal 80
EF8059-ICC8059	F187129.D	09/13/19 00:58	n/a	Initial cal 50
EF8059-IC8059	F187130.D	09/13/19 01:27	n/a	Initial cal 25
EF8059-IC8059	F187131.D	09/13/19 01:56	n/a	Initial cal 10
EF8059-IC8059	F187132.D	09/13/19 02:25	n/a	Initial cal 5
EF8059-IC8059	F187133.D	09/13/19 02:54	n/a	Initial cal 2
EF8059-IC8059	F187134.D	09/13/19 03:23	n/a	Initial cal 1
EF8059-ICV8059	F187135.D	09/13/19 03:52	n/a	Initial cal verification 50
EF8059-ICV8057	F187136.D	09/13/19 04:20	n/a	Initial cal verification 50

Run Sequence Report

Job Number: JC96248
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Run ID: EF8099	Method: SW846 8270D	Instrument ID: GCMSF		
Lab Sample ID	Lab File ID	Date/Time Analyzed	Prep QC Batch	Client Sample ID
EF8099-DFTPP	F187959.D	10/19/19 00:16	n/a	DFTPP Tune
EF8099-CC8050	F187960.D	10/19/19 00:29	n/a	Continuing cal 25
EF8099-CC8051	F187961.D	10/19/19 00:58	n/a	Continuing cal 25
EF8099-CC8052	F187962.D	10/19/19 01:27	n/a	Continuing cal 25
EF8099-CC8054	F187963.D	10/19/19 01:56	n/a	Continuing cal 25
EF8099-CC8057	F187964.D	10/19/19 02:24	n/a	Continuing cal 25
OP23404-MB1	F187965.D	10/19/19 03:20	OP23404	Method Blank
OP23343-MB1	F187966.D	10/19/19 03:48	OP23343	Method Blank
OP23339-MB1	F187967.D	10/19/19 04:39	OP23339	Method Blank
OP23339-BS13	F187968.D	10/19/19 05:08	OP23339	Blank Spike
OP23339-BS14	F187969.D	10/19/19 05:37	OP23339	Blank Spike
OP23339-BS15	F187970.D	10/19/19 06:05	OP23339	Blank Spike
ZZZZZZ	F187971.D	10/19/19 06:34	OP23404	(unrelated sample)
ZZZZZZ	F187972.D	10/19/19 07:03	OP23404	(unrelated sample)
ZZZZZZ	F187973.D	10/19/19 07:32	OP23404	(unrelated sample)
JC96248-6	F187974.D	10/19/19 08:00	OP23404	MW-113
JC96248-7	F187975.D	10/19/19 08:29	OP23404	DUP-100419
ZZZZZZ	F187976.D	10/19/19 08:58	OP23343	(unrelated sample)
ZZZZZZ	F187977.D	10/19/19 09:27	OP23343	(unrelated sample)
ZZZZZZ	F187978.D	10/19/19 09:55	OP23343	(unrelated sample)
ZZZZZZ	F187979.D	10/19/19 10:24	OP23343	(unrelated sample)
ZZZZZZ	F187980.D	10/19/19 10:53	OP23343	(unrelated sample)
ZZZZZZ	F187981.D	10/19/19 11:22	OP23234	(unrelated sample)
ZZZZZZ	F187982.D	10/19/19 11:51	OP23343	(unrelated sample)

Run Sequence Report

Job Number: JC96248

Account: BBLNYS Arcadis

Project: National Grid, Philly Coke, Philadelphia, PA

Run ID: EM6772	Method: SW846 8270D	Instrument ID: GCMSM
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Lab Sample ID	Lab File ID	Date/Time Analyzed	Prep QC Batch	Client Sample ID
EM6772-DFTPP	M160086.D	10/03/19 19:56	n/a	DFTPP Tune
EM6772-IC6772	M160087.D	10/03/19 20:09	n/a	Initial cal 100
EM6772-IC6772	M160088.D	10/03/19 20:37	n/a	Initial cal 80
EM6772-ICC6772	M160089.D	10/03/19 21:06	n/a	Initial cal 50
EM6772-IC6772	M160090.D	10/03/19 21:34	n/a	Initial cal 25
EM6772-IC6772	M160091.D	10/03/19 22:02	n/a	Initial cal 10
EM6772-IC6772	M160092.D	10/03/19 22:30	n/a	Initial cal 5
EM6772-IC6772	M160093.D	10/03/19 22:58	n/a	Initial cal 2
EM6772-IC6772	M160095.D	10/03/19 23:31	n/a	Initial cal 1

Run Sequence Report

Job Number: JC96248
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Run ID: EM6773	Method: SW846 8270D	Instrument ID: GCMSM			
Lab Sample ID	Lab File ID	Date/Time Analyzed	Prep QC Batch	Client Sample ID	
EM6773-DFTPP	M160097.D	10/04/19 00:23	n/a	DFTPP Tune	
EM6773-IC6773	M160098.D	10/04/19 00:36	n/a	Initial cal 100	
EM6773-IC6773	M160099.D	10/04/19 01:04	n/a	Initial cal 80	
EM6773-ICC6773	M160100.D	10/04/19 01:32	n/a	Initial cal 50	
EM6773-IC6773	M160101.D	10/04/19 02:00	n/a	Initial cal 25	
EM6773-IC6773	M160102.D	10/04/19 02:28	n/a	Initial cal 10	
EM6773-IC6773	M160103.D	10/04/19 02:56	n/a	Initial cal 5	
EM6773-IC6773	M160104.D	10/04/19 03:24	n/a	Initial cal 2	
EM6773-IC6773	M160105.D	10/04/19 03:52	n/a	Initial cal 1	
EM6773-ICV6772	M160106A.D	10/04/19 04:21	n/a	Initial cal verification 50	
EM6773-ICV6773	M160106.D	10/04/19 04:21	n/a	Initial cal verification 50	
EM6773-ICV6773	M160107.D	10/04/19 04:49	n/a	Initial cal verification 50	
EM6773-ICV6773	M160108.D	10/04/19 05:17	n/a	Initial cal verification 50	

Run Sequence Report

Job Number: JC96248
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Run ID: EM6777	Method: SW846 8270D	Instrument ID: GCMSM
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Lab Sample ID	Lab File ID	Date/Time Analyzed	Prep QC Batch	Client Sample ID
EM6777-DFTPP	M160137.D	10/07/19 09:55	n/a	DFTPP Tune
EM6777-IC6777	M160138.D	10/07/19 10:07	n/a	Initial cal 25
EM6777-IC6777	M160139.D	10/07/19 10:35	n/a	Initial cal 100
EM6777-IC6777	M160140.D	10/07/19 11:04	n/a	Initial cal 80
EM6777-ICC6777	M160141.D	10/07/19 11:33	n/a	Initial cal 50
EM6777-IC6777	M160142.D	10/07/19 12:01	n/a	Initial cal 10
EM6777-IC6777	M160143.D	10/07/19 12:30	n/a	Initial cal 5
EM6777-IC6777	M160144.D	10/07/19 12:59	n/a	Initial cal 2
EM6777-IC6777	M160145.D	10/07/19 13:29	n/a	Initial cal 1
EM6777-ICV6777	M160146.D	10/07/19 13:57	n/a	Initial cal verification 50
EM6777-ICV6777	M160147.D	10/07/19 14:26	n/a	Initial cal verification 50
EM6777-ICV6777	M160148.D	10/07/19 14:55	n/a	Initial cal verification 50
EM6777-ICV6777	M160149.D	10/07/19 15:23	n/a	Initial cal verification 50
EM6777-ICV6777	M160150A.D	10/07/19 15:55	n/a	Initial cal verification 50
EM6777-ICV6777	M160151.D	10/07/19 16:24	n/a	Initial cal verification 50

Run Sequence Report

Job Number: JC96248
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Run ID: EM6780	Method: SW846 8270D	Instrument ID: GCMSM
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Lab Sample ID	Lab File ID	Date/Time Analyzed	Prep QC Batch	Client Sample ID
EM6780-DFTPP	M160198.D	10/10/19 08:51	n/a	DFTPP Tune
EM6780-CC6777	M160199.D	10/10/19 09:03	n/a	Continuing cal 50
EM6780-CC6772	M160200.D	10/10/19 09:31	n/a	Continuing cal 50
EM6780-CC6773	M160201.D	10/10/19 09:59	n/a	Continuing cal 50
OP23230-MB1	M160202.D	10/10/19 10:28	OP23230	Method Blank
OP23230-BS1	M160203.D	10/10/19 10:56	OP23230	Blank Spike
OP23230-BSD	M160204.D	10/10/19 11:24	OP23230	Blank Spike Duplicate
ZZZZZZ	M160205.D	10/10/19 11:53	OP23230	(unrelated sample)
ZZZZZZ	M160206.D	10/10/19 12:22	OP23230	(unrelated sample)
ZZZZZZ	M160207.D	10/10/19 12:50	OP23230	(unrelated sample)
ZZZZZZ	M160208.D	10/10/19 13:19	OP23161A	(unrelated sample)
ZZZZZZ	M160209.D	10/10/19 13:48	OP23161A	(unrelated sample)
ZZZZZZ	M160210.D	10/10/19 14:16	OP23161A	(unrelated sample)
ZZZZZZ	M160211.D	10/10/19 14:45	OP23161A	(unrelated sample)
ZZZZZZ	M160212.D	10/10/19 15:13	OP23161A	(unrelated sample)
ZZZZZZ	M160216.D	10/10/19 17:35	OP23227	(unrelated sample)
ZZZZZZ	M160218.D	10/10/19 18:34	OP23161A	(unrelated sample)
ZZZZZZ	M160219.D	10/10/19 19:02	OP23161A	(unrelated sample)
OP23227-MB1	M160220A.D	10/10/19 19:36	OP23227	Method Blank
ZZZZZZ	M160221.D	10/10/19 20:05	OP23126	(unrelated sample)
ZZZZZZ	M160222.D	10/10/19 20:33	OP23126	(unrelated sample)

Run Sequence Report

Job Number: JC96248
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Run ID: EM6781	Method: SW846 8270D	Instrument ID: GCMSM		
Lab Sample ID	Lab File ID	Date/Time Analyzed	Prep QC Batch	Client Sample ID
EM6781-DFTPP	M160230.D	10/11/19 11:06	n/a	DFTPP Tune
EM6781-CC6777	M160231.D	10/11/19 11:19	n/a	Continuing cal 25
EM6781-CC6772	M160232.D	10/11/19 11:48	n/a	Continuing cal 25
EM6781-CC6773	M160233.D	10/11/19 12:16	n/a	Continuing cal 25
OP23204-MB1	M160234.D	10/11/19 12:44	OP23204	Method Blank
ZZZZZZ	M160237.D	10/11/19 14:08	OP23204	(unrelated sample)
ZZZZZZ	M160238.D	10/11/19 14:37	OP23204	(unrelated sample)
ZZZZZZ	M160239.D	10/11/19 15:05	OP23204	(unrelated sample)
ZZZZZZ	M160240.D	10/11/19 15:33	OP23204	(unrelated sample)
ZZZZZZ	M160241.D	10/11/19 16:02	OP23204	(unrelated sample)
ZZZZZZ	M160242.D	10/11/19 16:30	OP23161A	(unrelated sample)
ZZZZZZ	M160243.D	10/11/19 16:58	OP23230	(unrelated sample)
ZZZZZZ	M160244.D	10/11/19 17:27	OP23230	(unrelated sample)
JC96248-5	M160245.D	10/11/19 17:55	OP23230	MW-112
JC96248-6	M160246.D	10/11/19 18:23	OP23230	MW-113
JC96248-7	M160247.D	10/11/19 18:51	OP23230	DUP-100419
JC96248-8	M160248.D	10/11/19 19:19	OP23230	FB-100419
JC96248-4	M160249.D	10/11/19 19:47	OP23230	MW-111
OP23230-MS	M160250.D	10/11/19 20:16	OP23230	Matrix Spike
OP23230-MSD	M160251.D	10/11/19 20:44	OP23230	Matrix Spike Duplicate

Run Sequence Report

Job Number: JC96248
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Run ID: EM6782	Method: SW846 8270D	Instrument ID: GCMSM		
Lab Sample ID	Lab File ID	Date/Time Analyzed	Prep QC Batch	Client Sample ID
EM6782-DFTPP	M160257.D	10/12/19 15:04	n/a	DFTPP Tune
EM6782-CC6777	M160258.D	10/12/19 15:15	n/a	Continuing cal 50
EM6782-CC6772	M160259.D	10/12/19 15:45	n/a	Continuing cal 50
EM6782-CC6773	M160260.D	10/12/19 16:13	n/a	Continuing cal 50
OP23240-MB1	M160262.D	10/12/19 17:09	OP23240	Method Blank
OP23229-MB1	M160263.D	10/12/19 17:37	OP23229	Method Blank
OP23229-BS1	M160264.D	10/12/19 18:05	OP23229	Blank Spike
OP23240-BS1	M160265.D	10/12/19 18:33	OP23240	Blank Spike
ZZZZZZ	M160266.D	10/12/19 19:01	OP23240	(unrelated sample)
ZZZZZZ	M160267.D	10/12/19 19:29	OP23240	(unrelated sample)
ZZZZZZ	M160268.D	10/12/19 19:58	OP23240	(unrelated sample)
ZZZZZZ	M160269.D	10/12/19 20:26	OP23240	(unrelated sample)
ZZZZZZ	M160270.D	10/12/19 20:54	OP23240	(unrelated sample)
JC96350-1	M160271.D	10/12/19 21:22	OP23240	(used for QC only; not part of job JC96248)
ZZZZZZ	M160272.D	10/12/19 21:50	OP23240	(unrelated sample)
ZZZZZZ	M160273.D	10/12/19 22:18	OP23240	(unrelated sample)
ZZZZZZ	M160274.D	10/12/19 22:46	OP23240	(unrelated sample)
OP23240-MS	M160275.D	10/12/19 23:14	OP23240	Matrix Spike
OP23240-MSD	M160276.D	10/12/19 23:42	OP23240	Matrix Spike Duplicate
OP23229-BSD	M160277.D	10/13/19 00:10	OP23229	Blank Spike Duplicate
ZZZZZZ	M160279.D	10/13/19 01:06	OP23229	(unrelated sample)
ZZZZZZ	M160280.D	10/13/19 01:34	OP23229	(unrelated sample)
JC96248-4	M160281.D	10/13/19 02:02	OP23230	MW-111
ZZZZZZ	M160282.D	10/13/19 02:29	OP23161A	(unrelated sample)
ZZZZZZ	M160283.D	10/13/19 02:57	OP23161A	(unrelated sample)
EM6782-ECC6777	M160284.D	10/13/19 03:25	n/a	Ending cal 50
EM6782-ECC6772	M160285.D	10/13/19 03:53	n/a	Ending cal 50
EM6782-ECC6773	M160286.D	10/13/19 04:21	n/a	Ending cal 50

Run Sequence Report

Job Number: JC96248
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Run ID: EM6783	Method: SW846 8270D	Instrument ID: GCMSM		
Lab Sample ID	Lab File ID	Date/Time Analyzed	Prep QC Batch	Client Sample ID
EM6783-DFTPP	M160287.D	10/13/19 09:18	n/a	DFTPP Tune
EM6783-CC6777	M160288.D	10/13/19 09:32	n/a	Continuing cal 25
EM6783-CC6772	M160289.D	10/13/19 10:00	n/a	Continuing cal 25
EM6783-CC6773	M160290.D	10/13/19 10:27	n/a	Continuing cal 25
OP23213-MB1	M160291.D	10/13/19 10:55	OP23213	Method Blank
OP23213-BS1	M160292.D	10/13/19 11:23	OP23213	Blank Spike
ZZZZZZ	M160294.D	10/13/19 12:19	OP23204	(unrelated sample)
ZZZZZZ	M160295.D	10/13/19 12:47	OP23204	(unrelated sample)
ZZZZZZ	M160296.D	10/13/19 13:15	OP23204	(unrelated sample)
JC96248-1	M160297.D	10/13/19 13:43	OP23204	MW-108
JC96248-2	M160298.D	10/13/19 14:11	OP23204	MW-109
JC96248-3	M160299.D	10/13/19 14:39	OP23204	MW-110
ZZZZZZ	M160300.D	10/13/19 15:07	OP23204	(unrelated sample)
ZZZZZZ	M160301.D	10/13/19 15:35	OP23230	(unrelated sample)
JC96244-5	M160308.D	10/13/19 18:51	OP23213	(used for QC only; not part of job JC96248)
ZZZZZZ	M160309.D	10/13/19 19:19	OP23230	(unrelated sample)
ZZZZZZ	M160311.D	10/13/19 20:16	OP23126	(unrelated sample)
OP23213-MS	M160312.D	10/13/19 20:44	OP23213	Matrix Spike
OP23213-MSD	M160313.D	10/13/19 21:12	OP23213	Matrix Spike Duplicate

Run Sequence Report

Job Number: JC96248
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Run ID: EM6787	Method: SW846 8270D	Instrument ID: GCMSM		
Lab Sample ID	Lab File ID	Date/Time Analyzed	Prep QC Batch	Client Sample ID
EM6787-DFTPP	M160400.D	10/16/19 10:42	n/a	DFTPP Tune
EM6787-CC6777	M160401.D	10/16/19 10:53	n/a	Continuing cal 25
EM6787-CC6772	M160402.D	10/16/19 11:21	n/a	Continuing cal 25
EM6787-CC6773	M160403.D	10/16/19 11:49	n/a	Continuing cal 25
OP23339-MB1	M160404.D	10/16/19 12:17	OP23339	Method Blank
OP23339-BS1	M160405.D	10/16/19 12:45	OP23339	Blank Spike
OP23339-BSD	M160406.D	10/16/19 13:14	OP23339	Blank Spike Duplicate
OP23204-BS1	M160407.D	10/16/19 13:42	OP23204	Blank Spike
OP23204-BSD	M160408.D	10/16/19 14:10	OP23204	Blank Spike Duplicate
ZZZZZZ	M160409A.D	10/16/19 15:06	OP23339	(unrelated sample)
ZZZZZZ	M160410.D	10/16/19 15:34	OP23339	(unrelated sample)
ZZZZZZ	M160411.D	10/16/19 16:03	OP23339	(unrelated sample)
ZZZZZZ	M160412.D	10/16/19 16:31	OP23339	(unrelated sample)
ZZZZZZ	M160413.D	10/16/19 16:59	OP23339	(unrelated sample)
ZZZZZZ	M160414.D	10/16/19 17:28	OP23339	(unrelated sample)
ZZZZZZ	M160415.D	10/16/19 17:56	OP23339	(unrelated sample)
ZZZZZZ	M160416.D	10/16/19 18:24	OP23339	(unrelated sample)
ZZZZZZ	M160417.D	10/16/19 18:53	OP23273	(unrelated sample)
ZZZZZZ	M160418.D	10/16/19 19:21	OP23204	(unrelated sample)
ZZZZZZ	M160419.D	10/16/19 19:50	OP23204	(unrelated sample)
EM6787-ECC6777	M160430.D	10/16/19 20:46	n/a	Ending cal 25
EM6787-ECC6772	M160431.D	10/16/19 21:15	n/a	Ending cal 25
EM6787-ECC6773	M160432.D	10/16/19 21:43	n/a	Ending cal 25

MS Semi-volatiles

Raw Data

Quantitation Report (QT Reviewed)

Data Path : Z:\svoa-gcms\completed\10_oct\10-15-2019\jonkm\em6783\
 Data File : m160297.d
 Acq On : 13 Oct 2019 1:43 pm
 Operator : hennys
 Sample : jc96248-1
 Misc : op23204,em6783,1000,,,1,1
 ALS Vial : 11 Sample Multiplier: 1

Quant Time: Oct 23 12:10:16 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MM6777.M
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 QLast Update : Mon Oct 14 23:42:52 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.331	152	271470	40.00	ppm	0.00
24) Naphthalene-d8	5.373	136	890446	40.00	ppm	0.00
47) Acenaphthene-d10	7.531	164	533901	40.00	ppm	0.00
69) Phenanthrene-d10	10.052	188	932185	40.00	ppm	0.00
83) Chrysene-d12	15.127	240	848902	40.00	ppm	0.00
91) Perylene-d12	17.713	264	929278	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.331	152	271470	40.00	ppm	0.00
103) Acenaphthene-d10a	7.531	164	533901	40.00	ppm	0.00
105) Acenaphthene-d10b	7.531	164	533901	40.00	ppm	0.00
107) Chrysene-d12a	15.127	240	848902	40.00	ppm	0.00
110) Phenanthrene-d10a	10.052	188	932185	40.00	ppm	0.00
112) Phenanthrene-d10b	10.052	188	932185	40.00	ppm	0.00
114) Naphthalene-d8a	5.373	136	890446	40.00	ppm	0.00
116) Chrysene-d12c	15.127	240	848902	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	3.369	112	144588	12.12	ppm	0.00
Spiked Amount	50.000		Recovery =	24.24%		
8) Phenol-d5	4.112	99	117254	8.55	ppm	0.00
Spiked Amount	50.000		Recovery =	17.10%		
25) Nitrobenzene-d5	4.758	82	405542	35.40	ppm	0.00
Spiked Amount	50.000		Recovery =	70.80%		
51) 2-Fluorobiphenyl	6.596	172	716685	38.68	ppm	0.00
Spiked Amount	50.000		Recovery =	77.36%		
73) 2,4,6-Tribromophenol	8.829	330	149333	40.71	ppm	0.00
Spiked Amount	50.000		Recovery =	81.42%		
85) Terphenyl-d14	13.183	244	636150	27.53	ppm	0.00
Spiked Amount	50.000		Recovery =	55.06%		
109) 1-chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount	50.000		Recovery =	0.00%		
113) o-terphenyl	0.000	230	0	0.00	ppm	
Target Compounds						
18) Acetophenone	4.646	105	2669	0.18	ppm	79
19) 2-Methylphenol	4.561	108	1690	0.19	ppm	# 66
21) 3&4-Methylphenol	4.678	108	3002	0.32	ppm	80
30) 2,4-Dimethylphenol	5.095	107	2546	0.30	ppm	94
38) Naphthalene	5.389	128	176134	7.20	ppm	99
44) 2-Methylnaphthalene	6.126	141	11820	0.77	ppm	88
53) Biphenyl	6.719	154	4403	0.19	ppm	94
56) Acenaphthylene	7.317	152	1796	0.07	ppm	70
59) Acenaphthene	7.579	153	2529	0.15	ppm	# 70
62) Dibenzofuran	7.857	168	12390	0.48	ppm	96
66) Fluorene	8.412	166	20588	0.99	ppm	94
77) Phenanthrene	10.090	178	34443	1.32	ppm	98
78) Anthracene	10.181	178	9922	0.37	ppm	95
79) Carbazole	10.554	167	25333	0.85	ppm	93
81) Fluoranthene	12.333	202	12668	0.36	ppm	96
84) Pyrene	12.745	202	7872	0.22	ppm	96

9.1.1
9

Quantitation Report (QT Reviewed)

Data Path : Z:\svoa-gcms\completed\10_oct\10-15-2019\jonkm\em6783\
Data File : m160297.d
Acq On : 13 Oct 2019 1:43 pm
Operator : hennys
Sample : jc96248-1
Misc : op23204,em6783,1000,,,1,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Oct 23 12:10:16 2019
Quant Method : C:\MSDCHEM\1\METHODS\MM6777.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Mon Oct 14 23:42:52 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
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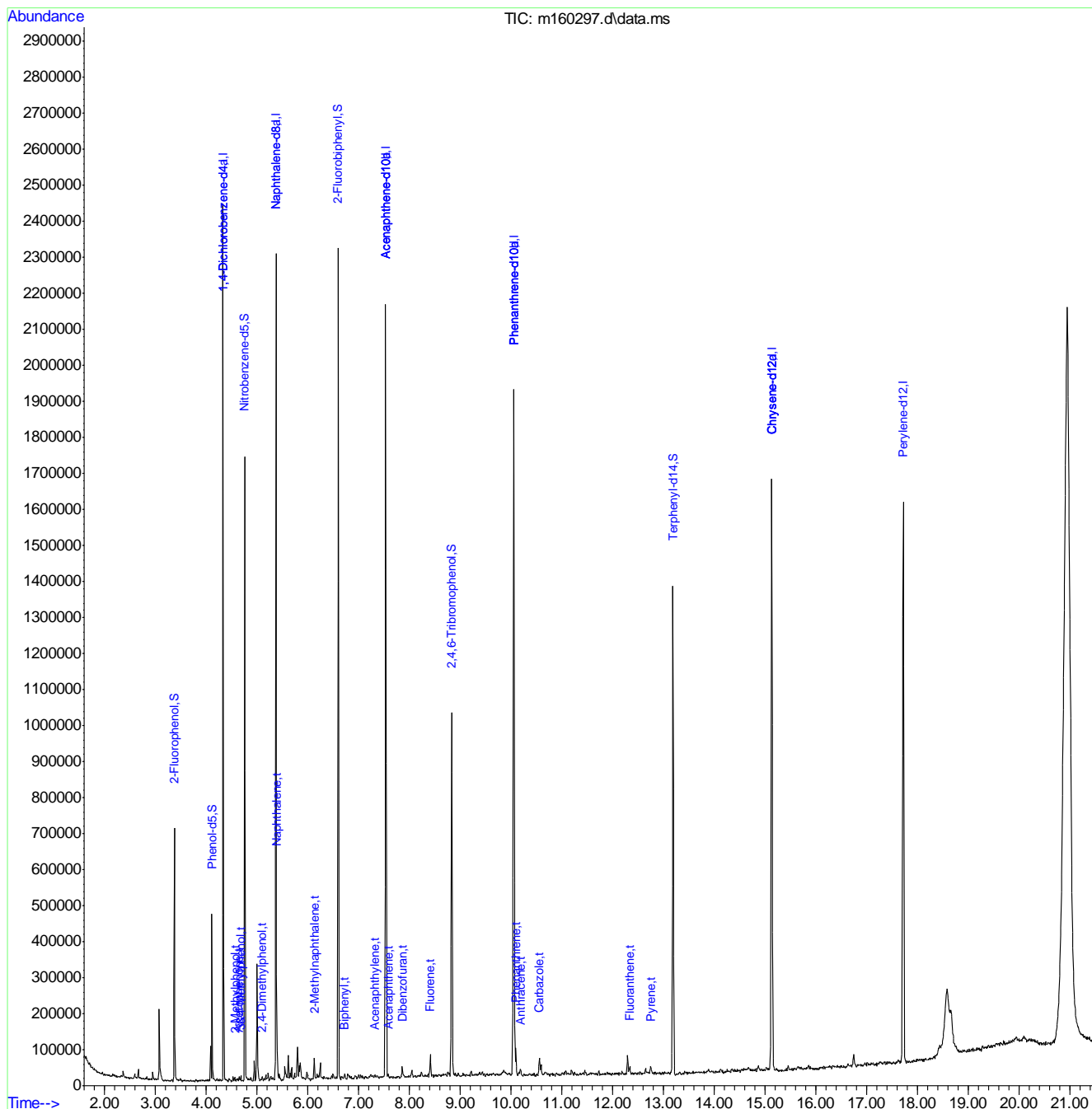
(#) = qualifier out of range (m) = manual integration (+) = signals summed



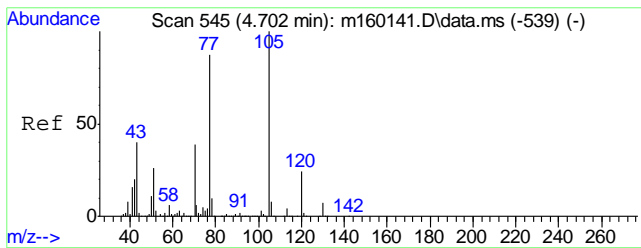
Quantitation Report (QT Reviewed)

Data Path : Z:\svoa-gcms\completed\10_oct\10-15-2019\jonkm\em6783\
 Data File : m160297.d
 Acq On : 13 Oct 2019 1:43 pm
 Operator : hennys
 Sample : jc96248-1
 Misc : op23204,em6783,1000,,,1,1
 ALS Vial : 11 Sample Multiplier: 1

Quant Time: Oct 23 12:10:16 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MM6777.M
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30m x 0.25mm x 0.25um
 QLast Update : Mon Oct 14 23:42:52 2019
 Response via : Initial Calibration

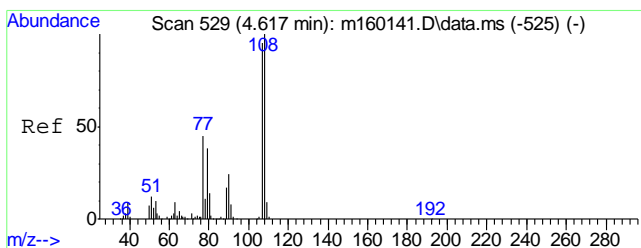
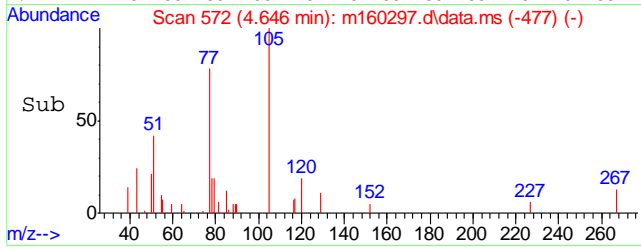
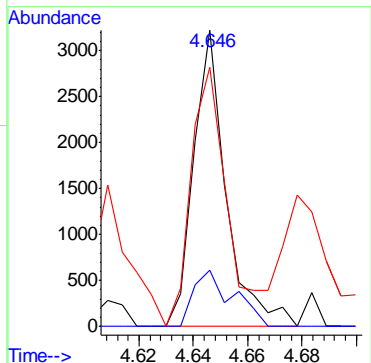
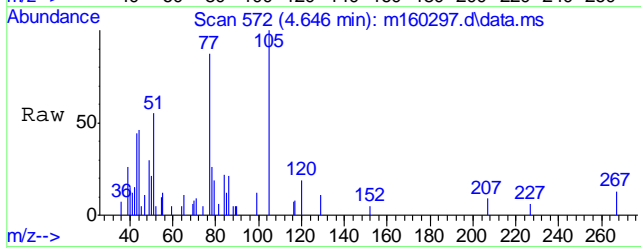


9.1.1
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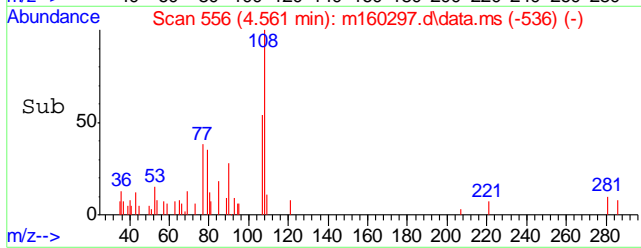
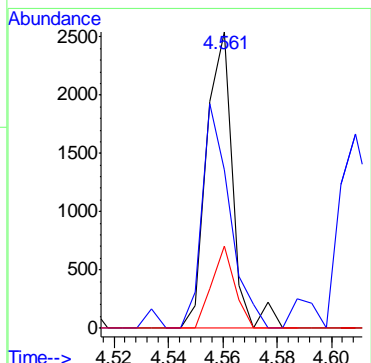
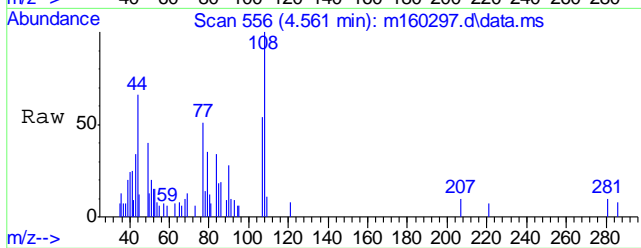
#18
 Acetophenone
 Concen: 0.18 ppm
 RT: 4.646 min Scan# 572
 Delta R.T. 0.006 min
 Lab File: m160297.d
 Acq: 13 Oct 2019 1:43 pm

Tgt Ion	Resp	Lower	Upper
105	100		
120	18.9	0.0	53.6
77	65.1	56.8	116.8

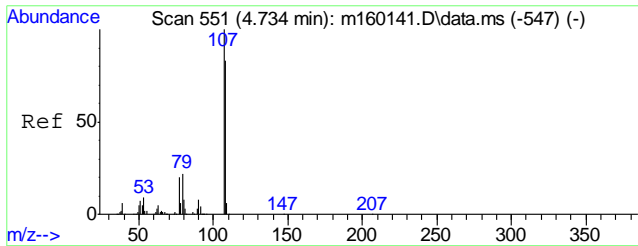


#19
 2-Methylphenol
 Concen: 0.19 ppm
 RT: 4.561 min Scan# 556
 Delta R.T. 0.006 min
 Lab File: m160297.d
 Acq: 13 Oct 2019 1:43 pm

Tgt Ion	Resp	Lower	Upper
108	100		
107	48.6	57.0	117.0#
90	27.9	0.0	54.4

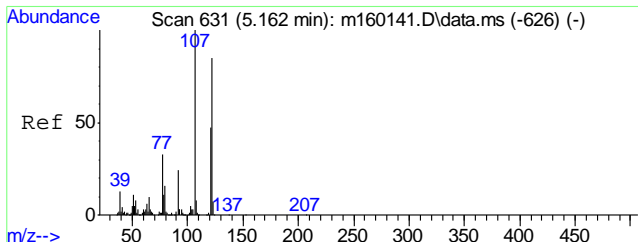
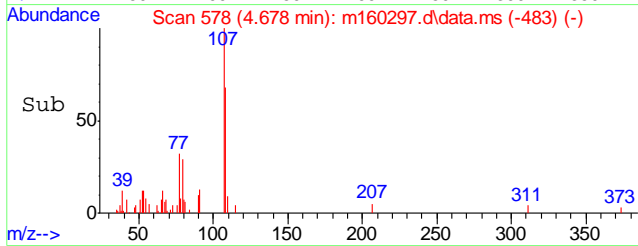
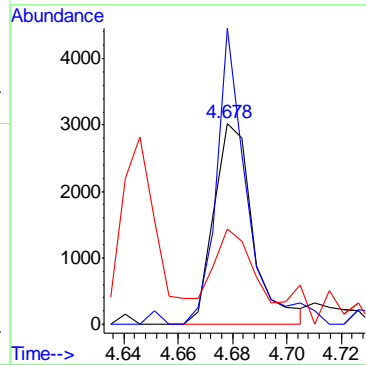
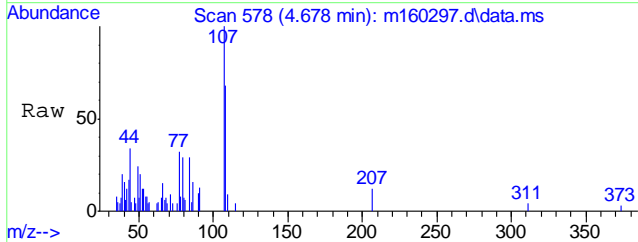


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 9



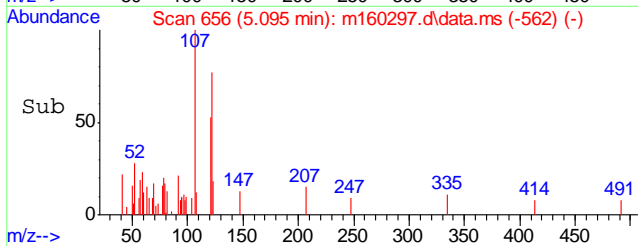
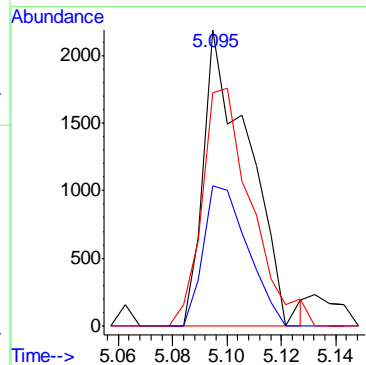
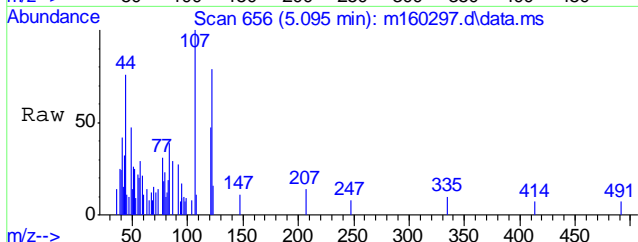
#21
 3&4-Methylphenol
 Concen: 0.32 ppm
 RT: 4.678 min Scan# 578
 Delta R.T. 0.006 min
 Lab File: m160297.d
 Acq: 13 Oct 2019 1:43 pm

Tgt Ion	Ratio	Lower	Upper
108	100		
107	147.8	92.3	152.3
77	31.7	7.2	67.2

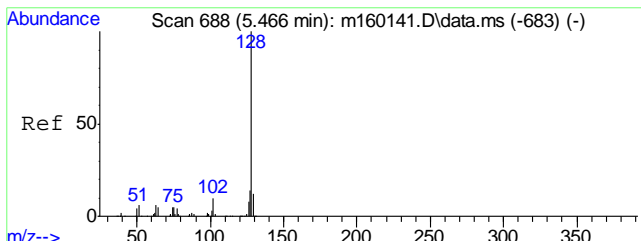


#30
 2,4-Dimethylphenol
 Concen: 0.30 ppm
 RT: 5.095 min Scan# 656
 Delta R.T. 0.001 min
 Lab File: m160297.d
 Acq: 13 Oct 2019 1:43 pm

Tgt Ion	Ratio	Lower	Upper
107	100		
121	49.6	14.9	74.9
122	77.6	52.3	112.3

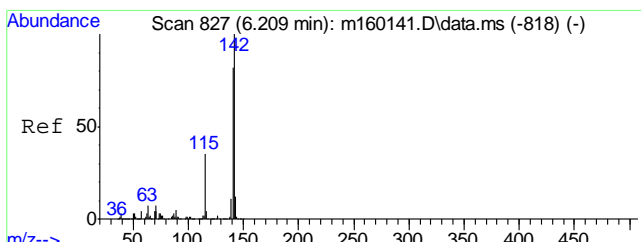
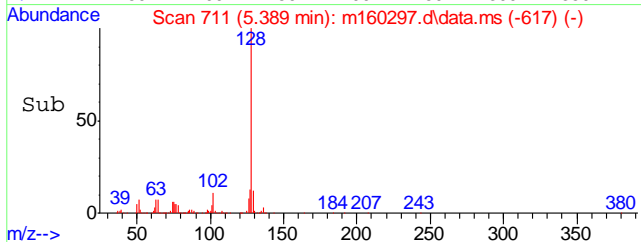
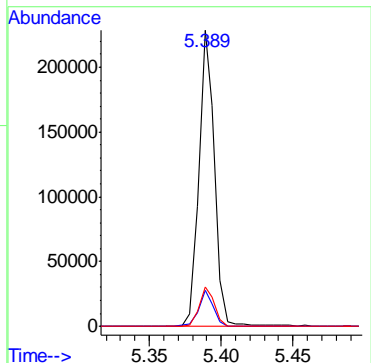
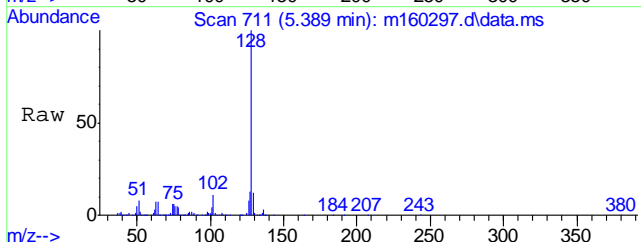


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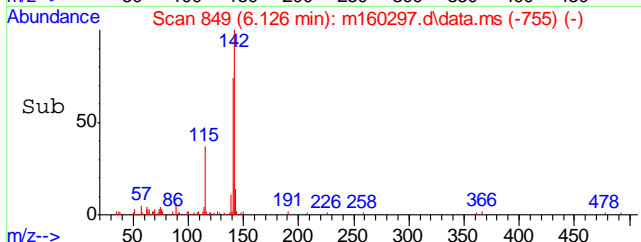
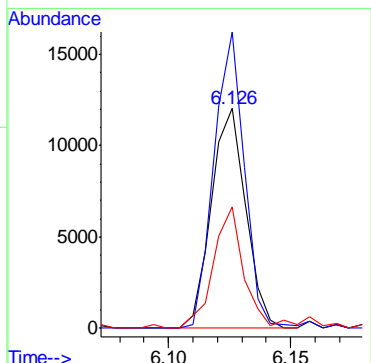
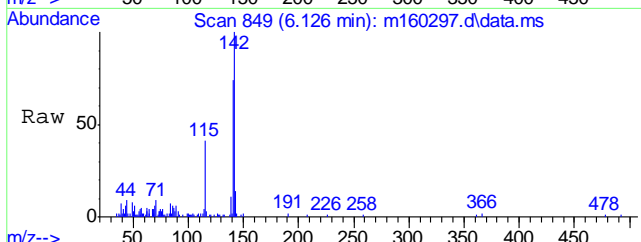
#38
 Naphthalene
 Concen: 7.20 ppm
 RT: 5.389 min Scan# 711
 Delta R.T. 0.001 min
 Lab File: m160297.d
 Acq: 13 Oct 2019 1:43 pm

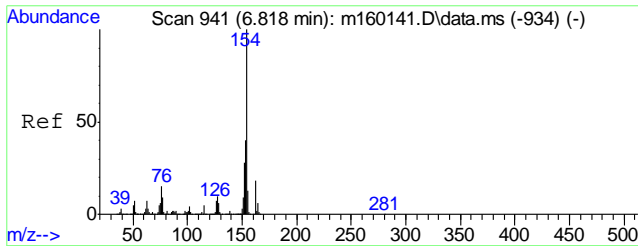
Tgt Ion	Ratio	Lower	Upper
128	100		
129	12.2	0.0	41.5
127	13.2	0.0	43.2



#44
 2-Methylnaphthalene
 Concen: 0.77 ppm
 RT: 6.126 min Scan# 849
 Delta R.T. 0.001 min
 Lab File: m160297.d
 Acq: 13 Oct 2019 1:43 pm

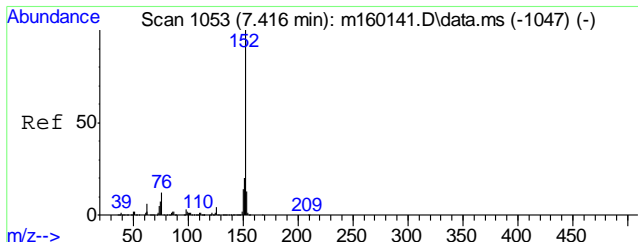
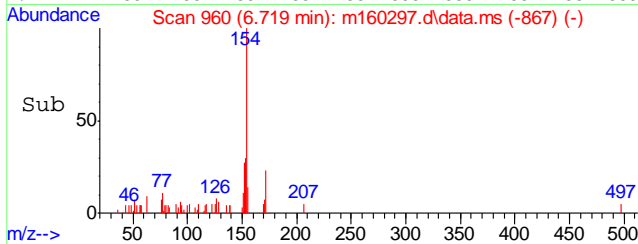
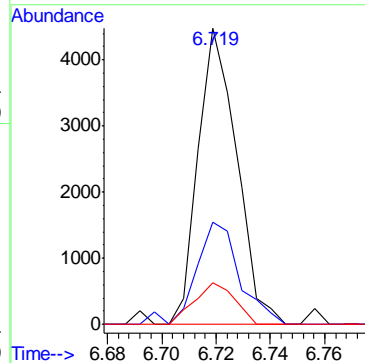
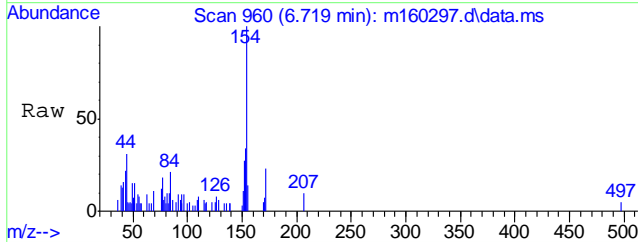
Tgt Ion	Ratio	Lower	Upper
141	100		
142	134.3	92.1	152.1
115	54.5	14.0	74.0





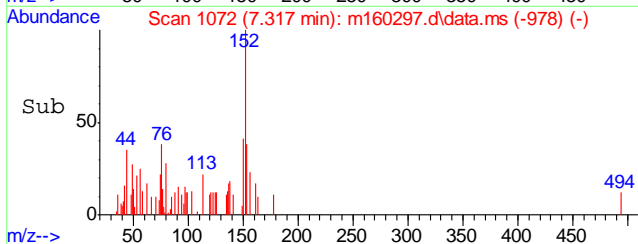
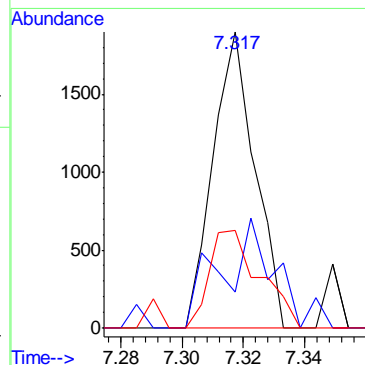
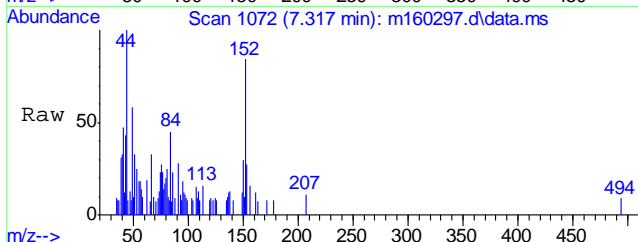
#53
 Biphenyl
 Concen: 0.19 ppm
 RT: 6.719 min Scan# 960
 Delta R.T. -0.004 min
 Lab File: m160297.d
 Acq: 13 Oct 2019 1:43 pm

Tgt Ion	Resp	Lower	Upper
154	100		
153	34.3	8.4	68.4
155	14.2	0.0	42.8

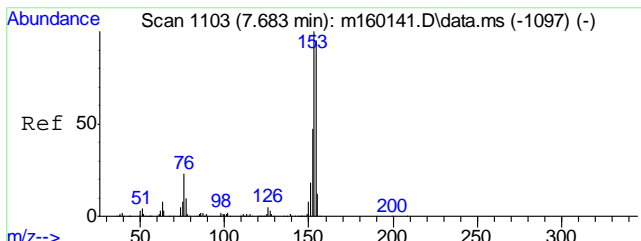


#56
 Acenaphthylene
 Concen: 0.07 ppm
 RT: 7.317 min Scan# 1072
 Delta R.T. 0.001 min
 Lab File: m160297.d
 Acq: 13 Oct 2019 1:43 pm

Tgt Ion	Resp	Lower	Upper
152	100		
151	12.3	0.0	50.2
153	32.9	0.0	43.4

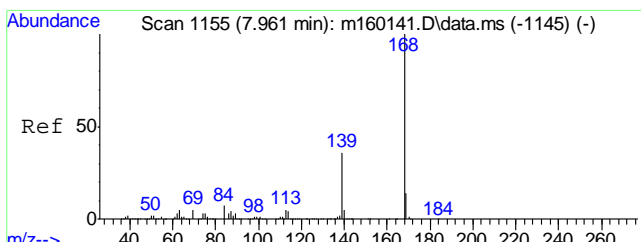
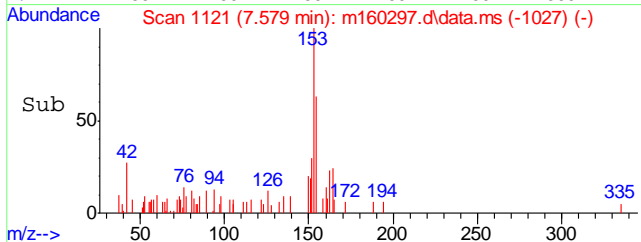
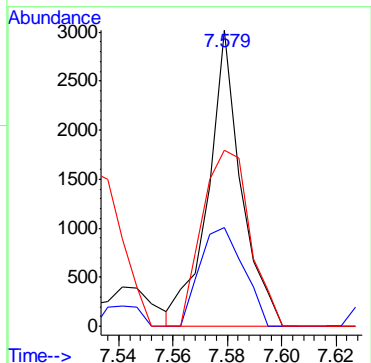
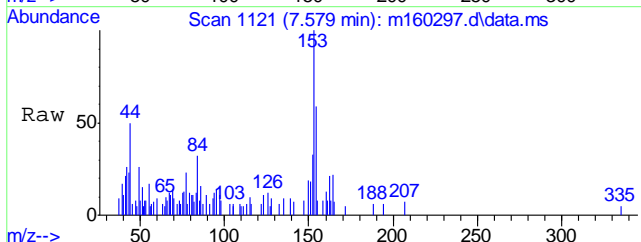


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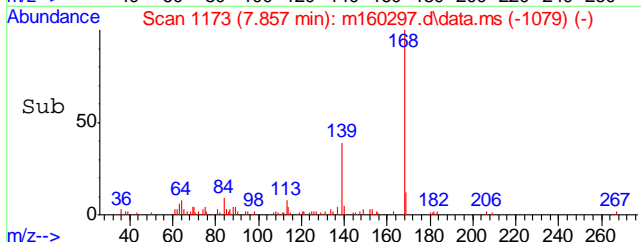
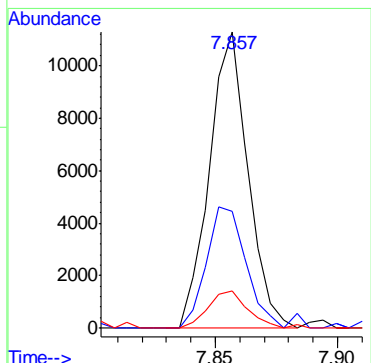
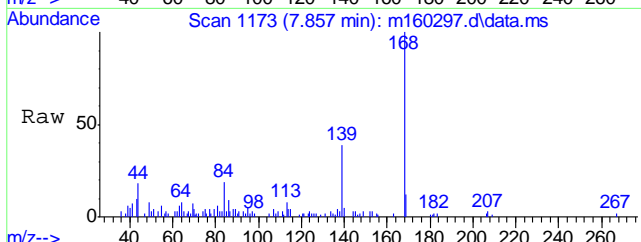
#59
 Acenaphthene
 Concen: 0.15 ppm
 RT: 7.579 min Scan# 1121
 Delta R.T. 0.001 min
 Lab File: m160297.d
 Acq: 13 Oct 2019 1:43 pm

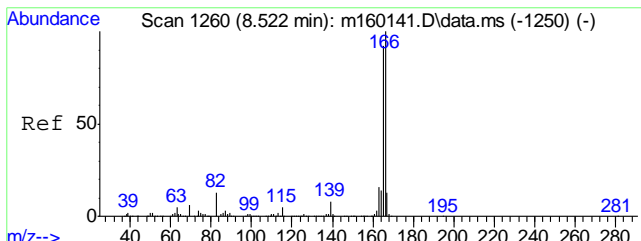
Tgt Ion	Resp	Lower	Upper
153	100		
152	34.1	18.2	78.2
154	60.9	65.3	125.3#



#62
 Dibenzofuran
 Concen: 0.48 ppm
 RT: 7.857 min Scan# 1173
 Delta R.T. 0.001 min
 Lab File: m160297.d
 Acq: 13 Oct 2019 1:43 pm

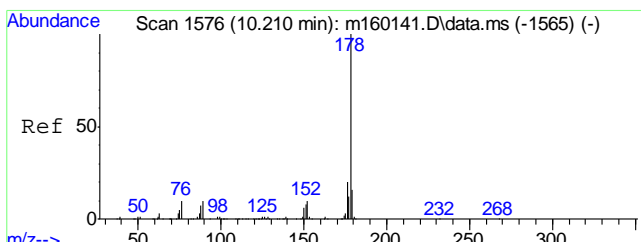
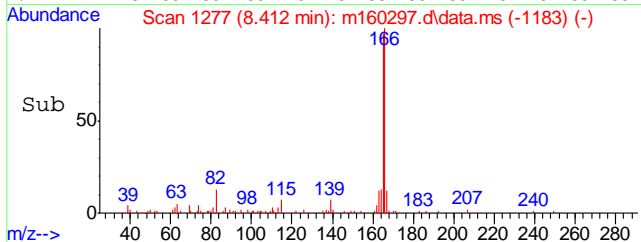
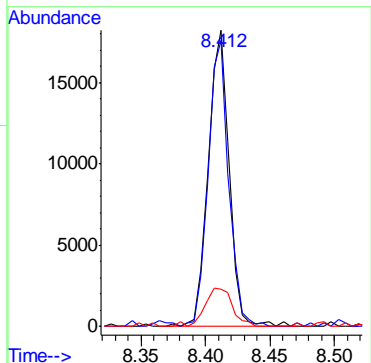
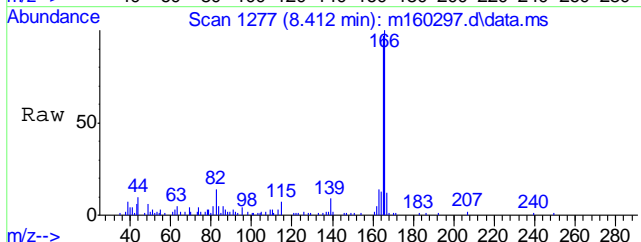
Tgt Ion	Resp	Lower	Upper
168	100		
139	36.9	4.6	64.6
169	11.8	0.0	43.0





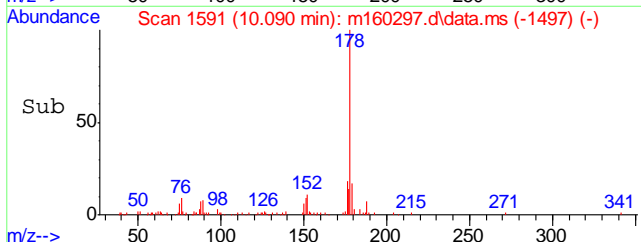
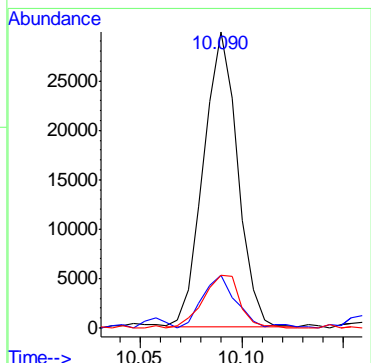
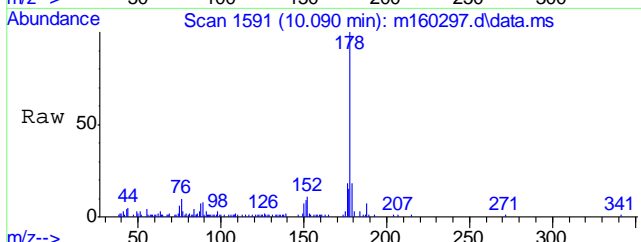
#66
 Fluorene
 Concen: 0.99 ppm
 RT: 8.412 min Scan# 1277
 Delta R.T. 0.001 min
 Lab File: m160297.d
 Acq: 13 Oct 2019 1:43 pm

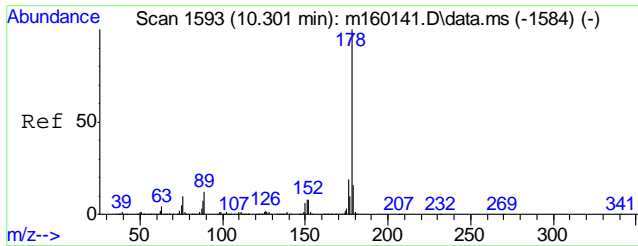
Tgt Ion	Resp	Lower	Upper
166	20588		
165	95.6	59.8	119.8
167	11.9	0.0	42.8



#77
 Phenanthrene
 Concen: 1.32 ppm
 RT: 10.090 min Scan# 1591
 Delta R.T. 0.001 min
 Lab File: m160297.d
 Acq: 13 Oct 2019 1:43 pm

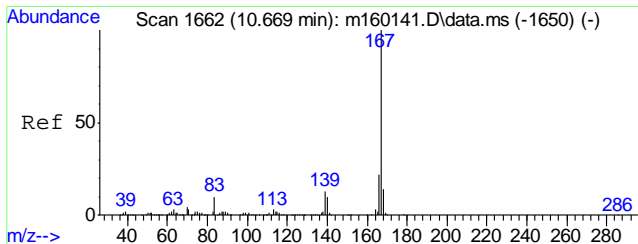
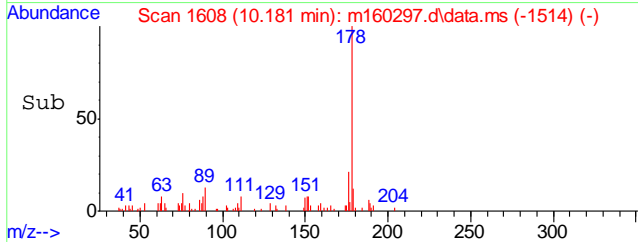
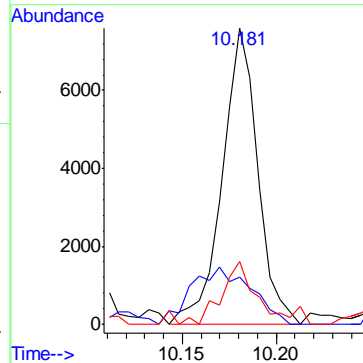
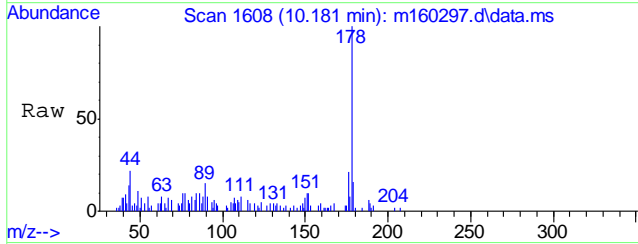
Tgt Ion	Resp	Lower	Upper
178	34443		
179	16.5	0.0	45.8
176	17.8	0.0	49.0





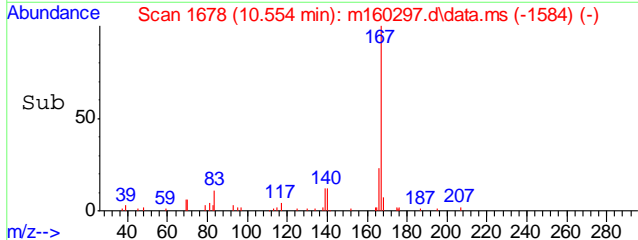
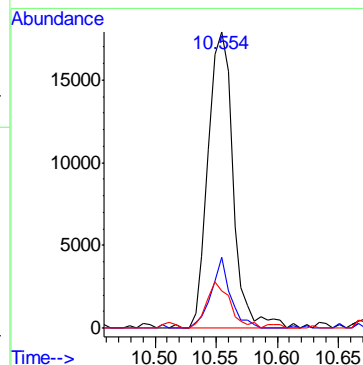
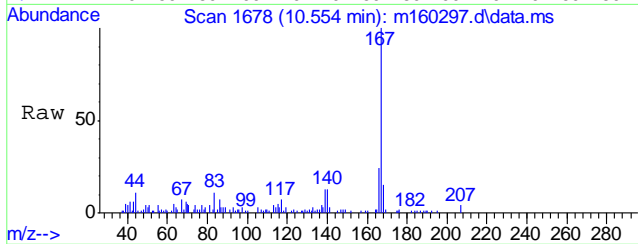
#78
 Anthracene
 Concen: 0.37 ppm
 RT: 10.181 min Scan# 1608
 Delta R.T. 0.001 min
 Lab File: m160297.d
 Acq: 13 Oct 2019 1:43 pm

Tgt Ion	Resp	Lower	Upper
178	9922		
179	13.6	0.0	45.5
176	15.7	0.0	48.1

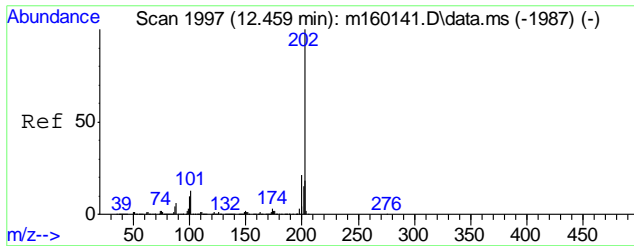


#79
 Carbazole
 Concen: 0.85 ppm
 RT: 10.554 min Scan# 1678
 Delta R.T. 0.001 min
 Lab File: m160297.d
 Acq: 13 Oct 2019 1:43 pm

Tgt Ion	Resp	Lower	Upper
167	25333		
166	24.0	0.0	49.5
139	11.7	0.0	42.8

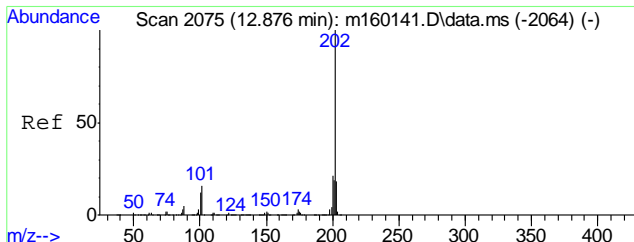
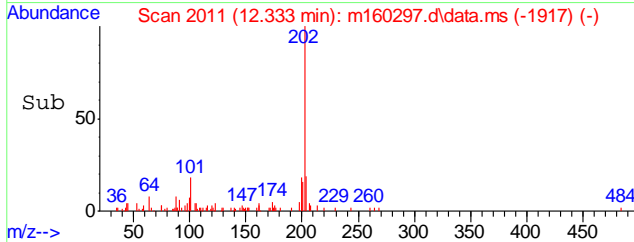
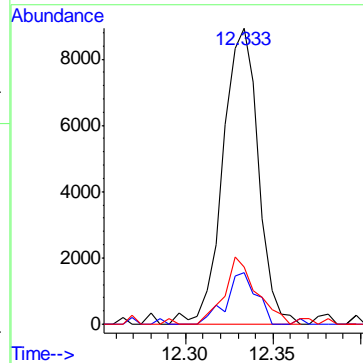
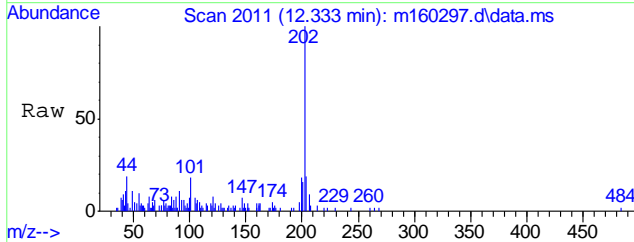


9.1.1
 9



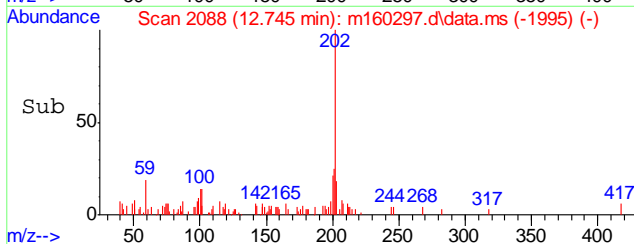
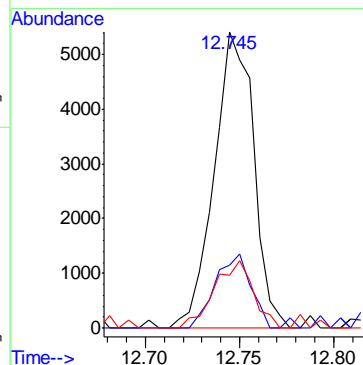
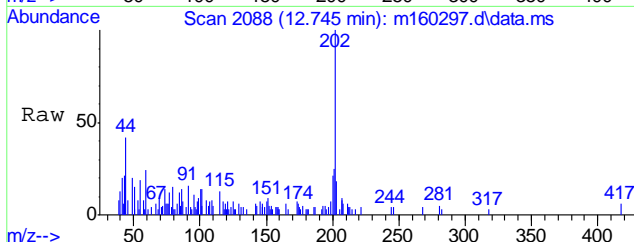
#81
 Fluoranthene
 Concen: 0.36 ppm
 RT: 12.333 min Scan# 2011
 Delta R.T. 0.001 min
 Lab File: m160297.d
 Acq: 13 Oct 2019 1:43 pm

Tgt Ion	Resp	Lower	Upper
202	12668		
101	16.8	0.0	43.5
203	17.6	0.0	48.3



#84
 Pyrene
 Concen: 0.22 ppm
 RT: 12.745 min Scan# 2088
 Delta R.T. -0.004 min
 Lab File: m160297.d
 Acq: 13 Oct 2019 1:43 pm

Tgt Ion	Resp	Lower	Upper
202	7872		
200	21.3	0.0	50.5
203	15.6	0.0	48.0



9.1.1
 9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\jonkm\101519\em6783\
 Data File : ml60298.d
 Acq On : 13 Oct 2019 2:11 pm
 Operator : hennys
 Sample : jc96248-2 Inst : MSM
 Misc : op23204,em6783,1040,,,1,1
 ALS Vial : 12 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MM6777.M
 Quant Results File: MM6777.RES
 Quant Time: Oct 15 00:29:36 2019
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 QLast Update : Mon Oct 14 23:42:52 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.334	152	252196	40.00	ppm	0.00
24) Naphthalene-d8	5.370	136	834980	40.00	ppm	0.00
47) Acenaphthene-d10	7.534	164	512249	40.00	ppm	0.00
69) Phenanthrene-d10	10.050	188	895087	40.00	ppm	0.00
83) Chrysene-d12	15.125	240	817721	40.00	ppm	0.00
91) Perylene-d12	17.716	264	893759	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.334	152	252196	40.00	ppm	0.00
103) Acenaphthene-d10a	7.534	164	512249	40.00	ppm	0.00
105) Acenaphthene-d10b	7.534	164	512249	40.00	ppm	0.00
107) Chrysene-d12a	15.125	240	817721	40.00	ppm	0.00
110) Phenanthrene-d10a	10.050	188	895087	40.00	ppm	0.00
112) Phenanthrene-d10b	10.050	188	895087	40.00	ppm	0.00
114) Naphthalene-d8a	5.370	136	834980	40.00	ppm	0.00
116) Chrysene-d12c	15.125	240	817721	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	3.367	112	142281	12.84	ppm	0.00
Spiked Amount 50.000			Recovery =	25.68%		
8) Phenol-d5	4.115	99	113626	8.92	ppm	0.00
Spiked Amount 50.000			Recovery =	17.84%		
25) Nitrobenzene-d5	4.756	82	392600	36.55	ppm	0.00
Spiked Amount 50.000			Recovery =	73.10%		
51) 2-Fluorobiphenyl	6.594	172	665295	37.43	ppm	0.00
Spiked Amount 50.000			Recovery =	74.86%		
73) 2,4,6-Tribromophenol	8.832	330	138884	39.43	ppm	0.00
Spiked Amount 50.000			Recovery =	78.86%		
85) Terphenyl-d14	13.181	244	519027	23.32	ppm	0.00
Spiked Amount 50.000			Recovery =	46.64%		
109) 1-chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
113) o-terphenyl	0.000	230	0	0.00	ppm	
Target Compounds						
18) Acetophenone	4.644	105	3507	0.26	ppm	77
21) 3&4-Methylphenol	4.676	108	4993	0.57	ppm	90
38) Naphthalene	5.392	128	210974	9.20	ppm	99
44) 2-Methylnaphthalene	6.124	141	22972	1.59	ppm	98
53) Biphenyl	6.722	154	9103	0.40	ppm	93
56) Acenaphthylene	7.315	152	32774	1.26	ppm	96
59) Acenaphthene	7.582	153	19266	1.22	ppm	93
62) Dibenzofuran	7.855	168	52225	2.09	ppm	99
66) Fluorene	8.410	166	87464	4.40	ppm	92
77) Phenanthrene	10.088	178	201521	8.04	ppm	99
78) Anthracene	10.178	178	29259	1.12	ppm	97
79) Carbazole	10.552	167	67115	2.33	ppm	96
81) Fluoranthene	12.331	202	43183	1.28	ppm	93
84) Pyrene	12.743	202	25112	0.74	ppm	94

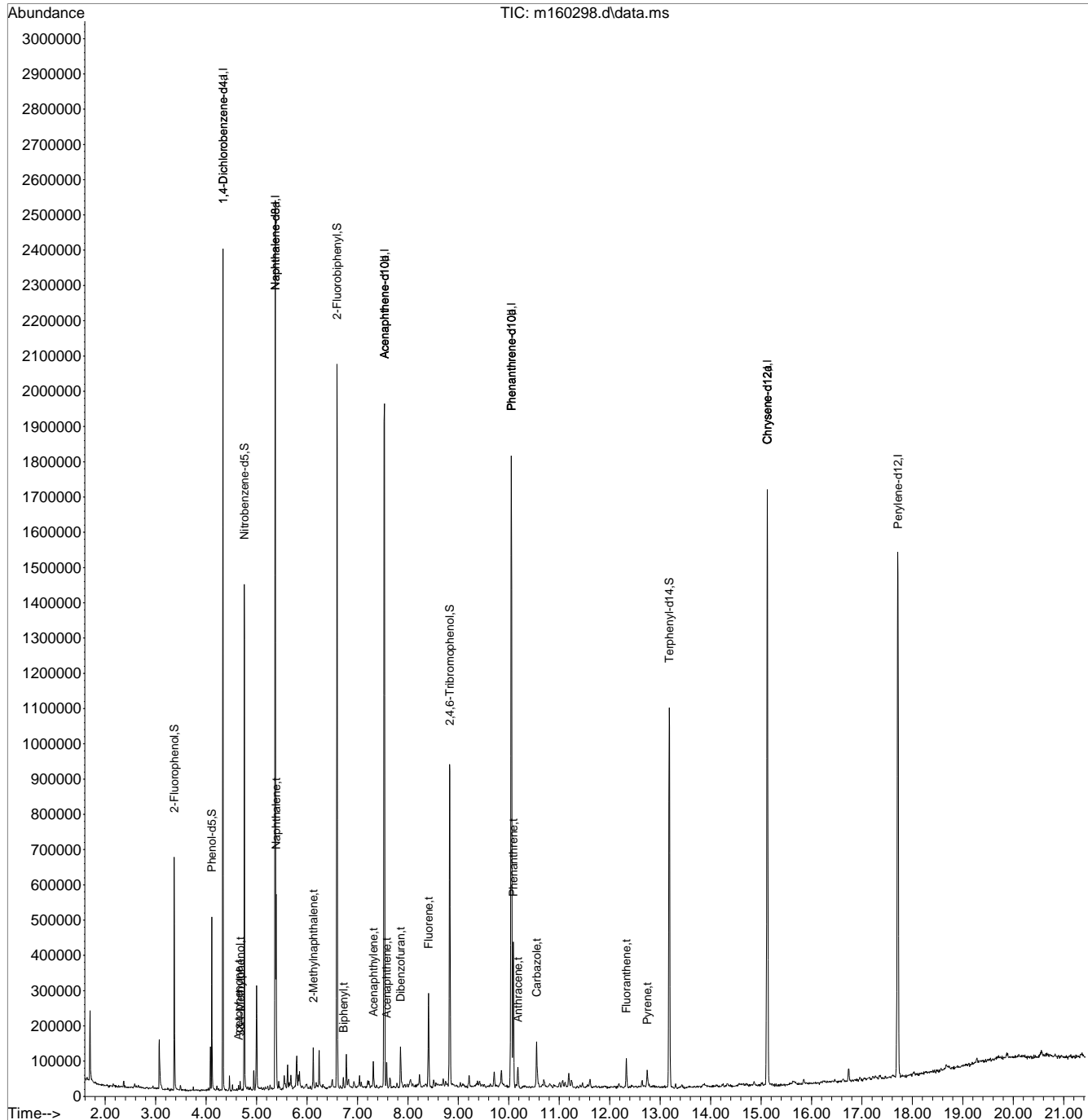
(#) = qualifier out of range (m) = manual integration (+) = signals summed

9.12
9

Quantitation Report (QT Reviewed)

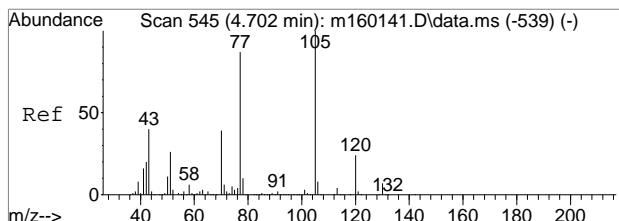
Data Path : C:\msdchem\1\data\jonkm\101519\em6783\
 Data File : m160298.d
 Acq On : 13 Oct 2019 2:11 pm
 Operator : hennys
 Sample : jc96248-2 Inst : MSM
 Misc : op23204,em6783,1040,,,1,1
 ALS Vial : 12 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MM6777.M
 Quant Results File: MM6777.RES
 Quant Time: Oct 15 00:29:36 2019
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 QLast Update : Mon Oct 14 23:42:52 2019
 Response via : Initial Calibration

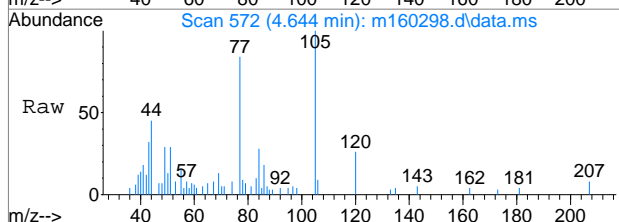


9.12
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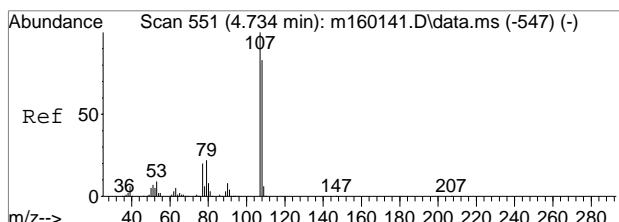
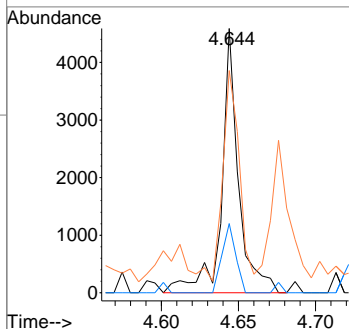
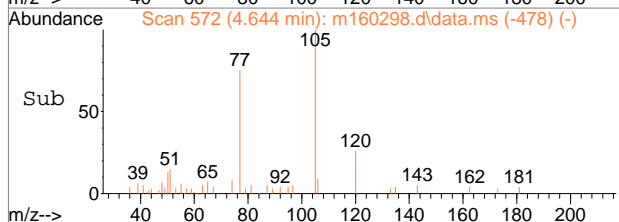


#18
 Acetophenone
 Concen: 0.26 ppm
 RT: 4.644 min Scan# 572
 Delta R.T. 0.004 min
 Lab File: m160298.d
 Acq: 13 Oct 2019 2:11 pm

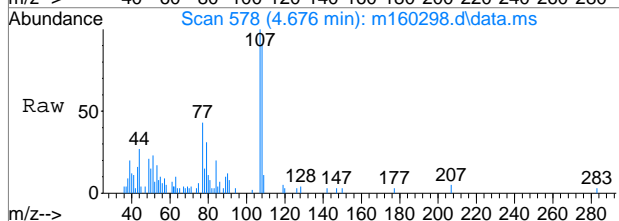


Tgt Ion:105 Resp: 3507

Ion	Ratio	Lower	Upper
105	100		
120	24.2	0.0	53.6
77	60.1	56.8	116.8

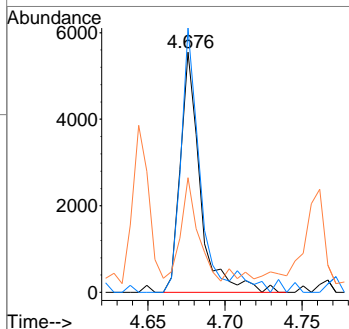
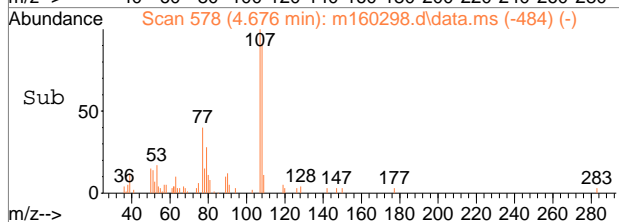


#21
 3&4-Methylphenol
 Concen: 0.57 ppm
 RT: 4.676 min Scan# 578
 Delta R.T. 0.004 min
 Lab File: m160298.d
 Acq: 13 Oct 2019 2:11 pm

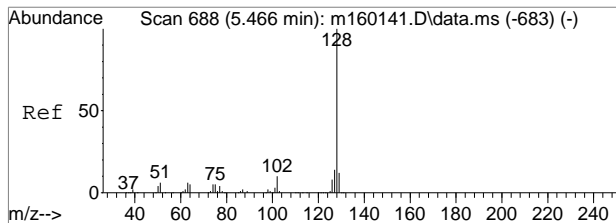


Tgt Ion:108 Resp: 4993

Ion	Ratio	Lower	Upper
108	100		
107	110.1	92.3	152.3
77	41.4	7.2	67.2

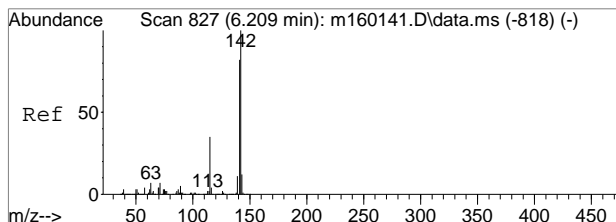
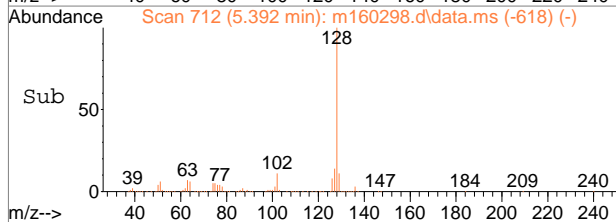
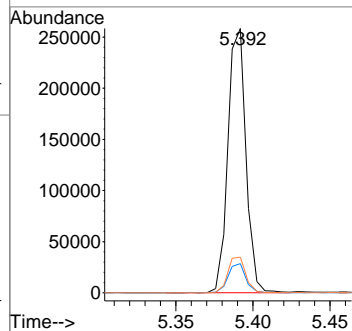
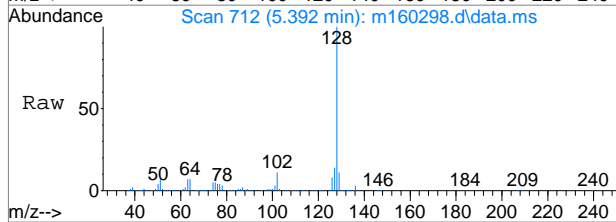


9.12
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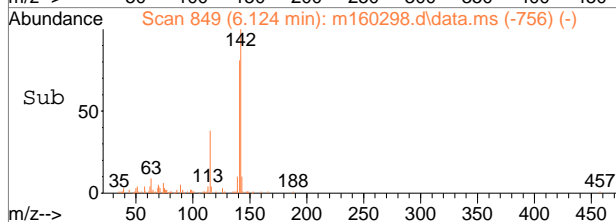
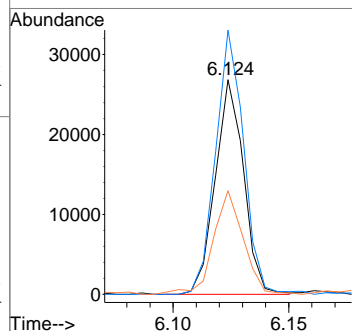
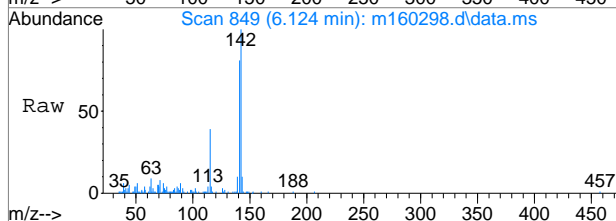
#38
 Naphthalene
 Concen: 9.20 ppm
 RT: 5.392 min Scan# 712
 Delta R.T. 0.004 min
 Lab File: m160298.d
 Acq: 13 Oct 2019 2:11 pm

Tgt Ion	Ratio	Lower	Upper
128	100		
129	11.0	0.0	41.5
127	13.5	0.0	43.2

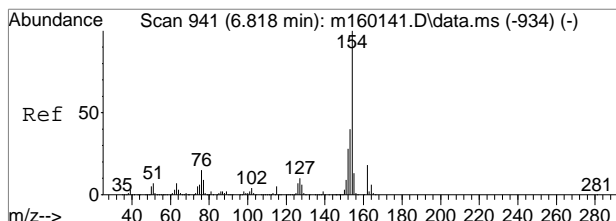


#44
 2-Methylnaphthalene
 Concen: 1.59 ppm
 RT: 6.124 min Scan# 849
 Delta R.T. -0.001 min
 Lab File: m160298.d
 Acq: 13 Oct 2019 2:11 pm

Tgt Ion	Ratio	Lower	Upper
141	100		
142	123.0	92.1	152.1
115	47.7	14.0	74.0

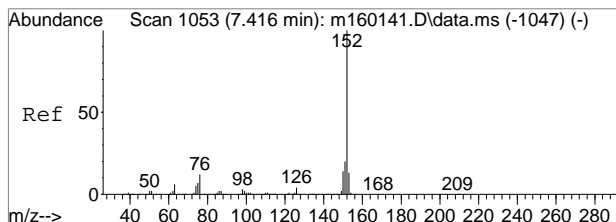
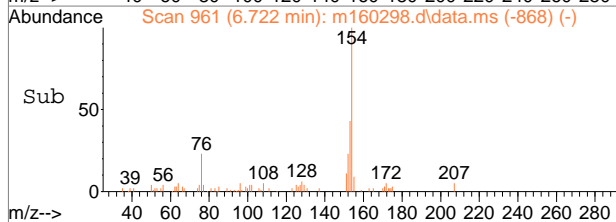
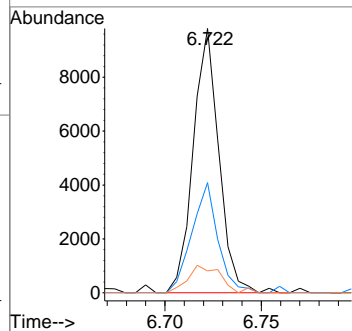
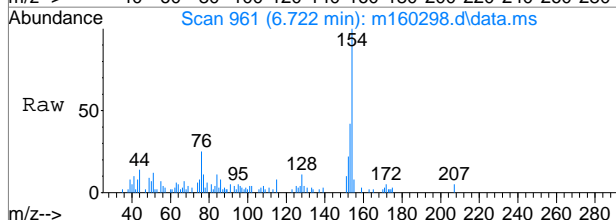


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 9



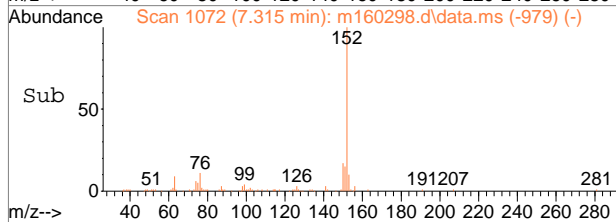
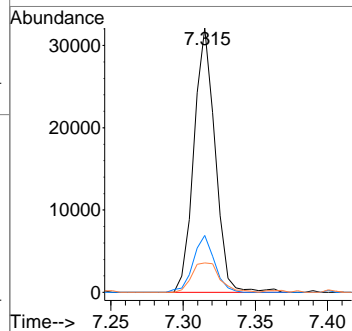
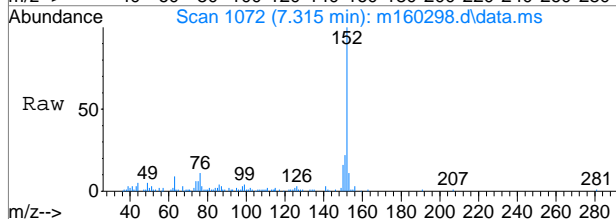
#53
 Biphenyl
 Concen: 0.40 ppm
 RT: 6.722 min Scan# 961
 Delta R.T. -0.001 min
 Lab File: m160298.d
 Acq: 13 Oct 2019 2:11 pm

Tgt Ion	Ratio	Lower	Upper
154	100		
153	41.7	8.4	68.4
155	8.3	0.0	42.8

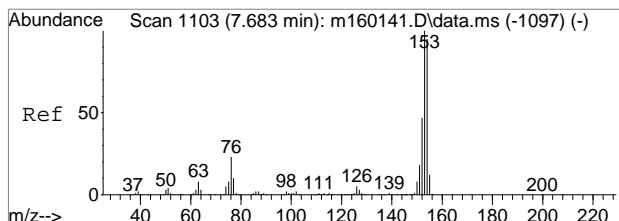


#56
 Acenaphthylene
 Concen: 1.26 ppm
 RT: 7.315 min Scan# 1072
 Delta R.T. -0.001 min
 Lab File: m160298.d
 Acq: 13 Oct 2019 2:11 pm

Tgt Ion	Ratio	Lower	Upper
152	100		
151	21.5	0.0	50.2
153	11.1	0.0	43.4

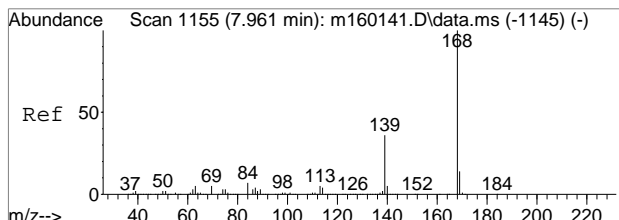
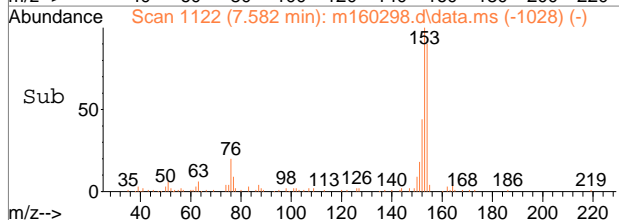
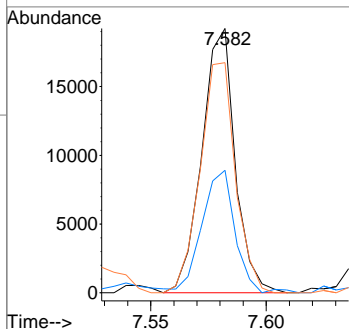
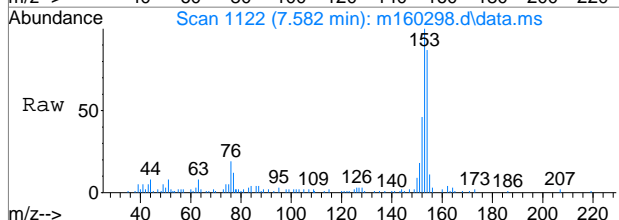


9.12
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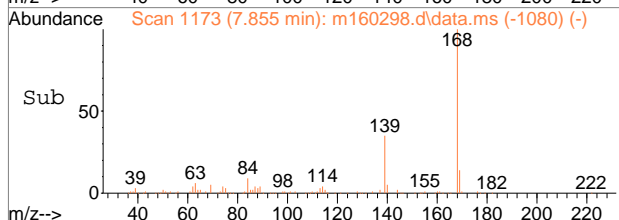
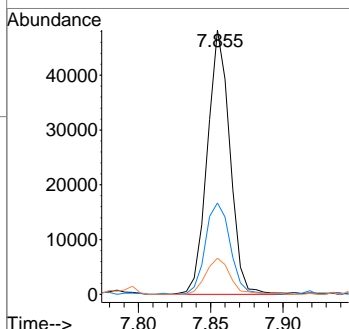
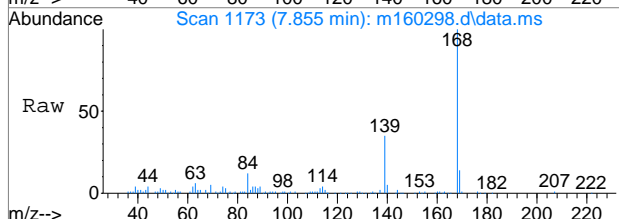
#59
 Acenaphthene
 Concen: 1.22 ppm
 RT: 7.582 min Scan# 1122
 Delta R.T. 0.004 min
 Lab File: m160298.d
 Acq: 13 Oct 2019 2:11 pm

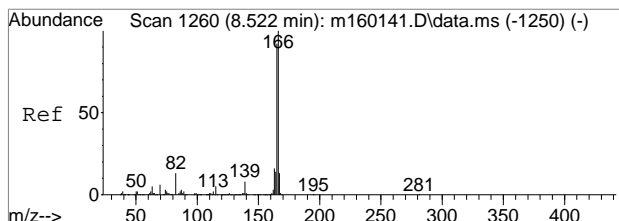
Tgt Ion	Resp	Lower	Upper
153	19266		
152	45.0	18.2	78.2
154	87.1	65.3	125.3



#62
 Dibenzofuran
 Concen: 2.09 ppm
 RT: 7.855 min Scan# 1173
 Delta R.T. -0.001 min
 Lab File: m160298.d
 Acq: 13 Oct 2019 2:11 pm

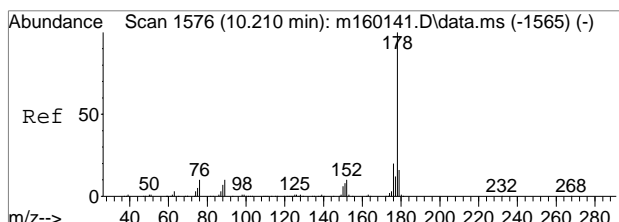
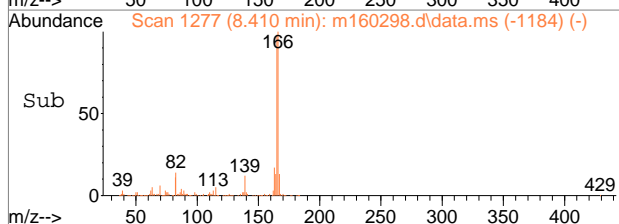
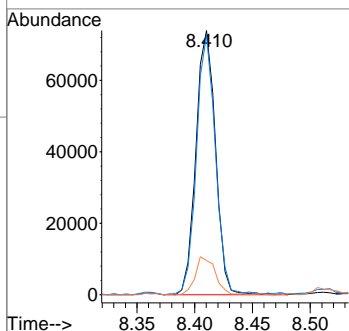
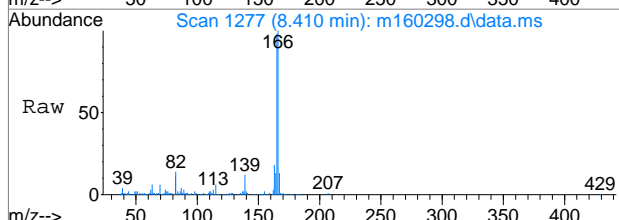
Tgt Ion	Resp	Lower	Upper
168	52225		
139	34.4	4.6	64.6
169	13.7	0.0	43.0





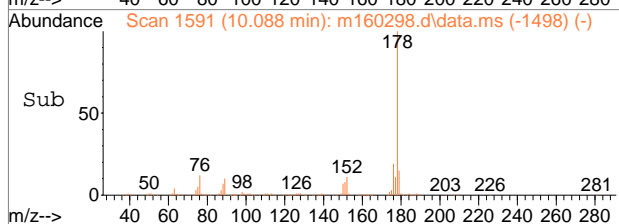
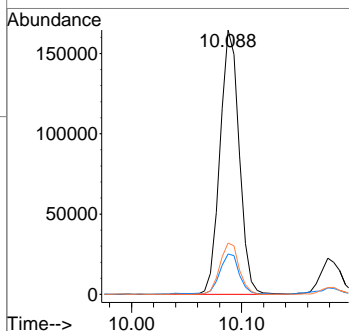
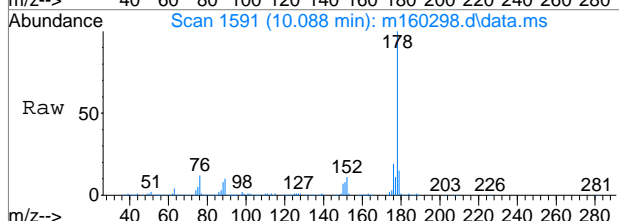
#66
 Fluorene
 Concen: 4.40 ppm
 RT: 8.410 min Scan# 1277
 Delta R.T. -0.001 min
 Lab File: m160298.d
 Acq: 13 Oct 2019 2:11 pm

Tgt Ion	Ratio	Lower	Upper
166	100		
165	98.0	59.8	119.8
167	12.7	0.0	42.8

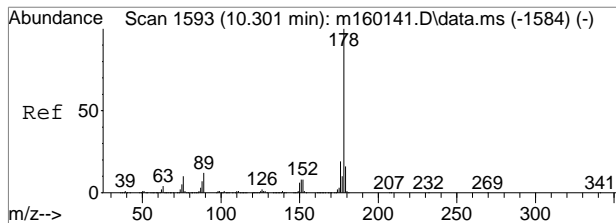


#77
 Phenanthrene
 Concen: 8.04 ppm
 RT: 10.088 min Scan# 1591
 Delta R.T. -0.001 min
 Lab File: m160298.d
 Acq: 13 Oct 2019 2:11 pm

Tgt Ion	Ratio	Lower	Upper
178	100		
179	15.2	0.0	45.8
176	19.4	0.0	49.0

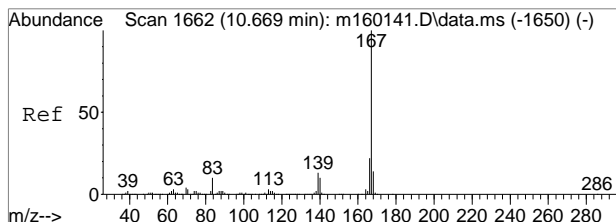
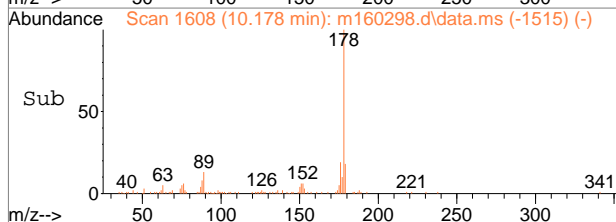
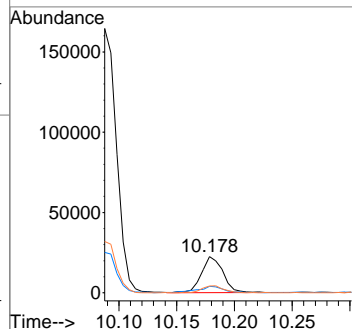
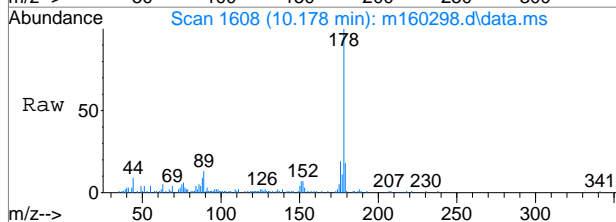


9.12
 9



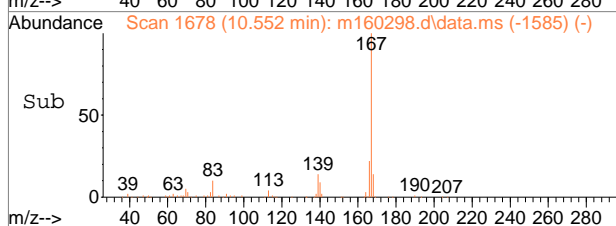
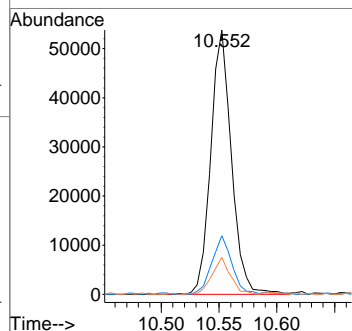
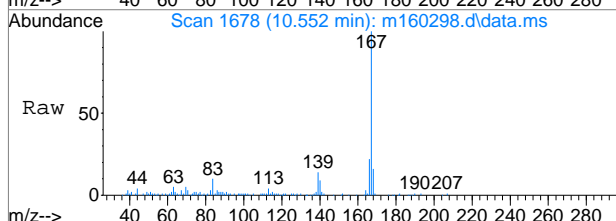
#78
 Anthracene
 Concen: 1.12 ppm
 RT: 10.178 min Scan# 1608
 Delta R.T. -0.001 min
 Lab File: m160298.d
 Acq: 13 Oct 2019 2:11 pm

Tgt Ion	Ratio	Lower	Upper
178	100		
179	17.3	0.0	45.5
176	18.7	0.0	48.1



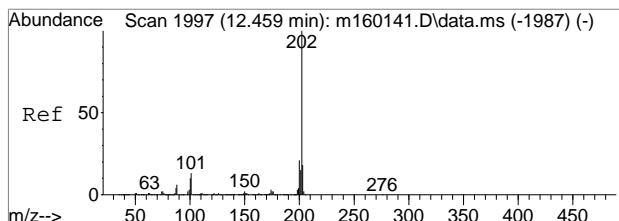
#79
 Carbazole
 Concen: 2.33 ppm
 RT: 10.552 min Scan# 1678
 Delta R.T. -0.001 min
 Lab File: m160298.d
 Acq: 13 Oct 2019 2:11 pm

Tgt Ion	Ratio	Lower	Upper
167	100		
166	21.8	0.0	49.5
139	14.1	0.0	42.8



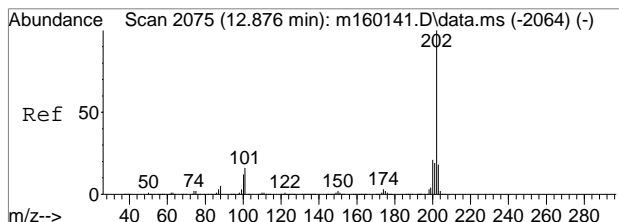
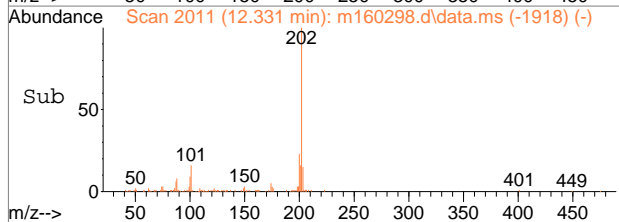
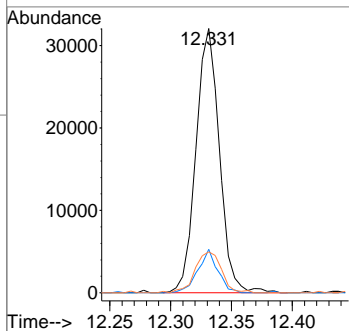
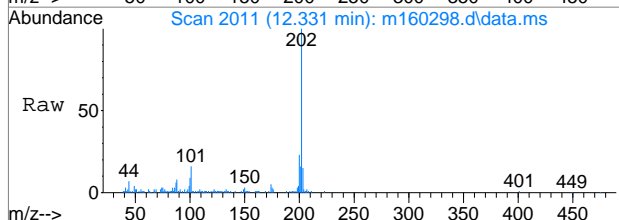
9.12
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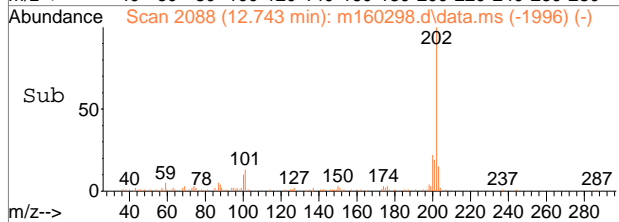
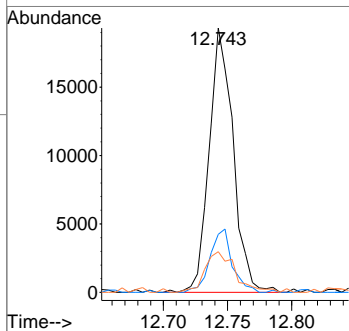
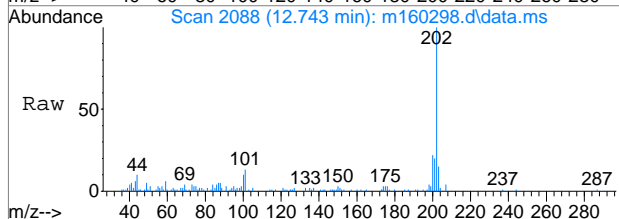
#81
 Fluoranthene
 Concen: 1.28 ppm
 RT: 12.331 min Scan# 2011
 Delta R.T. -0.001 min
 Lab File: m160298.d
 Acq: 13 Oct 2019 2:11 pm

Tgt Ion	Ratio	Lower	Upper
202	100		
101	16.4	0.0	43.5
203	15.2	0.0	48.3



#84
 Pyrene
 Concen: 0.74 ppm
 RT: 12.743 min Scan# 2088
 Delta R.T. -0.007 min
 Lab File: m160298.d
 Acq: 13 Oct 2019 2:11 pm

Tgt Ion	Ratio	Lower	Upper
202	100		
200	22.0	0.0	50.5
203	13.9	0.0	48.0



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\jonkm\101519\em6783\
 Data File : ml60299.d
 Acq On : 13 Oct 2019 2:39 pm
 Operator : hennys
 Sample : jc96248-3 Inst : MSM
 Misc : op23204,em6783,1050,,,1,1
 ALS Vial : 13 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MM6777.M
 Quant Results File: MM6777.RES
 Quant Time: Oct 15 00:31:27 2019
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 QLast Update : Mon Oct 14 23:42:52 2019
 Response via : Initial Calibration

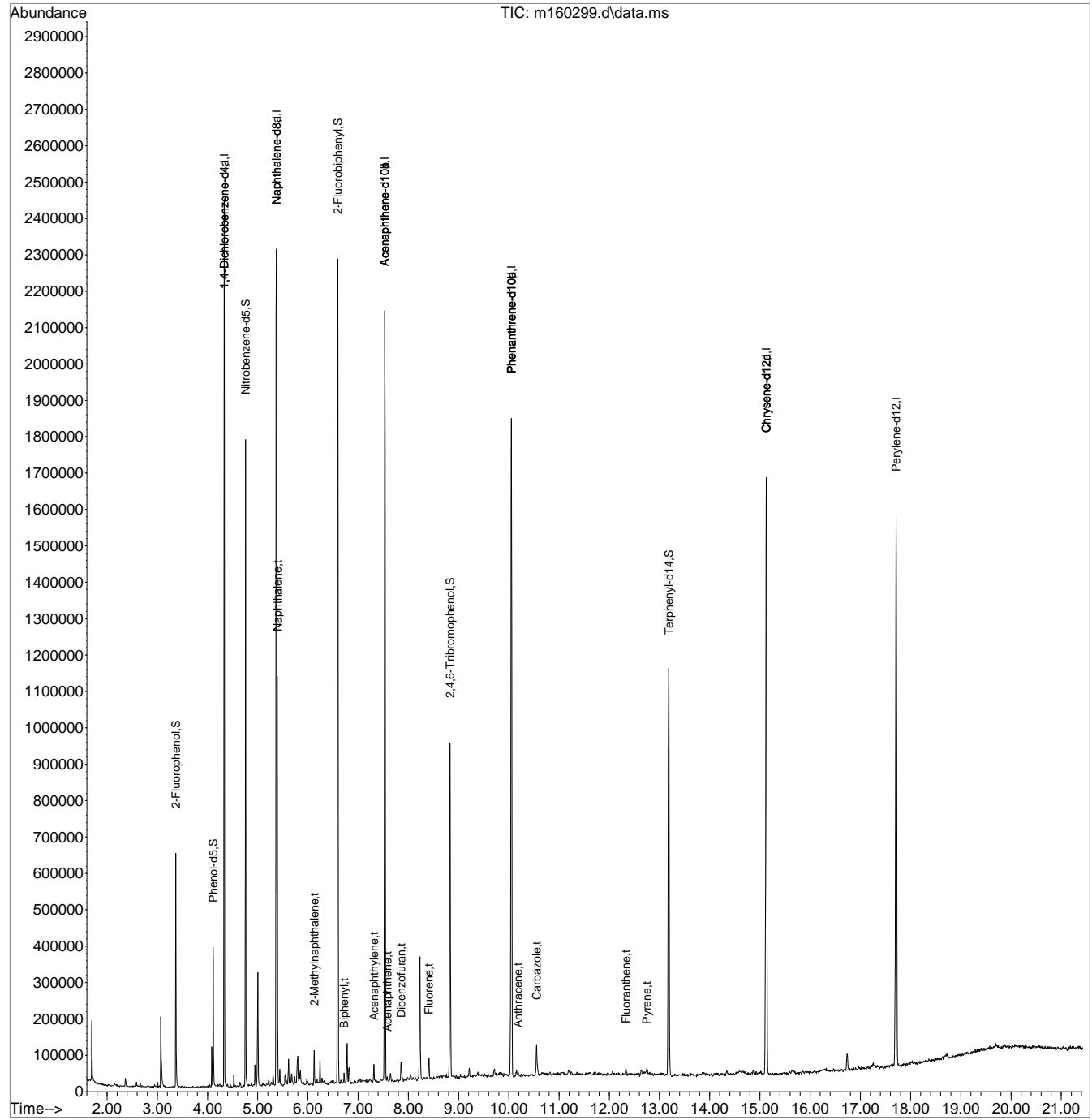
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.331	152	267341	40.00	ppm	0.00
24) Naphthalene-d8	5.372	136	871085	40.00	ppm	0.00
47) Acenaphthene-d10	7.531	164	513895	40.00	ppm	0.00
69) Phenanthrene-d10	10.052	188	891993	40.00	ppm	0.00
83) Chrysene-d12	15.127	240	810197	40.00	ppm	0.00
91) Perylene-d12	17.713	264	900023	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.331	152	267341	40.00	ppm	0.00
103) Acenaphthene-d10a	7.531	164	513895	40.00	ppm	0.00
105) Acenaphthene-d10b	7.531	164	513895	40.00	ppm	0.00
107) Chrysene-d12a	15.127	240	810197	40.00	ppm	0.00
110) Phenanthrene-d10a	10.052	188	891993	40.00	ppm	0.00
112) Phenanthrene-d10b	10.052	188	891993	40.00	ppm	0.00
114) Naphthalene-d8a	5.372	136	871085	40.00	ppm	0.00
116) Chrysene-d12c	15.127	240	810197	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	3.369	112	131001	11.15	ppm	0.00
Spiked Amount 50.000			Recovery =	22.30%		
8) Phenol-d5	4.112	99	102138	7.56	ppm	0.00
Spiked Amount 50.000			Recovery =	15.12%		
25) Nitrobenzene-d5	4.758	82	409948	36.58	ppm	0.00
Spiked Amount 50.000			Recovery =	73.16%		
51) 2-Fluorobiphenyl	6.596	172	710150	39.82	ppm	0.00
Spiked Amount 50.000			Recovery =	79.64%		
73) 2,4,6-Tribromophenol	8.829	330	133356	38.00	ppm	0.00
Spiked Amount 50.000			Recovery =	76.00%		
85) Terphenyl-d14	13.188	244	551117	24.99	ppm	0.00
Spiked Amount 50.000			Recovery =	49.98%		
109) 1-chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
113) o-terphenyl	0.000	230	0	0.00	ppm	
Target Compounds						
38) Naphthalene	5.388	128	388408	16.24	ppm	99
44) 2-Methylnaphthalene	6.126	141	18849	1.25	ppm	90
53) Biphenyl	6.719	154	8331	0.37	ppm	96
56) Acenaphthylene	7.317	152	19899	0.76	ppm	96
59) Acenaphthene	7.579	153	3236	0.20	ppm	92
62) Dibenzofuran	7.857	168	22382	0.89	ppm	98
66) Fluorene	8.407	166	20002	1.00	ppm	86
78) Anthracene	10.180	178	7231	0.28	ppm	76
79) Carbazole	10.554	167	46766	1.63	ppm	95
81) Fluoranthene	12.328	202	8917	0.26	ppm	97
84) Pyrene	12.745	202	6472	0.19	ppm	92

(#) = qualifier out of range (m) = manual integration (+) = signals summed

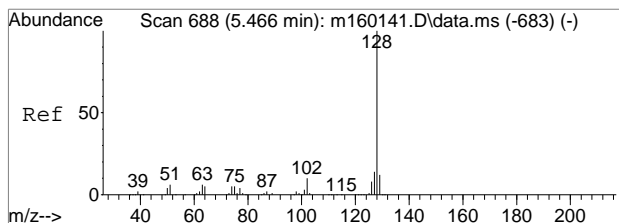
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\jonkm\101519\em6783\
Data File : m160299.d
Acq On : 13 Oct 2019 2:39 pm
Operator : hennys
Sample : jc96248-3 Inst : MSM
Misc : op23204,em6783,1050,,,1,1
ALS Vial : 13 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MM6777.M
Quant Results File: MM6777.RES
Quant Time: Oct 15 00:31:27 2019
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Mon Oct 14 23:42:52 2019
Response via : Initial Calibration

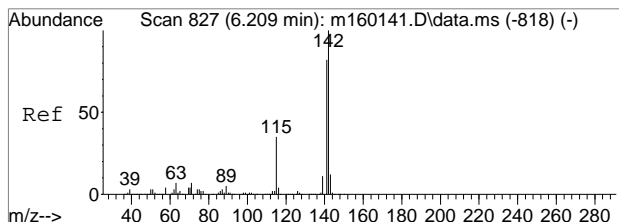
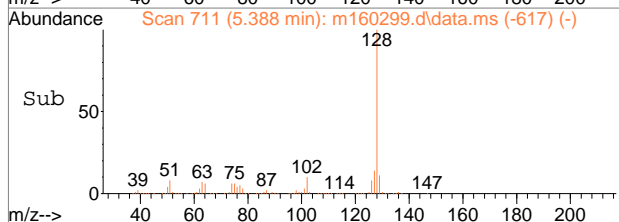
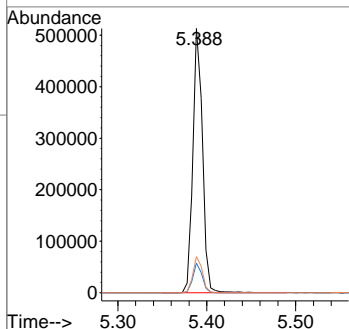
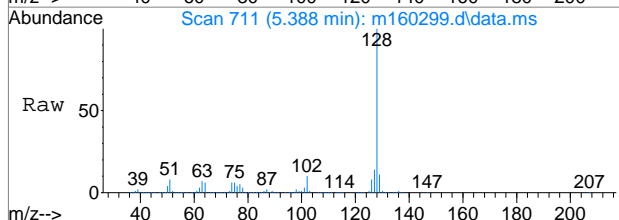


9.1.3
9



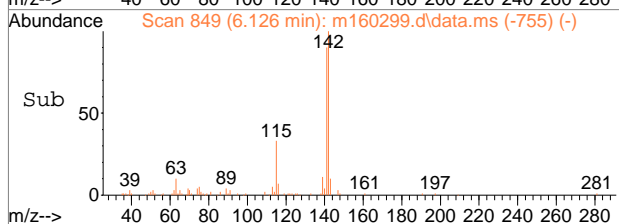
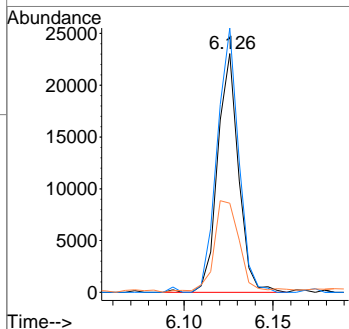
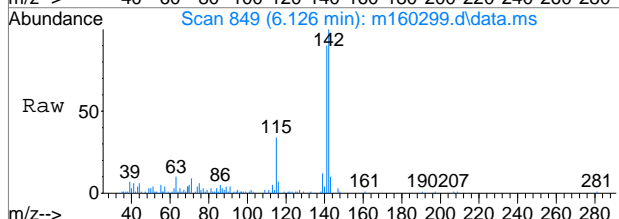
#38
 Naphthalene
 Concen: 16.24 ppm
 RT: 5.388 min Scan# 711
 Delta R.T. 0.001 min
 Lab File: m160299.d
 Acq: 13 Oct 2019 2:39 pm

Tgt Ion	Resp	Lower	Upper
128	388408		
128	100		
129	11.3	0.0	41.5
127	13.8	0.0	43.2

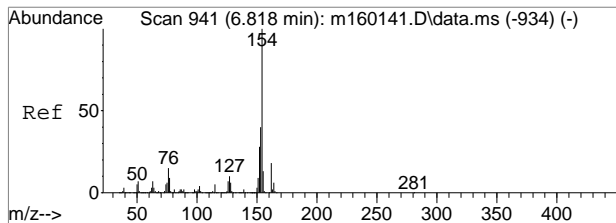


#44
 2-Methylnaphthalene
 Concen: 1.25 ppm
 RT: 6.126 min Scan# 849
 Delta R.T. 0.001 min
 Lab File: m160299.d
 Acq: 13 Oct 2019 2:39 pm

Tgt Ion	Resp	Lower	Upper
141	18849		
141	100		
142	110.8	92.1	152.1
115	36.7	14.0	74.0

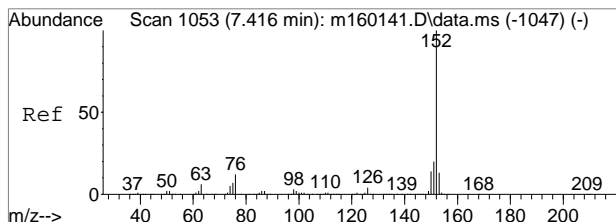
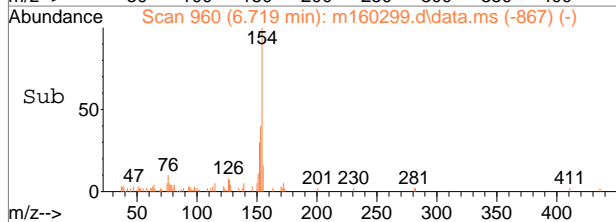
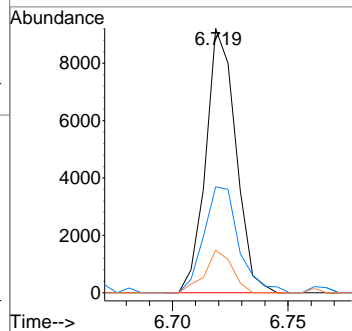
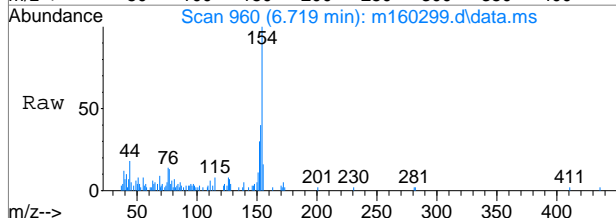


9.1.3
9



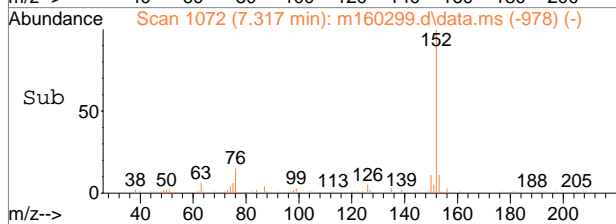
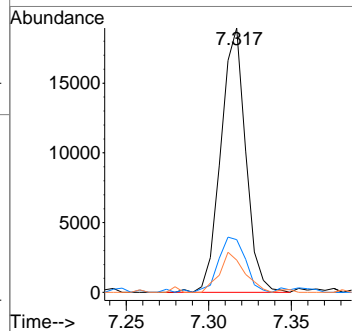
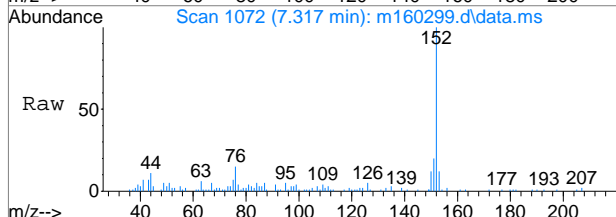
#53
 Biphenyl
 Concen: 0.37 ppm
 RT: 6.719 min Scan# 960
 Delta R.T. -0.005 min
 Lab File: m160299.d
 Acq: 13 Oct 2019 2:39 pm

Tgt Ion	Ratio	Lower	Upper
154	100		
153	40.0	8.4	68.4
155	16.1	0.0	42.8

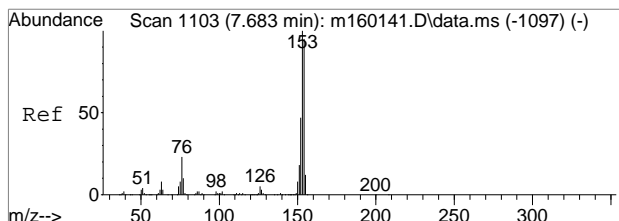


#56
 Acenaphthylene
 Concen: 0.76 ppm
 RT: 7.317 min Scan# 1072
 Delta R.T. 0.001 min
 Lab File: m160299.d
 Acq: 13 Oct 2019 2:39 pm

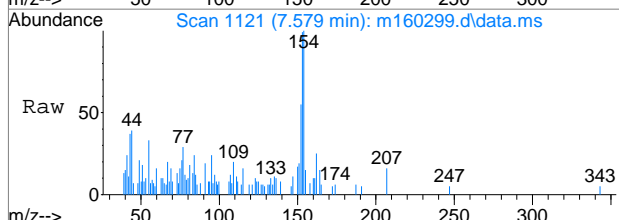
Tgt Ion	Ratio	Lower	Upper
152	100		
151	18.8	0.0	50.2
153	11.7	0.0	43.4



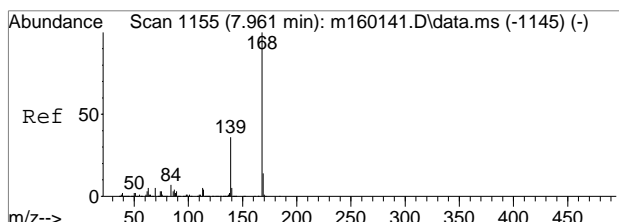
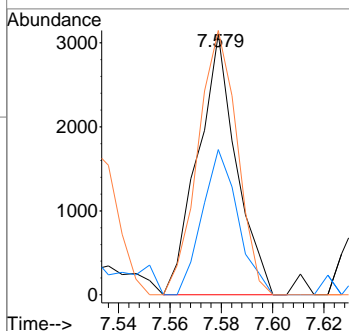
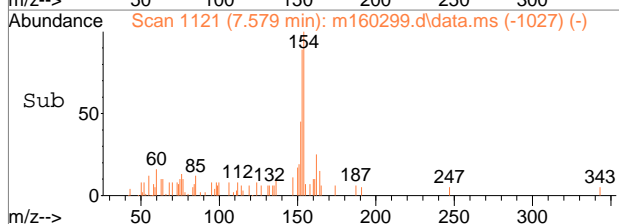
9.13
9



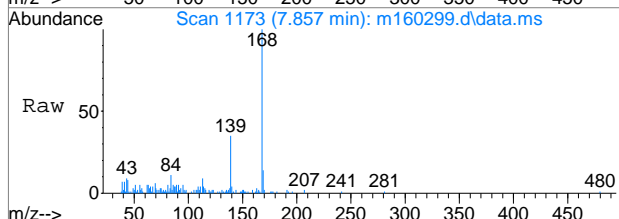
#59
 Acenaphthene
 Concen: 0.20 ppm
 RT: 7.579 min Scan# 1121
 Delta R.T. 0.001 min
 Lab File: m160299.d
 Acq: 13 Oct 2019 2:39 pm



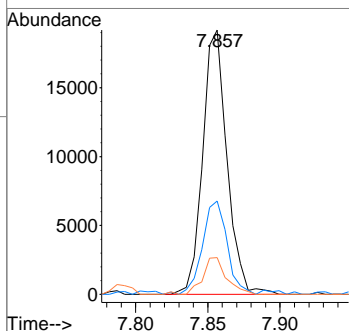
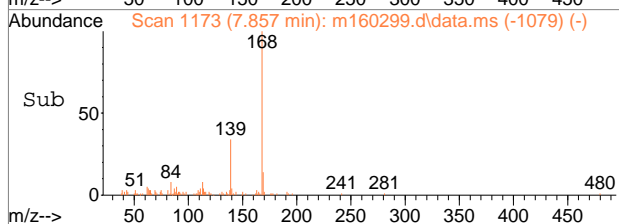
Tgt Ion	Resp	Lower	Upper
153	3236		
153	100		
152	55.7	18.2	78.2
154	101.4	65.3	125.3



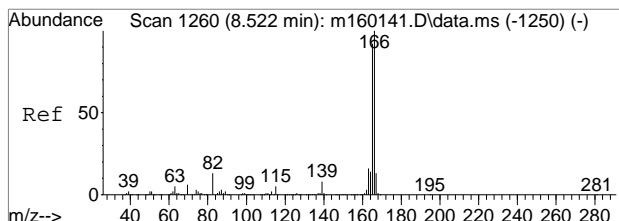
#62
 Dibenzofuran
 Concen: 0.89 ppm
 RT: 7.857 min Scan# 1173
 Delta R.T. 0.001 min
 Lab File: m160299.d
 Acq: 13 Oct 2019 2:39 pm



Tgt Ion	Resp	Lower	Upper
168	22382		
168	100		
139	35.3	4.6	64.6
169	13.9	0.0	43.0

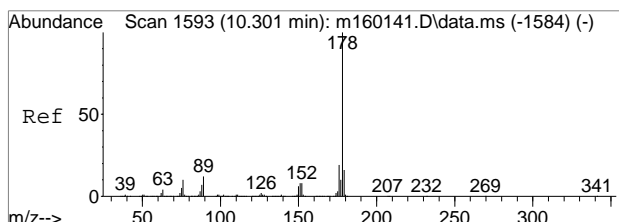
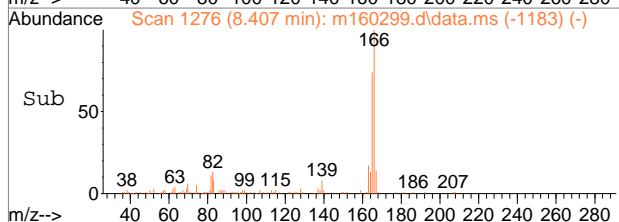
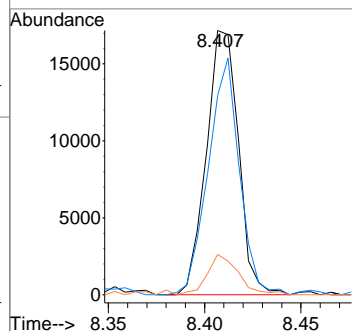
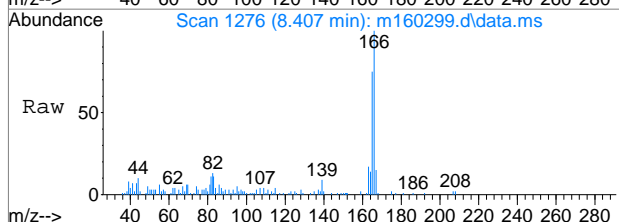


9.13
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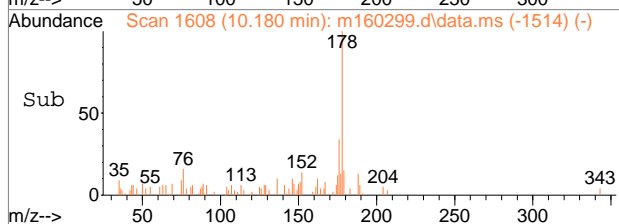
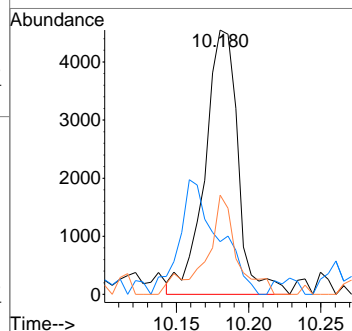
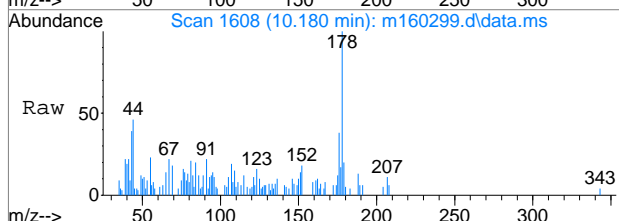
#66
 Fluorene
 Concen: 1.00 ppm
 RT: 8.407 min Scan# 1276
 Delta R.T. -0.005 min
 Lab File: m160299.d
 Acq: 13 Oct 2019 2:39 pm

Tgt Ion	Ratio	Lower	Upper
166	100		
165	75.4	59.8	119.8
167	14.3	0.0	42.8

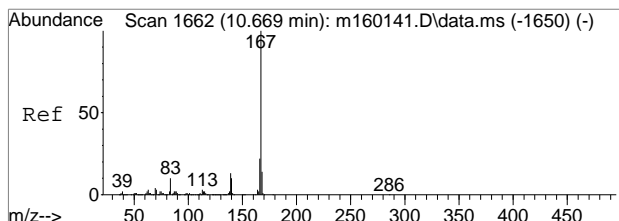


#78
 Anthracene
 Concen: 0.28 ppm
 RT: 10.180 min Scan# 1608
 Delta R.T. 0.001 min
 Lab File: m160299.d
 Acq: 13 Oct 2019 2:39 pm

Tgt Ion	Ratio	Lower	Upper
178	100		
179	13.7	0.0	45.5
176	36.3	0.0	48.1

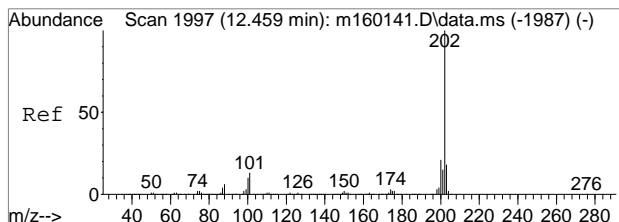
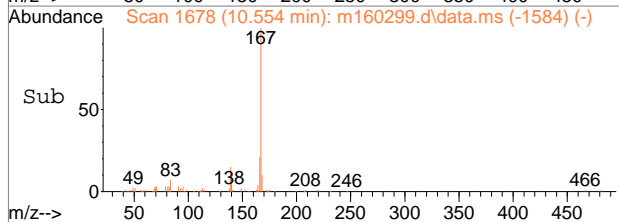
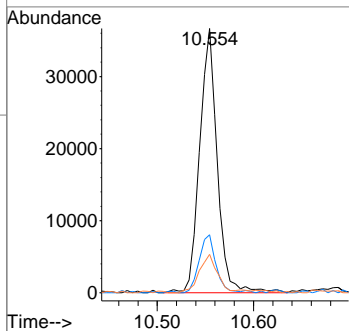
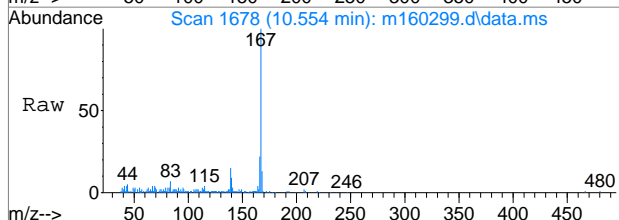


9.1.3
 9



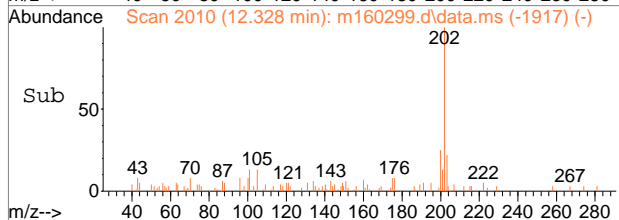
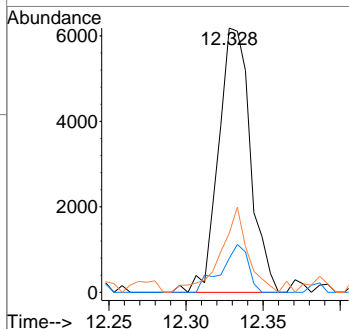
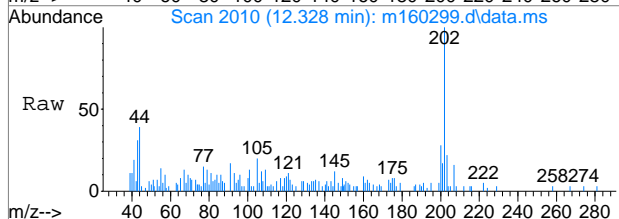
#79
 Carbazole
 Concen: 1.63 ppm
 RT: 10.554 min Scan# 1678
 Delta R.T. 0.001 min
 Lab File: m160299.d
 Acq: 13 Oct 2019 2:39 pm

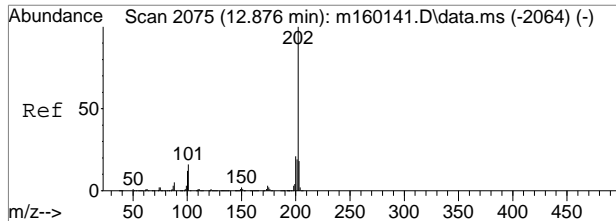
Tgt Ion	Resp	Lower	Upper
167	46766		
166	22.0	0.0	49.5
139	14.0	0.0	42.8



#81
 Fluoranthene
 Concen: 0.26 ppm
 RT: 12.328 min Scan# 2010
 Delta R.T. -0.005 min
 Lab File: m160299.d
 Acq: 13 Oct 2019 2:39 pm

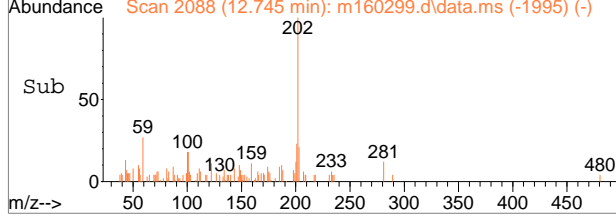
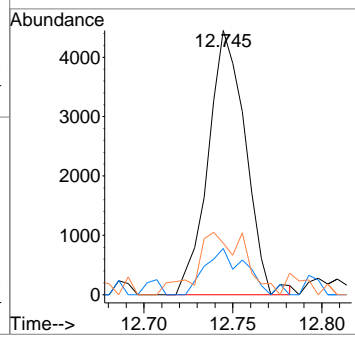
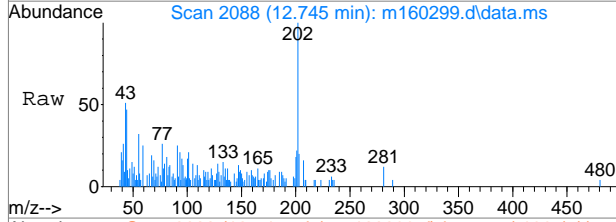
Tgt Ion	Resp	Lower	Upper
202	8917		
101	12.8	0.0	43.5
203	20.3	0.0	48.3





#84
 Pyrene
 Concen: 0.19 ppm
 RT: 12.745 min Scan# 2088
 Delta R.T. -0.005 min
 Lab File: m160299.d
 Acq: 13 Oct 2019 2:39 pm

Tgt Ion	Ratio	Lower	Upper
202	100		
200	17.9	0.0	50.5
203	13.4	0.0	48.0



9.1.3
 9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\jeryllr\em6781\
 Data File : ml60249.d
 Acq On : 11 Oct 2019 7:47 pm
 Operator : hennys
 Sample : jc96248-4 Inst : MSM
 Misc : op23230,em6781,1000,,,1,1
 ALS Vial : 20 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MM6777.M
 Quant Results File: MM6777.RES
 Quant Time: Oct 14 05:45:29 2019
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 QLast Update : Mon Oct 14 05:00:48 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.361	152	248896	40.00	ppm	0.00
24) Naphthalene-d8	5.413	136	724232	40.00	ppm	0.00
47) Acenaphthene-d10	7.582	164	473725	40.00	ppm	0.00
69) Phenanthrene-d10	10.114	188	784295	40.00	ppm	0.00
83) Chrysene-d12	15.200	240	714755	40.00	ppm	0.00
91) Perylene-d12	17.796	264	817311	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.361	152	248896	40.00	ppm	0.00
103) Acenaphthene-d10a	7.582	164	473725	40.00	ppm	0.00
105) Acenaphthene-d10b	7.582	164	473725	40.00	ppm	0.00
107) Chrysene-d12a	15.200	240	714755	40.00	ppm	0.00
110) Phenanthrene-d10a	10.114	188	784295	40.00	ppm	0.00
112) Phenanthrene-d10b	10.114	188	784295	40.00	ppm	0.00
114) Naphthalene-d8a	5.413	136	724232	40.00	ppm	0.00
116) Chrysene-d12c	15.200	240	714755	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	3.404	112	125806	11.50	ppm	0.00
Spiked Amount 50.000			Recovery =	23.00%		
8) Phenol-d5	4.142	99	109455	8.71	ppm	0.00
Spiked Amount 50.000			Recovery =	17.42%		
25) Nitrobenzene-d5	4.793	82	319161	34.26	ppm	0.00
Spiked Amount 50.000			Recovery =	68.52%		
51) 2-Fluorobiphenyl	6.636	172	527989	32.12	ppm	0.00
Spiked Amount 50.000			Recovery =	64.24%		
73) 2,4,6-Tribromophenol	8.891	330	104922	34.00	ppm	0.00
Spiked Amount 50.000			Recovery =	68.00%		
85) Terphenyl-d14	13.250	244	365672	18.80	ppm	0.00
Spiked Amount 50.000			Recovery =	37.60%		
109) 1-chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
113) o-terphenyl	0.000	230	0	0.00	ppm	
Target Compounds						
9) Phenol	4.152	94	1145516	80.17	ppm	Qvalue 99
18) Acetophenone	4.681	105	29062	2.15	ppm	78
19) 2-Methylphenol	4.590	108	1111910	136.92	ppm	96
21) 3&4-Methylphenol	4.713	108	1433643	165.21	ppm	# 75
30) 2,4-Dimethylphenol	5.141	107	1391026	202.33	ppm	99
38) Naphthalene	5.450	128	11699244	588.19	ppm	87
44) 2-Methylnaphthalene	6.172	141	1223662	97.84	ppm	98
53) Biphenyl	6.765	154	431651	20.69	ppm	98
56) Acenaphthylene	7.368	152	1933828	80.17	ppm	99
59) Acenaphthene	7.635	153	1277509	87.68	ppm	98
62) Dibenzofuran	7.913	168	1485407	64.21	ppm	96
66) Fluorene	8.474	166	1381495	75.23	ppm	98
77) Phenanthrene	10.168	178	2513245	114.41	ppm	98
78) Anthracene	10.248	178	369083	16.15	ppm	99
79) Carbazole	10.648	167	3485334	138.20	ppm	98
81) Fluoranthene	12.401	202	679075	22.93	ppm	98
84) Pyrene	12.817	202	461114	15.53	ppm	99
87) Benzo[a]anthracene	15.178	228	97438	3.64	ppm	94
89) Chrysene	15.243	228	71463	3.21	ppm	97
93) Benzo[b]fluoranthene	17.150	252	81396	2.90	ppm	97
94) Benzo[k]fluoranthene	17.192	252	32536	1.30	ppm	90
95) Benzo[a]pyrene	17.684	252	63389	2.56	ppm	98
96) Indeno[1,2,3-cd]pyrene	19.404	276	34381	1.42	ppm	98

9.14
9



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\jeryllr\em6781\
 Data File : ml60249.d
 Acq On : 11 Oct 2019 7:47 pm
 Operator : hennys
 Sample : jc96248-4 Inst : MSM
 Misc : op23230,em6781,1000,,,1,1
 ALS Vial : 20 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MM6777.M
 Quant Results File: MM6777.RES
 Quant Time: Oct 14 05:45:29 2019
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 QLast Update : Mon Oct 14 05:00:48 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
98) Dibenz[a,h]anthracene	19.442	278	10028	0.42	ppm	94
100) Benzo[g,h,i]perylene	19.773	276	33452	1.39	ppm	93

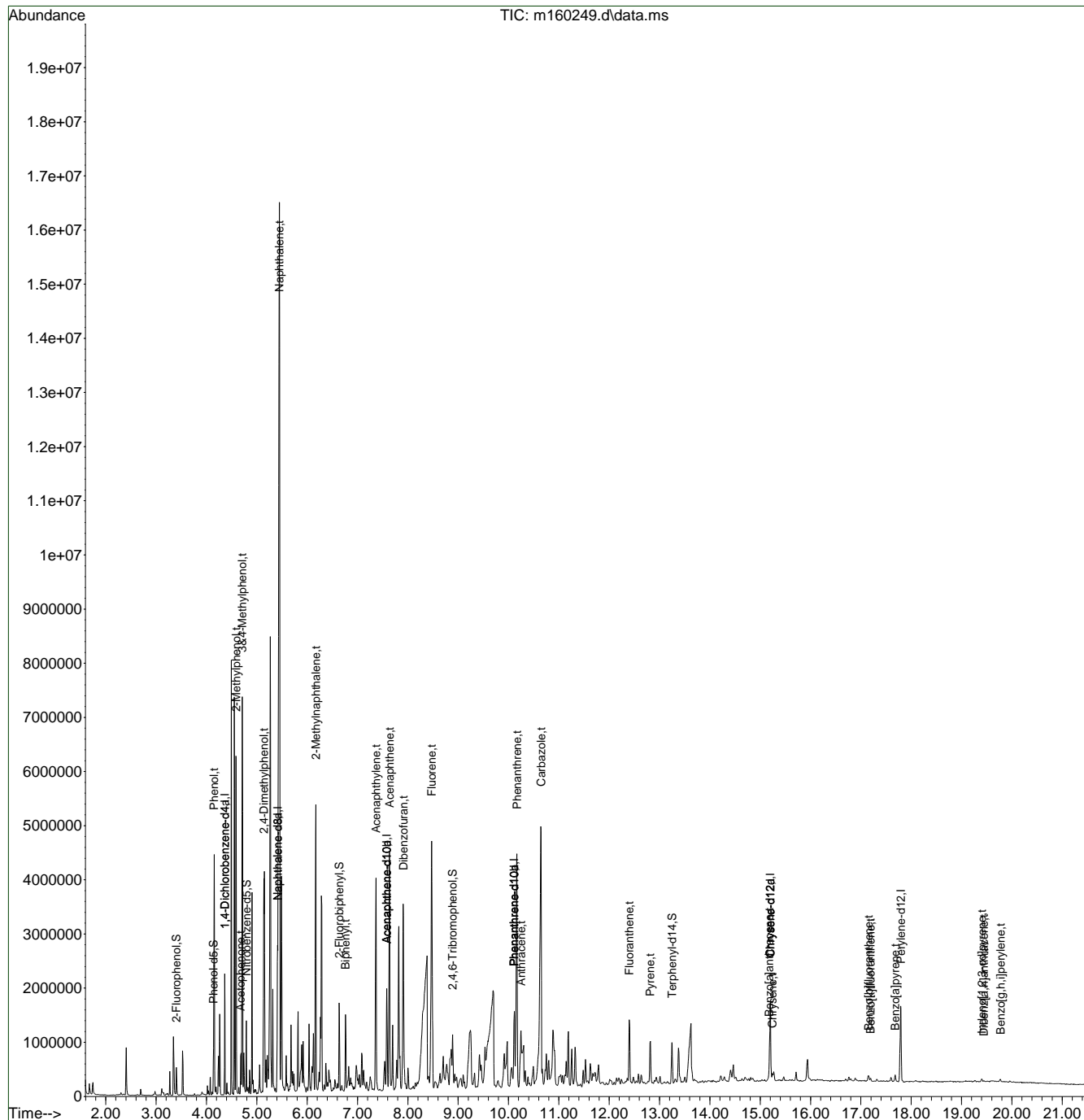
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\jeryllr\em6781\
 Data File : ml60249.d
 Acq On : 11 Oct 2019 7:47 pm
 Operator : hennys
 Sample : jc96248-4
 Misc : op23230,em6781,1000,,,1,1
 ALS Vial : 20 Sample Multiplier: 1

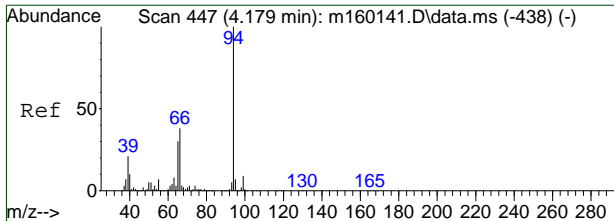
Inst : MSM

Quant Method : C:\MSDCHEM\1\METHODS\MM6777.M
 Quant Results File: MM6777.RES
 Quant Time: Oct 14 05:45:29 2019
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 QLast Update : Mon Oct 14 05:00:48 2019
 Response via : Initial Calibration



9.1.4
9

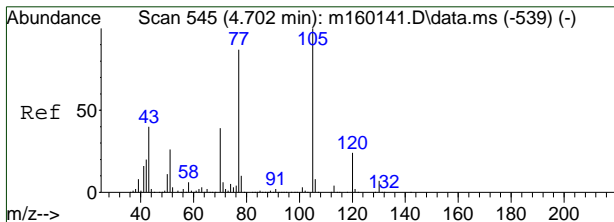
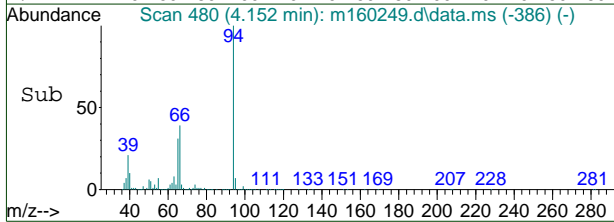
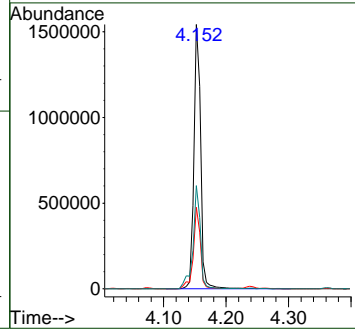
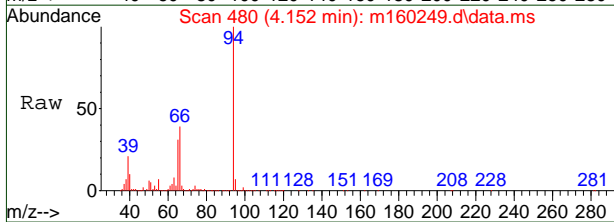




#9
 Phenol
 Concen: 80.17 ppm
 RT: 4.152 min Scan# 480
 Delta R.T. 0.002 min
 Lab File: m160249.d
 Acq: 11 Oct 2019 7:47 pm

Tgt Ion: 94 Resp: 1145516

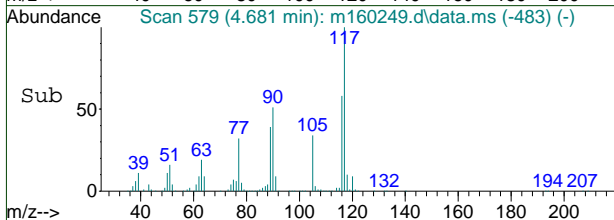
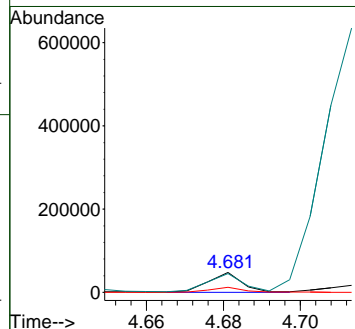
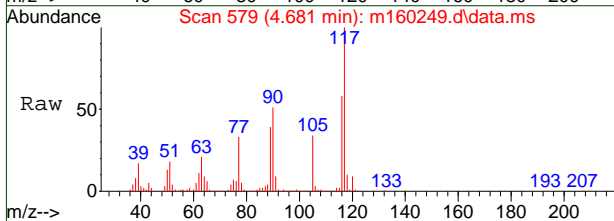
Ion	Ratio	Lower	Upper
94	100		
65	30.8	0.4	60.4
66	39.0	7.9	67.9



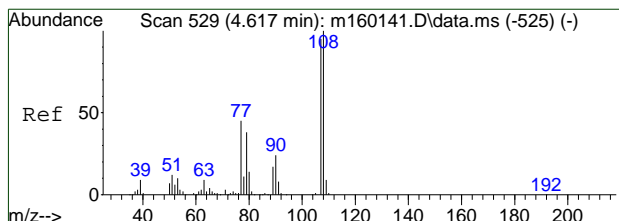
#18
 Acetophenone
 Concen: 2.15 ppm
 RT: 4.681 min Scan# 579
 Delta R.T. 0.013 min
 Lab File: m160249.d
 Acq: 11 Oct 2019 7:47 pm

Tgt Ion: 105 Resp: 29062

Ion	Ratio	Lower	Upper
105	100		
120	23.9	0.0	53.4
77	63.1	59.4	119.4

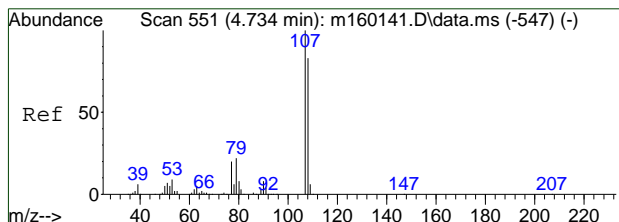
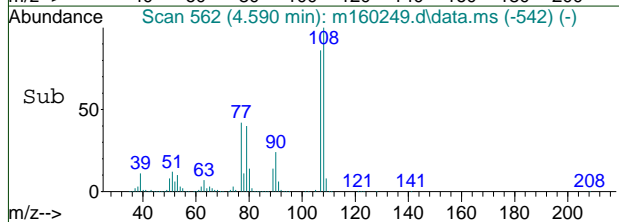
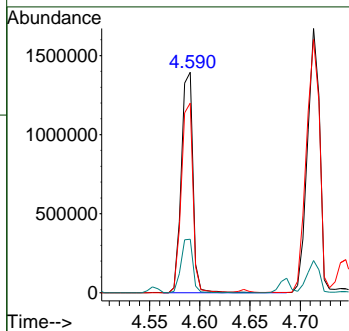
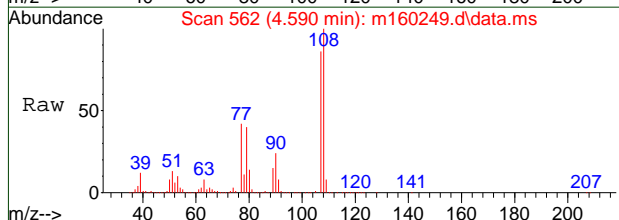


9.14
 9



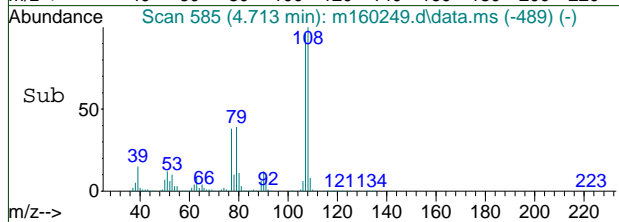
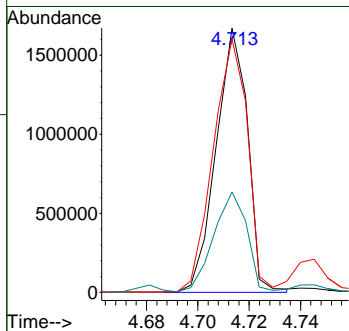
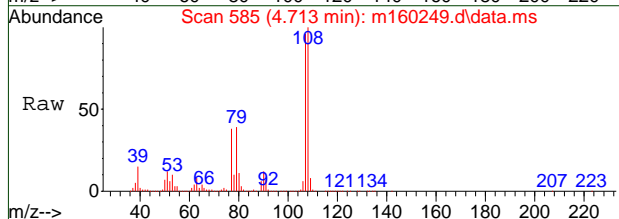
#19
 2-Methylphenol
 Concen: 136.92 ppm
 RT: 4.590 min Scan# 562
 Delta R.T. 0.007 min
 Lab File: m160249.d
 Acq: 11 Oct 2019 7:47 pm

Tgt Ion	Ratio	Lower	Upper
108	100		
107	86.0	59.0	119.0
90	20.9	0.0	54.8

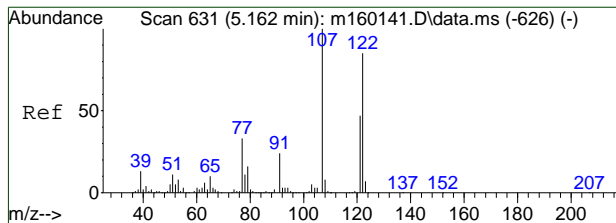


#21
 3&4-Methylphenol
 Concen: 165.21 ppm
 RT: 4.713 min Scan# 585
 Delta R.T. 0.013 min
 Lab File: m160249.d
 Acq: 11 Oct 2019 7:47 pm

Tgt Ion	Ratio	Lower	Upper
108	100		
107	94.3	92.7	152.7
77	37.2	0.0	30.0#

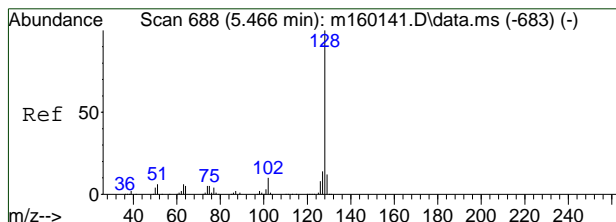
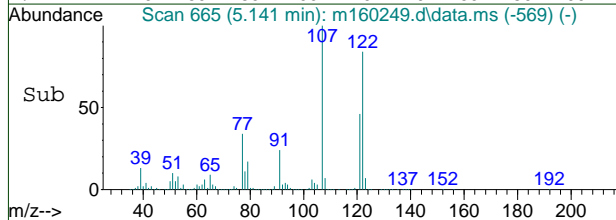
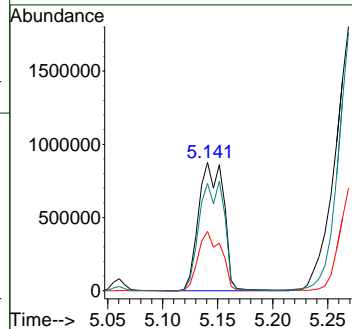
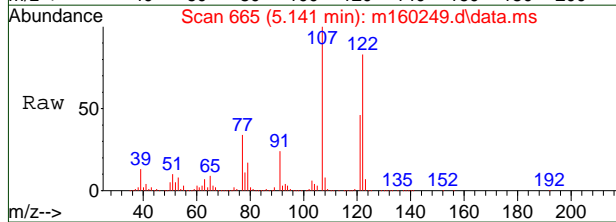


9.1.4
 9



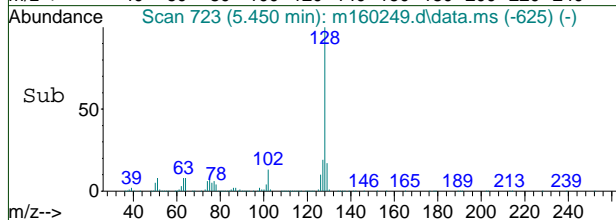
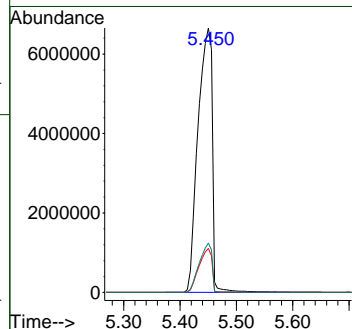
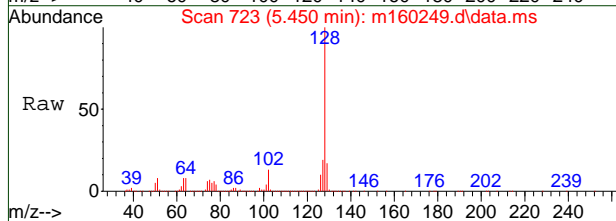
#30
 2,4-Dimethylphenol
 Concen: 202.33 ppm
 RT: 5.141 min Scan# 665
 Delta R.T. 0.013 min
 Lab File: m160249.d
 Acq: 11 Oct 2019 7:47 pm

Tgt Ion	Ratio	Lower	Upper
107	100		
121	46.0	16.7	76.7
122	83.3	52.5	112.5



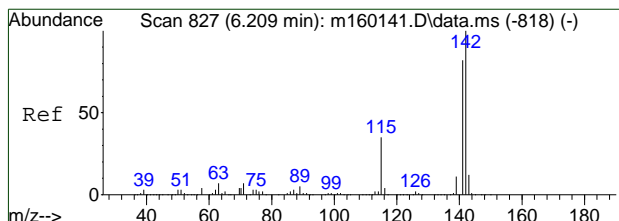
#38
 Naphthalene
 Concen: 588.19 ppm
 RT: 5.450 min Scan# 723
 Delta R.T. 0.023 min
 Lab File: m160249.d
 Acq: 11 Oct 2019 7:47 pm

Tgt Ion	Ratio	Lower	Upper
128	100		
129	16.6	0.0	41.7
127	18.7	0.0	43.4



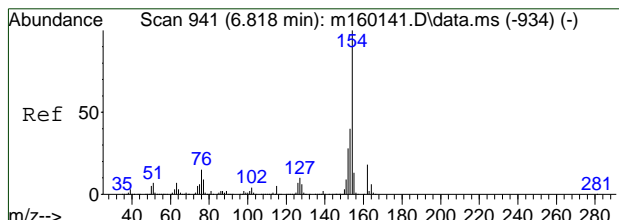
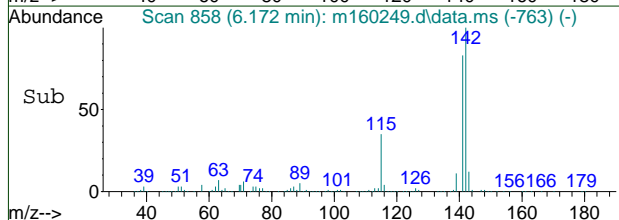
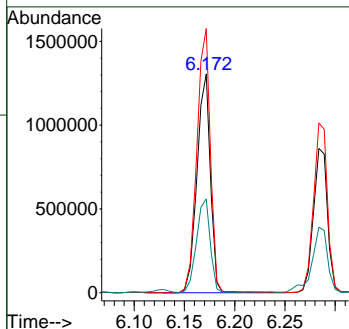
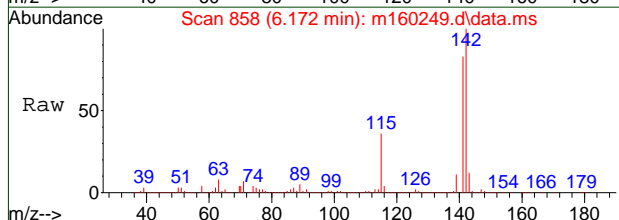
9.14
 9





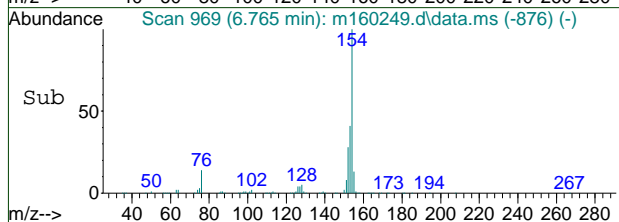
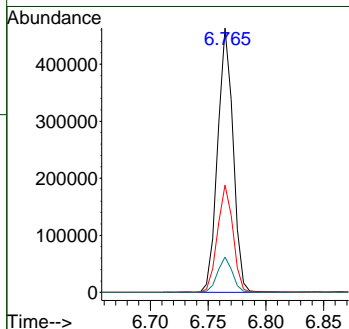
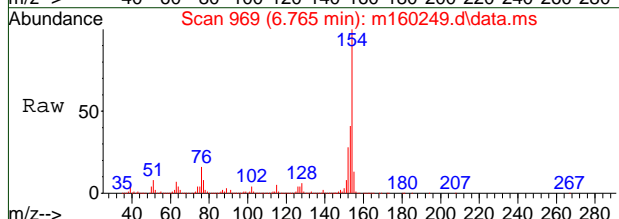
#44
 2-Methylnaphthalene
 Concen: 97.84 ppm
 RT: 6.172 min Scan# 858
 Delta R.T. 0.007 min
 Lab File: m160249.d
 Acq: 11 Oct 2019 7:47 pm

Tgt Ion	Ratio	Lower	Upper
141	100		
142	120.8	91.9	151.9
115	41.9	13.9	73.9

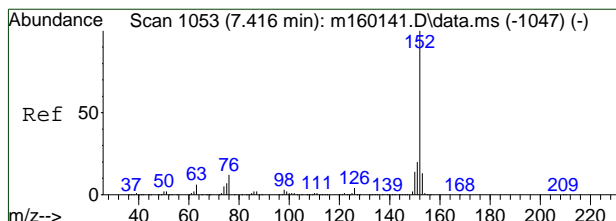


#53
 Biphenyl
 Concen: 20.69 ppm
 RT: 6.765 min Scan# 969
 Delta R.T. -0.003 min
 Lab File: m160249.d
 Acq: 11 Oct 2019 7:47 pm

Tgt Ion	Ratio	Lower	Upper
154	100		
153	40.6	8.9	68.9
155	13.4	0.0	42.9



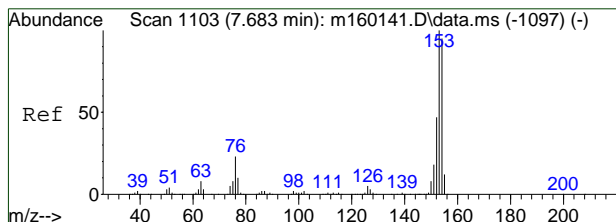
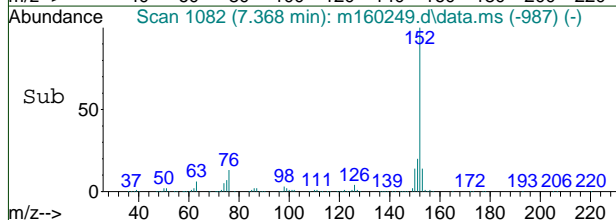
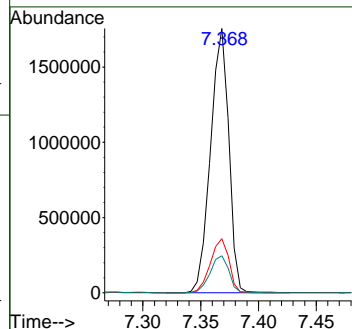
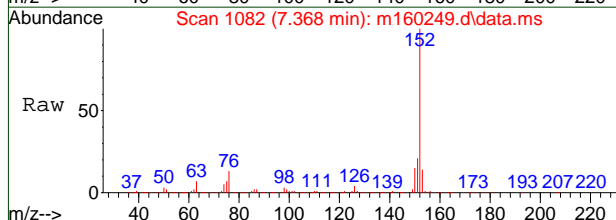
9.14
 9



#56
 Acenaphthylene
 Concen: 80.17 ppm
 RT: 7.368 min Scan# 1082
 Delta R.T. 0.007 min
 Lab File: m160249.d
 Acq: 11 Oct 2019 7:47 pm

Tgt Ion:152 Resp: 1933828

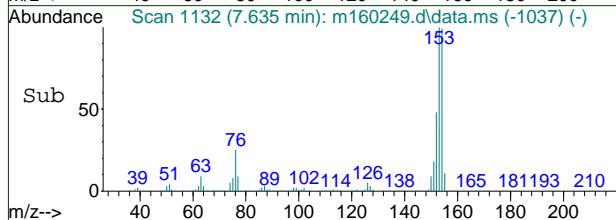
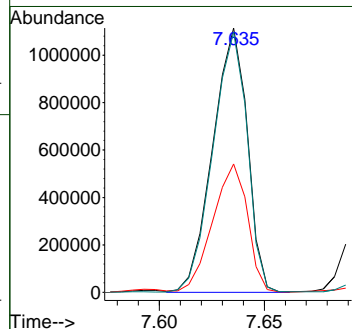
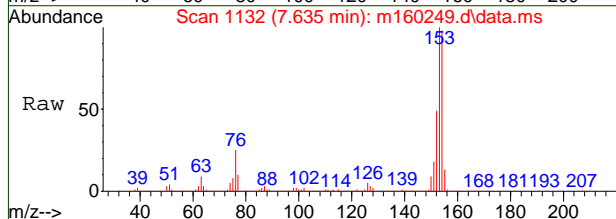
Ion	Ratio	Lower	Upper
152	100		
151	20.5	0.0	51.1
153	14.0	0.0	43.6



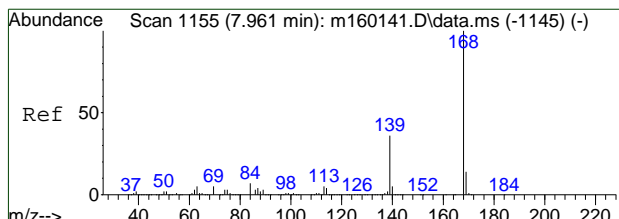
#59
 Acenaphthene
 Concen: 87.68 ppm
 RT: 7.635 min Scan# 1132
 Delta R.T. 0.007 min
 Lab File: m160249.d
 Acq: 11 Oct 2019 7:47 pm

Tgt Ion:153 Resp: 1277509

Ion	Ratio	Lower	Upper
153	100		
152	48.3	17.1	77.1
154	98.5	66.5	126.5



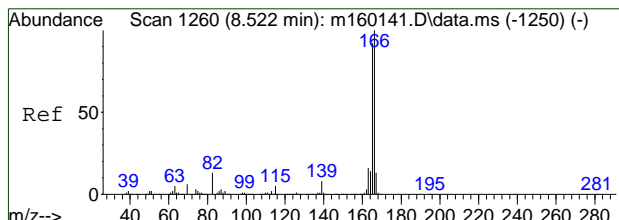
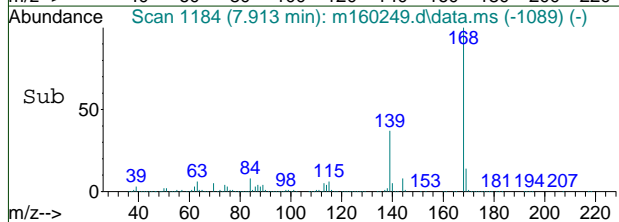
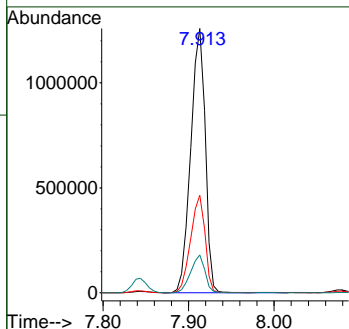
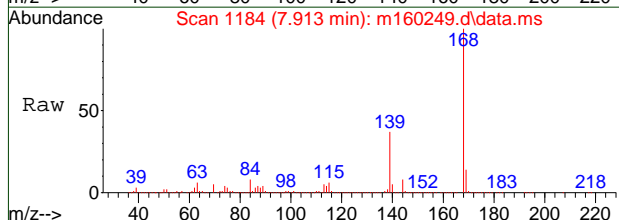
9.14
 9



#62
 Dibenzofuran
 Concen: 64.21 ppm
 RT: 7.913 min Scan# 1184
 Delta R.T. 0.007 min
 Lab File: m160249.d
 Acq: 11 Oct 2019 7:47 pm

Tgt Ion:168 Resp: 1485407

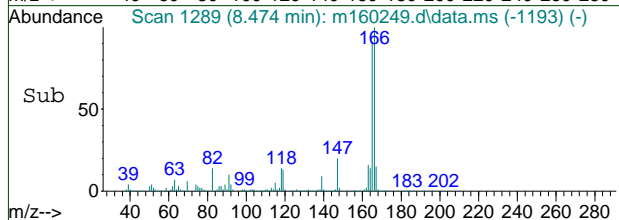
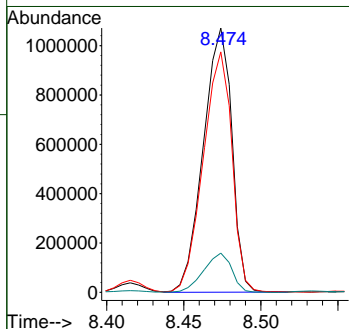
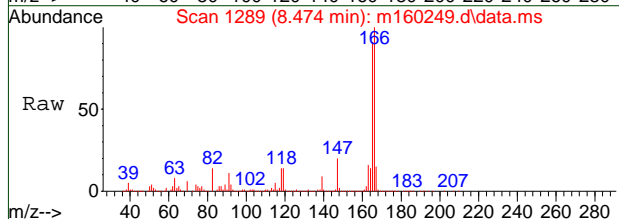
Ion	Ratio	Lower	Upper
168	100		
139	36.8	4.6	64.6
169	14.2	0.0	43.0

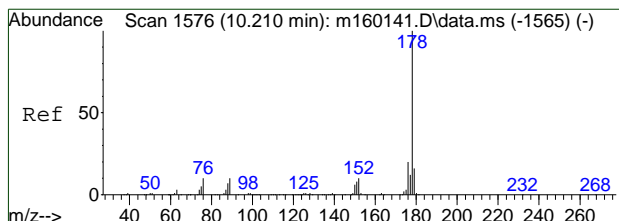


#66
 Fluorene
 Concen: 75.23 ppm
 RT: 8.474 min Scan# 1289
 Delta R.T. 0.013 min
 Lab File: m160249.d
 Acq: 11 Oct 2019 7:47 pm

Tgt Ion:166 Resp: 1381495

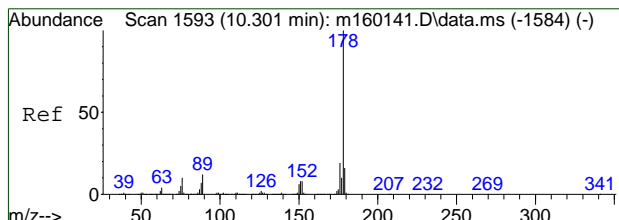
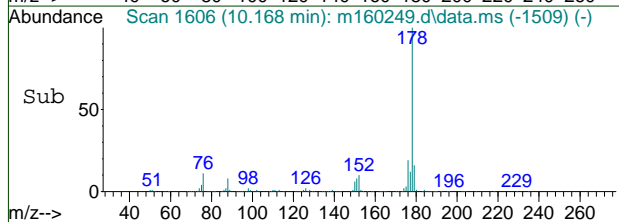
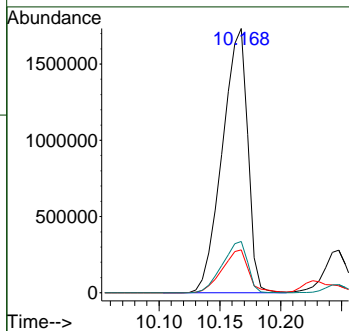
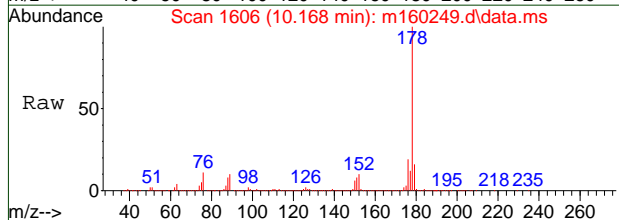
Ion	Ratio	Lower	Upper
166	100		
165	91.0	62.9	122.9
167	14.8	0.0	43.8





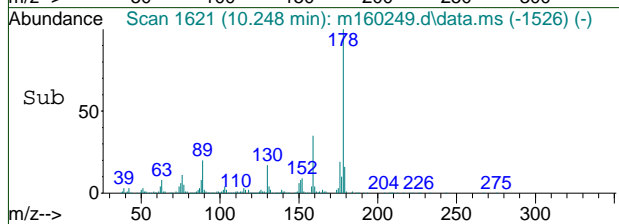
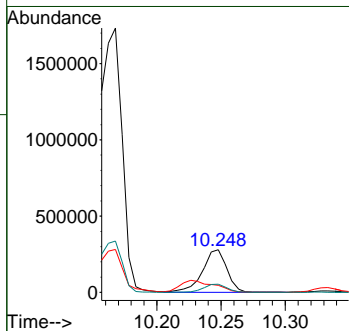
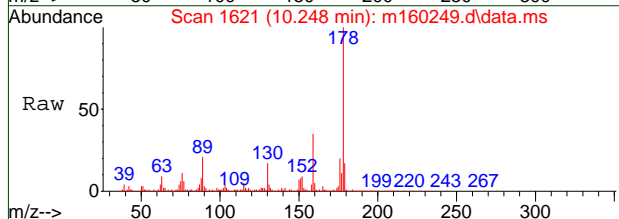
#77
 Phenanthrene
 Concen: 114.41 ppm
 RT: 10.168 min Scan# 1606
 Delta R.T. 0.018 min
 Lab File: m160249.d
 Acq: 11 Oct 2019 7:47 pm

Tgt Ion	Ratio	Lower	Upper
178	100		
179	16.2	0.0	45.2
176	19.4	0.0	50.2

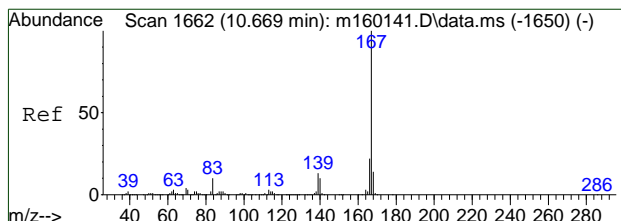


#78
 Anthracene
 Concen: 16.15 ppm
 RT: 10.248 min Scan# 1621
 Delta R.T. 0.007 min
 Lab File: m160249.d
 Acq: 11 Oct 2019 7:47 pm

Tgt Ion	Ratio	Lower	Upper
178	100		
179	16.0	0.0	45.9
176	19.4	0.0	48.8



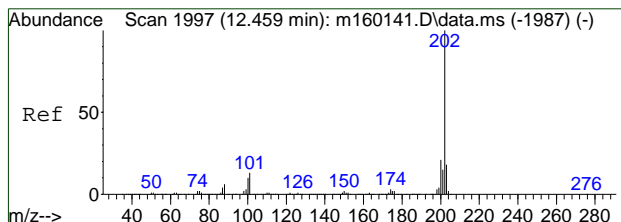
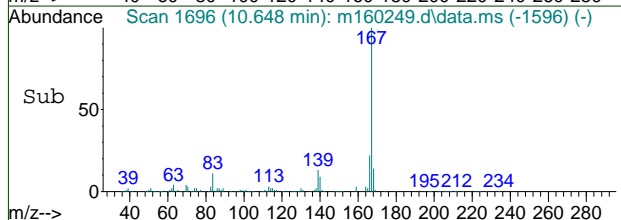
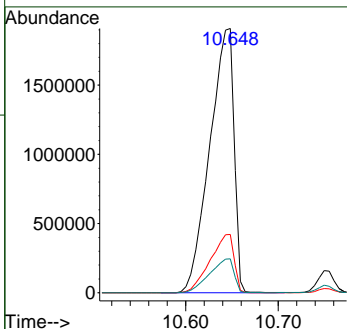
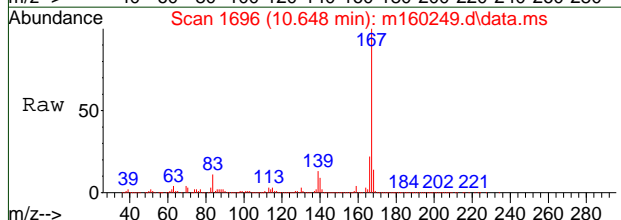
9.14
 9



#79
 Carbazole
 Concen: 138.20 ppm
 RT: 10.648 min Scan# 1696
 Delta R.T. 0.034 min
 Lab File: m160249.d
 Acq: 11 Oct 2019 7:47 pm

Tgt Ion:167 Resp: 3485334

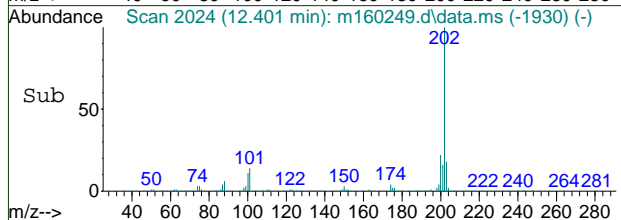
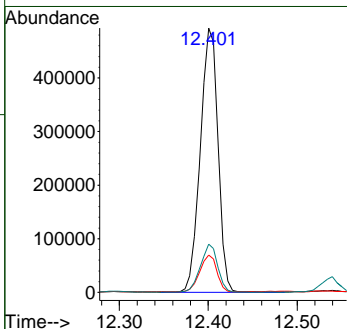
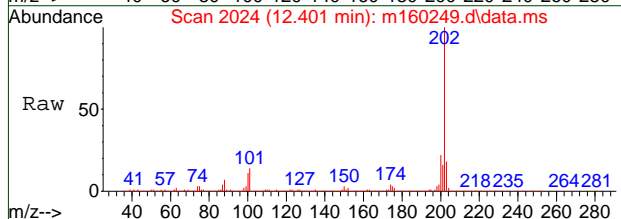
Ion	Ratio	Lower	Upper
167	100		
166	22.1	0.0	50.8
139	12.7	0.0	42.5

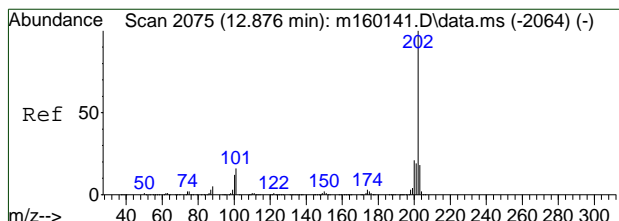


#81
 Fluoranthene
 Concen: 22.93 ppm
 RT: 12.401 min Scan# 2024
 Delta R.T. 0.002 min
 Lab File: m160249.d
 Acq: 11 Oct 2019 7:47 pm

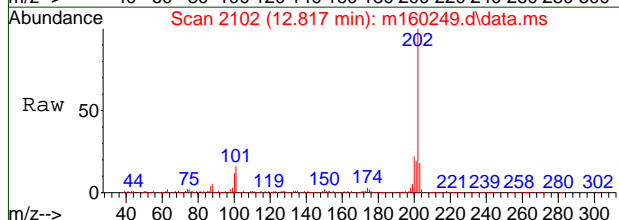
Tgt Ion:202 Resp: 679075

Ion	Ratio	Lower	Upper
202	100		
101	13.8	0.0	42.6
203	18.2	0.0	47.4



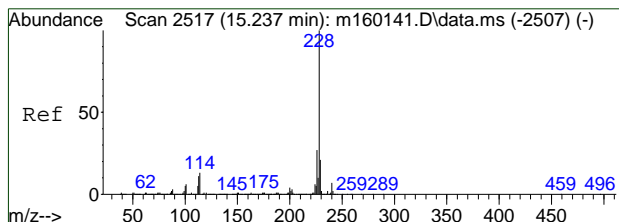
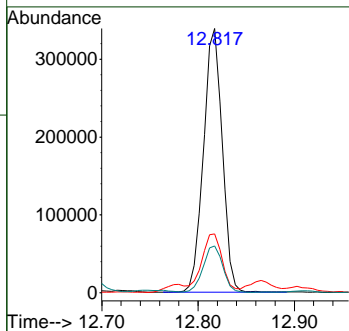
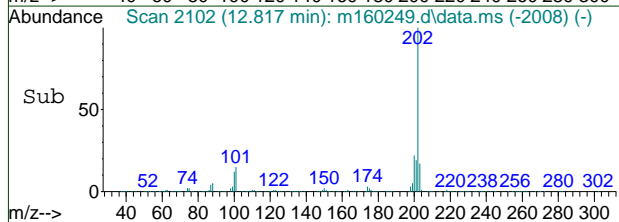


#84
 Pyrene
 Concen: 15.53 ppm
 RT: 12.817 min Scan# 2102
 Delta R.T. 0.002 min
 Lab File: m160249.d
 Acq: 11 Oct 2019 7:47 pm

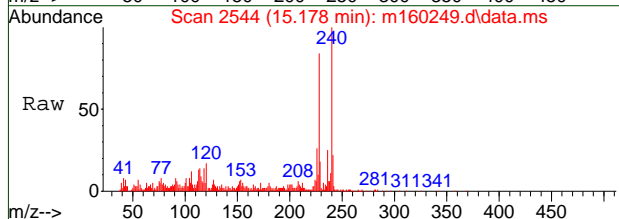


Tgt Ion: 202 Resp: 461114

Ion	Ratio	Lower	Upper
202	100		
200	20.6	0.0	50.4
203	17.1	0.0	47.7

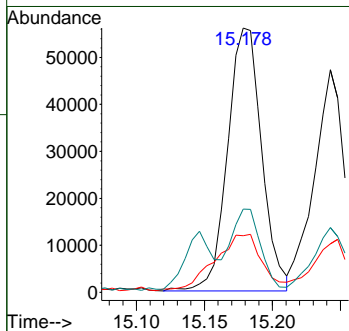
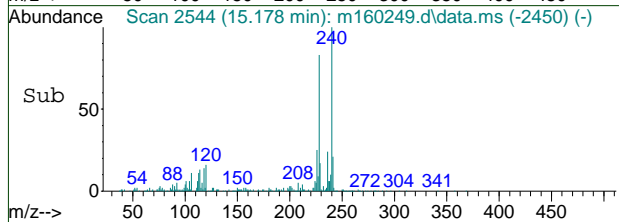


#87
 Benzo[a]anthracene
 Concen: 3.64 ppm
 RT: 15.178 min Scan# 2544
 Delta R.T. 0.002 min
 Lab File: m160249.d
 Acq: 11 Oct 2019 7:47 pm

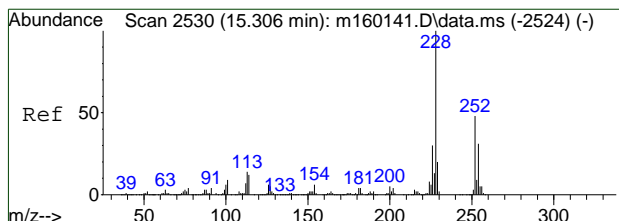


Tgt Ion: 228 Resp: 97438

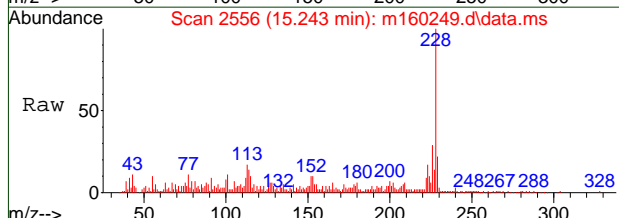
Ion	Ratio	Lower	Upper
228	100		
229	19.5	0.0	50.1
226	30.9	0.0	55.9



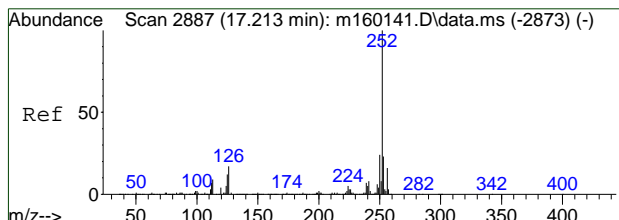
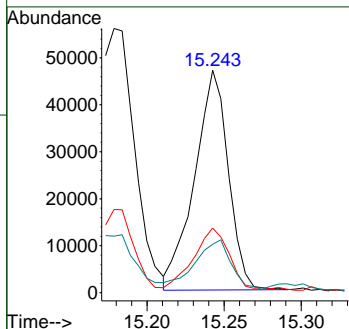
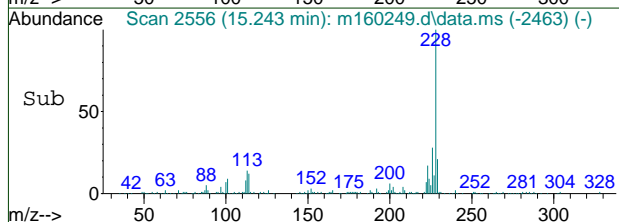
9.1.4
 9



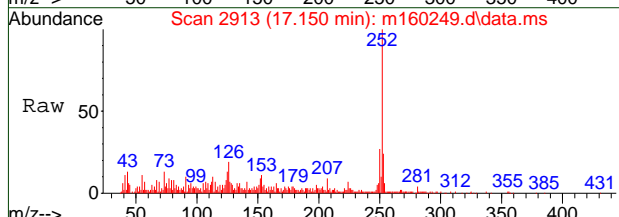
#89
 Chrysene
 Concen: 3.21 ppm
 RT: 15.243 min Scan# 2556
 Delta R.T. -0.003 min
 Lab File: m160249.d
 Acq: 11 Oct 2019 7:47 pm



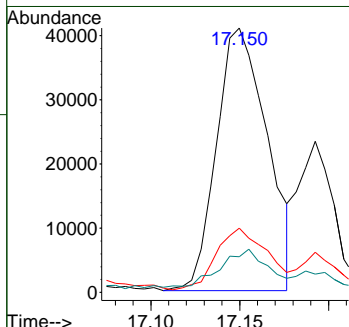
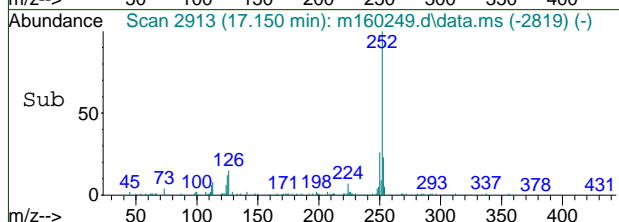
Tgt Ion	Ratio	Lower	Upper
228	100		
226	28.4	0.0	60.0
229	18.3	0.0	50.2

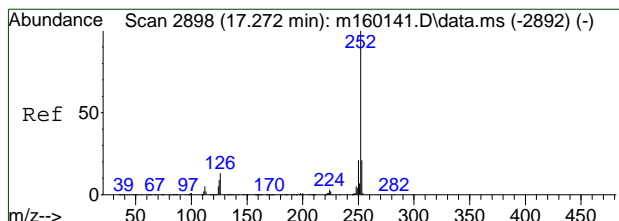


#93
 Benzo[b]fluoranthene
 Concen: 2.90 ppm
 RT: 17.150 min Scan# 2913
 Delta R.T. 0.002 min
 Lab File: m160249.d
 Acq: 11 Oct 2019 7:47 pm



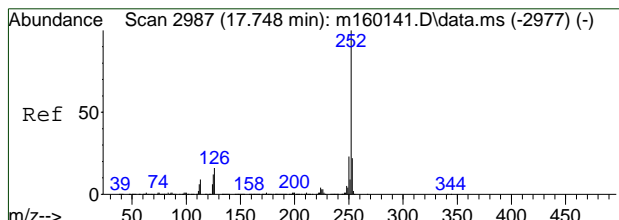
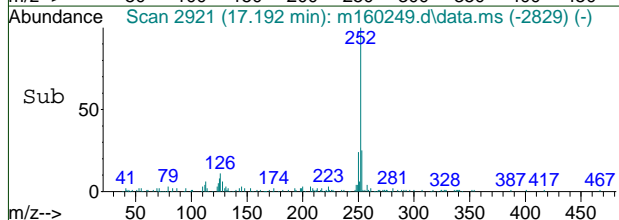
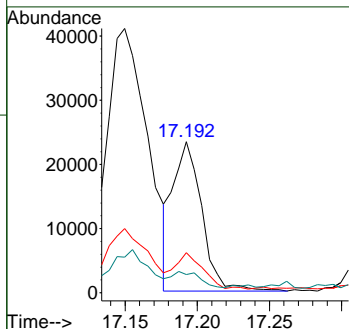
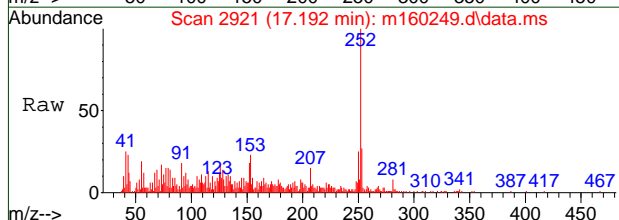
Tgt Ion	Ratio	Lower	Upper
252	100		
253	23.8	0.0	52.1
125	11.8	0.0	41.0





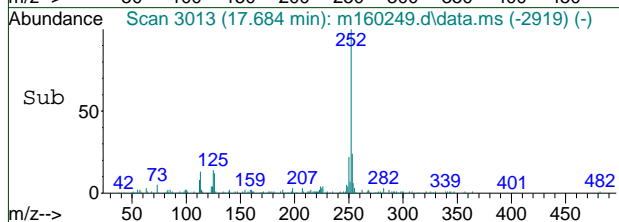
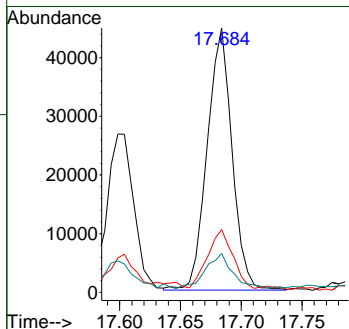
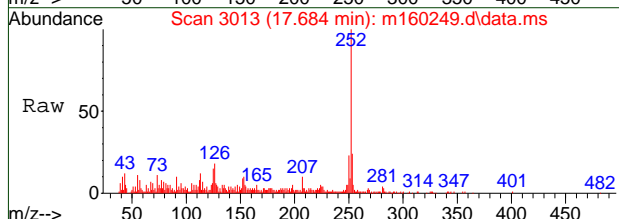
#94
 Benzo[k]fluoranthene
 Concen: 1.30 ppm
 RT: 17.192 min Scan# 2921
 Delta R.T. -0.009 min
 Lab File: m160249.d
 Acq: 11 Oct 2019 7:47 pm

Tgt Ion	Ratio	Lower	Upper
252	100		
253	26.3	0.0	51.9
125	5.0	0.0	39.8

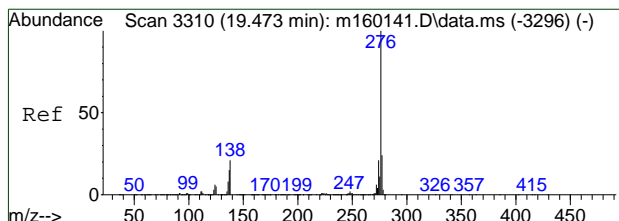


#95
 Benzo[a]pyrene
 Concen: 2.56 ppm
 RT: 17.684 min Scan# 3013
 Delta R.T. 0.002 min
 Lab File: m160249.d
 Acq: 11 Oct 2019 7:47 pm

Tgt Ion	Ratio	Lower	Upper
252	100		
253	21.8	0.0	51.0
125	12.4	0.0	41.6

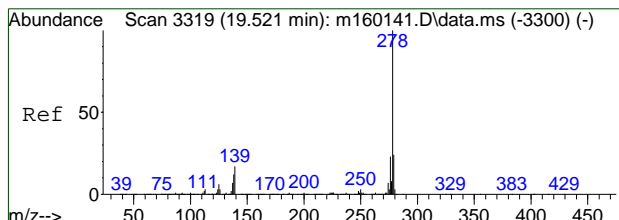
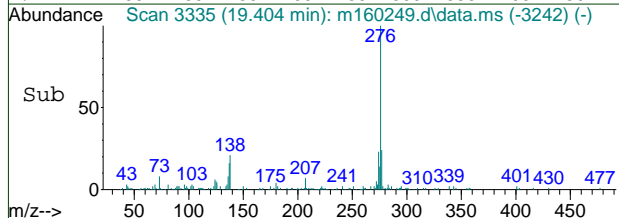
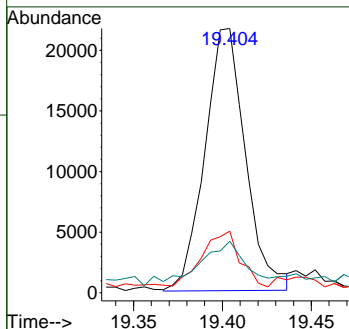
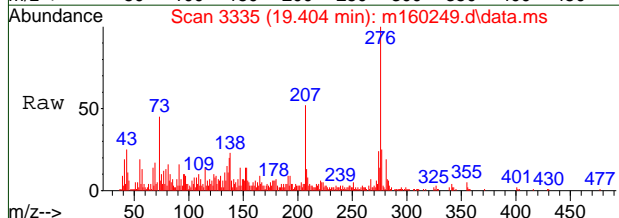


9.14
 9



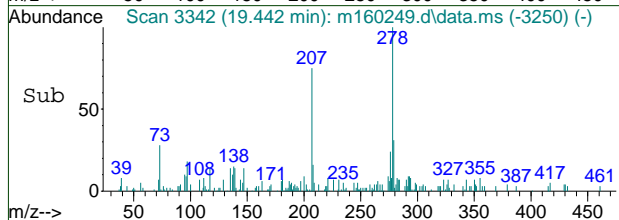
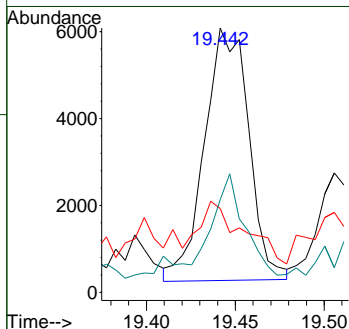
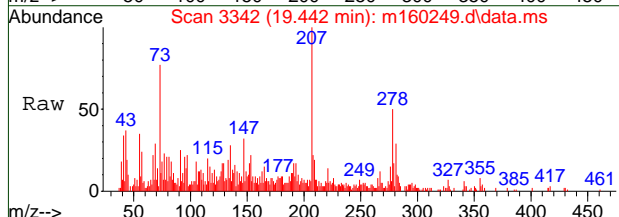
#96
 Indeno[1,2,3-cd]pyrene
 Concen: 1.42 ppm
 RT: 19.404 min Scan# 3335
 Delta R.T. -0.003 min
 Lab File: m160249.d
 Acq: 11 Oct 2019 7:47 pm

Tgt Ion	Ratio	Lower	Upper
276	100		
138	20.3	0.0	49.5
137	14.9	0.0	44.0

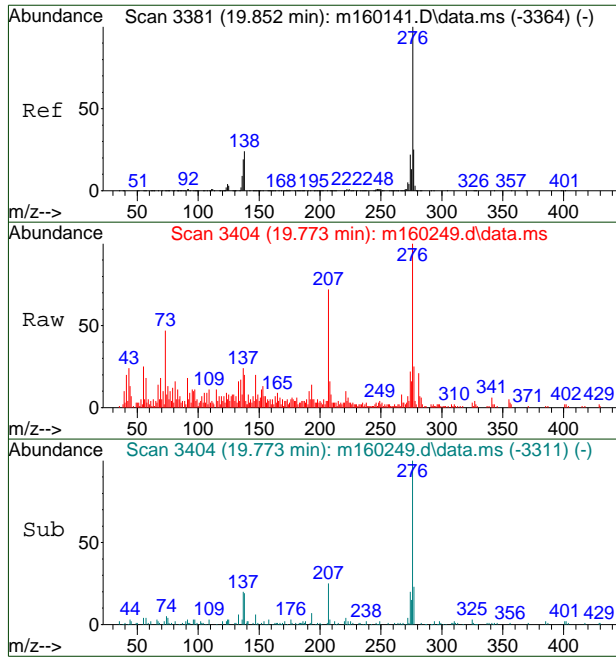


#98
 Dibenz[a,h]anthracene
 Concen: 0.42 ppm
 RT: 19.442 min Scan# 3342
 Delta R.T. -0.009 min
 Lab File: m160249.d
 Acq: 11 Oct 2019 7:47 pm

Tgt Ion	Ratio	Lower	Upper
278	100		
139	19.7	0.0	48.4
279	27.2	0.0	53.5

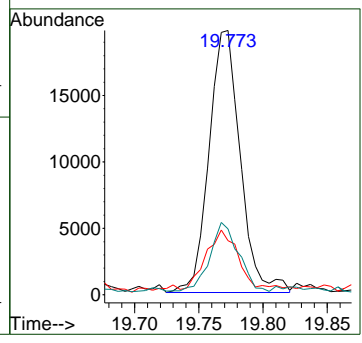


9.14
 9



#100
 Benzo[g,h,i]perylene
 Concen: 1.39 ppm
 RT: 19.773 min Scan# 3404
 Delta R.T. -0.003 min
 Lab File: m160249.d
 Acq: 11 Oct 2019 7:47 pm

Tgt Ion	Ratio	Lower	Upper
276	100		
138	18.0	0.0	53.7
277	23.0	0.0	53.9



9.1.4
 9

Quantitation Report (QT Reviewed)

Data Path : X:\svoa-gcms\completed\10_oct\10-14-2019\altheam\em6782\
 Data File : ml60281.d
 Acq On : 13 Oct 2019 2:02 am
 Operator : jamescl
 Sample : jc96248-4 Inst : MSM
 Misc : op23230,em6782,1000,,,1,10
 ALS Vial : 25 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MM6777.M
 Quant Results File: MM6777.RES
 Quant Time: Oct 17 22:15:24 2019
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 QLast Update : Mon Oct 14 03:17:37 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.340	152	282652	40.00	ppm	0.00
24) Naphthalene-d8	5.381	136	871391	40.00	ppm	0.00
47) Acenaphthene-d10	7.540	164	574191	40.00	ppm	0.00
69) Phenanthrene-d10	10.061	188	999100	40.00	ppm	0.00
83) Chrysene-d12	15.141	240	950147	40.00	ppm	0.00
91) Perylene-d12	17.727	264	1029078	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.340	152	282652	40.00	ppm	0.00
103) Acenaphthene-d10a	7.540	164	574191	40.00	ppm	0.00
105) Acenaphthene-d10b	7.540	164	574191	40.00	ppm	0.00
107) Chrysene-d12a	15.141	240	950147	40.00	ppm	0.00
110) Phenanthrene-d10a	10.061	188	999100	40.00	ppm	0.00
112) Phenanthrene-d10b	10.061	188	999100	40.00	ppm	0.00
114) Naphthalene-d8a	5.381	136	871391	40.00	ppm	0.00
116) Chrysene-d12c	15.141	240	950147	40.00	ppm	0.05
System Monitoring Compounds						
5) 2-Fluorophenol	3.383	112	14768	1.19	ppm	0.00
Spiked Amount 50.000			Recovery =	2.38%		
8) Phenol-d5	4.121	99	13342	0.93	ppm	0.00
Spiked Amount 50.000			Recovery =	1.86%		
25) Nitrobenzene-d5	4.767	82	39692	3.54	ppm	0.00
Spiked Amount 50.000			Recovery =	7.08%		
51) 2-Fluorobiphenyl	6.605	172	72939	3.66	ppm	0.00
Spiked Amount 50.000			Recovery =	7.32%		
73) 2,4,6-Tribromophenol	8.838	330	15085	3.84	ppm	-0.01
Spiked Amount 50.000			Recovery =	7.68%		
85) Terphenyl-d14	13.192	244	53965	2.09	ppm	-0.01
Spiked Amount 50.000			Recovery =	4.18%		
109) 1-chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
113) o-terphenyl	0.000	230	0	0.00	ppm	
Target Compounds						
9) Phenol	4.131	94	150933	9.30	ppm	94
19) 2-Methylphenol	4.564	108	163193	17.70	ppm	97
21) 3&4-Methylphenol	4.682	108	208900	21.20	ppm	82
30) 2,4-Dimethylphenol	5.104	107	199226	24.08	ppm	99
38) Naphthalene	5.403	128	2327753	97.27	ppm	98
44) 2-Methylnaphthalene	6.135	141	188345	12.52	ppm	98
53) Biphenyl	6.728	154	57430	2.27	ppm	98
56) Acenaphthylene	7.321	152	292192	9.99	ppm	99
59) Acenaphthene	7.588	153	186109	10.54	ppm	96
62) Dibenzofuran	7.865	168	233945	8.34	ppm	99
66) Fluorene	8.421	166	222317	9.99	ppm	100
77) Phenanthrene	10.098	178	380762	13.61	ppm	99
78) Anthracene	10.189	178	51196	1.76	ppm	97
79) Carbazole	10.563	167	607225	18.90	ppm	99
81) Fluoranthene	12.342	202	103358	2.74	ppm	99
84) Pyrene	12.754	202	68607	1.74	ppm	94
87) Benzo[a]anthracene	15.115	228	17359	0.49	ppm	86
89) Chrysene	15.184	228	10195	0.34	ppm	93
93) Benzo[b]fluoranthene	17.086	252	13726	0.39	ppm	90
94) Benzo[k]fluoranthene	17.129	252	6922	0.22	ppm	66
95) Benzo[a]pyrene	17.615	252	12345	0.40	ppm	97

Quantitation Report (QT Reviewed)

Data Path : X:\svoa-gcms\completed\10_oct\10-14-2019\altheam\em6782\
Data File : m160281.d
Acq On : 13 Oct 2019 2:02 am
Operator : jamescl
Sample : jc96248-4 Inst : MSM
Misc : op23230,em6782,1000,,,1,10
ALS Vial : 25 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MM6777.M
Quant Results File: MM6777.RES
Quant Time: Oct 17 22:15:24 2019
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Mon Oct 14 03:17:37 2019
Response via : Initial Calibration

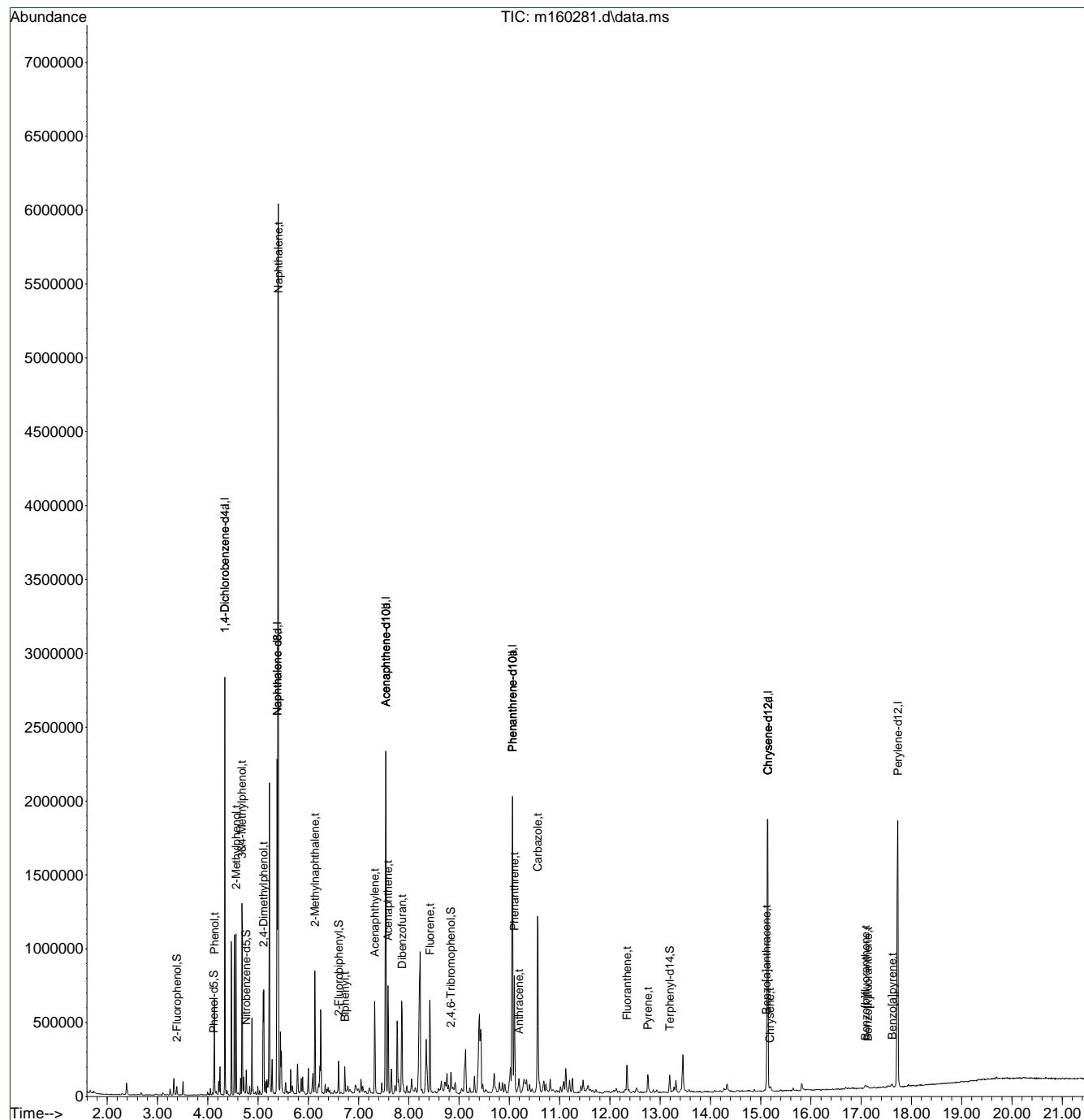
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

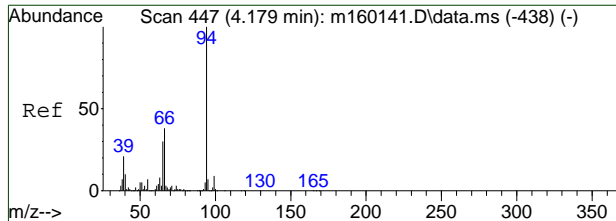
(#) = qualifier out of range (m) = manual integration (+) = signals summed						

Quantitation Report (QT Reviewed)

Data Path : X:\svoa-gcms\completed\10_oct\10-14-2019\altheam\em6782\
 Data File : m160281.d
 Acq On : 13 Oct 2019 2:02 am
 Operator : jamescl
 Sample : jc96248-4 Inst : MSM
 Misc : op23230,em6782,1000,,,1,10
 ALS Vial : 25 Sample Multiplier: 1

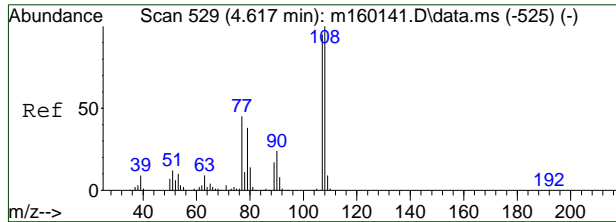
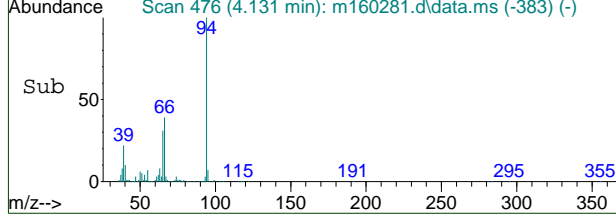
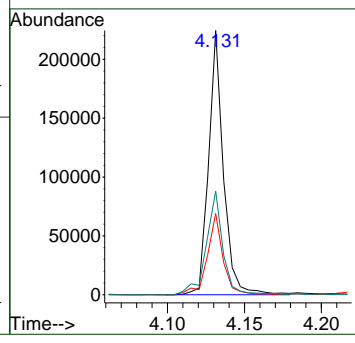
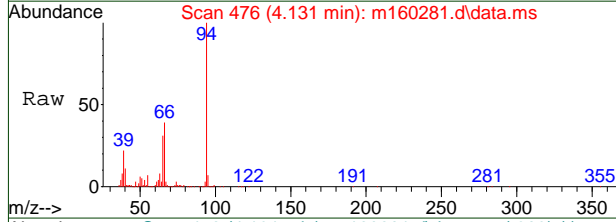
Quant Method : C:\MSDCHEM\1\METHODS\MM6777.M
 Quant Results File: MM6777.RES
 Quant Time: Oct 17 22:15:24 2019
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 QLast Update : Mon Oct 14 03:17:37 2019
 Response via : Initial Calibration





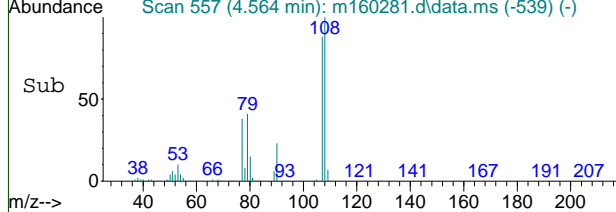
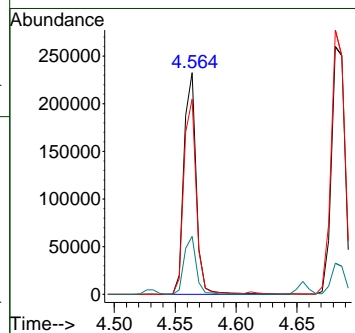
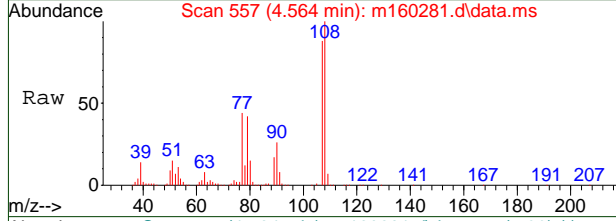
#9
 Phenol
 Concen: 9.30 ppm
 RT: 4.131 min Scan# 476
 Delta R.T. -0.006 min
 Lab File: m160281.d
 Acq: 13 Oct 2019 2:02 am

Tgt Ion	Resp	Lower	Upper
94	150933		
65	30.7	0.0	57.8
66	39.3	5.0	65.0



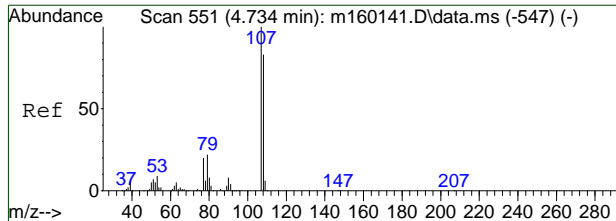
#19
 2-Methylphenol
 Concen: 17.70 ppm
 RT: 4.564 min Scan# 557
 Delta R.T. -0.006 min
 Lab File: m160281.d
 Acq: 13 Oct 2019 2:02 am

Tgt Ion	Resp	Lower	Upper
108	163193		
107	88.1	61.0	121.0
90	26.1	0.0	53.9



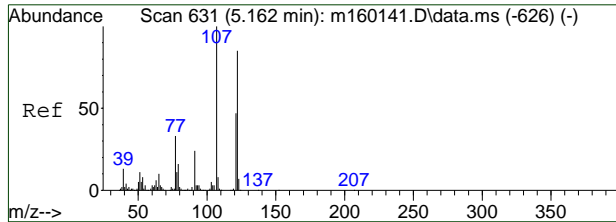
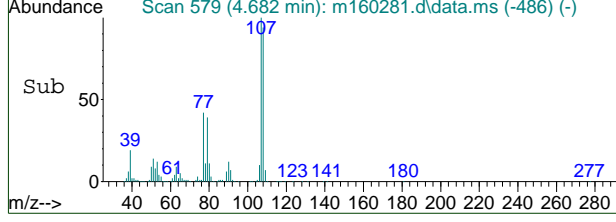
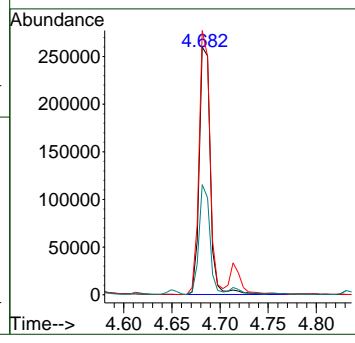
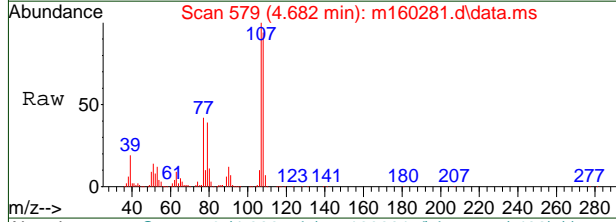
9.15
9





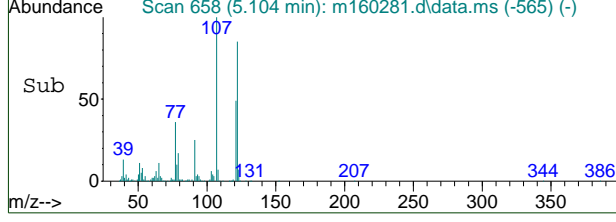
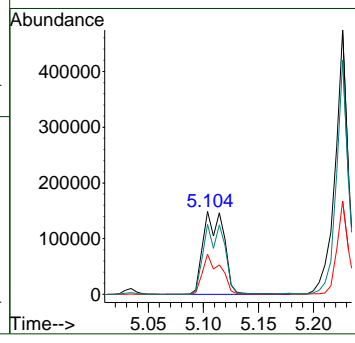
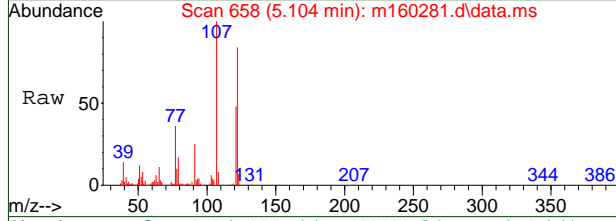
#21
 3&4-Methylphenol
 Concen: 21.20 ppm
 RT: 4.682 min Scan# 579
 Delta R.T. -0.006 min
 Lab File: m160281.d
 Acq: 13 Oct 2019 2:02 am

Tgt Ion	Ratio	Lower	Upper
108	100		
107	106.5	90.1	150.1
77	43.9	0.0	48.3



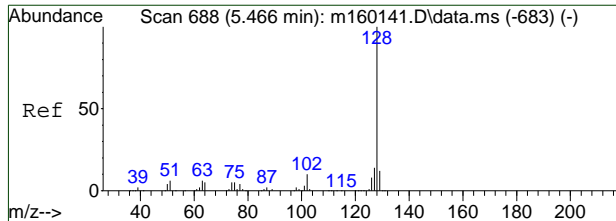
#30
 2,4-Dimethylphenol
 Concen: 24.08 ppm
 RT: 5.104 min Scan# 658
 Delta R.T. -0.006 min
 Lab File: m160281.d
 Acq: 13 Oct 2019 2:02 am

Tgt Ion	Ratio	Lower	Upper
107	100		
121	47.9	17.5	77.5
122	83.8	54.3	114.3



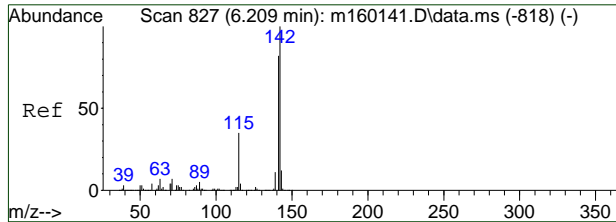
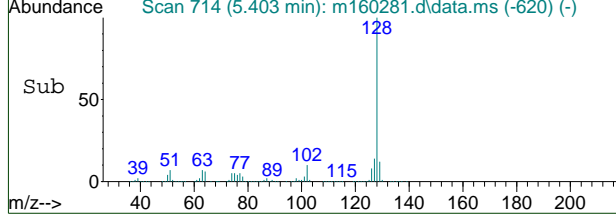
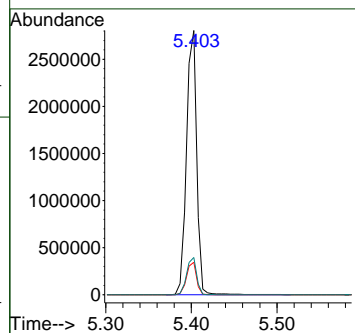
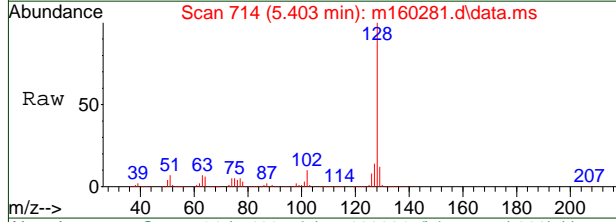
9.15
 9





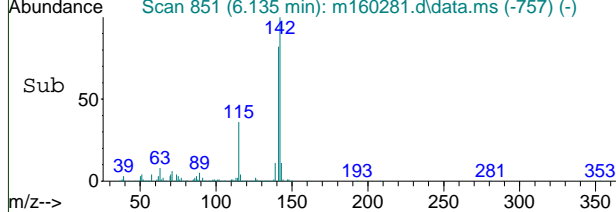
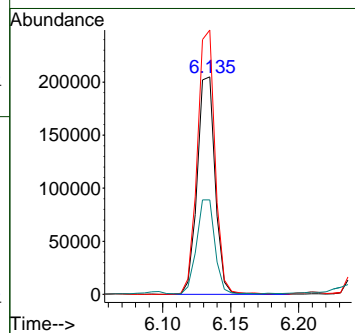
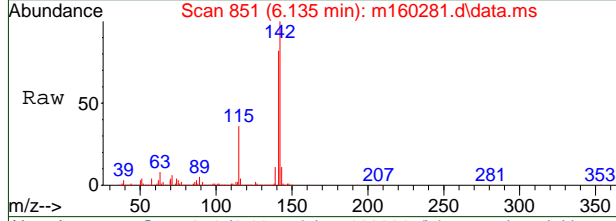
#38
 Naphthalene
 Concen: 97.27 ppm
 RT: 5.403 min Scan# 714
 Delta R.T. -0.000 min
 Lab File: m160281.d
 Acq: 13 Oct 2019 2:02 am

Tgt Ion	Resp	Lower	Upper
128	2327753		
129	12.4	0.0	41.7
127	14.1	0.0	43.6



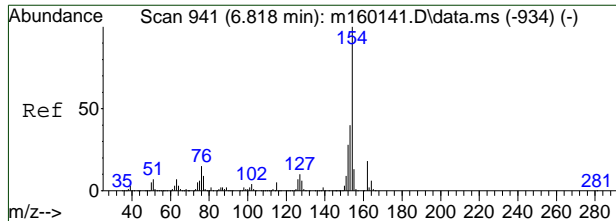
#44
 2-Methylnaphthalene
 Concen: 12.52 ppm
 RT: 6.135 min Scan# 851
 Delta R.T. -0.000 min
 Lab File: m160281.d
 Acq: 13 Oct 2019 2:02 am

Tgt Ion	Resp	Lower	Upper
141	188345		
142	121.5	93.2	153.2
115	42.9	14.1	74.1



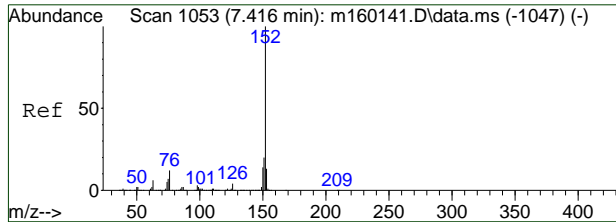
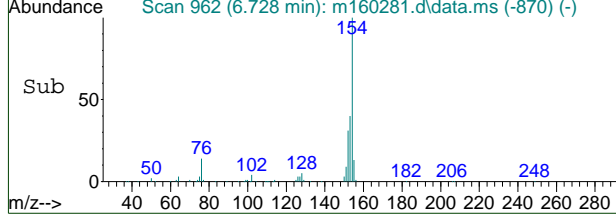
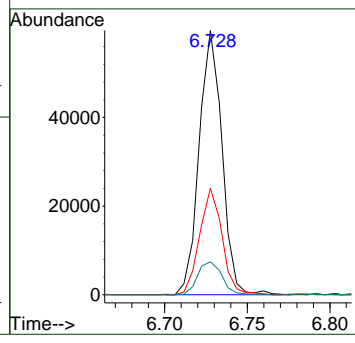
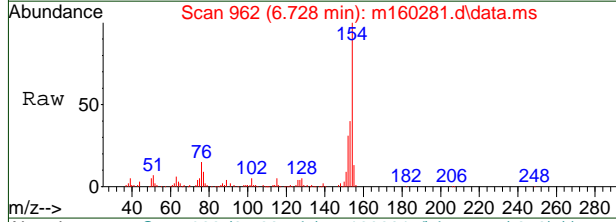
9.15
 9





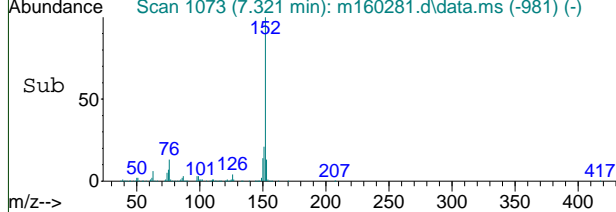
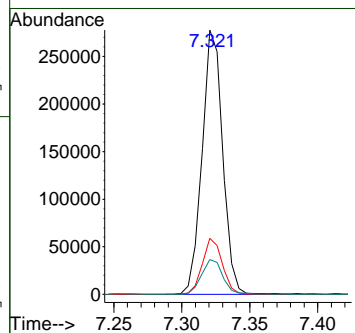
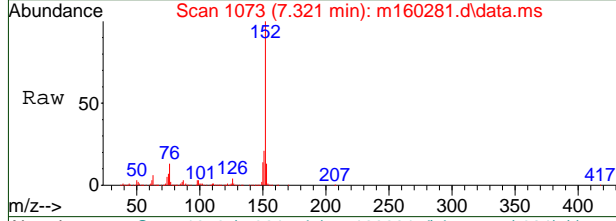
#53
 Biphenyl
 Concen: 2.27 ppm
 RT: 6.728 min Scan# 962
 Delta R.T. -0.011 min
 Lab File: m160281.d
 Acq: 13 Oct 2019 2:02 am

Tgt Ion	Ratio	Lower	Upper
154	100		
153	40.0	8.7	68.7
155	12.5	0.0	43.0



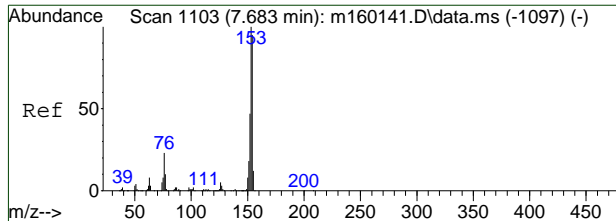
#56
 Acenaphthylene
 Concen: 9.99 ppm
 RT: 7.321 min Scan# 1073
 Delta R.T. -0.011 min
 Lab File: m160281.d
 Acq: 13 Oct 2019 2:02 am

Tgt Ion	Ratio	Lower	Upper
152	100		
151	21.1	0.0	50.7
153	13.1	0.0	43.4



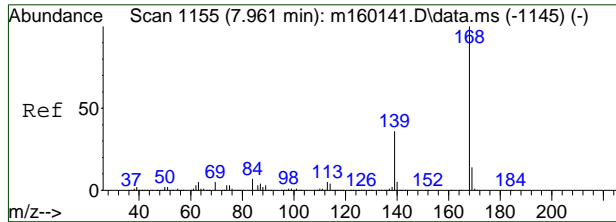
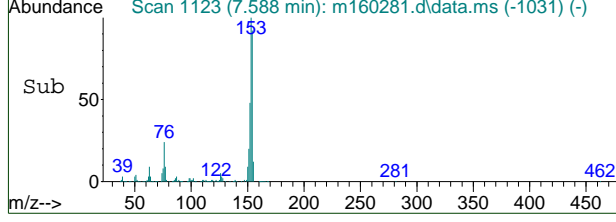
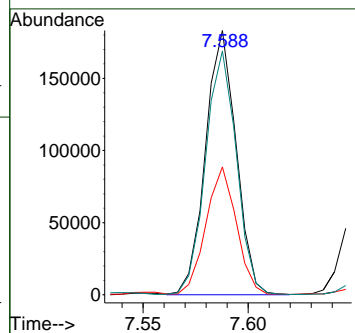
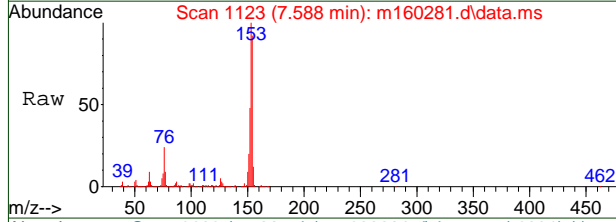
9.15
9





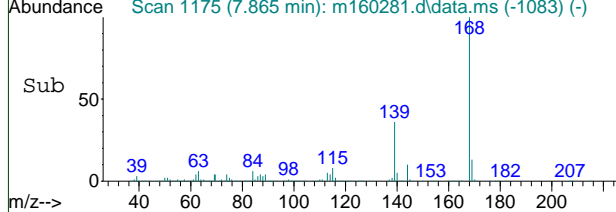
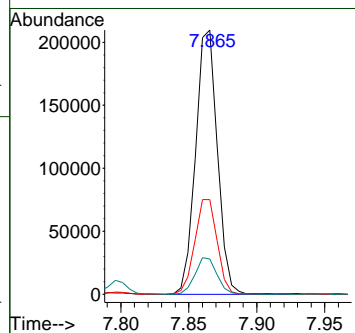
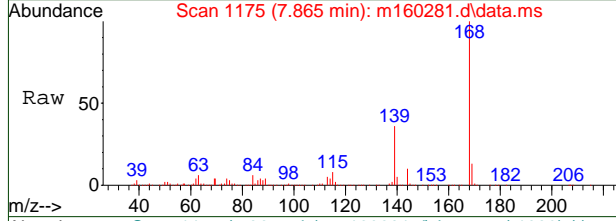
#59
 Acenaphthene
 Concen: 10.54 ppm
 RT: 7.588 min Scan# 1123
 Delta R.T. -0.011 min
 Lab File: m160281.d
 Acq: 13 Oct 2019 2:02 am

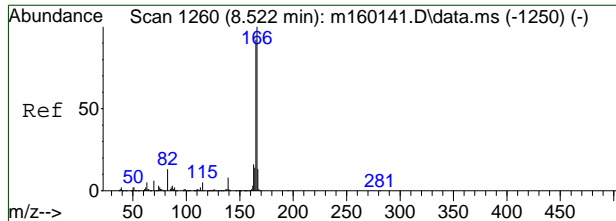
Tgt Ion	Resp	Lower	Upper
153	186109		
152	48.2	18.0	78.0
154	92.2	67.4	127.4



#62
 Dibenzofuran
 Concen: 8.34 ppm
 RT: 7.865 min Scan# 1175
 Delta R.T. -0.011 min
 Lab File: m160281.d
 Acq: 13 Oct 2019 2:02 am

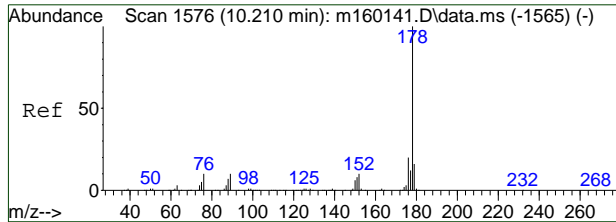
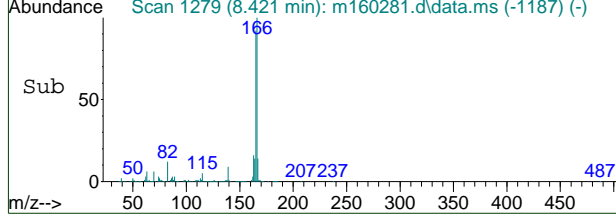
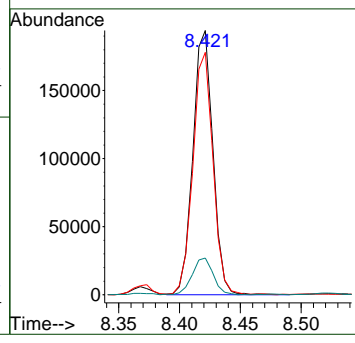
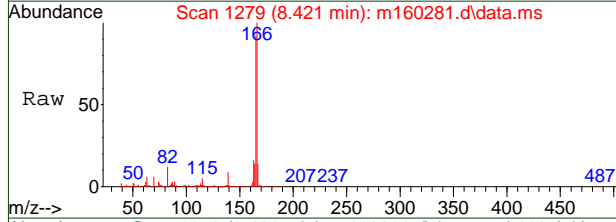
Tgt Ion	Resp	Lower	Upper
168	233945		
139	35.8	5.4	65.4
169	13.4	0.0	43.8





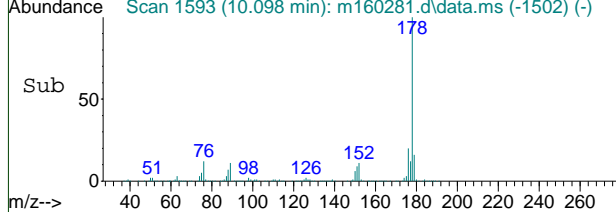
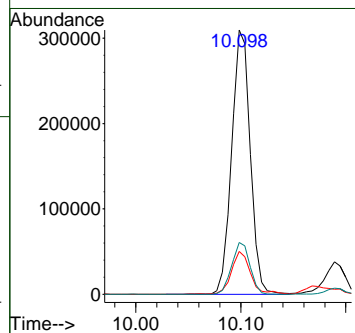
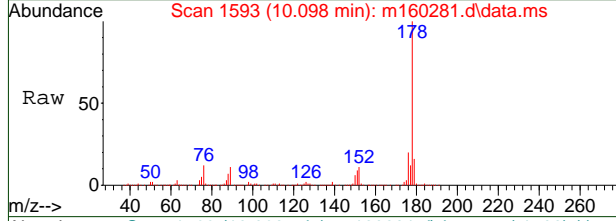
#66
 Fluorene
 Concen: 9.99 ppm
 RT: 8.421 min Scan# 1279
 Delta R.T. -0.011 min
 Lab File: m160281.d
 Acq: 13 Oct 2019 2:02 am

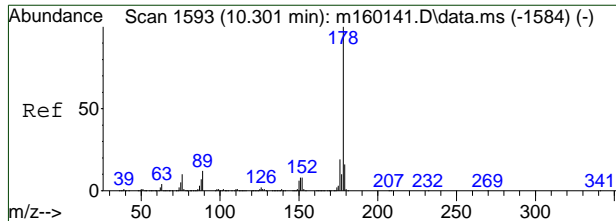
Tgt Ion	Ratio	Lower	Upper
166	100		
165	91.6	61.9	121.9
167	13.8	0.0	43.8



#77
 Phenanthrene
 Concen: 13.61 ppm
 RT: 10.098 min Scan# 1593
 Delta R.T. -0.016 min
 Lab File: m160281.d
 Acq: 13 Oct 2019 2:02 am

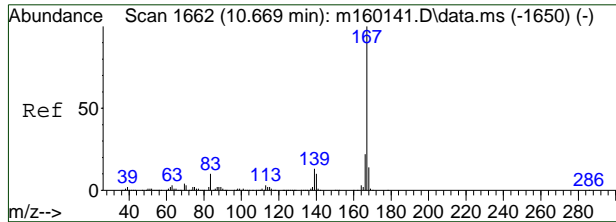
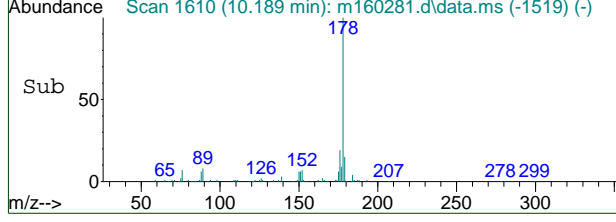
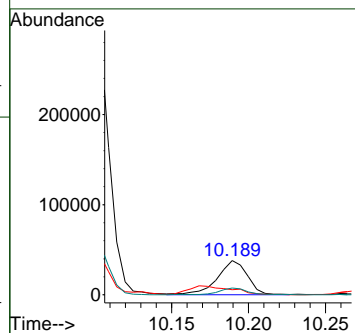
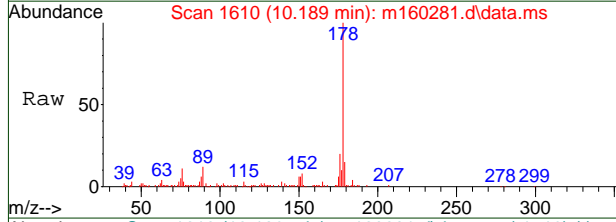
Tgt Ion	Ratio	Lower	Upper
178	100		
179	16.2	0.0	45.3
176	19.7	0.0	49.3





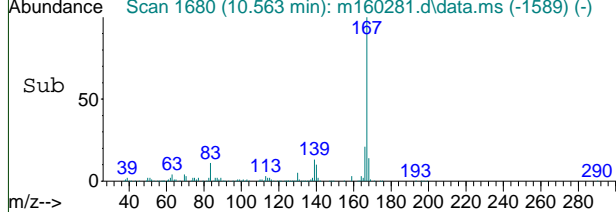
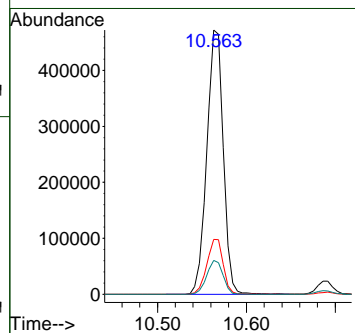
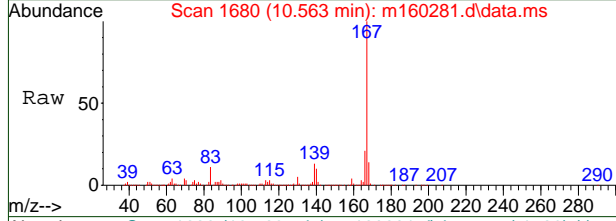
#78
 Anthracene
 Concen: 1.76 ppm
 RT: 10.189 min Scan# 1610
 Delta R.T. -0.016 min
 Lab File: m160281.d
 Acq: 13 Oct 2019 2:02 am

Tgt Ion	Ratio	Lower	Upper
178	100		
179	15.0	0.0	46.0
176	19.5	0.0	48.0



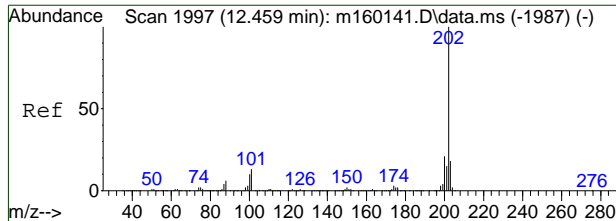
#79
 Carbazole
 Concen: 18.90 ppm
 RT: 10.563 min Scan# 1680
 Delta R.T. -0.016 min
 Lab File: m160281.d
 Acq: 13 Oct 2019 2:02 am

Tgt Ion	Ratio	Lower	Upper
167	100		
166	20.8	0.0	50.9
139	12.8	0.0	42.3



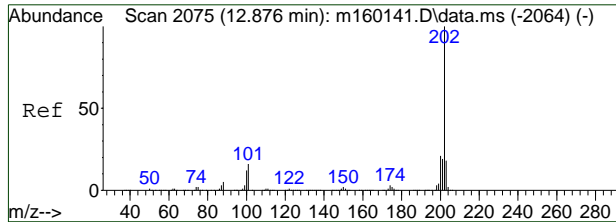
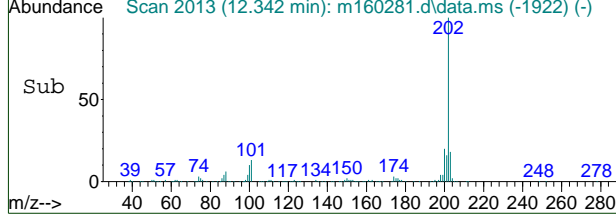
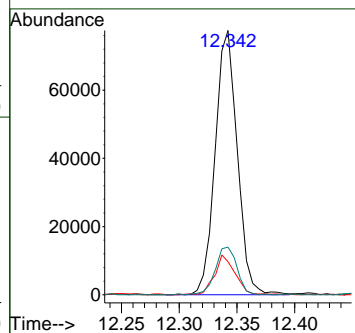
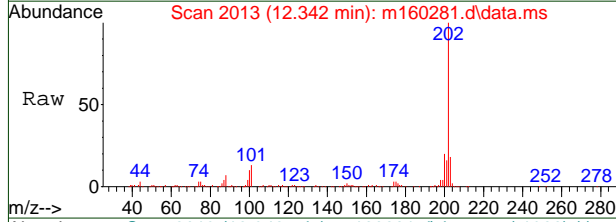
9.15
9





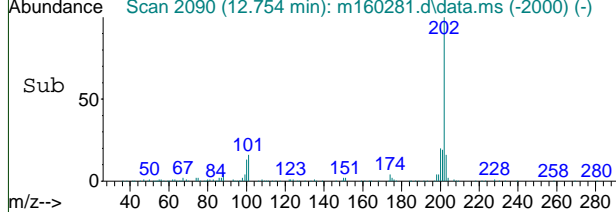
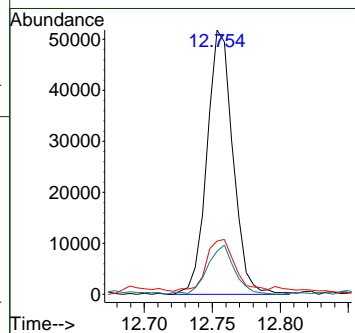
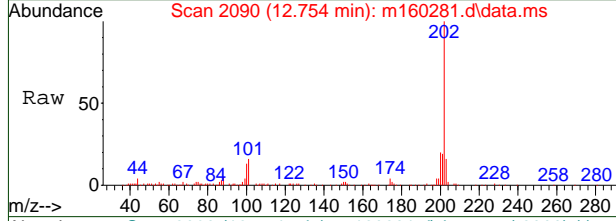
#81
 Fluoranthene
 Concen: 2.74 ppm
 RT: 12.342 min Scan# 2013
 Delta R.T. -0.016 min
 Lab File: m160281.d
 Acq: 13 Oct 2019 2:02 am

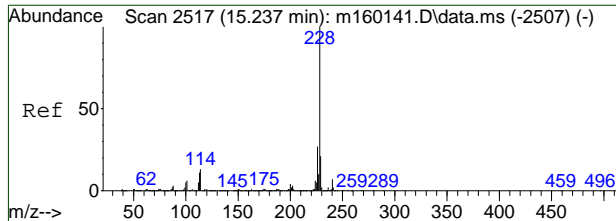
Tgt Ion	Ratio	Lower	Upper
202	100		
101	12.4	0.0	43.2
203	17.9	0.0	48.1



#84
 Pyrene
 Concen: 1.74 ppm
 RT: 12.754 min Scan# 2090
 Delta R.T. -0.022 min
 Lab File: m160281.d
 Acq: 13 Oct 2019 2:02 am

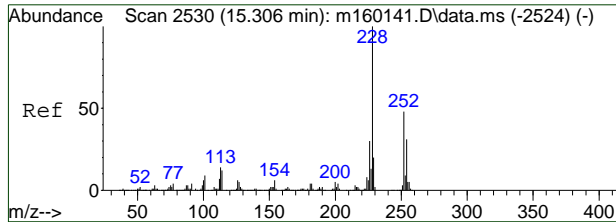
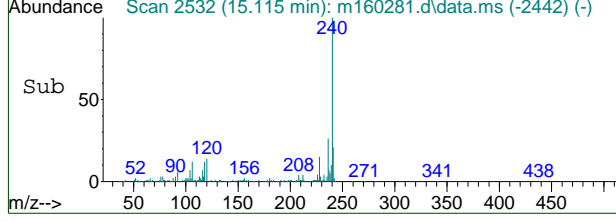
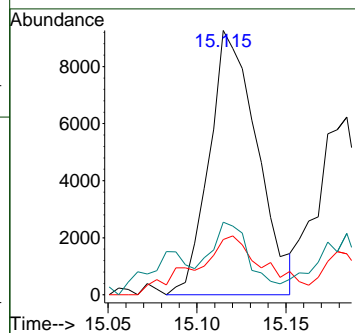
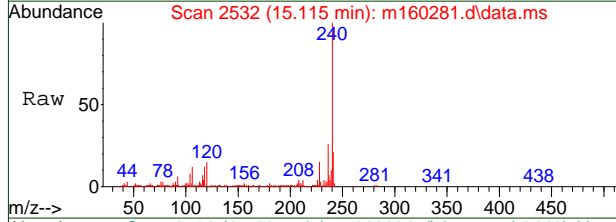
Tgt Ion	Ratio	Lower	Upper
202	100		
200	18.5	0.0	50.9
203	16.1	0.0	48.8





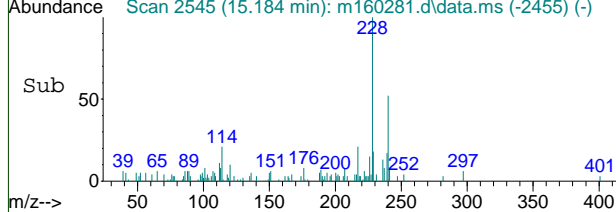
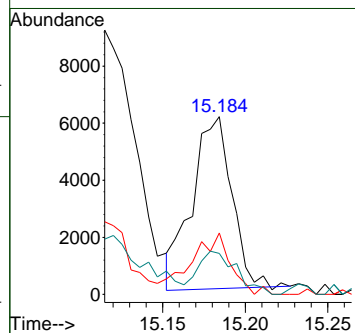
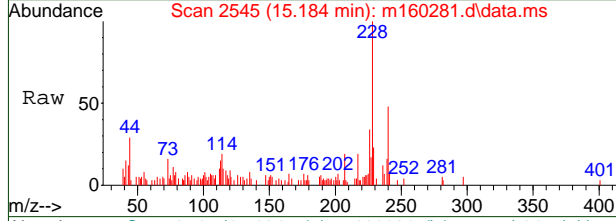
#87
 Benzo[a]anthracene
 Concen: 0.49 ppm
 RT: 15.115 min Scan# 2532
 Delta R.T. -0.022 min
 Lab File: m160281.d
 Acq: 13 Oct 2019 2:02 am

Tgt Ion	Ratio	Lower	Upper
228	100		
229	15.9	0.0	50.1
226	17.7	0.0	56.7

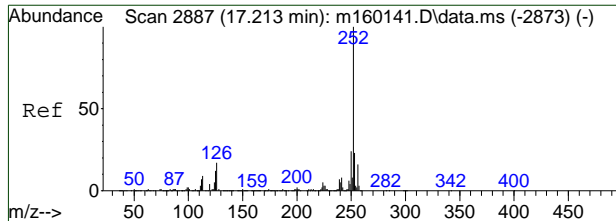


#89
 Chrysene
 Concen: 0.34 ppm
 RT: 15.184 min Scan# 2545
 Delta R.T. -0.022 min
 Lab File: m160281.d
 Acq: 13 Oct 2019 2:02 am

Tgt Ion	Ratio	Lower	Upper
228	100		
226	35.0	0.3	60.3
229	17.5	0.0	49.5

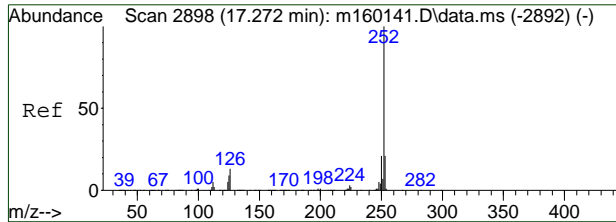
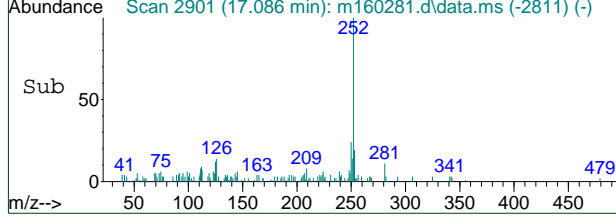
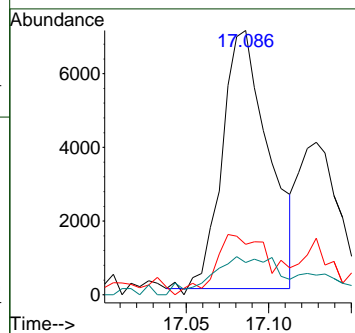
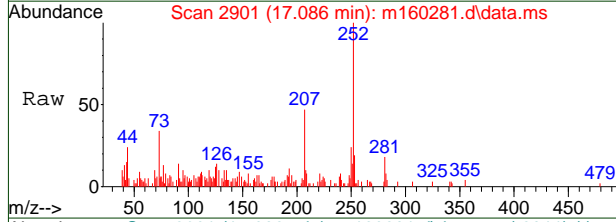


9.15
 9



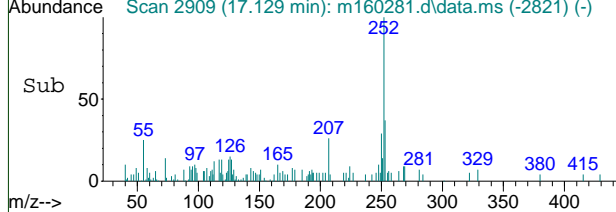
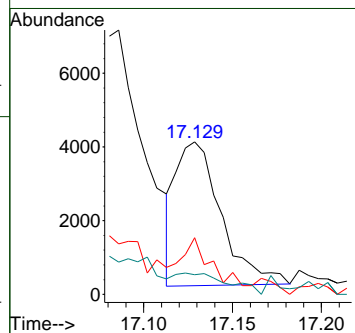
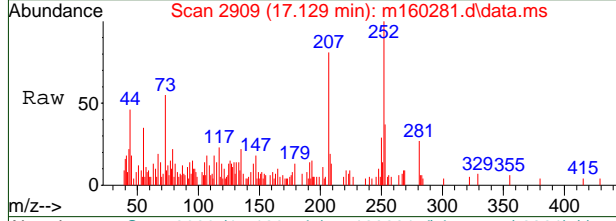
#93
 Benzo[b]fluoranthene
 Concen: 0.39 ppm
 RT: 17.086 min Scan# 2901
 Delta R.T. -0.022 min
 Lab File: m160281.d
 Acq: 13 Oct 2019 2:02 am

Tgt Ion	Ratio	Lower	Upper
252	100		
253	15.7	0.0	52.7
125	11.7	0.0	41.5



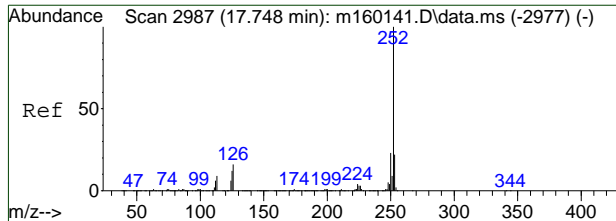
#94
 Benzo[k]fluoranthene
 Concen: 0.22 ppm
 RT: 17.129 min Scan# 2909
 Delta R.T. -0.032 min
 Lab File: m160281.d
 Acq: 13 Oct 2019 2:02 am

Tgt Ion	Ratio	Lower	Upper
252	100		
253	44.7	0.0	51.7
125	9.5	0.0	41.0



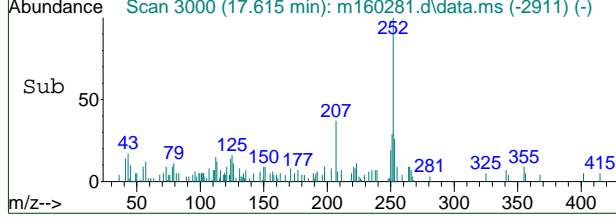
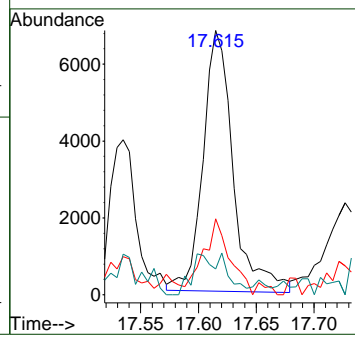
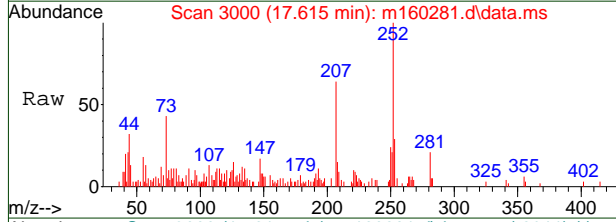
9.15
 9





#95
 Benzo[a]pyrene
 Concen: 0.40 ppm
 RT: 17.615 min Scan# 3000
 Delta R.T. -0.027 min
 Lab File: m160281.d
 Acq: 13 Oct 2019 2:02 am

Tgt Ion	Ratio	Lower	Upper
252	100		
253	22.7	0.0	52.4
125	8.7	0.0	42.1



9.15
9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\jeryllr\em6781\
 Data File : ml60245.d
 Acq On : 11 Oct 2019 5:55 pm
 Operator : hennys
 Sample : jc96248-5 Inst : MSM
 Misc : op23230,em6781,1000,,,1,1
 ALS Vial : 16 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MM6777.M
 Quant Results File: MM6777.RES
 Quant Time: Oct 14 05:33:53 2019
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 QLast Update : Mon Oct 14 05:00:48 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.360	152	294623	40.00	ppm	0.00
24) Naphthalene-d8	5.407	136	974867	40.00	ppm	0.00
47) Acenaphthene-d10	7.581	164	578138	40.00	ppm	0.00
69) Phenanthrene-d10	10.108	188	997482	40.00	ppm	0.00
83) Chrysene-d12	15.194	240	874928	40.00	ppm	0.00
91) Perylene-d12	17.785	264	936212	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.360	152	294623	40.00	ppm	0.00
103) Acenaphthene-d10a	7.581	164	578138	40.00	ppm	0.00
105) Acenaphthene-d10b	7.581	164	578138	40.00	ppm	0.00
107) Chrysene-d12a	15.194	240	874928	40.00	ppm	0.00
110) Phenanthrene-d10a	10.108	188	997482	40.00	ppm	0.00
112) Phenanthrene-d10b	10.108	188	997482	40.00	ppm	0.00
114) Naphthalene-d8a	5.407	136	974867	40.00	ppm	0.00
116) Chrysene-d12c	15.194	240	874928	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	3.398	112	154139	11.90	ppm	0.00
Spiked Amount 50.000			Recovery =	23.80%		
8) Phenol-d5	4.141	99	129496	8.70	ppm	0.00
Spiked Amount 50.000			Recovery =	17.40%		
25) Nitrobenzene-d5	4.787	82	398347	31.76	ppm	0.00
Spiked Amount 50.000			Recovery =	63.52%		
51) 2-Fluorobiphenyl	6.636	172	653272	32.56	ppm	0.00
Spiked Amount 50.000			Recovery =	65.12%		
73) 2,4,6-Tribromophenol	8.885	330	151947	38.71	ppm	0.00
Spiked Amount 50.000			Recovery =	77.42%		
85) Terphenyl-d14	13.244	244	543648	22.83	ppm	0.00
Spiked Amount 50.000			Recovery =	45.66%		
109) 1-chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
113) o-terphenyl	0.000	230	0	0.00	ppm	
Target Compounds						
18) Acetophenone	4.675	105	4282	0.27	ppm	89
59) Acenaphthene	7.624	153	24950	1.40	ppm	95
66) Fluorene	8.457	166	6229	0.28	ppm	87
78) Anthracene	10.236	178	6285	0.22	ppm	83
86) Butylbenzylphthalate	14.307	149	29182	1.71	ppm	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

9.16
9

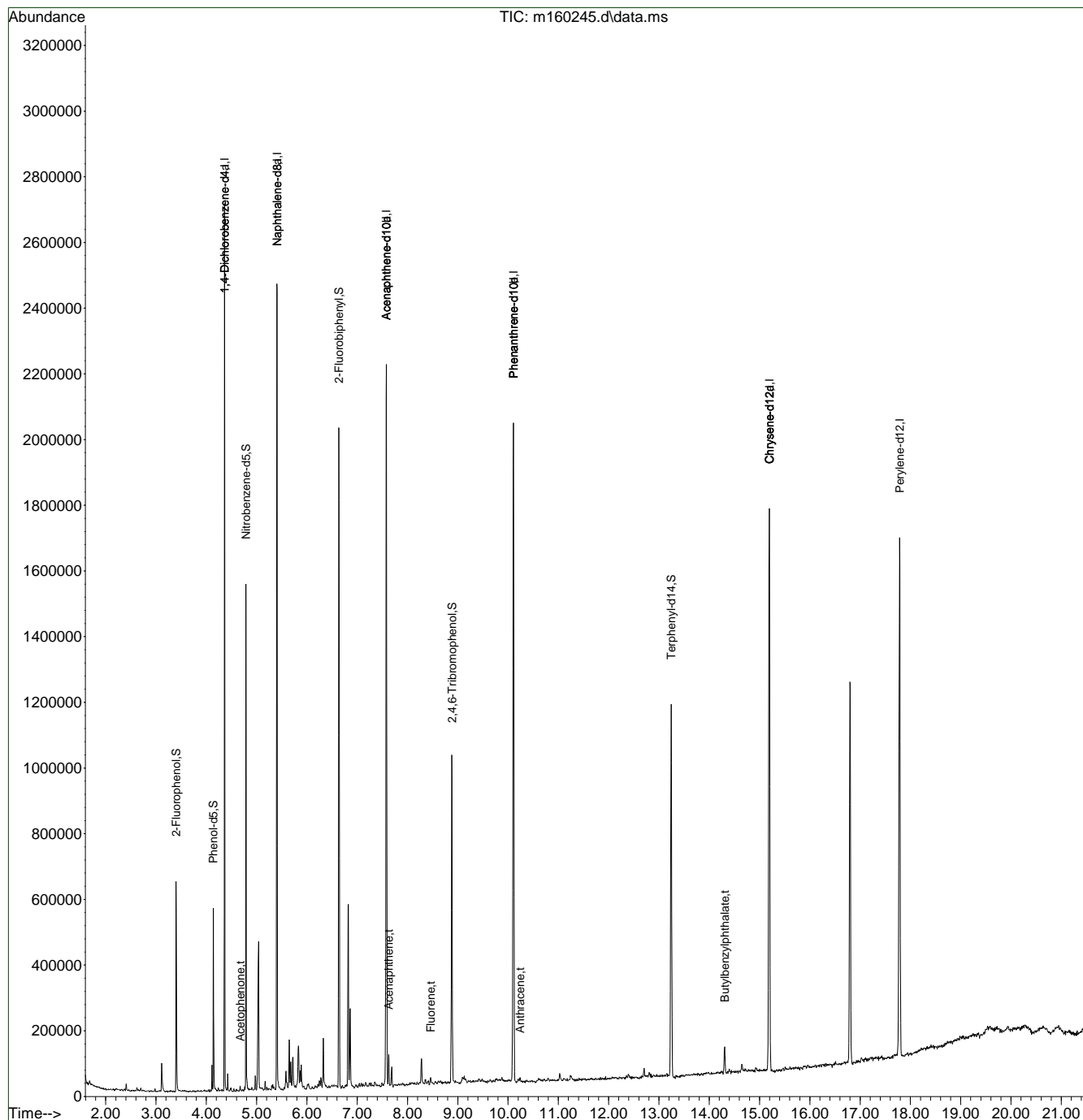


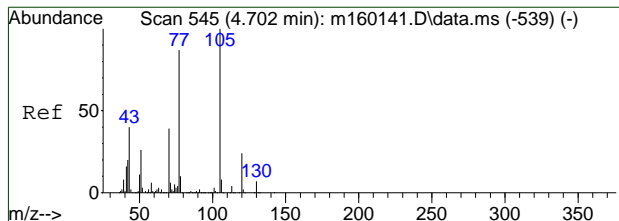
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\jeryllr\em6781\
 Data File : m160245.d
 Acq On : 11 Oct 2019 5:55 pm
 Operator : hennys
 Sample : jc96248-5
 Misc : op23230,em6781,1000,,,1,1
 ALS Vial : 16 Sample Multiplier: 1

Inst : MSM

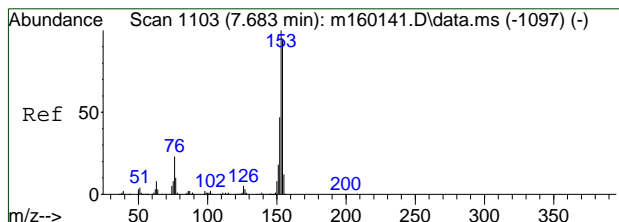
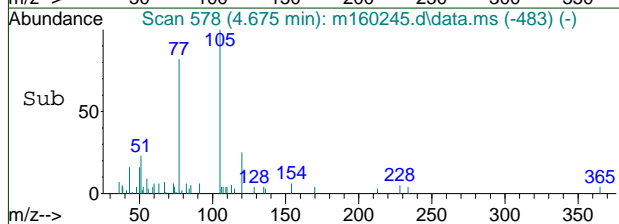
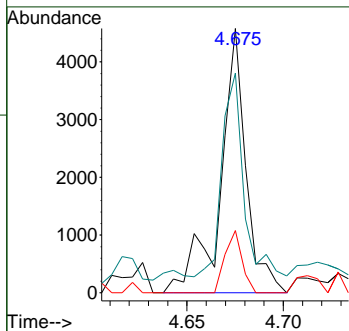
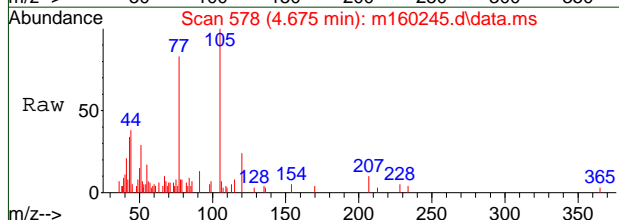
Quant Method : C:\MSDCHEM\1\METHODS\MM6777.M
 Quant Results File: MM6777.RES
 Quant Time: Oct 14 05:33:53 2019
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 QLast Update : Mon Oct 14 05:00:48 2019
 Response via : Initial Calibration





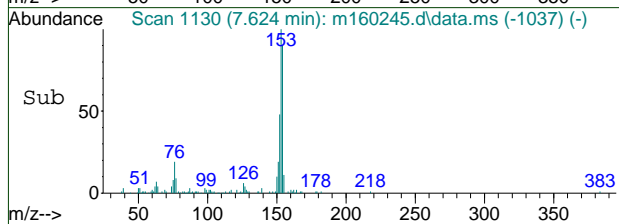
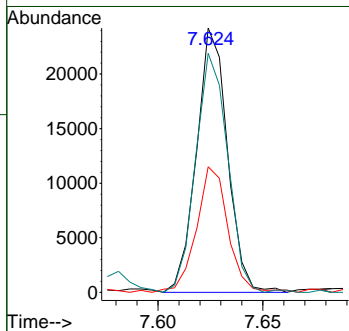
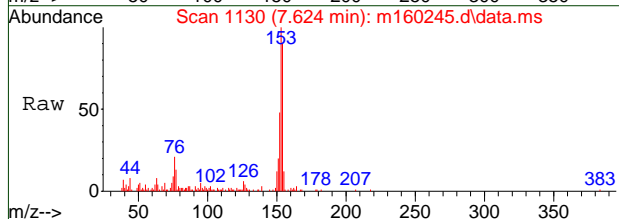
#18
 Acetophenone
 Concen: 0.27 ppm
 RT: 4.675 min Scan# 578
 Delta R.T. 0.007 min
 Lab File: m160245.d
 Acq: 11 Oct 2019 5:55 pm

Tgt Ion	Resp	Lower	Upper
105	4282		
105	100		
120	23.6	0.0	53.4
77	76.2	59.4	119.4

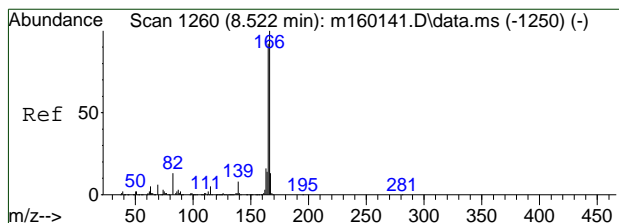


#59
 Acenaphthene
 Concen: 1.40 ppm
 RT: 7.624 min Scan# 1130
 Delta R.T. -0.004 min
 Lab File: m160245.d
 Acq: 11 Oct 2019 5:55 pm

Tgt Ion	Resp	Lower	Upper
153	24950		
153	100		
152	46.5	17.1	77.1
154	90.0	66.5	126.5

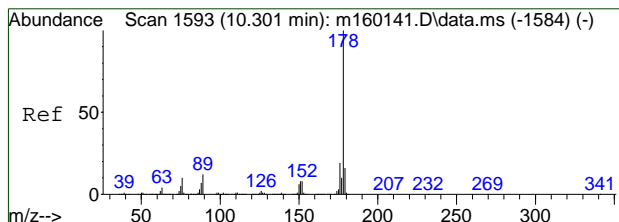
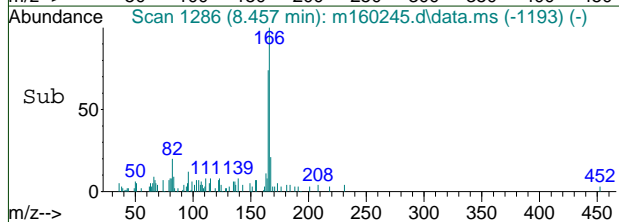
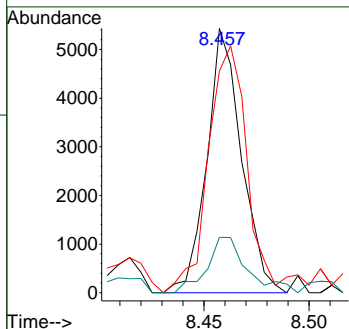
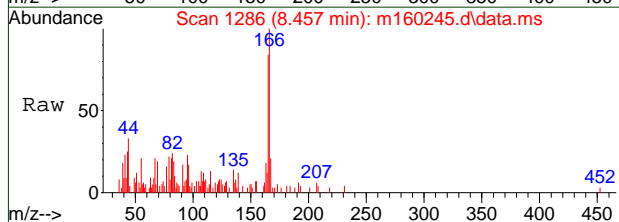


9.1.6
 9



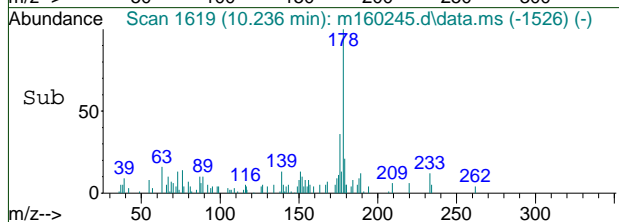
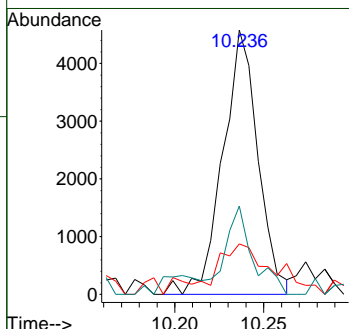
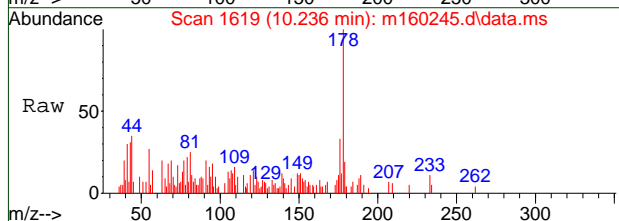
#66
 Fluorene
 Concen: 0.28 ppm
 RT: 8.457 min Scan# 1286
 Delta R.T. -0.004 min
 Lab File: m160245.d
 Acq: 11 Oct 2019 5:55 pm

Tgt Ion	Ratio	Lower	Upper
166	100		
165	80.9	62.9	122.9
167	19.4	0.0	43.8

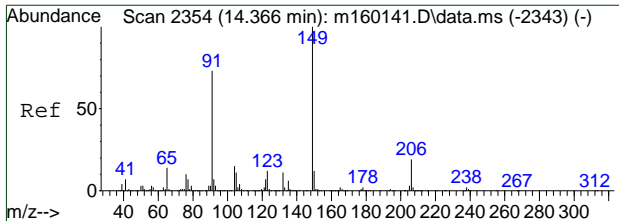


#78
 Anthracene
 Concen: 0.22 ppm
 RT: 10.236 min Scan# 1619
 Delta R.T. -0.004 min
 Lab File: m160245.d
 Acq: 11 Oct 2019 5:55 pm

Tgt Ion	Ratio	Lower	Upper
178	100		
179	13.7	0.0	45.9
176	30.9	0.0	48.8

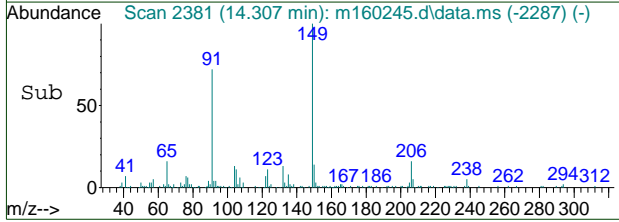
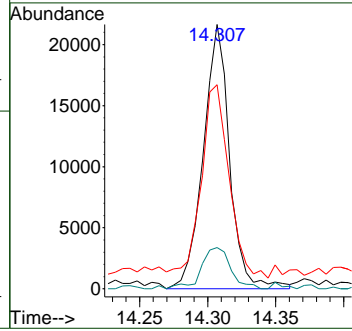
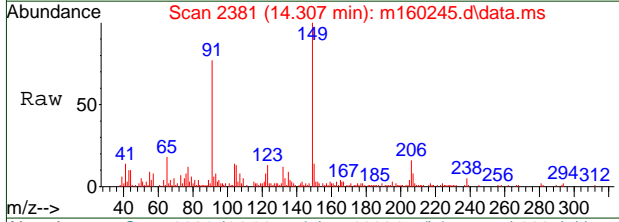


9.1.6
 9



#86
 Butylbenzylphthalate
 Concen: 1.71 ppm
 RT: 14.307 min Scan# 2381
 Delta R.T. 0.001 min
 Lab File: m160245.d
 Acq: 11 Oct 2019 5:55 pm

Tgt Ion	Ratio	Lower	Upper
149	100		
91	71.0	41.5	101.5
206	15.2	0.0	47.1



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\jeryllr\em6781\
 Data File : ml60246.d
 Acq On : 11 Oct 2019 6:23 pm
 Operator : hennys
 Sample : jc96248-6 Inst : MSM
 Misc : op23230,em6781,1000,,,1,1
 ALS Vial : 17 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MM6777.M
 Quant Results File: MM6777.RES
 Quant Time: Oct 14 05:37:12 2019
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 QLast Update : Mon Oct 14 05:00:48 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.362	152	302470	40.00	ppm	0.00
24) Naphthalene-d8	5.404	136	1002821	40.00	ppm	0.00
47) Acenaphthene-d10	7.578	164	592021	40.00	ppm	0.00
69) Phenanthrene-d10	10.105	188	1005043	40.00	ppm	0.00
83) Chrysene-d12	15.196	240	837272	40.00	ppm	0.00
91) Perylene-d12	17.787	264	935114	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.362	152	302470	40.00	ppm	0.00
103) Acenaphthene-d10a	7.578	164	592021	40.00	ppm	0.00
105) Acenaphthene-d10b	7.578	164	592021	40.00	ppm	0.00
107) Chrysene-d12a	15.196	240	837272	40.00	ppm	0.00
110) Phenanthrene-d10a	10.105	188	1005043	40.00	ppm	0.00
112) Phenanthrene-d10b	10.105	188	1005043	40.00	ppm	0.00
114) Naphthalene-d8a	5.404	136	1002821	40.00	ppm	0.00
116) Chrysene-d12c	15.196	240	837272	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	3.401	112	172130	12.95	ppm	0.00
Spiked Amount 50.000			Recovery =	25.90%		
8) Phenol-d5	4.143	99	148481	9.72	ppm	0.00
Spiked Amount 50.000			Recovery =	19.44%		
25) Nitrobenzene-d5	4.790	82	435700	33.77	ppm	0.00
Spiked Amount 50.000			Recovery =	67.54%		
51) 2-Fluorobiphenyl	6.638	172	718707	34.99	ppm	0.00
Spiked Amount 50.000			Recovery =	69.98%		
73) 2,4,6-Tribromophenol	8.882	330	158761	40.15	ppm	0.00
Spiked Amount 50.000			Recovery =	80.30%		
85) Terphenyl-d14	13.246	244	539899	23.69	ppm	0.00
Spiked Amount 50.000			Recovery =	47.38%		
109) 1-chlorooctadecane	0.000	57	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
113) o-terphenyl	0.000	230	0	0.00	ppm	
Target Compounds						Qvalue
38) Naphthalene	5.425	128	8405	0.31	ppm	95
77) Phenanthrene	10.148	178	5508	0.20	ppm	85
78) Anthracene	10.239	178	9681	0.33	ppm	94

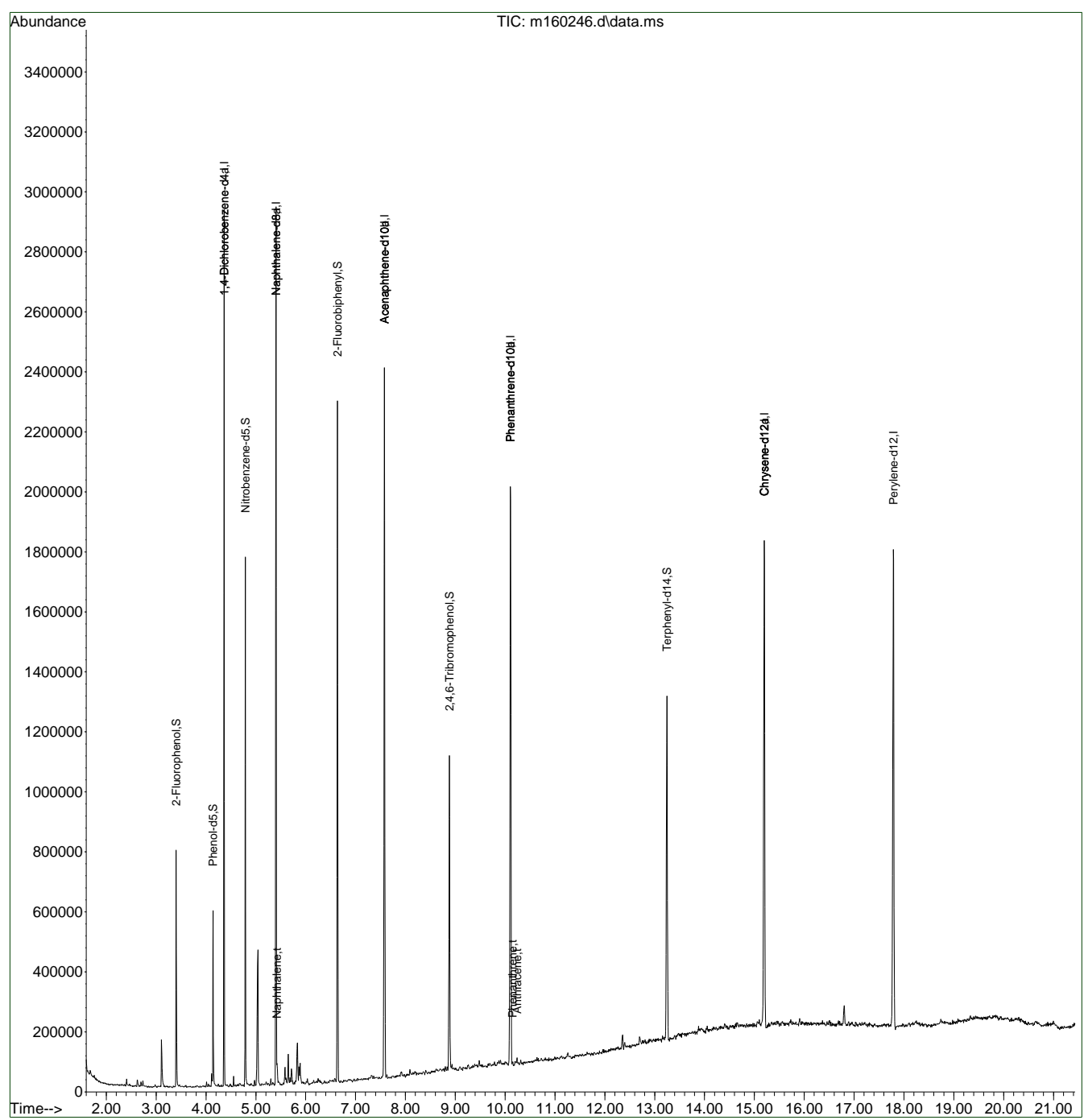
(#) = qualifier out of range (m) = manual integration (+) = signals summed

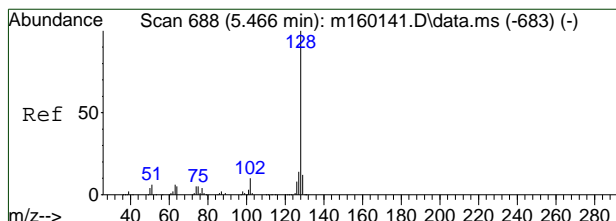
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\jeryllr\em6781\
Data File : m160246.d
Acq On : 11 Oct 2019 6:23 pm
Operator : hennys
Sample : jc96248-6
Misc : op23230,em6781,1000,,,1,1
ALS Vial : 17 Sample Multiplier: 1

Inst : MSM

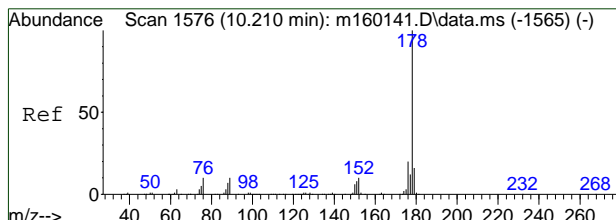
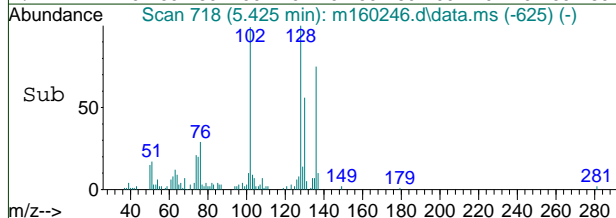
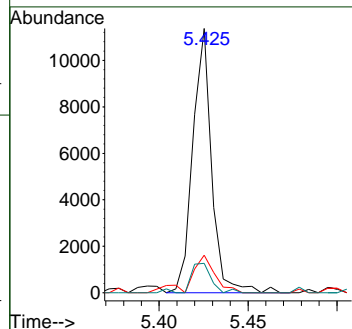
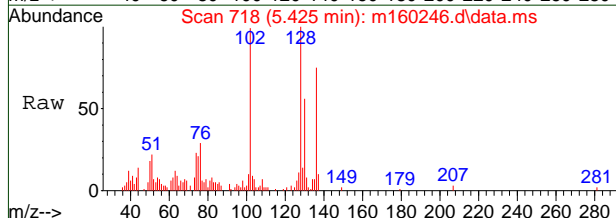
Quant Method : C:\MSDCHEM\1\METHODS\MM6777.M
Quant Results File: MM6777.RES
Quant Time: Oct 14 05:37:12 2019
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Mon Oct 14 05:00:48 2019
Response via : Initial Calibration





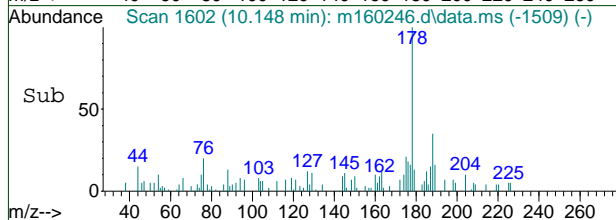
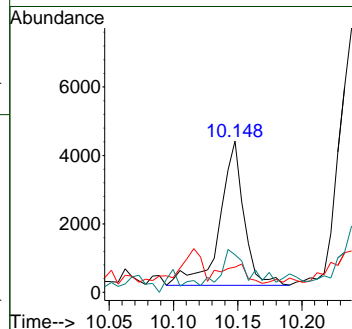
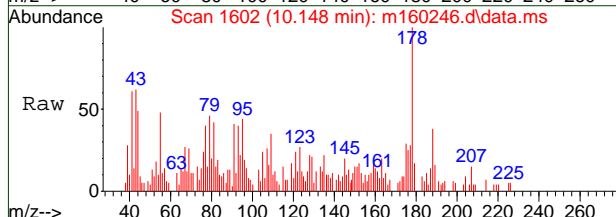
#38
 Naphthalene
 Concen: 0.31 ppm
 RT: 5.425 min Scan# 718
 Delta R.T. -0.002 min
 Lab File: m160246.d
 Acq: 11 Oct 2019 6:23 pm

Tgt Ion	Ratio	Lower	Upper
128	100		
129	12.8	0.0	41.7
127	10.3	0.0	43.4

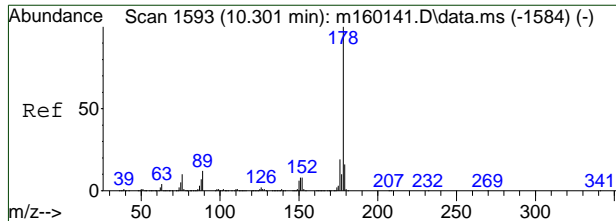


#77
 Phenanthrene
 Concen: 0.20 ppm
 RT: 10.148 min Scan# 1602
 Delta R.T. -0.002 min
 Lab File: m160246.d
 Acq: 11 Oct 2019 6:23 pm

Tgt Ion	Ratio	Lower	Upper
178	100		
179	6.8	0.0	45.2
176	15.1	0.0	50.2

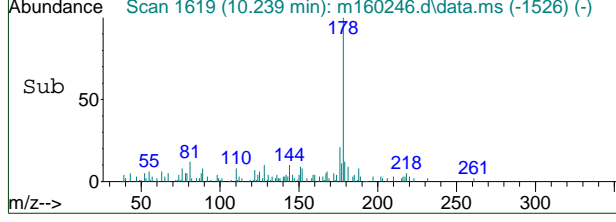
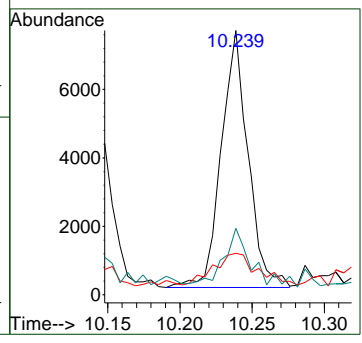
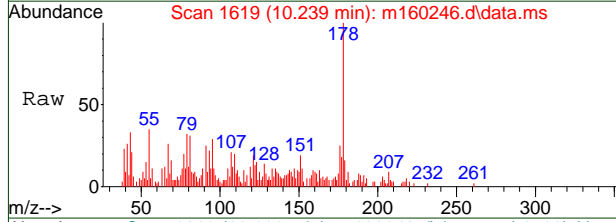


9.17
9



#78
 Anthracene
 Concen: 0.33 ppm
 RT: 10.239 min Scan# 1619
 Delta R.T. -0.002 min
 Lab File: m160246.d
 Acq: 11 Oct 2019 6:23 pm

Tgt Ion	Resp	Lower	Upper
178	9681		
179	10.7	0.0	45.9
176	18.7	0.0	48.8



9.1.7
 9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\data_aimeel\ef8099\
 Data File : f187974.d
 Acq On : 19 Oct 2019 8:00 am
 Operator : chriss2
 Sample : jc96248-6 Inst : GCMSF
 Misc : op23404,ef8099,1000,,,1,1
 ALS Vial : 16 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MF8050.M
 Quant Results File: MF8050.RES
 Quant Time: Oct 21 05:47:34 2019
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Mon Oct 21 05:12:34 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.502	152	117359	40.00	ppm	0.00
24) Naphthalene-d8	5.420	136	414459	40.00	ppm	0.00
47) Acenaphthene-d10	6.772	164	243407	40.00	ppm	0.00
69) Phenanthrene-d10	8.540	188	441275	40.00	ppm	0.00
83) Chrysene-d12	13.674	240	462531	40.00	ppm	0.00
91) Perylene-d12	16.698	264	495561	40.00	ppm	0.01
101) 1,4-Dichlorobenzene-d4b	4.502	152	117359	40.00	ppm	0.00
103) Phenanthrene-d10b	8.540	188	441275	40.00	ppm	0.00
105) Chrysene-d12b	13.674	240	462531	40.00	ppm	0.00
107) Naphthalene-d8b	5.420	136	414459	40.00	ppm	0.00
109) Acenaphthene-d10b	6.772	164	243407	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	3.524	112	76083	17.50	ppm	0.00
Spiked Amount	50.000		Recovery	=	35.00%	
8) Phenol-d5	4.245	99	72998	13.57	ppm	0.00
Spiked Amount	50.000		Recovery	=	27.14%	
25) Nitrobenzene-d5	4.902	82	219427	45.74	ppm	0.00
Spiked Amount	50.000		Recovery	=	91.48%	
51) 2-Fluorobiphenyl	6.195	172	345699	36.82	ppm	0.00
Spiked Amount	50.000		Recovery	=	73.64%	
73) 2,4,6-Tribromophenol	7.605	330	64771	48.95	ppm	0.00
Spiked Amount	50.000		Recovery	=	97.90%	
85) Terphenyl-d14	11.500	244	460324	42.45	ppm	0.01
Spiked Amount	50.000		Recovery	=	84.90%	
Target Compounds						
38) Naphthalene	5.431	128	15975	1.31	ppm	Qvalue 97

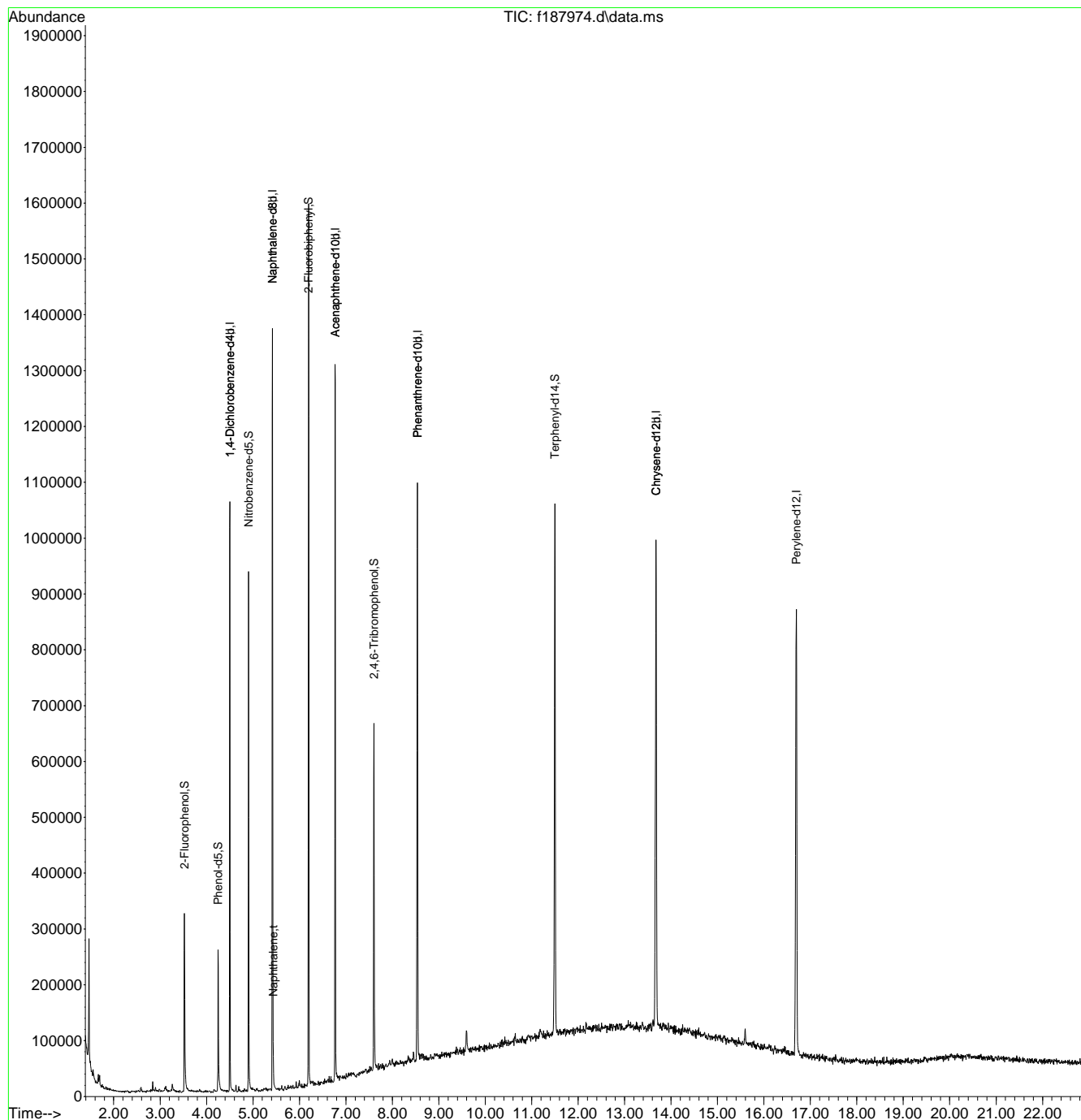
(#) = qualifier out of range (m) = manual integration (+) = signals summed

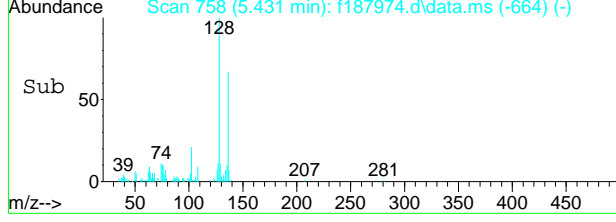
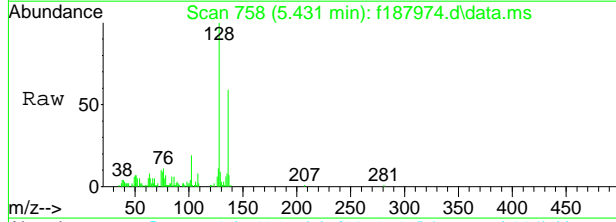
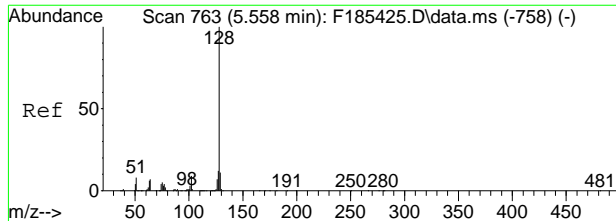
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\data_aimeel\ef8099\
 Data File : f187974.d
 Acq On : 19 Oct 2019 8:00 am
 Operator : chriss2
 Sample : jc96248-6
 Misc : op23404,ef8099,1000,,,1,1
 ALS Vial : 16 Sample Multiplier: 1

Inst : GCMSF

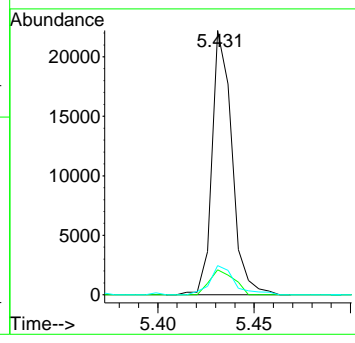
Quant Method : C:\MSDCHEM\1\METHODS\MF8050.M
 Quant Results File: MF8050.RES
 Quant Time: Oct 21 05:47:34 2019
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Mon Oct 21 05:12:34 2019
 Response via : Initial Calibration





#38
 Naphthalene
 Concen: 1.31 ppm
 RT: 5.431 min Scan# 758
 Delta R.T. -0.000 min
 Lab File: f187974.d
 Acq: 19 Oct 2019 8:00 am

Tgt Ion	Ratio	Lower	Upper
128	100		
129	9.5	0.0	40.9
127	11.0	0.0	41.9



9.1.8
 9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\jeryllr\em6781\
 Data File : ml60247.d
 Acq On : 11 Oct 2019 6:51 pm
 Operator : hennys
 Sample : jc96248-7 Inst : MSM
 Misc : op23230,em6781,1000,,,1,1
 ALS Vial : 18 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MM6777.M
 Quant Results File: MM6777.RES
 Quant Time: Oct 14 05:40:06 2019
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 QLast Update : Mon Oct 14 05:00:48 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.362	152	291483	40.00	ppm	0.00
24) Naphthalene-d8	5.404	136	968249	40.00	ppm	0.00
47) Acenaphthene-d10	7.578	164	579934	40.00	ppm	0.00
69) Phenanthrene-d10	10.105	188	998972	40.00	ppm	0.00
83) Chrysene-d12	15.191	240	875888	40.00	ppm	0.00
91) Perylene-d12	17.787	264	942261	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.362	152	291483	40.00	ppm	0.00
103) Acenaphthene-d10a	7.578	164	579934	40.00	ppm	0.00
105) Acenaphthene-d10b	7.578	164	579934	40.00	ppm	0.00
107) Chrysene-d12a	15.191	240	875888	40.00	ppm	0.00
110) Phenanthrene-d10a	10.105	188	998972	40.00	ppm	0.00
112) Phenanthrene-d10b	10.105	188	998972	40.00	ppm	0.00
114) Naphthalene-d8a	5.404	136	968249	40.00	ppm	0.00
116) Chrysene-d12c	15.191	240	875888	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	3.401	112	155413	12.13	ppm	0.00
Spiked Amount 50.000			Recovery =	24.26%		
8) Phenol-d5	4.143	99	124997	8.49	ppm	0.00
Spiked Amount 50.000			Recovery =	16.98%		
25) Nitrobenzene-d5	4.790	82	395240	31.73	ppm	0.00
Spiked Amount 50.000			Recovery =	63.46%		
51) 2-Fluorobiphenyl	6.638	172	648201	32.21	ppm	0.00
Spiked Amount 50.000			Recovery =	64.42%		
73) 2,4,6-Tribromophenol	8.882	330	158938	40.43	ppm	0.00
Spiked Amount 50.000			Recovery =	80.86%		
85) Terphenyl-d14	13.246	244	617106	25.88	ppm	0.00
Spiked Amount 50.000			Recovery =	51.76%		
109) 1-chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
113) o-terphenyl	0.000	230	0	0.00	ppm	
Target Compounds						
18) Acetophenone	4.672	105	3132	0.20	ppm	Qvalue 80
38) Naphthalene	5.426	128	153942m	5.79	ppm	
44) 2-Methylnaphthalene	6.163	141	11262	0.67	ppm	97
53) Biphenyl	6.761	154	3589	0.14	ppm	89
62) Dibenzofuran	7.904	168	11195	0.40	ppm	95
66) Fluorene	8.460	166	20340	0.90	ppm	96
77) Phenanthrene	10.143	178	30983	1.11	ppm	91
78) Anthracene	10.233	178	12544	0.43	ppm	95
79) Carbazole	10.607	167	29246	0.91	ppm	97
81) Fluoranthene	12.392	202	9693	0.26	ppm	90
84) Pyrene	12.808	202	5662	0.16	ppm	96

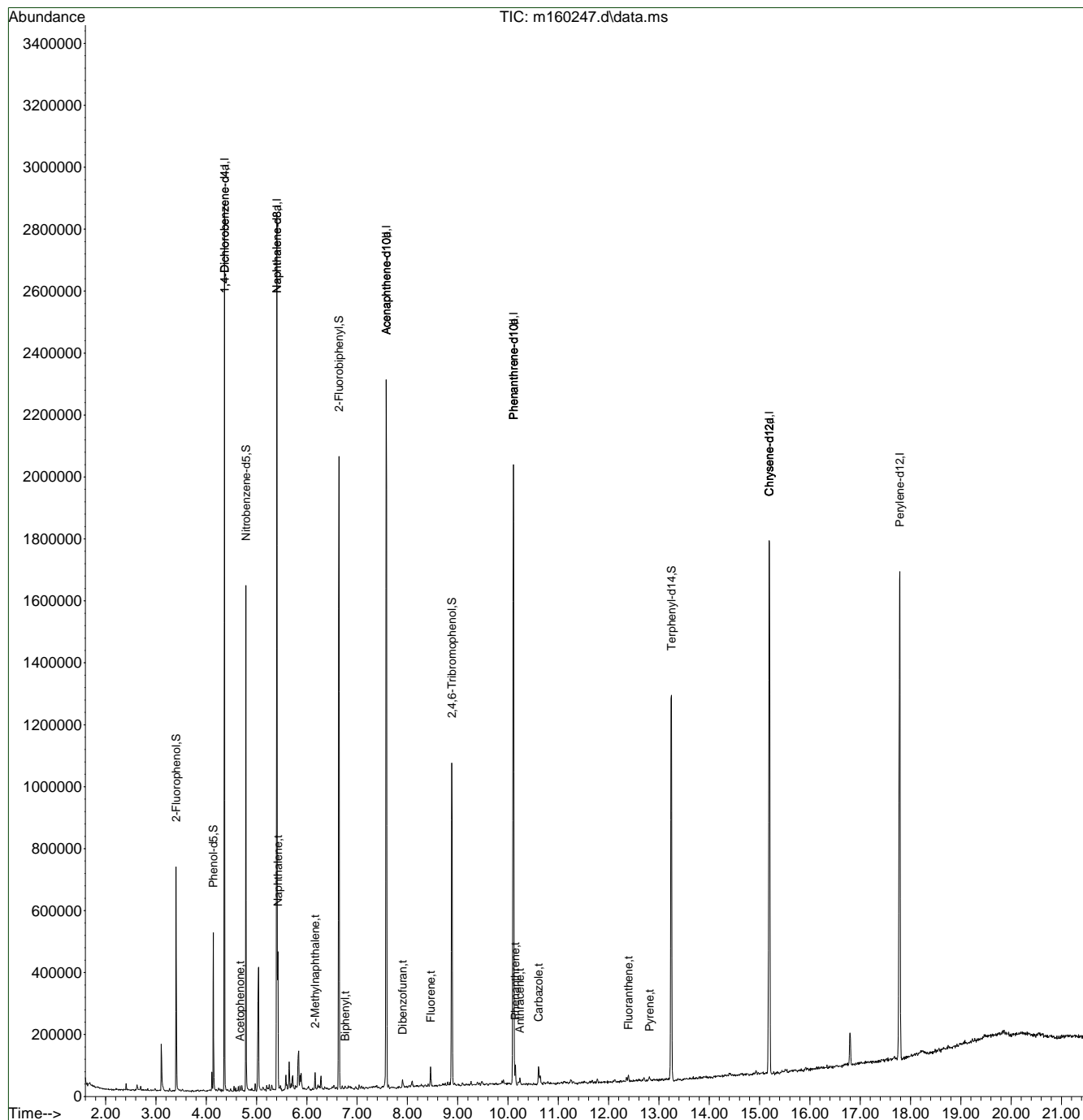
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\jeryllr\em6781\
 Data File : m160247.d
 Acq On : 11 Oct 2019 6:51 pm
 Operator : hennys
 Sample : jc96248-7
 Misc : op23230,em6781,1000,,,1,1
 ALS Vial : 18 Sample Multiplier: 1

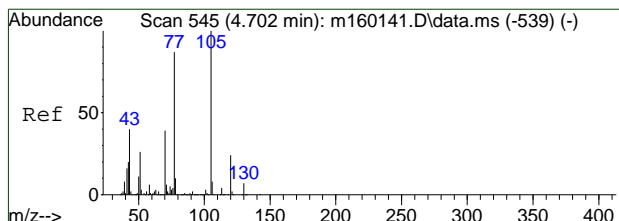
Inst : MSM

Quant Method : C:\MSDCHEM\1\METHODS\MM6777.M
 Quant Results File: MM6777.RES
 Quant Time: Oct 14 05:40:06 2019
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 QLast Update : Mon Oct 14 05:00:48 2019
 Response via : Initial Calibration



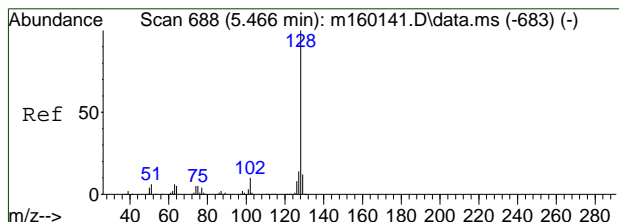
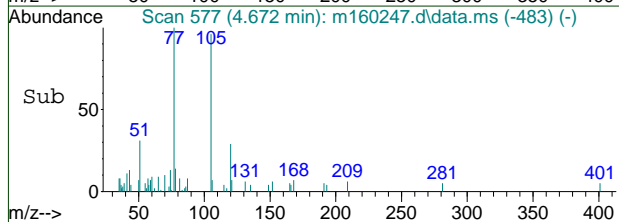
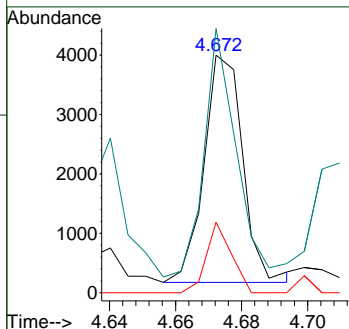
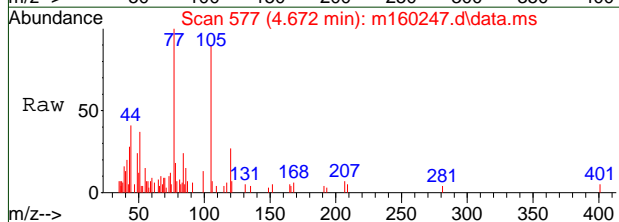
9.19
6





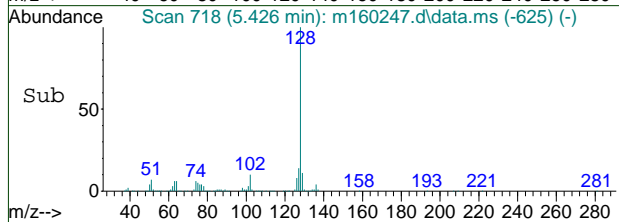
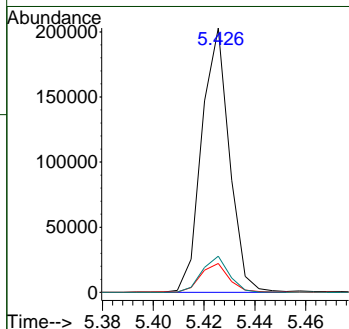
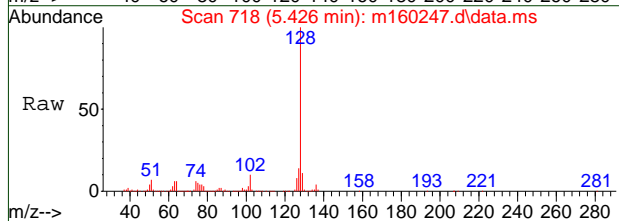
#18
 Acetophenone
 Concen: 0.20 ppm
 RT: 4.672 min Scan# 577
 Delta R.T. 0.004 min
 Lab File: m160247.d
 Acq: 11 Oct 2019 6:51 pm

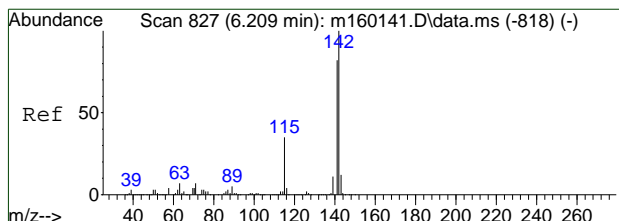
Tgt Ion	Ratio	Lower	Upper
105	100		
120	31.8	0.0	53.4
77	109.0	59.4	119.4



#38
 Naphthalene
 Concen: 5.79 ppm m
 RT: 5.426 min Scan# 718
 Delta R.T. -0.002 min
 Lab File: m160247.d
 Acq: 11 Oct 2019 6:51 pm

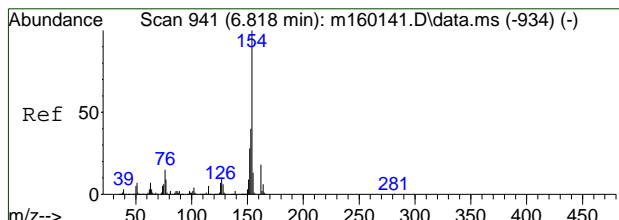
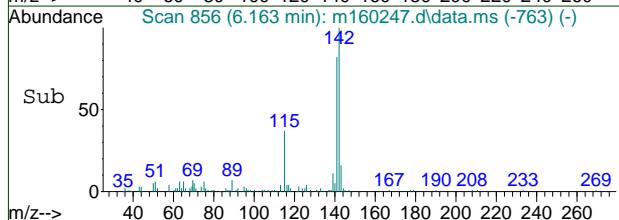
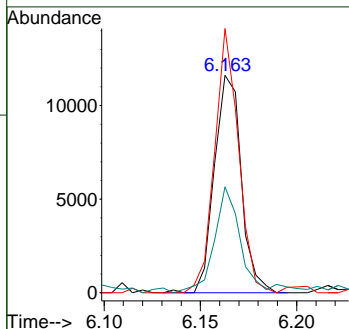
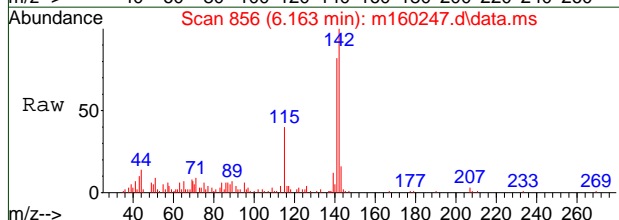
Tgt Ion	Ratio	Lower	Upper
128	100		
129	11.0	0.0	41.7
127	13.7	0.0	43.4





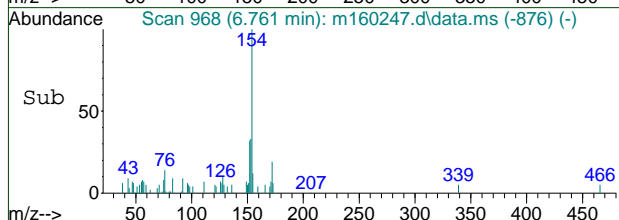
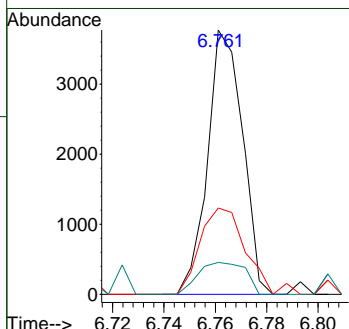
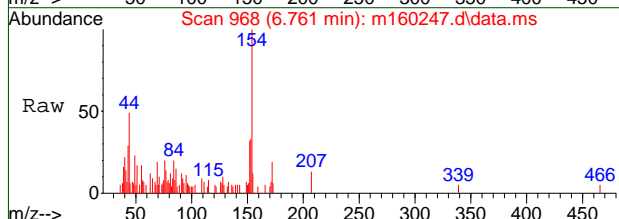
#44
 2-Methylnaphthalene
 Concen: 0.67 ppm
 RT: 6.163 min Scan# 856
 Delta R.T. -0.002 min
 Lab File: m160247.d
 Acq: 11 Oct 2019 6:51 pm

Tgt Ion	Ratio	Lower	Upper
141	100		
142	119.1	91.9	151.9
115	46.3	13.9	73.9

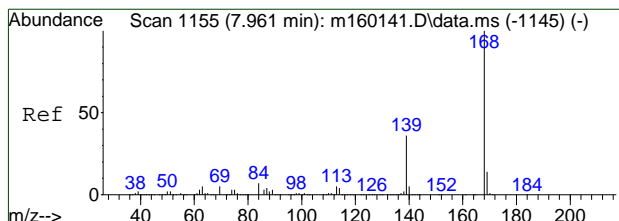


#53
 Biphenyl
 Concen: 0.14 ppm
 RT: 6.761 min Scan# 968
 Delta R.T. -0.007 min
 Lab File: m160247.d
 Acq: 11 Oct 2019 6:51 pm

Tgt Ion	Ratio	Lower	Upper
154	100		
153	30.6	8.9	68.9
155	12.1	0.0	42.9

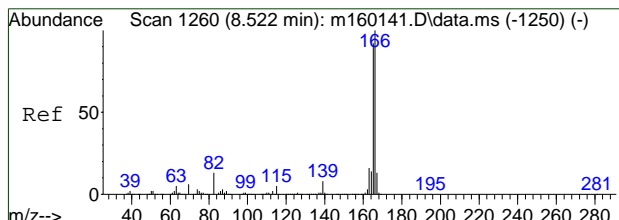
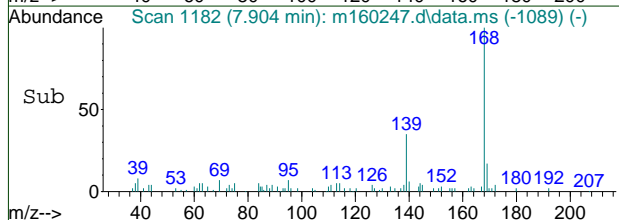
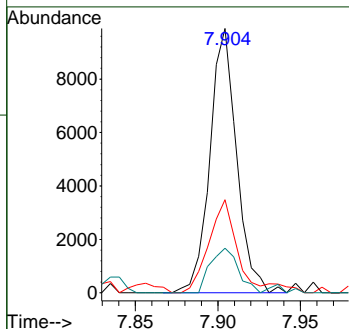
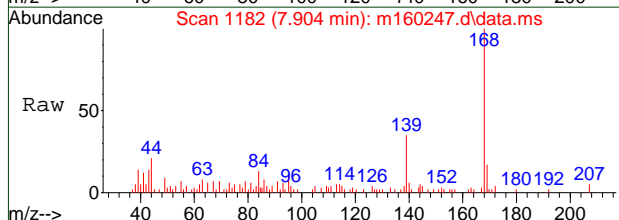


9.1.9
 9



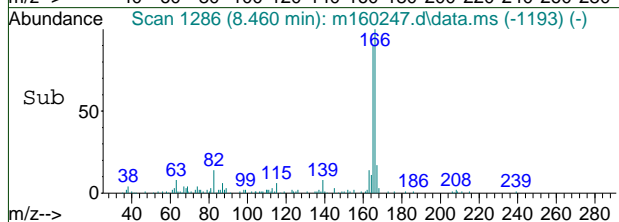
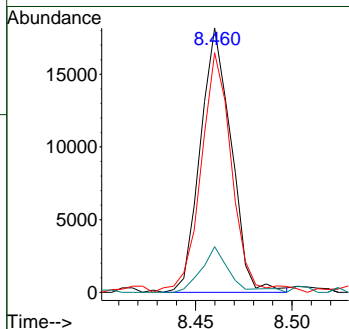
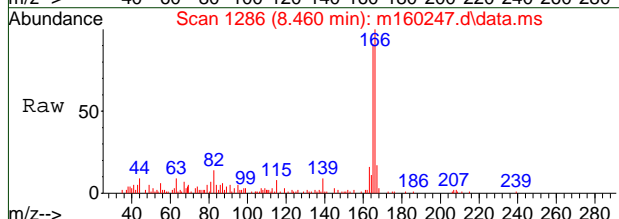
#62
 Dibenzofuran
 Concen: 0.40 ppm
 RT: 7.904 min Scan# 1182
 Delta R.T. -0.002 min
 Lab File: m160247.d
 Acq: 11 Oct 2019 6:51 pm

Tgt Ion	Ratio	Lower	Upper
168	100		
139	33.0	4.6	64.6
169	16.9	0.0	43.0

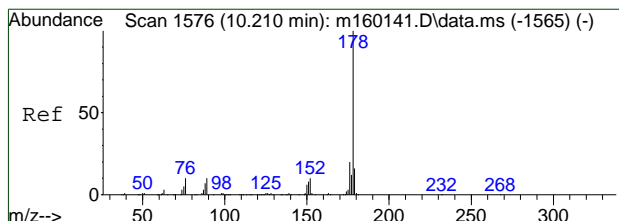


#66
 Fluorene
 Concen: 0.90 ppm
 RT: 8.460 min Scan# 1286
 Delta R.T. -0.002 min
 Lab File: m160247.d
 Acq: 11 Oct 2019 6:51 pm

Tgt Ion	Ratio	Lower	Upper
166	100		
165	89.5	62.9	122.9
167	17.4	0.0	43.8

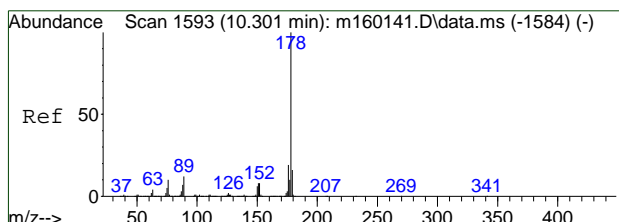
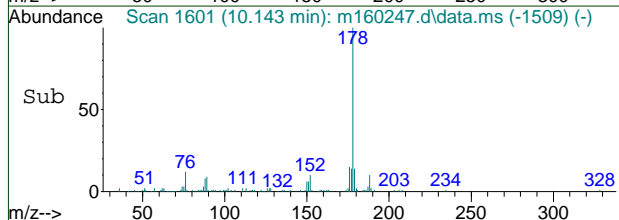
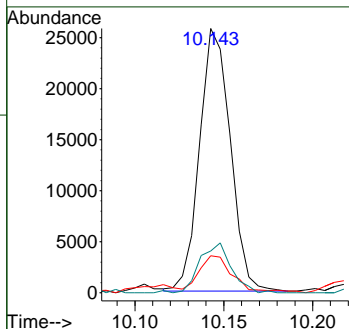
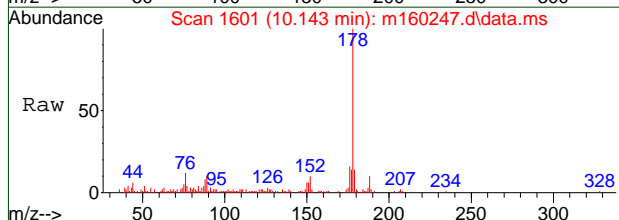


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 9



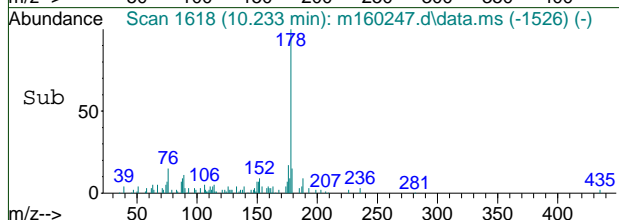
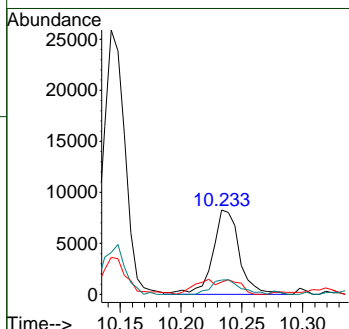
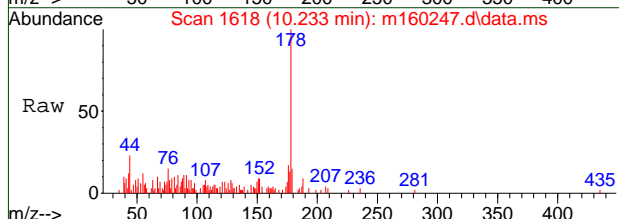
#77
 Phenanthrene
 Concen: 1.11 ppm
 RT: 10.143 min Scan# 1601
 Delta R.T. -0.007 min
 Lab File: m160247.d
 Acq: 11 Oct 2019 6:51 pm

Tgt Ion	Resp	Lower	Upper
178	30983		
179	12.3	0.0	45.2
176	15.5	0.0	50.2

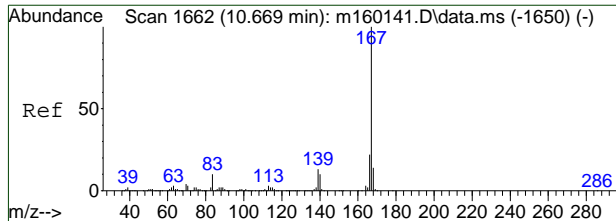


#78
 Anthracene
 Concen: 0.43 ppm
 RT: 10.233 min Scan# 1618
 Delta R.T. -0.007 min
 Lab File: m160247.d
 Acq: 11 Oct 2019 6:51 pm

Tgt Ion	Resp	Lower	Upper
178	12544		
179	12.8	0.0	45.9
176	17.1	0.0	48.8

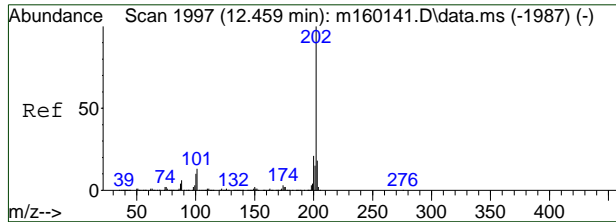
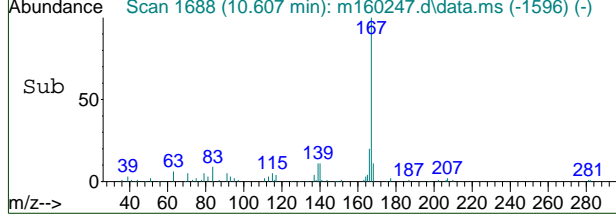
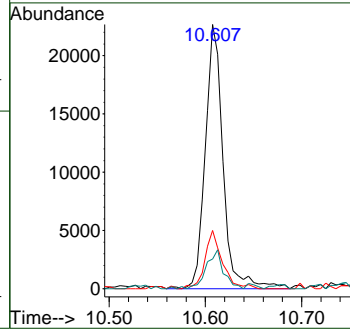
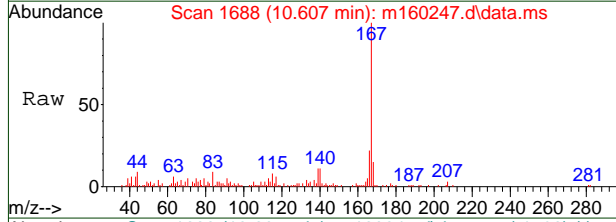


9.1.9
 9



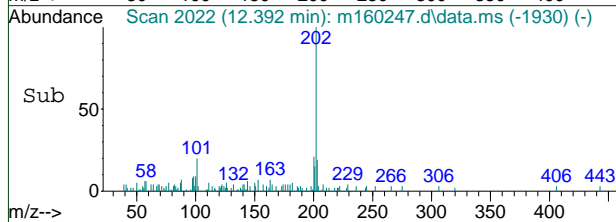
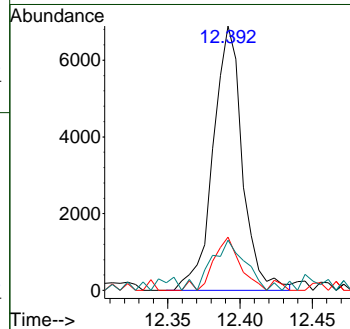
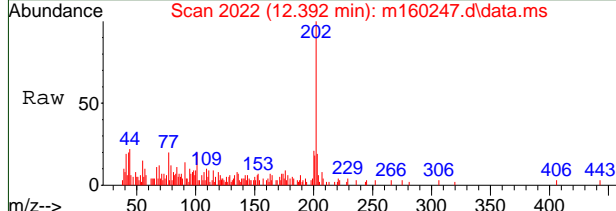
#79
 Carbazole
 Concen: 0.91 ppm
 RT: 10.607 min Scan# 1688
 Delta R.T. -0.007 min
 Lab File: m160247.d
 Acq: 11 Oct 2019 6:51 pm

Tgt Ion	Ratio	Lower	Upper
167	100		
166	22.0	0.0	50.8
139	11.3	0.0	42.5

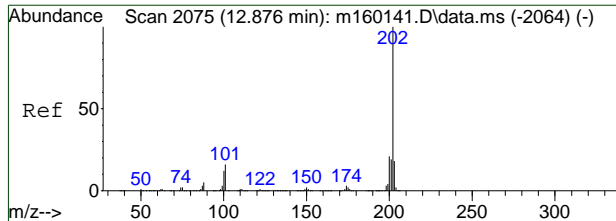


#81
 Fluoranthene
 Concen: 0.26 ppm
 RT: 12.392 min Scan# 2022
 Delta R.T. -0.007 min
 Lab File: m160247.d
 Acq: 11 Oct 2019 6:51 pm

Tgt Ion	Ratio	Lower	Upper
202	100		
101	20.4	0.0	42.6
203	16.0	0.0	47.4

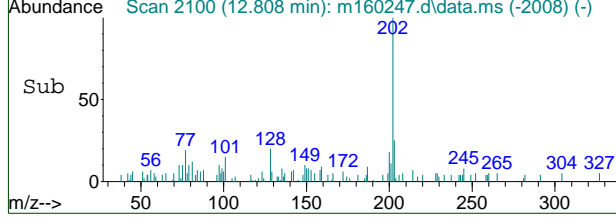
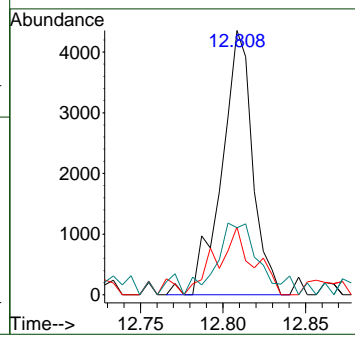
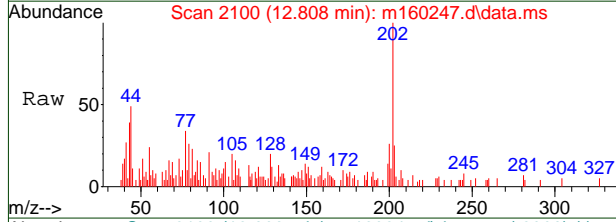


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 9



#84
 Pyrene
 Concen: 0.16 ppm
 RT: 12.808 min Scan# 2100
 Delta R.T. -0.007 min
 Lab File: m160247.d
 Acq: 11 Oct 2019 6:51 pm

Tgt Ion	Ratio	Lower	Upper
202	100		
200	22.6	0.0	50.4
203	19.3	0.0	47.7



9.1.9
 9



Manual Integration Approval Summary

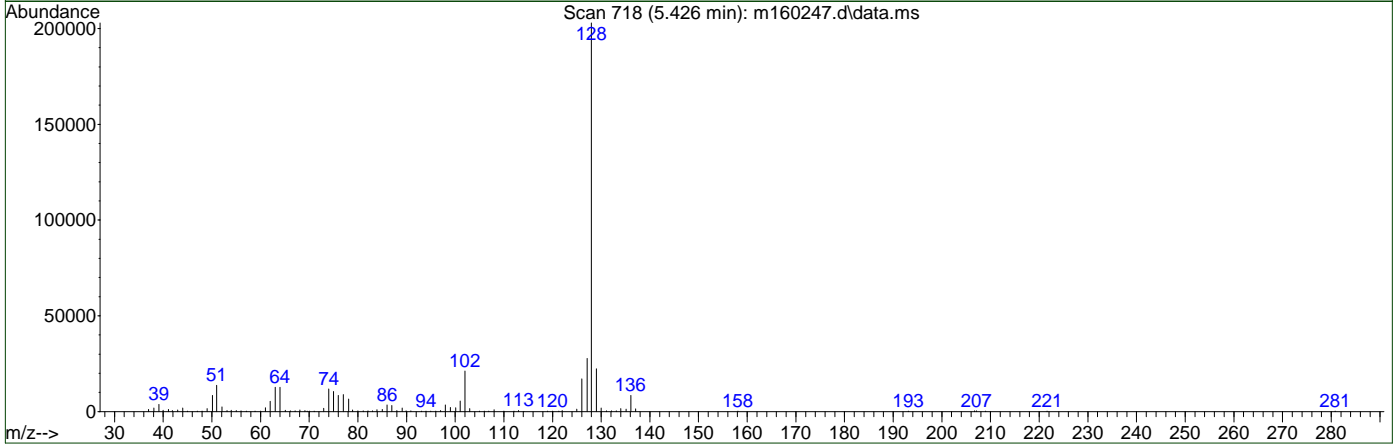
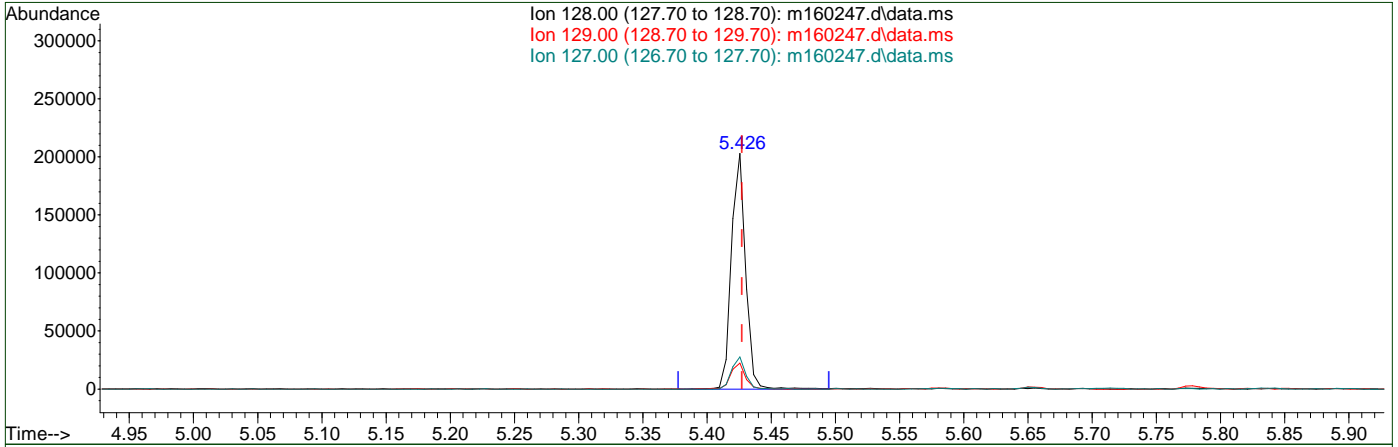
Sample Number: JC96248-7 Method: SW846 8270D
Lab FileID: M160247.D Analyst approved: 10/14/19 06:37 Jeryll Fabriene Reyes
Injection Time: 10/11/19 18:51 Supervisor approved: 10/22/19 13:17 Nina Pandya

Parameter	CAS	Sig#	R.T. (min.)	Reason
Naphthalene	91-20-3		5.43	Poor instrument integration

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\jeryllr\em6781\
 Data File : m160247.d
 Acq On : 11 Oct 2019 6:51 pm
 Operator : hennys
 Sample : jc9248-7 Inst : MSM
 Misc : op23230,em6781,1000,,,1,1
 ALS Vial : 18 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MM6777.M
 Quant Results File: MM6777.RES
 Quant Time: Oct 14 05:03:18 2019
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 QLast Update : Mon Oct 14 05:00:48 2019
 Response via : Initial Calibration



TIC: m160247.d\data.ms

(38) Naphthalene (t)
 5.426min (-0.002) 5.86ppm
 response 155904

Ion	Exp%	Act%
128.00	100	100
129.00	11.70	10.94
127.00	13.40	13.68
0.00	0.00	0.00

9.1.9.2
9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\data_aimeel\ef8099\
 Data File : f187975.d
 Acq On : 19 Oct 2019 8:29 am
 Operator : chriss2
 Sample : jc96248-7 Inst : GCMSF
 Misc : op23404,ef8099,1000,,,1,1
 ALS Vial : 17 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MF8050.M
 Quant Results File: MF8050.RES
 Quant Time: Oct 21 05:49:44 2019
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Mon Oct 21 05:12:34 2019
 Response via : Initial Calibration

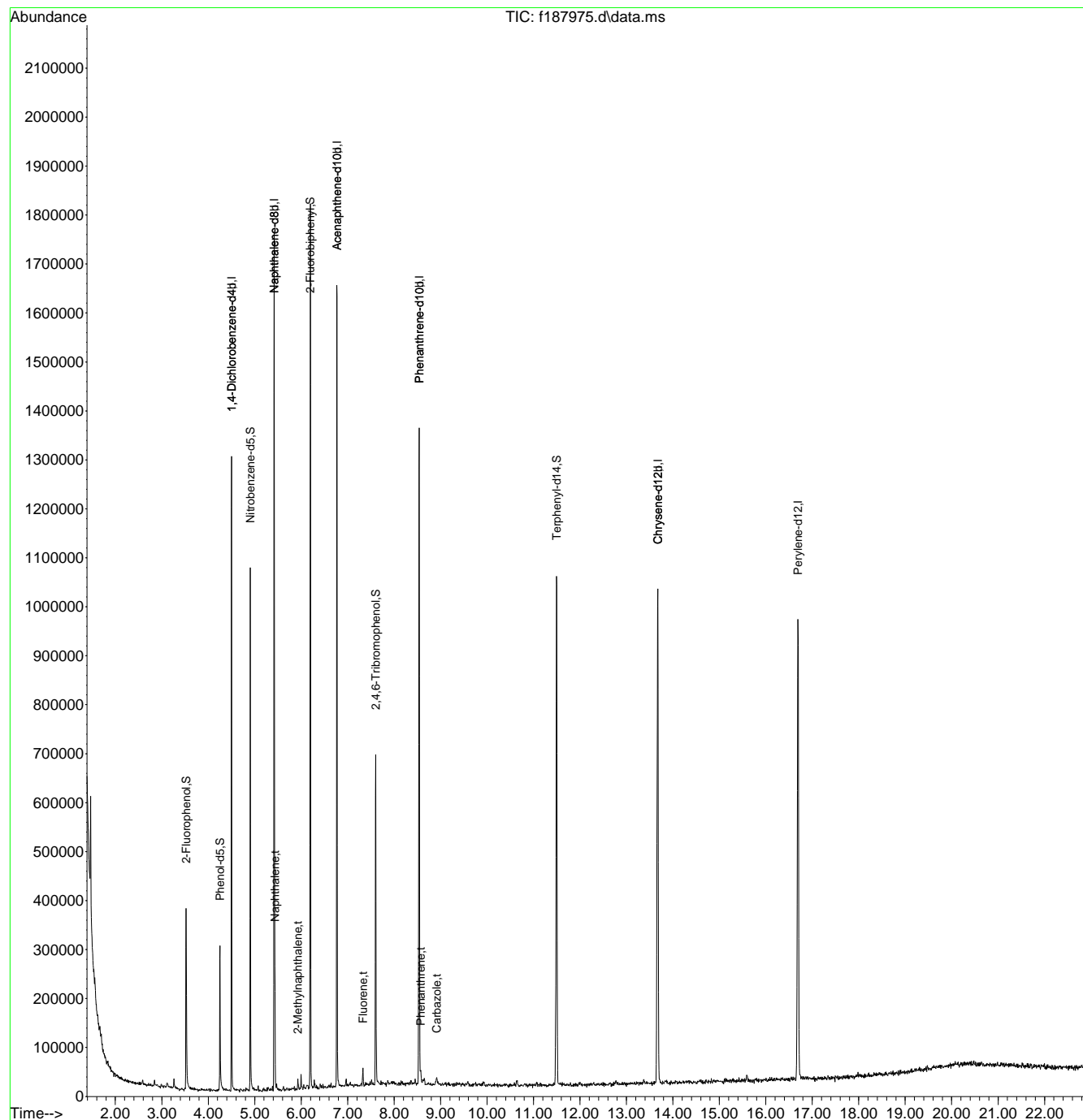
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.502	152	145203	40.00	ppm	0.00
24) Naphthalene-d8	5.420	136	524301	40.00	ppm	0.00
47) Acenaphthene-d10	6.772	164	326871	40.00	ppm	0.00
69) Phenanthrene-d10	8.540	188	578107	40.00	ppm	0.00
83) Chrysene-d12	13.674	240	554935	40.00	ppm	0.00
91) Perylene-d12	16.693	264	591217	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4b	4.502	152	145203	40.00	ppm	0.00
103) Phenanthrene-d10b	8.540	188	578107	40.00	ppm	0.00
105) Chrysene-d12b	13.674	240	554935	40.00	ppm	0.00
107) Naphthalene-d8b	5.420	136	524301	40.00	ppm	0.00
109) Acenaphthene-d10b	6.772	164	326871	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	3.524	112	94548	17.57	ppm	0.00
Spiked Amount	50.000		Recovery	=	35.14%	
8) Phenol-d5	4.250	99	89983	13.52	ppm	0.00
Spiked Amount	50.000		Recovery	=	27.04%	
25) Nitrobenzene-d5	4.902	82	242948	40.03	ppm	0.00
Spiked Amount	50.000		Recovery	=	80.06%	
51) 2-Fluorobiphenyl	6.195	172	429516	34.07	ppm	0.00
Spiked Amount	50.000		Recovery	=	68.14%	
73) 2,4,6-Tribromophenol	7.605	330	77289	44.58	ppm	0.00
Spiked Amount	50.000		Recovery	=	89.16%	
85) Terphenyl-d14	11.500	244	520181	39.98	ppm	0.01
Spiked Amount	50.000		Recovery	=	79.96%	
Target Compounds						
38) Naphthalene	5.431	128	72527	4.71	ppm	100
44) 2-Methylnaphthalene	5.928	141	3058	0.39	ppm	93
66) Fluorene	7.328	166	8529	0.76	ppm	95
77) Phenanthrene	8.572	178	10530	0.61	ppm	94
79) Carbazole	8.920	167	5745	0.37	ppm	82

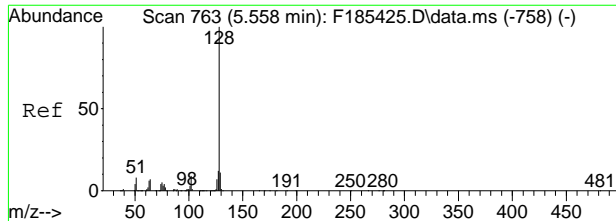
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\data_aimeel\ef8099\
Data File : f187975.d
Acq On : 19 Oct 2019 8:29 am
Operator : chriss2
Sample : jc96248-7 Inst : GCMSF
Misc : op23404,ef8099,1000,,,1,1
ALS Vial : 17 Sample Multiplier: 1

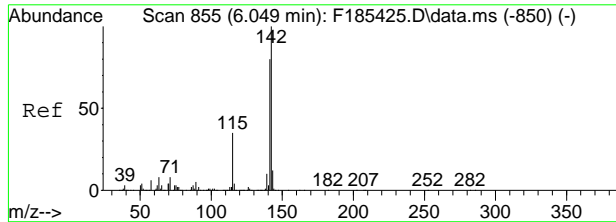
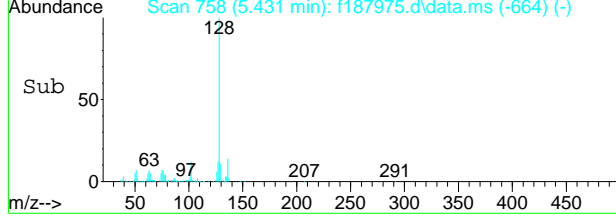
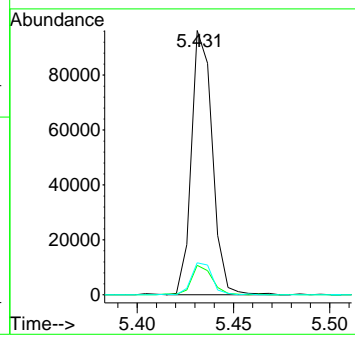
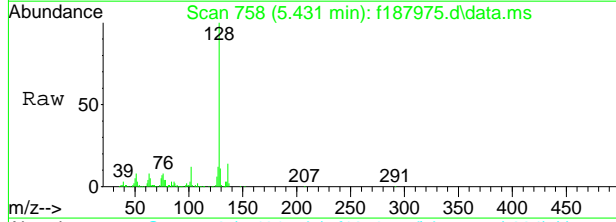
Quant Method : C:\MSDCHEM\1\METHODS\MF8050.M
Quant Results File: MF8050.RES
Quant Time: Oct 21 05:49:44 2019
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Oct 21 05:12:34 2019
Response via : Initial Calibration





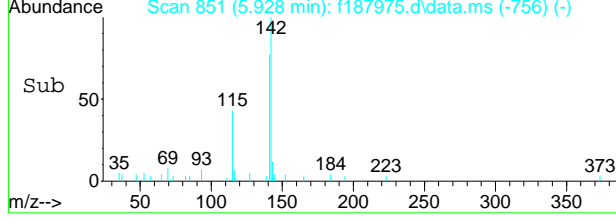
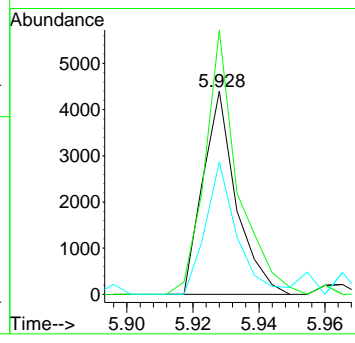
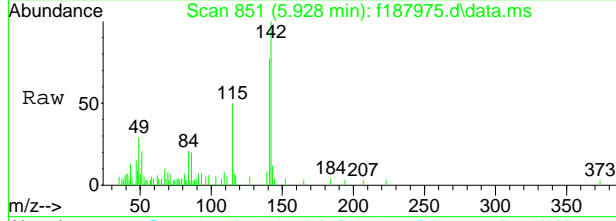
#38
 Naphthalene
 Concen: 4.71 ppm
 RT: 5.431 min Scan# 758
 Delta R.T. -0.000 min
 Lab File: f187975.d
 Acq: 19 Oct 2019 8:29 am

Tgt Ion	Ratio	Lower	Upper
128	100		
129	10.9	0.0	40.9
127	12.0	0.0	41.9



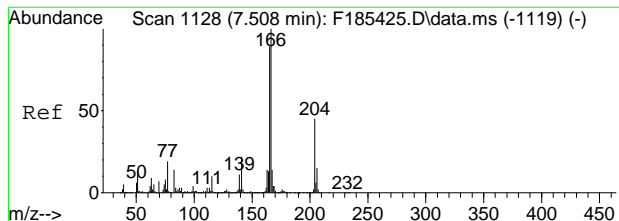
#44
 2-Methylnaphthalene
 Concen: 0.39 ppm
 RT: 5.928 min Scan# 851
 Delta R.T. 0.005 min
 Lab File: f187975.d
 Acq: 19 Oct 2019 8:29 am

Tgt Ion	Ratio	Lower	Upper
141	100		
142	128.4	88.6	148.6
115	63.4	29.9	89.9



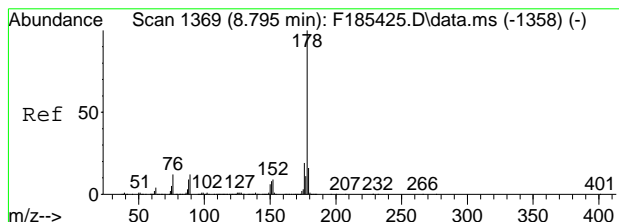
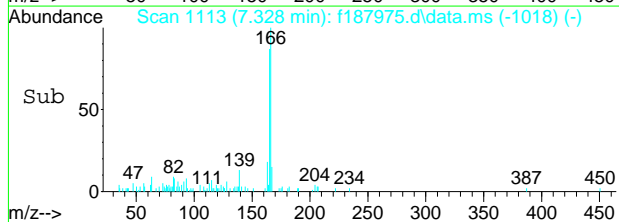
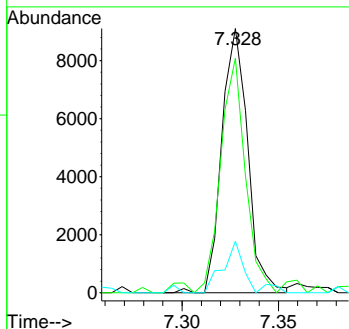
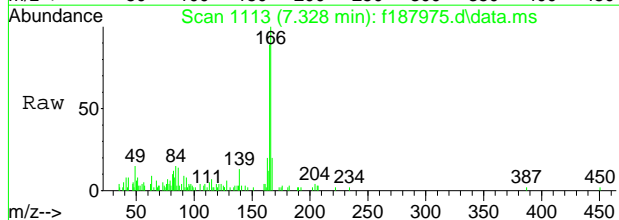
9.1.10
 9





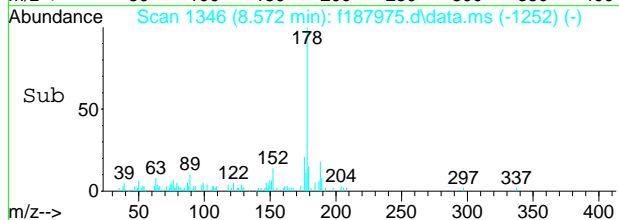
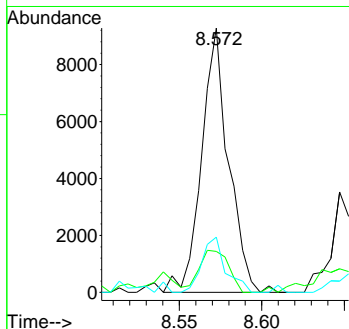
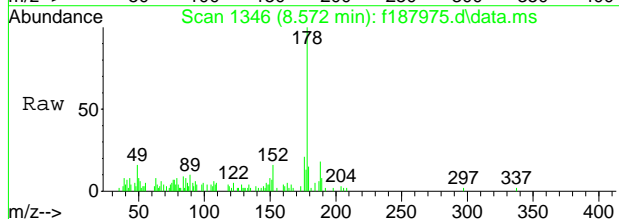
#66
 Fluorene
 Concen: 0.76 ppm
 RT: 7.328 min Scan# 1113
 Delta R.T. 0.005 min
 Lab File: f187975.d
 Acq: 19 Oct 2019 8:29 am

Tgt Ion	Resp	Lower	Upper
166	100		
165	87.5	61.2	121.2
167	19.7	0.0	44.7

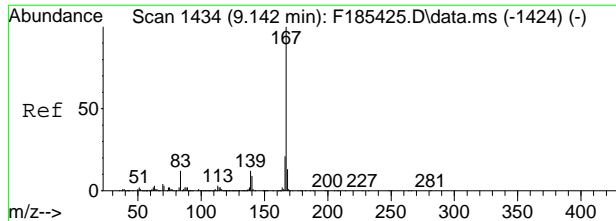


#77
 Phenanthrene
 Concen: 0.61 ppm
 RT: 8.572 min Scan# 1346
 Delta R.T. -0.000 min
 Lab File: f187975.d
 Acq: 19 Oct 2019 8:29 am

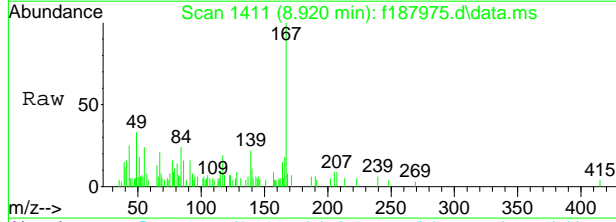
Tgt Ion	Resp	Lower	Upper
178	100		
179	10.5	0.0	46.0
176	18.9	0.0	48.7



9.1.10
 9

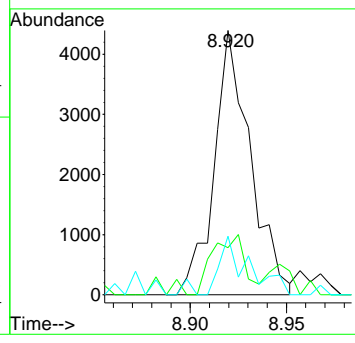
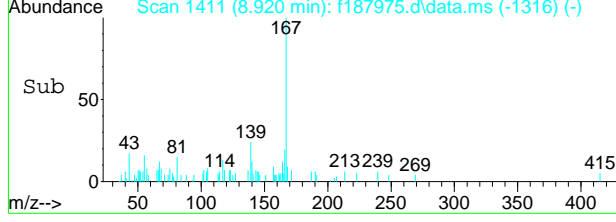


#79
 Carbazole
 Concen: 0.37 ppm
 RT: 8.920 min Scan# 1411
 Delta R.T. 0.005 min
 Lab File: f187975.d
 Acq: 19 Oct 2019 8:29 am



Tgt Ion: 167 Resp: 5745

Ion	Ratio	Lower	Upper
167	100		
166	13.6	0.0	50.3
139	22.7	0.0	43.3



9.1.10
 9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\jeryllr\em6781\
 Data File : ml60248.d
 Acq On : 11 Oct 2019 7:19 pm
 Operator : hennys
 Sample : jc96248-8 Inst : MSM
 Misc : op23230,em6781,990,,,1,1
 ALS Vial : 19 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MM6777.M
 Quant Results File: MM6777.RES
 Quant Time: Oct 14 05:42:12 2019
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 QLast Update : Mon Oct 14 05:00:48 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.361	152	298366	40.00	ppm	0.00
24) Naphthalene-d8	5.403	136	971962	40.00	ppm	0.00
47) Acenaphthene-d10	7.577	164	599508	40.00	ppm	0.00
69) Phenanthrene-d10	10.104	188	1050302	40.00	ppm	0.00
83) Chrysene-d12	15.190	240	930184	40.00	ppm	0.00
91) Perylene-d12	17.781	264	985658	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.361	152	298366	40.00	ppm	0.00
103) Acenaphthene-d10a	7.577	164	599508	40.00	ppm	0.00
105) Acenaphthene-d10b	7.577	164	599508	40.00	ppm	0.00
107) Chrysene-d12a	15.190	240	930184	40.00	ppm	0.00
110) Phenanthrene-d10a	10.104	188	1050302	40.00	ppm	0.00
112) Phenanthrene-d10b	10.104	188	1050302	40.00	ppm	0.00
114) Naphthalene-d8a	5.403	136	971962	40.00	ppm	0.00
116) Chrysene-d12c	15.190	240	930184	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	3.400	112	163375	12.46	ppm	0.00
Spiked Amount 50.000			Recovery =	24.92%		
8) Phenol-d5	4.142	99	130405	8.65	ppm	0.00
Spiked Amount 50.000			Recovery =	17.30%		
25) Nitrobenzene-d5	4.789	82	412171	32.96	ppm	0.00
Spiked Amount 50.000			Recovery =	65.92%		
51) 2-Fluorobiphenyl	6.637	172	638884	30.71	ppm	0.00
Spiked Amount 50.000			Recovery =	61.42%		
73) 2,4,6-Tribromophenol	8.881	330	161704	39.13	ppm	0.00
Spiked Amount 50.000			Recovery =	78.26%		
85) Terphenyl-d14	13.245	244	801296	31.65	ppm	0.00
Spiked Amount 50.000			Recovery =	63.30%		
109) 1-chlorooctadecane	0.000	57	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
113) o-terphenyl	0.000	230	0	0.00	ppm	

Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

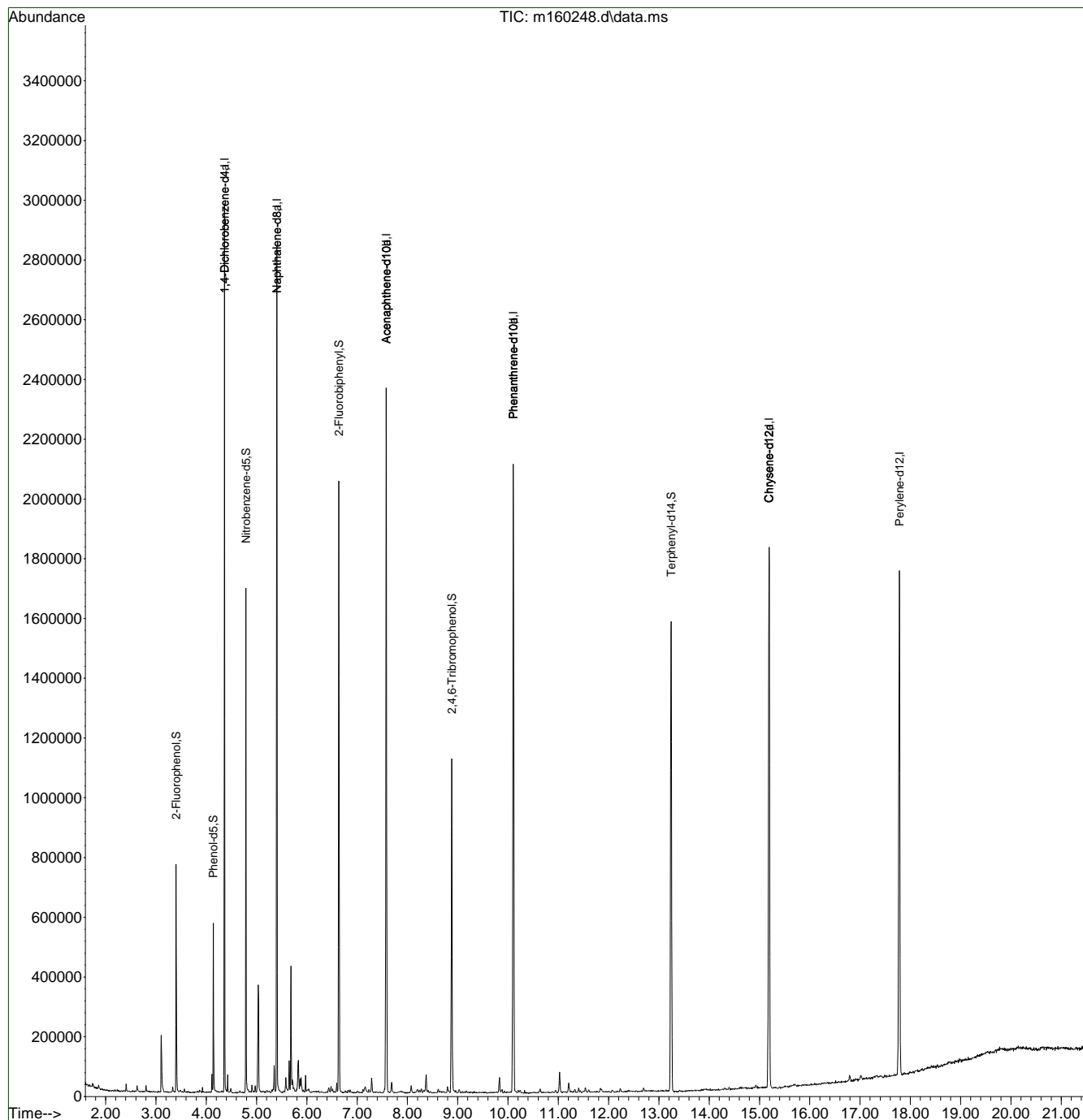
9.1.11
9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\jeryllr\em6781\
 Data File : m160248.d
 Acq On : 11 Oct 2019 7:19 pm
 Operator : hennys
 Sample : jc96248-8
 Misc : op23230,em6781,990,,,1,1
 ALS Vial : 19 Sample Multiplier: 1

Inst : MSM

Quant Method : C:\MSDCHEM\1\METHODS\MM6777.M
 Quant Results File: MM6777.RES
 Quant Time: Oct 14 05:42:12 2019
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 QLast Update : Mon Oct 14 05:00:48 2019
 Response via : Initial Calibration



9.1.11
9



Quantitation Report (QT/LSC Reviewed)

Data Path : C:\msdchem\1\data\altheam\em6780\
 Data File : ml60202.d
 Acq On : 10 Oct 2019 10:28 am
 Operator : hennys
 Sample : op23230-mb1 Inst : MSM
 Misc : op23230,em6780,1000,,,1,1
 ALS Vial : 5 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MM6777.M
 Quant Results File: MM6777.RES
 Quant Time: Oct 10 23:57:18 2019
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 QLast Update : Thu Oct 10 23:49:39 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.377	152	276175	40.00	ppm	0.00
24) Naphthalene-d8	5.419	136	942080	40.00	ppm	0.00
47) Acenaphthene-d10	7.604	164	592763	40.00	ppm	0.00
69) Phenanthrene-d10	10.136	188	1083404	40.00	ppm	0.00
83) Chrysene-d12	15.227	240	954374	40.00	ppm	0.00
91) Perylene-d12	17.823	264	953468	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.377	152	276175	40.00	ppm	0.00
103) Acenaphthene-d10a	7.604	164	592763	40.00	ppm	0.00
105) Acenaphthene-d10b	7.604	164	592763	40.00	ppm	0.00
107) Chrysene-d12a	15.227	240	954374	40.00	ppm	0.00
110) Phenanthrene-d10a	10.136	188	1083404	40.00	ppm	0.00
112) Phenanthrene-d10b	10.136	188	1083404	40.00	ppm	0.00
114) Naphthalene-d8a	5.419	136	942080	40.00	ppm	0.00
116) Chrysene-d12c	15.227	240	954374	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	3.416	112	151290	12.46	ppm	0.00
Spiked Amount 50.000			Recovery =	24.92%		
8) Phenol-d5	4.153	99	127525	9.14	ppm	0.00
Spiked Amount 50.000			Recovery =	18.28%		
25) Nitrobenzene-d5	4.805	82	377673	31.16	ppm	0.00
Spiked Amount 50.000			Recovery =	62.32%		
51) 2-Fluorobiphenyl	6.658	172	626428	30.46	ppm	0.00
Spiked Amount 50.000			Recovery =	60.92%		
73) 2,4,6-Tribromophenol	8.907	330	165920	38.92	ppm	-0.01
Spiked Amount 50.000			Recovery =	77.84%		
85) Terphenyl-d14	13.277	244	920781	35.45	ppm	0.00
Spiked Amount 50.000			Recovery =	70.90%		
109) 1-chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
113) o-terphenyl	0.000	230	0	0.00	ppm	
Target Compounds						Qvalue
38) Naphthalene	5.440	128	14628	0.57	ppm	93

(#) = qualifier out of range (m) = manual integration (+) = signals summed

9.2.1
9

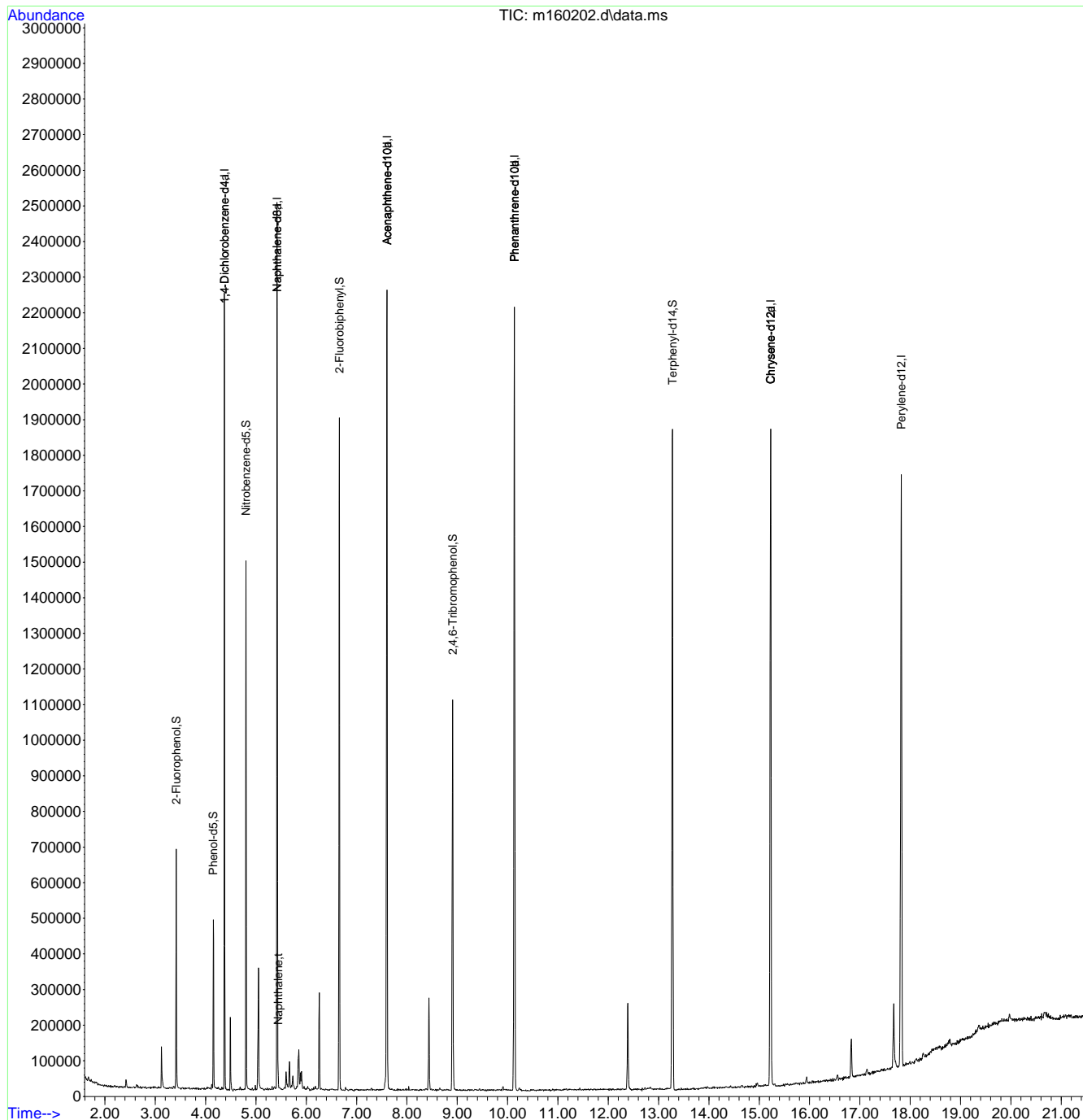


Quantitation Report (QT/LSC Reviewed)

Data Path : C:\msdchem\1\data\altheam\em6780\
 Data File : m160202.d
 Acq On : 10 Oct 2019 10:28 am
 Operator : hennys
 Sample : op23230-mb1
 Misc : op23230,em6780,1000,,,1,1
 ALS Vial : 5 Sample Multiplier: 1

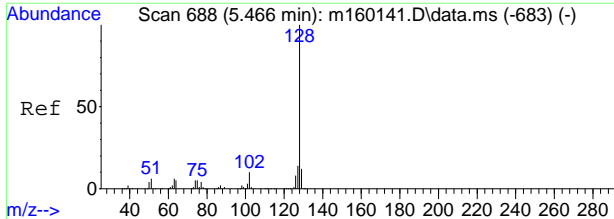
Inst : MSM

Quant Method : C:\MSDCHEM\1\METHODS\MM6777.M
 Quant Results File: MM6777.RES
 Quant Time: Oct 10 23:57:18 2019
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 QLast Update : Thu Oct 10 23:49:39 2019
 Response via : Initial Calibration



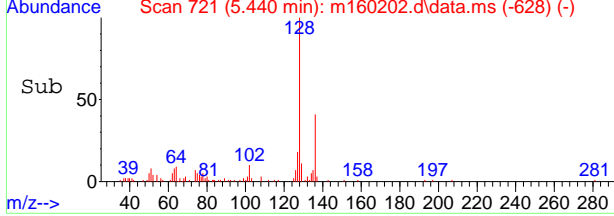
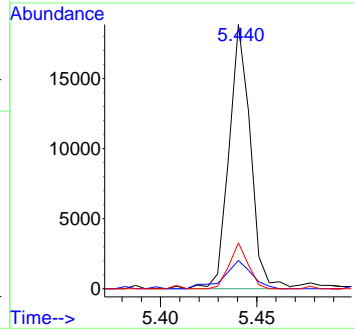
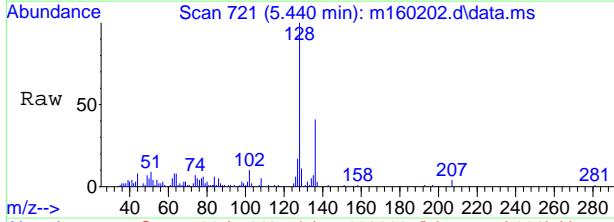
9.2.1
9





#38
Naphthalene
Concen: 0.57 ppm
RT: 5.440 min Scan# 721
Delta R.T. -0.005 min
Lab File: m160202.d
Acq: 10 Oct 2019 10:28 am

Tgt Ion	Ratio	Lower	Upper
128	100		
129	10.8	0.0	41.5
127	17.5	0.0	43.2



9.2.1
9



Quantitation Report (QT/LSC Reviewed)

Data Path : C:\msdchem\1\data\jeryllr\em6781\
 Data File : ml60234.d
 Acq On : 11 Oct 2019 12:44 pm
 Operator : hennys
 Sample : op23204-mb1 Inst : MSM
 Misc : op23204,em6781,1000,,,1,1
 ALS Vial : 5 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MM6777.M
 Quant Results File: MM6777.RES
 Quant Time: Oct 14 05:06:21 2019
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 QLast Update : Mon Oct 14 05:00:48 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.361	152	292616	40.00	ppm	0.00
24) Naphthalene-d8	5.403	136	965650	40.00	ppm	0.00
47) Acenaphthene-d10	7.577	164	586339	40.00	ppm	0.00
69) Phenanthrene-d10	10.109	188	1030859	40.00	ppm	0.00
83) Chrysene-d12	15.195	240	908379	40.00	ppm	0.00
91) Perylene-d12	17.786	264	972223	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.361	152	292616	40.00	ppm	0.00
103) Acenaphthene-d10a	7.577	164	586339	40.00	ppm	0.00
105) Acenaphthene-d10b	7.577	164	586339	40.00	ppm	0.00
107) Chrysene-d12a	15.195	240	908379	40.00	ppm	0.00
110) Phenanthrene-d10a	10.109	188	1030859	40.00	ppm	0.00
112) Phenanthrene-d10b	10.109	188	1030859	40.00	ppm	0.00
114) Naphthalene-d8a	5.403	136	965650	40.00	ppm	0.00
116) Chrysene-d12c	15.195	240	908379	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	3.399	112	159973	12.44	ppm	0.00
Spiked Amount 50.000			Recovery =	24.88%		
8) Phenol-d5	4.142	99	130803	8.85	ppm	0.00
Spiked Amount 50.000			Recovery =	17.70%		
25) Nitrobenzene-d5	4.788	82	407436	32.80	ppm	0.00
Spiked Amount 50.000			Recovery =	65.60%		
51) 2-Fluorobiphenyl	6.637	172	716005	35.19	ppm	0.00
Spiked Amount 50.000			Recovery =	70.38%		
73) 2,4,6-Tribromophenol	8.880	330	153930	37.95	ppm	0.00
Spiked Amount 50.000			Recovery =	75.90%		
85) Terphenyl-d14	13.245	244	816689	33.03	ppm	0.00
Spiked Amount 50.000			Recovery =	66.06%		
109) 1-chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
113) o-terphenyl	0.000	230	0	0.00	ppm	
Target Compounds						Qvalue
18) Acetophenone	4.676	105	1717	0.11	ppm	86
53) Biphenyl	6.765	154	1680	0.07	ppm	93

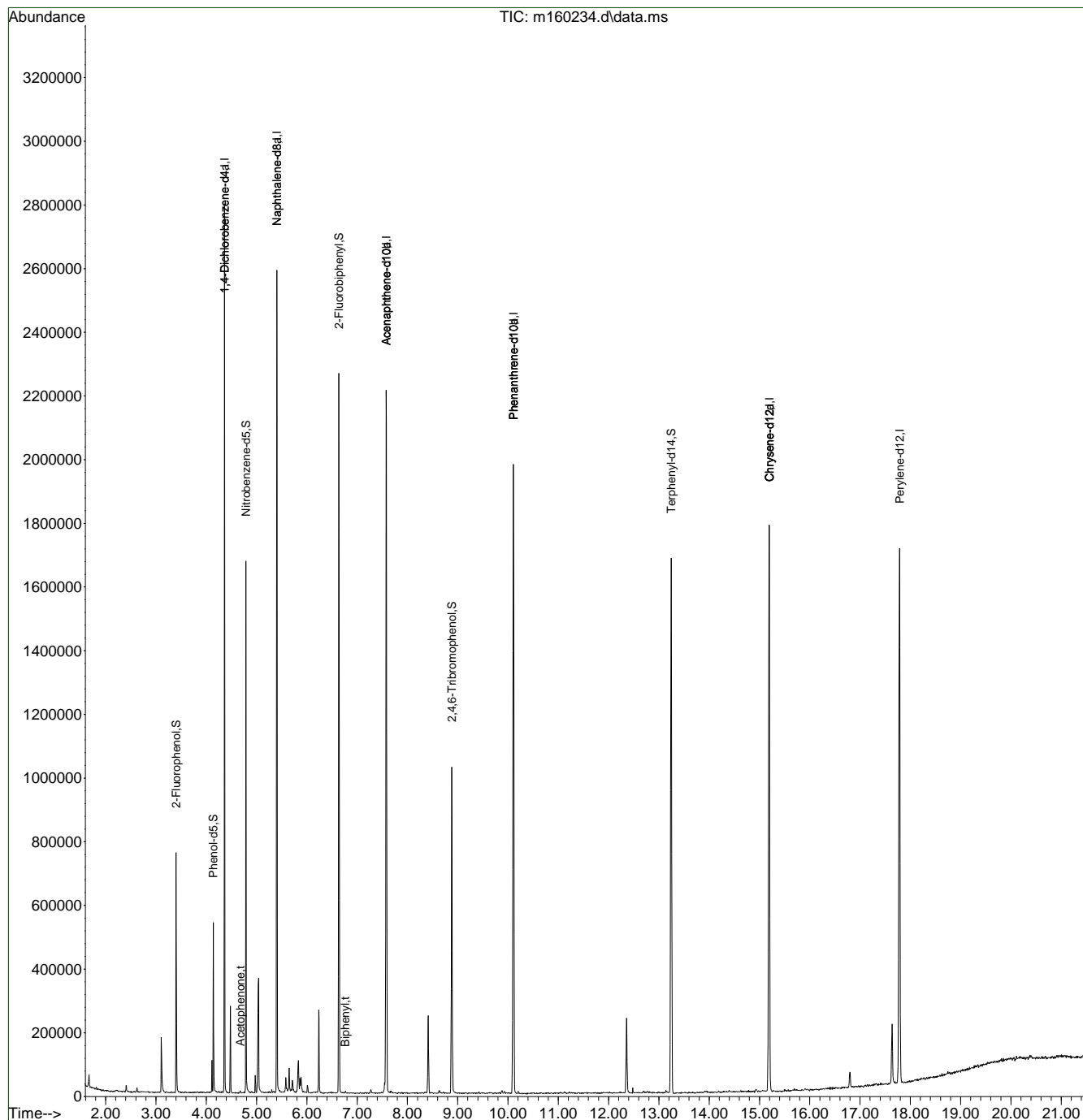
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT/LSC Reviewed)

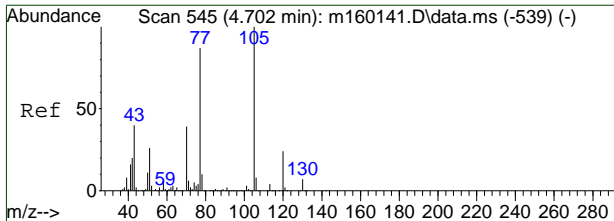
Data Path : C:\msdchem\1\data\jeryllr\em6781\
 Data File : m160234.d
 Acq On : 11 Oct 2019 12:44 pm
 Operator : hennys
 Sample : op23204-mb1
 Misc : op23204,em6781,1000,,,1,1
 ALS Vial : 5 Sample Multiplier: 1

Inst : MSM

Quant Method : C:\MSDCHEM\1\METHODS\MM6777.M
 Quant Results File: MM6777.RES
 Quant Time: Oct 14 05:06:21 2019
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 QLast Update : Mon Oct 14 05:00:48 2019
 Response via : Initial Calibration

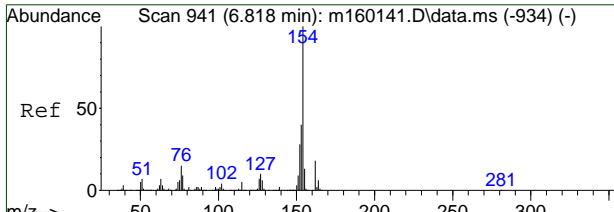
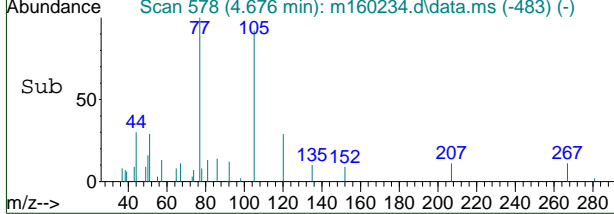
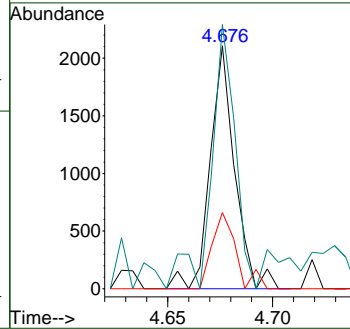
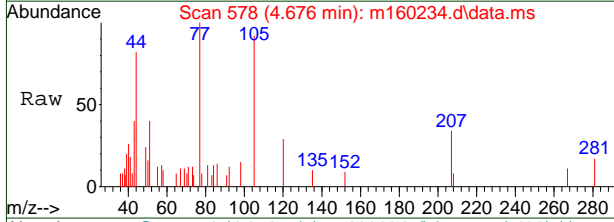


9.2.2
9



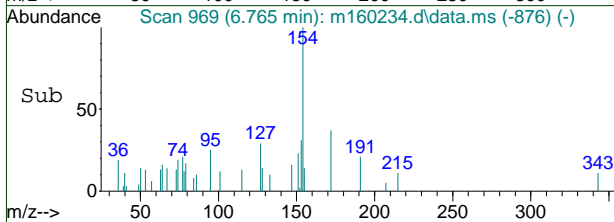
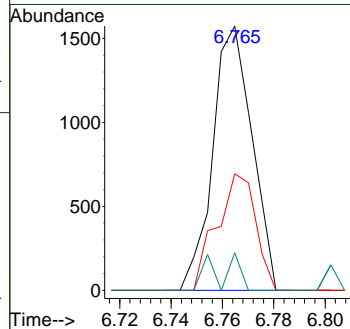
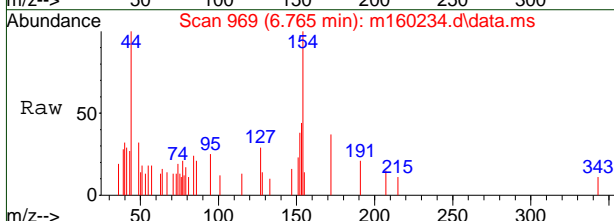
#18
 Acetophenone
 Concen: 0.11 ppm
 RT: 4.676 min Scan# 578
 Delta R.T. 0.008 min
 Lab File: m160234.d
 Acq: 11 Oct 2019 12:44 pm

Tgt Ion	Ratio	Lower	Upper
105	100		
120	31.4	0.0	53.4
77	102.5	59.4	119.4



#53
 Biphenyl
 Concen: 0.07 ppm
 RT: 6.765 min Scan# 969
 Delta R.T. -0.003 min
 Lab File: m160234.d
 Acq: 11 Oct 2019 12:44 pm

Tgt Ion	Ratio	Lower	Upper
154	100		
153	44.2	8.9	68.9
155	14.2	0.0	42.9



9.2.2
 9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6780\
 Data File : m160203.D
 Acq On : 10 Oct 2019 10:56 am
 Operator : hennys
 Sample : op23230-bs1
 Misc : op23230,em6780,1000,,,1,1
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Oct 11 14:44:21 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MM6777.M
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 QLast Update : Fri Oct 11 14:37:12 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.374	152	227152	40.00	ppm	0.00
24) Naphthalene-d8	5.421	136	772379	40.00	ppm	0.00
47) Acenaphthene-d10	7.601	164	496860	40.00	ppm	0.00
69) Phenanthrene-d10	10.138	188	874554	40.00	ppm	0.00
83) Chrysene-d12	15.235	240	777518	40.00	ppm	0.00
91) Perylene-d12	17.826	264	860753	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.374	152	227152	40.00	ppm	0.00
103) Acenaphthene-d10a	7.601	164	496860	40.00	ppm	0.00
105) Acenaphthene-d10b	7.601	164	496860	40.00	ppm	0.00
107) Chrysene-d12a	15.235	240	777518	40.00	ppm	0.00
110) Phenanthrene-d10a	10.138	188	874554	40.00	ppm	0.00
112) Phenanthrene-d10b	10.138	188	874554	40.00	ppm	0.00
114) Naphthalene-d8a	5.421	136	772379	40.00	ppm	0.00
116) Chrysene-d12c	15.235	240	777518	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	3.418	112	165505	16.58	ppm	0.00
Spiked Amount	50.000		Recovery	=	33.16%	
8) Phenol-d5	4.155	99	133042	11.59	ppm	0.00
Spiked Amount	50.000		Recovery	=	23.18%	
25) Nitrobenzene-d5	4.807	82	334572	33.67	ppm	0.00
Spiked Amount	50.000		Recovery	=	67.34%	
51) 2-Fluorobiphenyl	6.661	172	526173	30.52	ppm	0.00
Spiked Amount	50.000		Recovery	=	61.04%	
73) 2,4,6-Tribromophenol	8.915	330	124966	36.31	ppm	0.00
Spiked Amount	50.000		Recovery	=	72.62%	
85) Terphenyl-d14	13.274	244	732764	34.62	ppm	0.00
Spiked Amount	50.000		Recovery	=	69.24%	
109) 1-chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
113) o-terphenyl	0.000	230	0	0.00	ppm	
Target Compounds						
2) 1,4-Dioxane	1.858	88	57716	10.58	ppm	98
3) Pyridine	2.211	79	116443	9.29	ppm	96
4) N-Nitrosodimethylamine	2.173	42	93518	16.55	ppm	91
6) Indene	4.567	116	408361	30.52	ppm	98
7) Cumene	3.771	105	573503	24.26	ppm	97
9) Phenol	4.166	94	158199	12.13	ppm	95
10) Aniline	4.145	93	290480	22.03	ppm	98
11) bis(2-Chloroethyl)ether	4.187	93	276893	30.49	ppm	96
12) 2-Chlorophenol	4.235	128	232152	25.66	ppm	99
13) Decane	4.257	43	172873	21.35	ppm	93
14) 1,3-Dichlorobenzene	4.332	146	220233	21.91	ppm	97
15) 1,4-Dichlorobenzene	4.390	146	206184	23.16	ppm	98
16) Benzyl alcohol	4.497	108	142463	30.23	ppm	94
17) 1,2-Dichlorobenzene	4.502	146	211529	23.52	ppm	98
18) Acetophenone	4.684	105	371434	30.10	ppm	99
19) 2-Methylphenol	4.599	108	172463	23.27	ppm	92

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6780\
 Data File : m160203.D
 Acq On : 10 Oct 2019 10:56 am
 Operator : hennys
 Sample : op23230-bs1
 Misc : op23230,em6780,1000,,,1,1
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Oct 11 14:44:21 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MM6777.M
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 QLast Update : Fri Oct 11 14:37:12 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
20) 2,2'-oxybis(1-Chloropr...	4.583	121	77285	32.66	ppm	# 87
21) 3&4-Methylphenol	4.716	108	174038	21.98	ppm	94
22) n-Nitroso-di-n-propyla...	4.689	70	222442	31.91	ppm	99
23) Hexachloroethane	4.759	201	81103	21.80	ppm	99
26) Nitrobenzene	4.818	77	306930	30.24	ppm	93
27) Quinoline	5.790	129	486955	28.48	ppm	98
28) Isophorone	5.010	82	627049	35.01	ppm	98
29) 2-Nitrophenol	5.085	139	147038	34.43	ppm	# 73
30) 2,4-Dimethylphenol	5.144	107	265385	36.20	ppm	98
31) Benzoic acid	5.250	105	86642	14.27	ppm	95
32) bis(2-Chloroethoxy)met...	5.208	93	353558	32.11	ppm	99
33) 2,4-Dichlorophenol	5.309	162	225779	30.71	ppm	97
34) 2,6-Dichlorophenol	5.523	162	210823	31.80	ppm	98
36) 1,2,4-Trichlorobenzene	5.368	180	188780	23.18	ppm	94
38) Naphthalene	5.443	128	594011	28.00	ppm	99
39) 4-Chloroaniline	5.517	127	201587	20.87	ppm	97
40) 2,3-Dichloroaniline	6.554	161	275468	29.77	ppm	98
41) Caprolactam	5.886	55	40710	10.22	ppm	83
42) Hexachlorobutadiene	5.571	225	106341	22.46	ppm	97
43) 4-Chloro-3-methylphenol	6.068	107	265877	32.91	ppm	98
44) 2-Methylnaphthalene	6.185	141	334207	25.06	ppm	98
45) 1-Methylnaphthalene	6.303	142	454905	26.67	ppm	98
46) Dimethylnaphthalene	6.997	156	389459	26.15	ppm	99
48) Hexachlorocyclopentadiene	6.388	237	154426	30.34	ppm	99
49) 2,4,6-Trichlorophenol	6.559	196	174604	32.10	ppm	99
50) 2,4,5-Trichlorophenol	6.613	196	182304	31.37	ppm	100
52) 2-Chloronaphthalene	6.800	162	396137	24.13	ppm	100
53) Biphenyl	6.784	154	575446	26.30	ppm	100
54) 2-Nitroaniline	6.987	65	202441	38.35	ppm	98
55) Dimethylphthalate	7.259	163	660679	31.28	ppm	100
56) Acenaphthylene	7.387	152	707598	27.97	ppm	98
57) 2,6-Dinitrotoluene	7.334	165	145542	34.84	ppm	92
58) 3-Nitroaniline	7.601	138	112804	25.44	ppm	96
59) Acenaphthene	7.654	153	418493	27.38	ppm	98
60) 2,4-Dinitrophenol	7.756	184	157635	68.14	ppm	98
61) 4-Nitrophenol	7.980	109	43433	16.54	ppm	# 78
62) Dibenzofuran	7.932	168	641578	26.44	ppm	98
63) 2,4-Dinitrotoluene	7.964	165	186310	34.90	ppm	88
64) 2,3,4,6-Tetrachlorophenol	8.167	232	171837	35.54	ppm	98
65) Diethylphthalate	8.402	149	667502	31.87	ppm	100
66) Fluorene	8.488	166	547097	28.40	ppm	99
67) 4-Chlorophenyl-phenyle...	8.530	204	238250	25.13	ppm	98
68) 4-Nitroaniline	8.611	138	157360	34.59	ppm	93
70) 4,6-Dinitro-2-methylph...	8.643	198	108516	33.76	ppm	98
71) n-Nitrosodiphenylamine	8.749	169	399825	29.01	ppm	99
72) 1,2-Diphenylhydrazine	8.798	77	698318	32.91	ppm	97
74) 4-Bromophenyl-phenylether	9.374	248	177572	27.57	ppm	98
75) Hexachlorobenzene	9.449	284	207549	29.56	ppm	97
76) Pentachlorophenol	9.855	266	151792	37.16	ppm	99
77) Phenanthrene	10.181	178	741269	30.26	ppm	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6780\
 Data File : m160203.D
 Acq On : 10 Oct 2019 10:56 am
 Operator : hennys
 Sample : op23230-bs1
 Misc : op23230,em6780,1000,,,1,1
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Oct 11 14:44:21 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MM6777.M
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 QLast Update : Fri Oct 11 14:37:12 2019
 Response via : Initial Calibration

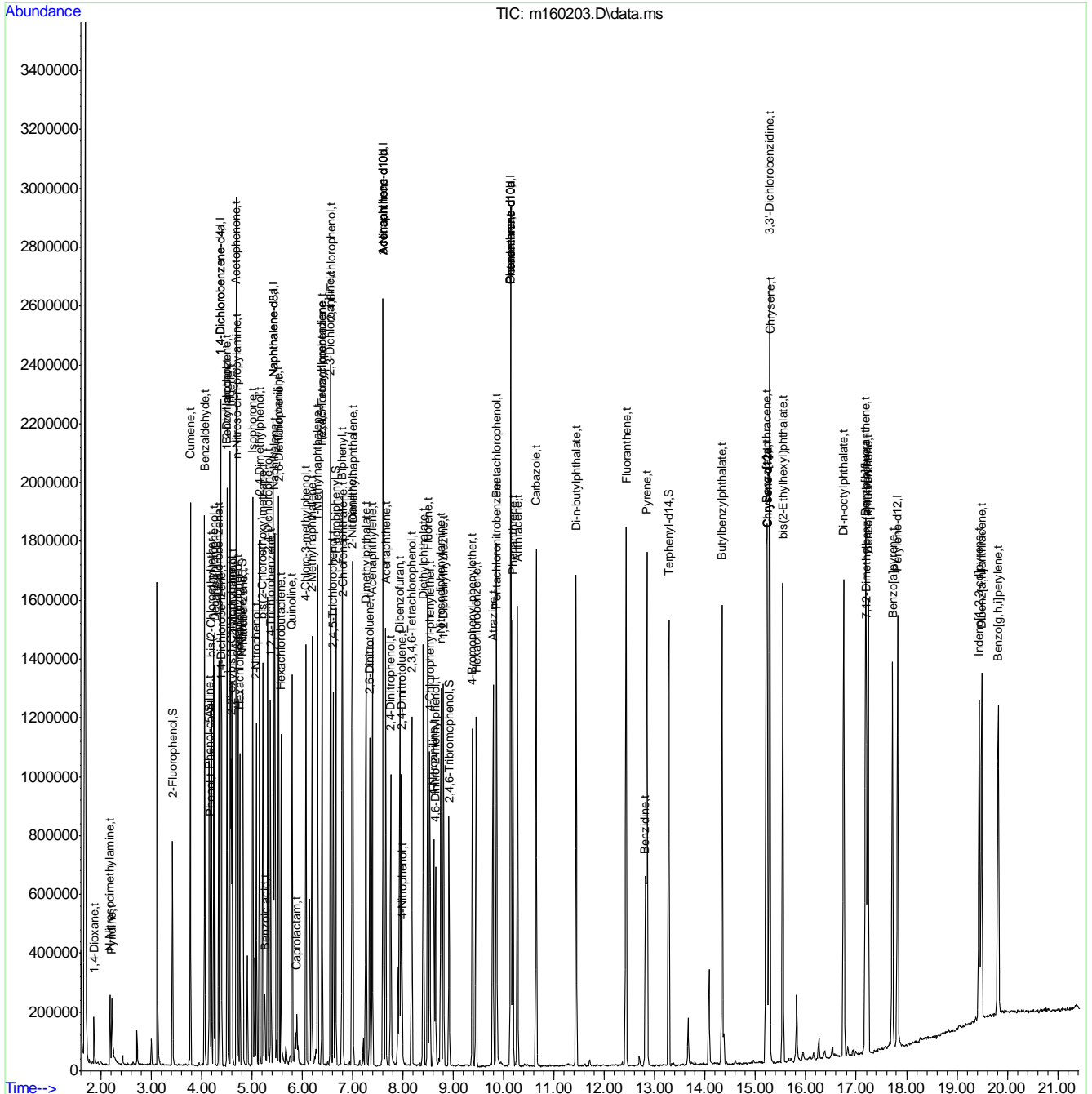
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
78) Anthracene	10.272	178	783379	30.74	ppm	99
79) Carbazole	10.641	167	957187	34.04	ppm	98
80) Di-n-butylphthalate	11.437	149	1239341	34.30	ppm	100
81) Fluoranthene	12.430	202	1100357	33.32	ppm	99
82) Octadecane	10.138	57	300541	28.53	ppm	99
84) Pyrene	12.847	202	1057599	32.74	ppm	99
86) Butylbenzylphthalate	14.337	149	561096	36.98	ppm	99
87) Benzo[a]anthracene	15.213	228	967348	33.24	ppm	99
88) 3,3'-Dichlorobenzidine	15.278	252	357711	37.67	ppm	99
89) Chrysene	15.283	228	793018	32.74	ppm	99
90) bis(2-Ethylhexyl)phtha...	15.539	149	708816	37.27	ppm	99
92) Di-n-octylphthalate	16.752	149	1253858	36.64	ppm	99
93) Benzo[b]fluoranthene	17.185	252	946984	31.99	ppm	99
94) Benzo[k]fluoranthene	17.238	252	843386	32.00	ppm	98
95) Benzo[a]pyrene	17.719	252	776324	29.71	ppm	99
96) Indeno[1,2,3-cd]pyrene	19.444	276	714409	28.08	ppm	100
98) Dibenz[a,h]anthracene	19.493	278	741979	29.26	ppm	99
99) 7,12-Dimethylbenz(a)an...	17.201	256	288488	27.96	ppm	100
100) Benzo[g,h,i]perylene	19.824	276	740282	29.14	ppm	98
102) Benzaldehyde	4.054	105	242605	39.59	ppm	95
104) Atrazine	9.786	215	99667	45.22	ppm	90
106) 1,2,4,5-Tetrachloroben...	6.388	216	169238	20.86	ppm	99
108) Benzidine	12.810	184	271835	19.94	ppm	98
111) Pentachloronitrobenzene	9.861	295	36526	35.02	ppm	94

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6780\
 Data File : m160203.D
 Acq On : 10 Oct 2019 10:56 am
 Operator : hennys
 Sample : op23230-bs1
 Misc : op23230,em6780,1000,,,1,1
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Oct 11 14:44:21 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MM6777.M
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 QLast Update : Fri Oct 11 14:37:12 2019
 Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6780\
 Data File : m160204.D
 Acq On : 10 Oct 2019 11:24 am
 Operator : hennys
 Sample : op23230-bsd
 Misc : op23230,em6780,1000,,,1,1
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Oct 11 14:45:00 2019

Quant Method : C:\MSDCHEM\1\METHODS\MM6777.M

Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um

QLast Update : Fri Oct 11 14:37:12 2019

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.376	152	228352	40.00	ppm	0.00
24) Naphthalene-d8	5.423	136	784118	40.00	ppm	0.00
47) Acenaphthene-d10	7.603	164	498209	40.00	ppm	0.00
69) Phenanthrene-d10	10.135	188	881975	40.00	ppm	0.00
83) Chrysene-d12	15.232	240	774303	40.00	ppm	0.00
91) Perylene-d12	17.823	264	866085	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.376	152	228352	40.00	ppm	0.00
103) Acenaphthene-d10a	7.603	164	498209	40.00	ppm	0.00
105) Acenaphthene-d10b	7.603	164	498209	40.00	ppm	0.00
107) Chrysene-d12a	15.232	240	774303	40.00	ppm	0.00
110) Phenanthrene-d10a	10.135	188	881975	40.00	ppm	0.00
112) Phenanthrene-d10b	10.135	188	881975	40.00	ppm	0.00
114) Naphthalene-d8a	5.423	136	784118	40.00	ppm	0.00
116) Chrysene-d12c	15.232	240	774303	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	3.415	112	158723	15.81	ppm	0.00
Spiked Amount 50.000			Recovery =	31.62%		
8) Phenol-d5	4.157	99	126117	10.93	ppm	0.00
Spiked Amount 50.000			Recovery =	21.86%		
25) Nitrobenzene-d5	4.804	82	361117	35.80	ppm	0.00
Spiked Amount 50.000			Recovery =	71.60%		
51) 2-Fluorobiphenyl	6.658	172	567853	32.85	ppm	0.00
Spiked Amount 50.000			Recovery =	65.70%		
73) 2,4,6-Tribromophenol	8.912	330	131360	37.85	ppm	0.00
Spiked Amount 50.000			Recovery =	75.70%		
85) Terphenyl-d14	13.276	244	788678	37.42	ppm	0.00
Spiked Amount 50.000			Recovery =	74.84%		
109) 1-chlorooctadecane	0.000	57	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
113) o-terphenyl	0.000	230	0	0.00	ppm	
Target Compounds						
2) 1,4-Dioxane	1.855	88	57187	10.43	ppm	97
3) Pyridine	2.208	79	159954	12.69	ppm	94
4) N-Nitrosodimethylamine	2.170	42	88610	15.59	ppm	88
6) Indene	4.569	116	429468	31.93	ppm	99
7) Cumene	3.773	105	586829	24.69	ppm	98
9) Phenol	4.168	94	169296	12.91	ppm	98
10) Aniline	4.147	93	352249	26.57	ppm	99
11) bis(2-Chloroethyl)ether	4.189	93	299928	32.85	ppm	99
12) 2-Chlorophenol	4.238	128	240067	26.39	ppm	96
13) Decane	4.259	43	182855	22.46	ppm	95
14) 1,3-Dichlorobenzene	4.334	146	224406	22.21	ppm	100
15) 1,4-Dichlorobenzene	4.387	146	215213	24.04	ppm	98
16) Benzyl alcohol	4.499	108	148128	31.27	ppm	92
17) 1,2-Dichlorobenzene	4.505	146	214542	23.73	ppm	99
18) Acetophenone	4.686	105	401830	32.40	ppm	97
19) 2-Methylphenol	4.601	108	175599	23.57	ppm	94

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6780\
 Data File : m160204.D
 Acq On : 10 Oct 2019 11:24 am
 Operator : hennys
 Sample : op23230-bsd
 Misc : op23230,em6780,1000,,,1,1
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Oct 11 14:45:00 2019

Quant Method : C:\MSDCHEM\1\METHODS\MM6777.M

Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um

QLast Update : Fri Oct 11 14:37:12 2019

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
20) 2,2'-oxybis(1-Chloropr...	4.585	121	83015	34.90	ppm	91
21) 3&4-Methylphenol	4.718	108	179231	22.51	ppm	93
22) n-Nitroso-di-n-propyla...	4.686	70	243166	34.70	ppm	95
23) Hexachloroethane	4.756	201	81229	21.72	ppm	89
26) Nitrobenzene	4.820	77	327345	31.77	ppm	96
27) Quinoline	5.792	129	562540	32.40	ppm	98
28) Isophorone	5.012	82	688875	37.88	ppm	98
29) 2-Nitrophenol	5.087	139	155443	35.85	ppm	# 71
30) 2,4-Dimethylphenol	5.146	107	280172	37.64	ppm	98
31) Benzoic acid	5.253	105	86677	14.08	ppm	96
32) bis(2-Chloroethoxy)met...	5.204	93	379742	33.97	ppm	99
33) 2,4-Dichlorophenol	5.311	162	239201	32.04	ppm	99
34) 2,6-Dichlorophenol	5.520	162	222210	33.01	ppm	98
36) 1,2,4-Trichlorobenzene	5.370	180	196971	23.82	ppm	98
38) Naphthalene	5.445	128	630066	29.26	ppm	99
39) 4-Chloroaniline	5.520	127	244365	24.92	ppm	99
40) 2,3-Dichloroaniline	6.556	161	295832	31.50	ppm	99
41) Caprolactam	5.888	55	35787	8.85	ppm	99
42) Hexachlorobutadiene	5.573	225	107540	22.37	ppm	100
43) 4-Chloro-3-methylphenol	6.065	107	288203	35.14	ppm	96
44) 2-Methylnaphthalene	6.182	141	366284	27.05	ppm	99
45) 1-Methylnaphthalene	6.300	142	485232	28.02	ppm	99
46) Dimethylnaphthalene	6.999	156	412232	27.27	ppm	97
48) Hexachlorocyclopentadiene	6.385	237	156189	30.60	ppm	98
49) 2,4,6-Trichlorophenol	6.561	196	190015	34.83	ppm	97
50) 2,4,5-Trichlorophenol	6.615	196	197126	33.83	ppm	97
52) 2-Chloronaphthalene	6.802	162	421467	25.60	ppm	99
53) Biphenyl	6.786	154	610720	27.83	ppm	98
54) 2-Nitroaniline	6.983	65	226203	42.74	ppm	96
55) Dimethylphthalate	7.261	163	709392	33.49	ppm	99
56) Acenaphthylene	7.384	152	761437	30.02	ppm	99
57) 2,6-Dinitrotoluene	7.336	165	156826	37.43	ppm	98
58) 3-Nitroaniline	7.603	138	129827	29.20	ppm	95
59) Acenaphthene	7.651	153	449557	29.34	ppm	97
60) 2,4-Dinitrophenol	7.753	184	171704	73.69	ppm	95
61) 4-Nitrophenol	7.977	109	46893	17.81	ppm	# 76
62) Dibenzofuran	7.929	168	697564	28.67	ppm	97
63) 2,4-Dinitrotoluene	7.966	165	200919	37.53	ppm	92
64) 2,3,4,6-Tetrachlorophenol	8.169	232	179787	37.08	ppm	98
65) Diethylphthalate	8.404	149	737407	35.11	ppm	100
66) Fluorene	8.490	166	600433	31.09	ppm	100
67) 4-Chlorophenyl-phenyle...	8.527	204	254218	26.74	ppm	99
68) 4-Nitroaniline	8.613	138	176729	38.74	ppm	94
70) 4,6-Dinitro-2-methylph...	8.645	198	120012	37.02	ppm	98
71) n-Nitrosodiphenylamine	8.752	169	443820	31.93	ppm	99
72) 1,2-Diphenylhydrazine	8.800	77	769021	35.94	ppm	99
74) 4-Bromophenyl-phenylether	9.377	248	193244	29.75	ppm	99
75) Hexachlorobenzene	9.451	284	219913	31.05	ppm	98
76) Pentachlorophenol	9.852	266	158877	38.56	ppm	97
77) Phenanthrene	10.178	178	809859	32.78	ppm	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6780\
 Data File : m160204.D
 Acq On : 10 Oct 2019 11:24 am
 Operator : hennys
 Sample : op23230-bsd
 Misc : op23230,em6780,1000,,,1,1
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Oct 11 14:45:00 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MM6777.M
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 QLast Update : Fri Oct 11 14:37:12 2019
 Response via : Initial Calibration

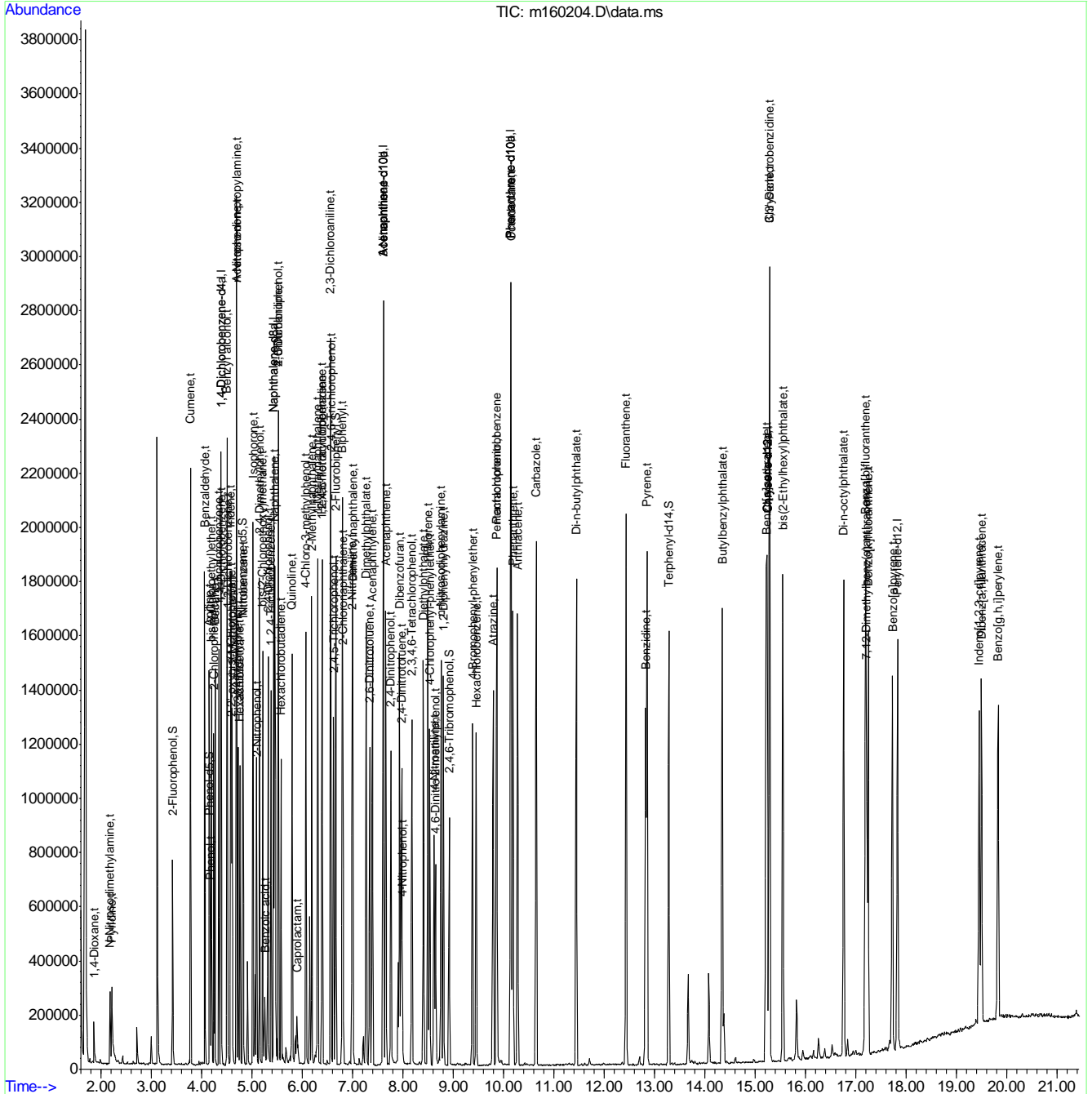
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
78) Anthracene	10.269	178	858050	33.38	ppm	99
79) Carbazole	10.643	167	1065246	37.56	ppm	99
80) Di-n-butylphthalate	11.439	149	1360435	37.33	ppm	100
81) Fluoranthene	12.427	202	1196685	35.93	ppm	100
82) Octadecane	10.141	57	332163	31.27	ppm	98
84) Pyrene	12.844	202	1093165	33.98	ppm	98
86) Butylbenzylphthalate	14.339	149	618666	40.95	ppm	98
87) Benzo[a]anthracene	15.210	228	1056836	36.46	ppm	99
88) 3,3'-Dichlorobenzidine	15.280	252	402021	42.52	ppm	98
89) Chrysene	15.280	228	856193	35.49	ppm	100
90) bis(2-Ethylhexyl)phtha...	15.541	149	780248	41.20	ppm	99
92) Di-n-octylphthalate	16.749	149	1385575	40.24	ppm	99
93) Benzo[b]fluoranthene	17.187	252	1021871	34.31	ppm	99
94) Benzo[k]fluoranthene	17.240	252	880896	33.22	ppm	98
95) Benzo[a]pyrene	17.721	252	832876	31.68	ppm	100
96) Indeno[1,2,3-cd]pyrene	19.447	276	737267	28.80	ppm	99
98) Dibenz[a,h]anthracene	19.495	278	798774	31.31	ppm	99
99) 7,12-Dimethylbenz(a)an...	17.203	256	288887	27.83	ppm	96
100) Benzo[g,h,i]perylene	19.821	276	770921	30.16	ppm	99
102) Benzaldehyde	4.056	105	255337	41.44	ppm	97
104) Atrazine	9.788	215	108475	49.08	ppm	90
106) 1,2,4,5-Tetrachloroben...	6.390	216	179314	22.04	ppm	100
108) Benzidine	12.812	184	629823	46.40	ppm	98
111) Pentachloronitrobenzene	9.857	295	38470	36.57	ppm	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6780\
Data File : m160204.D
Acq On : 10 Oct 2019 11:24 am
Operator : hennys
Sample : op23230-bsd
Misc : op23230,em6780,1000,,,1,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Oct 11 14:45:00 2019
Quant Method : C:\MSDCHEM\1\METHODS\MM6777.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Fri Oct 11 14:37:12 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\jeryllr\em6787\
 Data File : ml60407.d
 Acq On : 16 Oct 2019 1:42 pm
 Operator : hennys
 Sample : op23204-bs1 Inst : MSM
 Misc : op23204,em6787,1000,,,1,1
 ALS Vial : 8 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MM6777.M
 Quant Results File: MM6777.RES
 Quant Time: Oct 17 04:40:11 2019
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 QLast Update : Thu Oct 17 04:20:14 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.301	152	246690	40.00	ppm	0.00
24) Naphthalene-d8	5.332	136	803756	40.00	ppm	0.00
47) Acenaphthene-d10	7.480	164	522904	40.00	ppm	0.00
69) Phenanthrene-d10	9.991	188	936422	40.00	ppm	0.00
83) Chrysene-d12	15.071	240	819693	40.00	ppm	0.00
91) Perylene-d12	17.656	264	898402	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.301	152	246690	40.00	ppm	0.00
103) Acenaphthene-d10a	7.480	164	522904	40.00	ppm	0.00
105) Acenaphthene-d10b	7.480	164	522904	40.00	ppm	0.00
107) Chrysene-d12a	15.071	240	819693	40.00	ppm	0.00
110) Phenanthrene-d10a	9.991	188	936422	40.00	ppm	0.00
112) Phenanthrene-d10b	9.991	188	936422	40.00	ppm	0.00
114) Naphthalene-d8a	5.332	136	803756	40.00	ppm	0.00
116) Chrysene-d12c	15.071	240	819693	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	3.340	112	172531	15.91	ppm	0.00
Spiked Amount 50.000			Recovery =	31.82%		
8) Phenol-d5	4.082	99	139407	11.19	ppm	0.00
Spiked Amount 50.000			Recovery =	22.38%		
25) Nitrobenzene-d5	4.723	82	362150	35.02	ppm	0.00
Spiked Amount 50.000			Recovery =	70.04%		
51) 2-Fluorobiphenyl	6.550	172	616811	33.99	ppm	0.00
Spiked Amount 50.000			Recovery =	67.98%		
73) 2,4,6-Tribromophenol	8.778	330	134802	36.59	ppm	0.00
Spiked Amount 50.000			Recovery =	73.18%		
85) Terphenyl-d14	13.121	244	795240	35.64	ppm	0.00
Spiked Amount 50.000			Recovery =	71.28%		
109) 1-chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
113) o-terphenyl	0.000	230	0	0.00	ppm	
Target Compounds						
2) 1,4-Dioxane	1.758	88	59021	9.96	ppm	95
3) Pyridine	2.100	79	151550	11.13	ppm	94
4) N-Nitrosodimethylamine	2.068	42	91115	14.84	ppm	99
6) Indene	4.488	116	438459	30.18	ppm	98
7) Cumene	3.697	105	606027	23.60	ppm	98
9) Phenol	4.093	94	172554	12.18	ppm	94
10) Aniline	4.071	93	280208	19.56	ppm	96
11) bis(2-Chloroethyl)ether	4.114	93	286403	29.04	ppm	95
12) 2-Chlorophenol	4.162	128	237133	24.13	ppm	93
13) Decane	4.184	43	185943	21.15	ppm	95
14) 1,3-Dichlorobenzene	4.258	146	241011	22.08	ppm	97
15) 1,4-Dichlorobenzene	4.312	146	232030	23.99	ppm	99
16) Benzyl alcohol	4.424	108	146097	28.55	ppm	95
17) 1,2-Dichlorobenzene	4.429	146	235873	24.15	ppm	99
18) Acetophenone	4.606	105	399933	29.85	ppm	97
19) 2-Methylphenol	4.526	108	176317	21.91	ppm	95
20) 2,2'-oxybis(1-Chloropr...	4.510	121	82651	32.16	ppm	94
21) 3&4-Methylphenol	4.643	108	177348m	20.62	ppm	
22) n-Nitroso-di-n-propyla...	4.611	70	231356	30.56	ppm	99
23) Hexachloroethane	4.680	201	86867	21.50	ppm	81
26) Nitrobenzene	4.739	77	323363	30.62	ppm	96
27) Quinoline	5.690	129	526709	29.60	ppm	98
28) Isophorone	4.926	82	651473	34.95	ppm	97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\jeryllr\em6787\
 Data File : ml60407.d
 Acq On : 16 Oct 2019 1:42 pm
 Operator : hennys
 Sample : op23204-bs1 Inst : MSM
 Misc : op23204,em6787,1000,,,1,1
 ALS Vial : 8 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MM6777.M
 Quant Results File: MM6777.RES
 Quant Time: Oct 17 04:40:11 2019
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 QLast Update : Thu Oct 17 04:20:14 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
29) 2-Nitrophenol	5.001	139	153263	34.48	ppm	#	75
30) 2,4-Dimethylphenol	5.060	107	251860	33.01	ppm		97
31) Benzoic acid	5.161	105	93125	14.69	ppm		94
32) bis(2-Chloroethoxy)met...	5.124	93	368163	32.13	ppm		98
33) 2,4-Dichlorophenol	5.220	162	236519	30.91	ppm		97
34) 2,6-Dichlorophenol	5.428	162	220197	31.91	ppm		99
36) 1,2,4-Trichlorobenzene	5.279	180	214569	25.31	ppm		98
38) Naphthalene	5.348	128	673076	30.49	ppm		99
39) 4-Chloroaniline	5.428	127	217490	21.64	ppm		99
40) 2,3-Dichloroaniline	6.443	161	303858	31.56	ppm		97
41) Caprolactam	5.776	55	45125	10.88	ppm		94
42) Hexachlorobutadiene	5.482	225	123653	25.10	ppm		97
43) 4-Chloro-3-methylphenol	5.968	107	281008	33.43	ppm		97
44) 2-Methylnaphthalene	6.080	141	423331	30.50	ppm		98
45) 1-Methylnaphthalene	6.192	142	508035	28.62	ppm		98
46) Dimethylnaphthalene	6.881	156	459812	29.67	ppm		99
48) Hexachlorocyclopentadiene	6.278	237	218749	40.84	ppm		98
49) 2,4,6-Trichlorophenol	6.449	196	188341	32.90	ppm		94
50) 2,4,5-Trichlorophenol	6.502	196	200027	32.71	ppm		99
52) 2-Chloronaphthalene	6.689	162	459129	26.57	ppm		97
53) Biphenyl	6.673	154	646473	28.07	ppm		99
54) 2-Nitroaniline	6.871	65	217884	39.22	ppm		97
55) Dimethylphthalate	7.143	163	720464	32.41	ppm		99
56) Acenaphthylene	7.266	152	809696	30.41	ppm		98
57) 2,6-Dinitrotoluene	7.218	165	160571	36.52	ppm		96
58) 3-Nitroaniline	7.480	138	132716	28.44	ppm		98
59) Acenaphthene	7.528	153	487502	30.31	ppm		96
60) 2,4-Dinitrophenol	7.635	184	192928	78.60	ppm		97
61) 4-Nitrophenol	7.854	109	51460	18.62	ppm		85
62) Dibenzofuran	7.806	168	814633	31.90	ppm		99
63) 2,4-Dinitrotoluene	7.838	165	209026	37.20	ppm		88
64) 2,3,4,6-Tetrachlorophenol	8.041	232	186197	36.59	ppm		96
65) Diethylphthalate	8.276	149	749394	33.99	ppm		99
66) Fluorene	8.356	166	657441	32.43	ppm		97
67) 4-Chlorophenyl-phenyle...	8.399	204	305909	30.65	ppm		97
68) 4-Nitroaniline	8.479	138	178232	37.23	ppm		95
70) 4,6-Dinitro-2-methylph...	8.511	198	125970	36.60	ppm		94
71) n-Nitrosodiphenylamine	8.618	169	484968	32.86	ppm		96
72) 1,2-Diphenylhydrazine	8.666	77	767191	33.77	ppm		96
74) 4-Bromophenyl-phenylether	9.237	248	223769	32.44	ppm		96
75) Hexachlorobenzene	9.307	284	240804	32.03	ppm		98
76) Pentachlorophenol	9.713	266	160230	36.63	ppm		96
77) Phenanthrene	10.033	178	841898	32.10	ppm		99
78) Anthracene	10.124	178	920711	33.74	ppm		98
79) Carbazole	10.498	167	1073051	35.64	ppm		99
80) Di-n-butylphthalate	11.294	149	1357891	35.10	ppm		98
81) Fluoranthene	12.272	202	1227053	34.70	ppm		99
82) Octadecane	10.007	57	354686	31.45	ppm		99
84) Pyrene	12.688	202	1186297	34.83	ppm		99
86) Butylbenzylphthalate	14.184	149	623167	38.96	ppm		100
87) Benzo[a]anthracene	15.050	228	1074795	35.03	ppm		98
88) 3,3'-Dichlorobenzidine	15.124	252	529493	52.90	ppm		97
89) Chrysene	15.119	228	873206	34.19	ppm		98
90) bis(2-Ethylhexyl)phtha...	15.391	149	784096	39.11	ppm		98
92) Di-n-octylphthalate	16.599	149	1406766	39.38	ppm		99
93) Benzo[b]fluoranthene	17.021	252	1077836	34.89	ppm		98
94) Benzo[k]fluoranthene	17.069	252	913490	33.21	ppm		99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\jeryllr\em6787\
 Data File : ml60407.d
 Acq On : 16 Oct 2019 1:42 pm
 Operator : hennys
 Sample : op23204-bs1 Inst : MSM
 Misc : op23204,em6787,1000,,,1,1
 ALS Vial : 8 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MM6777.M
 Quant Results File: MM6777.RES
 Quant Time: Oct 17 04:40:11 2019
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 QLast Update : Thu Oct 17 04:20:14 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
95) Benzo[a]pyrene	17.555	252	950904	34.87	ppm	98
96) Indeno[1,2,3-cd]pyrene	19.275	276	878165	33.07	ppm	99
98) Dibenz[a,h]anthracene	19.323	278	853117	32.23	ppm	100
99) 7,12-Dimethylbenz(a)an...	17.037	256	260567	24.20	ppm	96
100) Benzo[g,h,i]perylene	19.638	276	900129	33.95	ppm	99
102) Benzaldehyde	3.981	105	222861	33.48	ppm	97
104) Atrazine	9.649	215	109788	47.33	ppm	94
106) 1,2,4,5-Tetrachloroben...	6.283	216	209403	24.52	ppm	98
108) Benzidine	12.662	184	235757	16.41	ppm	99
111) Pentachloronitrobenzene	9.718	295	43571	39.01	ppm	96

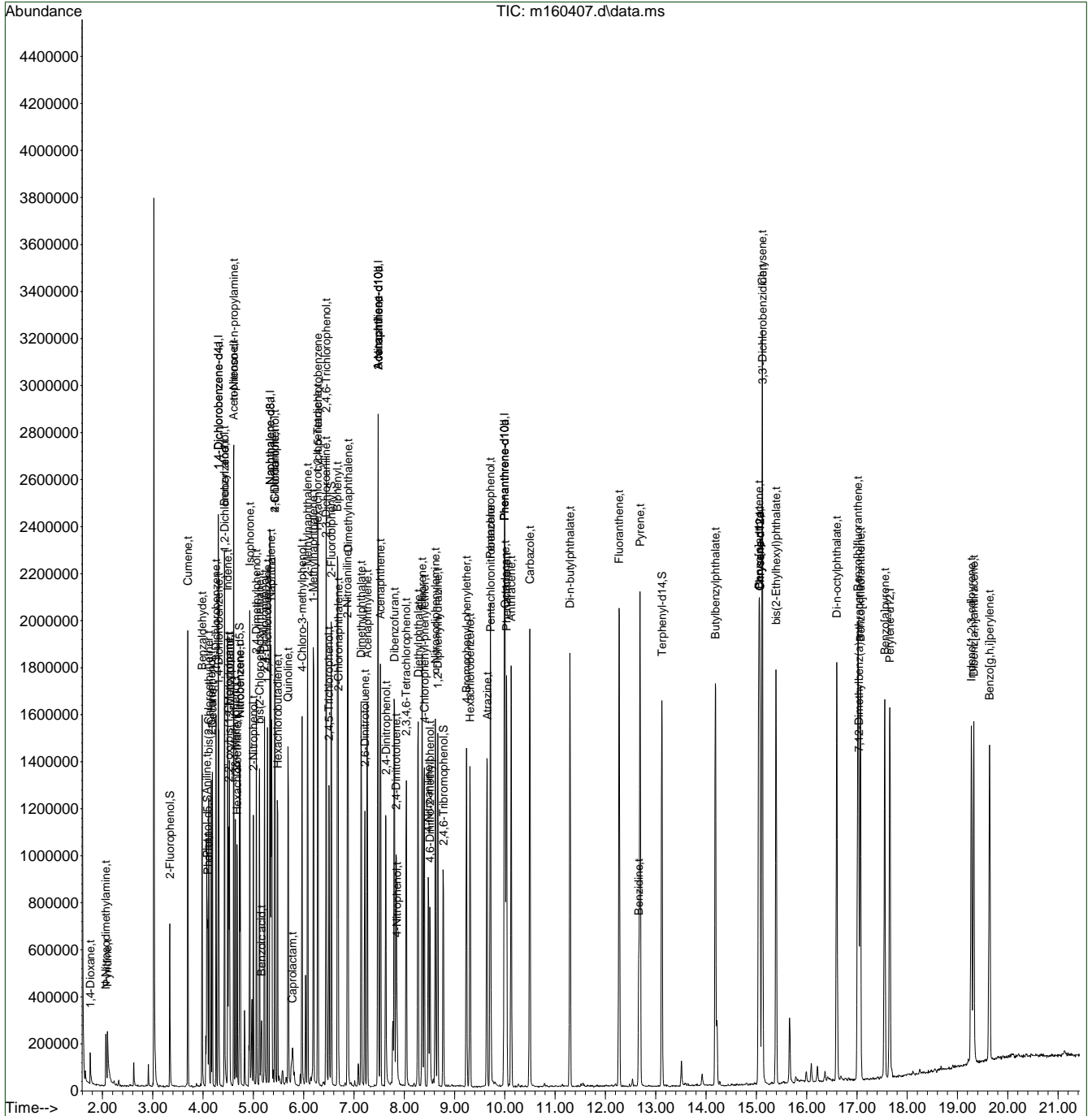
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\jeryllr\em6787\
Data File : ml60407.d
Acq On : 16 Oct 2019 1:42 pm
Operator : hennys
Sample : op23204-bs1
Misc : op23204,em6787,1000,,,1,1
ALS Vial : 8 Sample Multiplier: 1

Inst : MSM

Quant Method : C:\MSDCHEM\1\METHODS\MM6777.M
Quant Results File: MM6777.RES
Quant Time: Oct 17 04:40:11 2019
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Thu Oct 17 04:20:14 2019
Response via : Initial Calibration



Manual Integration Approval Summary

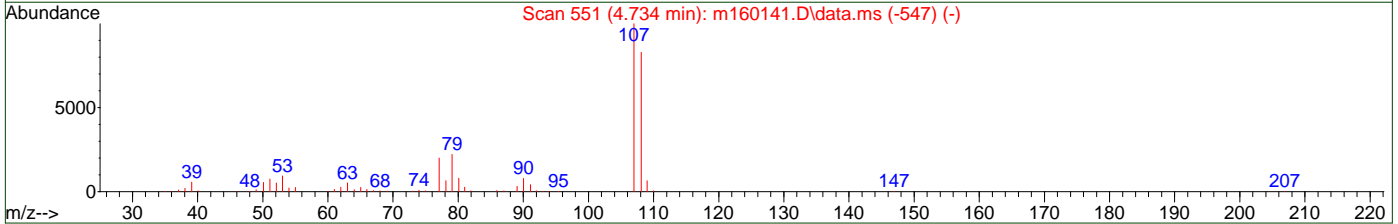
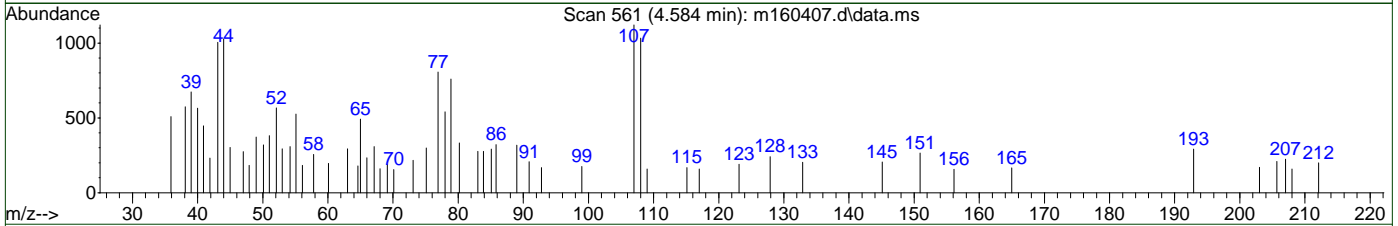
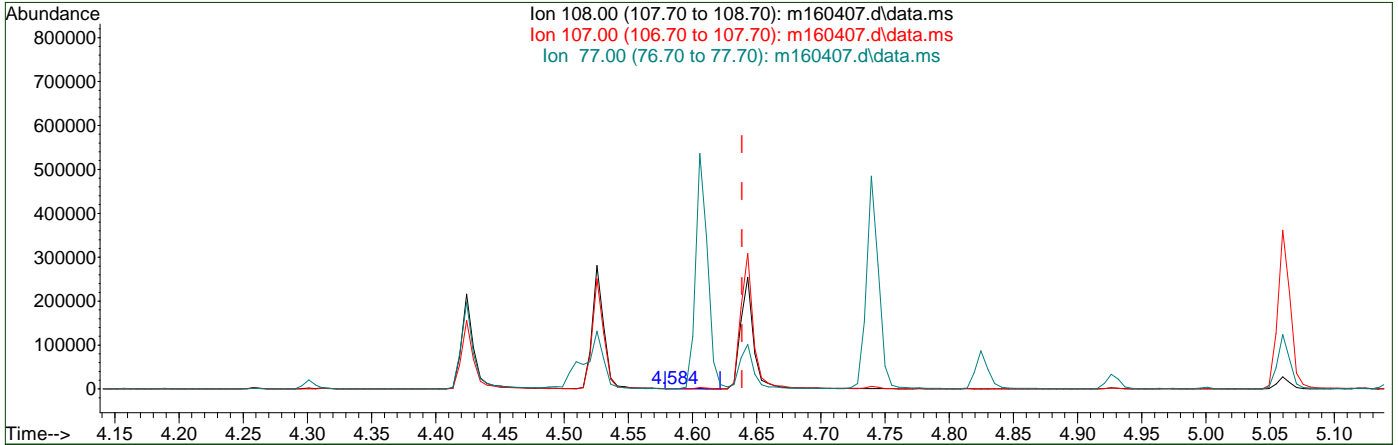
Sample Number: OP23204-BS1 Method: SW846 8270D
Lab FileID: M160407.D Analyst approved: 10/17/19 06:06 Jeryll Fabriene Reyes
Injection Time: 10/16/19 13:42 Supervisor approved: 10/23/19 09:38 Kristi Schollenberger

Parameter	CAS	Sig#	R.T. (min.)	Reason
3&4-Methylphenol			4.64	Missed peak

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\jeryllr\em6787\
 Data File : m160407.d
 Acq On : 16 Oct 2019 1:42 pm
 Operator : hennys
 Sample : op23204-bs1 Inst : MSM
 Misc : op23204,em6787,1000,,,1,1
 ALS Vial : 8 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MM6777.M
 Quant Results File: MM6777.RES
 Quant Time: Oct 17 04:21:30 2019
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 QLast Update : Thu Oct 17 04:20:14 2019
 Response via : Initial Calibration



TIC: m160407.d\data.ms

(21) 3&4-Methylphenol (t)
 4.584min (-0.054) 0.12ppm
 response 1020

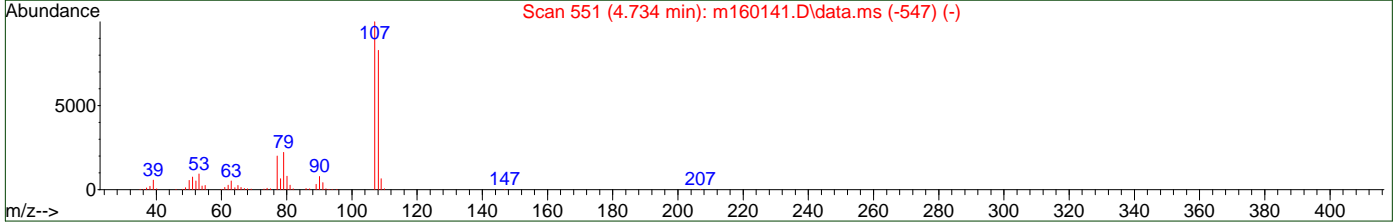
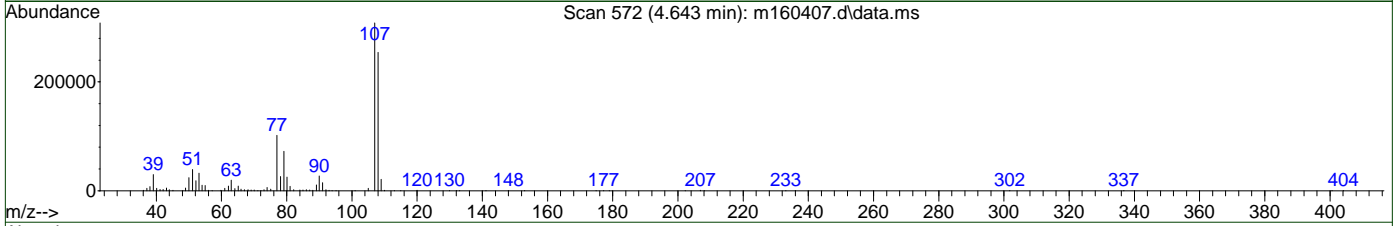
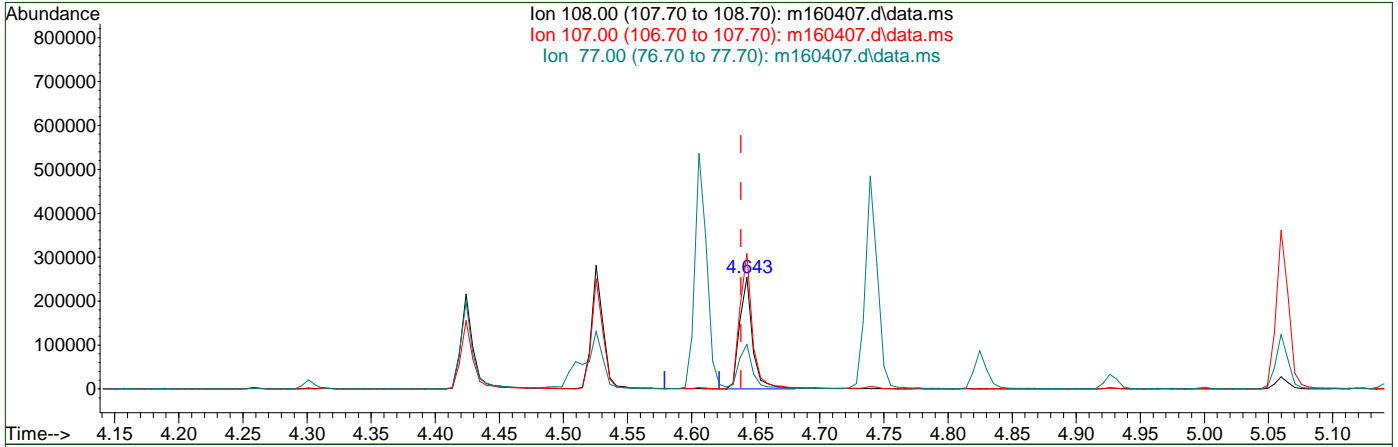
Ion	Exp%	Act%
108.00	100	100
107.00	120.00	104.92
77.00	4.00	0.00
0.00	0.00	0.00

9.3.3.2
 9

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\jeryllr\em6787\
 Data File : ml60407.d
 Acq On : 16 Oct 2019 1:42 pm
 Operator : hennys
 Sample : op23204-bs1 Inst : MSM
 Misc : op23204,em6787,1000,,,1,1
 ALS Vial : 8 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MM6777.M
 Quant Results File: MM6777.RES
 Quant Time: Oct 17 04:21:30 2019
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 QLast Update : Thu Oct 17 04:20:14 2019
 Response via : Initial Calibration



TIC: m160407.d\data.ms

(21) 3&4-Methylphenol (t)
 4.643min (+0.005) 20.62ppm m
 response 177348

Ion	Exp%	Act%
108.00	100	100
107.00	120.00	121.47
77.00	4.00	40.06#
0.00	0.00	0.00

9.3.3.3
 9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\jeryllr\em6787\
 Data File : ml60408.d
 Acq On : 16 Oct 2019 2:10 pm
 Operator : hennys
 Sample : op23204-bsd Inst : MSM
 Misc : op23204,em6787,1000,,,1,1
 ALS Vial : 9 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MM6777.M
 Quant Results File: MM6777.RES
 Quant Time: Oct 17 04:42:42 2019
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 QLast Update : Thu Oct 17 04:20:14 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.302	152	251687	40.00	ppm	0.00
24) Naphthalene-d8	5.333	136	847618	40.00	ppm	0.00
47) Acenaphthene-d10	7.481	164	548009	40.00	ppm	0.00
69) Phenanthrene-d10	9.992	188	985034	40.00	ppm	0.00
83) Chrysene-d12	15.072	240	845947	40.00	ppm	0.00
91) Perylene-d12	17.658	264	947188	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.302	152	251687	40.00	ppm	0.00
103) Acenaphthene-d10a	7.481	164	548009	40.00	ppm	0.00
105) Acenaphthene-d10b	7.481	164	548009	40.00	ppm	0.00
107) Chrysene-d12a	15.072	240	845947	40.00	ppm	0.00
110) Phenanthrene-d10a	9.992	188	985034	40.00	ppm	0.00
112) Phenanthrene-d10b	9.992	188	985034	40.00	ppm	0.00
114) Naphthalene-d8a	5.333	136	847618	40.00	ppm	0.00
116) Chrysene-d12c	15.072	240	845947	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	3.335	112	184081	16.64	ppm	0.00
Spiked Amount 50.000			Recovery =	33.28%		
8) Phenol-d5	4.083	99	156237	12.29	ppm	0.00
Spiked Amount 50.000			Recovery =	24.58%		
25) Nitrobenzene-d5	4.724	82	399730	36.66	ppm	0.00
Spiked Amount 50.000			Recovery =	73.32%		
51) 2-Fluorobiphenyl	6.551	172	698580	36.74	ppm	0.00
Spiked Amount 50.000			Recovery =	73.48%		
73) 2,4,6-Tribromophenol	8.774	330	151525	39.09	ppm	0.00
Spiked Amount 50.000			Recovery =	78.18%		
85) Terphenyl-d14	13.122	244	888091	38.57	ppm	0.00
Spiked Amount 50.000			Recovery =	77.14%		
109) 1-chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
113) o-terphenyl	0.000	230	0	0.00	ppm	
Target Compounds						
2) 1,4-Dioxane	1.759	88	64325	10.64	ppm	Qvalue 96
3) Pyridine	2.101	79	143168	10.31	ppm	96
4) N-Nitrosodimethylamine	2.064	42	100482	16.04	ppm	96
6) Indene	4.489	116	478852	32.30	ppm	100
7) Cumene	3.693	105	664827	25.38	ppm	100
9) Phenol	4.094	94	191943	13.28	ppm	98
10) Aniline	4.073	93	210248	14.39	ppm	99
11) bis(2-Chloroethyl)ether	4.115	93	317127	31.52	ppm	96
12) 2-Chlorophenol	4.163	128	263708	26.30	ppm	94
13) Decane	4.185	43	206971	23.07	ppm	96
14) 1,3-Dichlorobenzene	4.260	146	269899	24.24	ppm	99
15) 1,4-Dichlorobenzene	4.313	146	255645	25.91	ppm	99
16) Benzyl alcohol	4.425	108	168342	32.24	ppm	98
17) 1,2-Dichlorobenzene	4.431	146	268030	26.89	ppm	98
18) Acetophenone	4.607	105	436839	31.95	ppm	98
19) 2-Methylphenol	4.527	108	185223	22.56	ppm	95
20) 2,2'-oxybis(1-Chloropr...	4.511	121	90492	34.51	ppm	98
21) 3&4-Methylphenol	4.644	108	199613	22.75	ppm	# 91
22) n-Nitroso-di-n-propyla...	4.612	70	255435	33.07	ppm	98
23) Hexachloroethane	4.676	201	99069	24.03	ppm	95
26) Nitrobenzene	4.740	77	353409	31.73	ppm	97
27) Quinoline	5.691	129	596966	31.81	ppm	98
28) Isophorone	4.927	82	735199	37.40	ppm	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\jeryllr\em6787\
 Data File : ml60408.d
 Acq On : 16 Oct 2019 2:10 pm
 Operator : hennys
 Sample : op23204-bsd Inst : MSM
 Misc : op23204,em6787,1000,,,1,1
 ALS Vial : 9 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MM6777.M
 Quant Results File: MM6777.RES
 Quant Time: Oct 17 04:42:42 2019
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 QLast Update : Thu Oct 17 04:20:14 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
29) 2-Nitrophenol	5.002	139	172005	36.70	ppm	# 72
30) 2,4-Dimethylphenol	5.061	107	245769	30.54	ppm	97
31) Benzoic acid	5.168	105	112678	16.63	ppm	95
32) bis(2-Chloroethoxy)met...	5.120	93	409346	33.87	ppm	98
33) 2,4-Dichlorophenol	5.221	162	275667	34.16	ppm	97
34) 2,6-Dichlorophenol	5.430	162	249711	34.32	ppm	99
36) 1,2,4-Trichlorobenzene	5.280	180	246000	27.52	ppm	97
38) Naphthalene	5.349	128	737986	31.70	ppm	100
39) 4-Chloroaniline	5.424	127	218678	20.63	ppm	99
40) 2,3-Dichloroaniline	6.445	161	350642	34.54	ppm	95
41) Caprolactam	5.782	55	48208	11.02	ppm	88
42) Hexachlorobutadiene	5.478	225	141788	27.29	ppm	100
43) 4-Chloro-3-methylphenol	5.969	107	336771	37.99	ppm	# 33
44) 2-Methylnaphthalene	6.081	141	472891	32.31	ppm	98
45) 1-Methylnaphthalene	6.193	142	571837	30.55	ppm	98
46) Dimethylnaphthalene	6.883	156	517431	31.66	ppm	98
48) Hexachlorocyclopentadiene	6.279	237	112512	20.04	ppm	95
49) 2,4,6-Trichlorophenol	6.450	196	218355	36.39	ppm	95
50) 2,4,5-Trichlorophenol	6.503	196	228830	35.70	ppm	98
52) 2-Chloronaphthalene	6.685	162	513441	28.35	ppm	97
53) Biphenyl	6.674	154	733881	30.41	ppm	99
54) 2-Nitroaniline	6.872	65	243426	41.81	ppm	96
55) Dimethylphthalate	7.144	163	822440	35.30	ppm	98
56) Acenaphthylene	7.262	152	890322	31.91	ppm	99
57) 2,6-Dinitrotoluene	7.219	165	184103	39.95	ppm	94
58) 3-Nitroaniline	7.481	138	148090	30.28	ppm	98
59) Acenaphthene	7.529	153	550446	32.66	ppm	97
60) 2,4-Dinitrophenol	7.630	184	213824	82.88	ppm	94
61) 4-Nitrophenol	7.855	109	54882	18.95	ppm	97
62) Dibenzofuran	7.801	168	932572	34.85	ppm	99
63) 2,4-Dinitrotoluene	7.839	165	234884	39.89	ppm	90
64) 2,3,4,6-Tetrachlorophenol	8.042	232	211150	39.59	ppm	97
65) Diethylphthalate	8.277	149	836037	36.19	ppm	98
66) Fluorene	8.357	166	744330	35.04	ppm	99
67) 4-Chlorophenyl-phenyle...	8.400	204	343671	32.86	ppm	97
68) 4-Nitroaniline	8.480	138	192117	38.29	ppm	100
70) 4,6-Dinitro-2-methylph...	8.512	198	147279	40.68	ppm	92
71) n-Nitrosodiphenylamine	8.619	169	552396	35.58	ppm	99
72) 1,2-Diphenylhydrazine	8.667	77	876559	36.68	ppm	95
74) 4-Bromophenyl-phenylether	9.238	248	253943	35.00	ppm	98
75) Hexachlorobenzene	9.308	284	274466	34.70	ppm	100
76) Pentachlorophenol	9.714	266	168705	36.67	ppm	98
77) Phenanthrene	10.034	178	953846	34.57	ppm	99
78) Anthracene	10.125	178	1014822	35.35	ppm	100
79) Carbazole	10.499	167	1183493	37.36	ppm	98
80) Di-n-butylphthalate	11.295	149	1530875	37.62	ppm	99
81) Fluoranthene	12.273	202	1367977	36.78	ppm	98
82) Octadecane	10.008	57	412597	34.78	ppm	99
84) Pyrene	12.689	202	1377399	39.19	ppm	99
86) Butylbenzylphthalate	14.185	149	705850	42.76	ppm	99
87) Benzo[a]anthracene	15.051	228	1201400	37.94	ppm	98
88) 3,3'-Dichlorobenzidine	15.125	252	521619	50.49	ppm	98
89) Chrysene	15.120	228	982522	37.28	ppm	98
90) bis(2-Ethylhexyl)phtha...	15.393	149	875398	42.31	ppm	99
92) Di-n-octylphthalate	16.600	149	1584047	42.06	ppm	100
93) Benzo[b]fluoranthene	17.022	252	1197883	36.78	ppm	99
94) Benzo[k]fluoranthene	17.070	252	1022421	35.25	ppm	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\jeryllr\em6787\
 Data File : ml60408.d
 Acq On : 16 Oct 2019 2:10 pm
 Operator : hennys
 Sample : op23204-bsd Inst : MSM
 Misc : op23204,em6787,1000,,,1,1
 ALS Vial : 9 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MM6777.M
 Quant Results File: MM6777.RES
 Quant Time: Oct 17 04:42:42 2019
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 QLast Update : Thu Oct 17 04:20:14 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
95) Benzo[a]pyrene	17.556	252	1058010	36.80	ppm	97
96) Indeno[1,2,3-cd]pyrene	19.276	276	984438	35.16	ppm	99
98) Dibenz[a,h]anthracene	19.324	278	971066	34.80	ppm	99
99) 7,12-Dimethylbenz(a)an...	17.038	256	366990	32.32	ppm	100
100) Benzo[g,h,i]perylene	19.640	276	1001041	35.81	ppm	99
102) Benzaldehyde	3.982	105	256621	37.79	ppm	98
104) Atrazine	9.650	215	122244	50.28	ppm	90
106) 1,2,4,5-Tetrachloroben...	6.284	216	249474	27.88	ppm	99
111) Pentachloronitrobenzene	9.714	295	49060	41.76	ppm	98

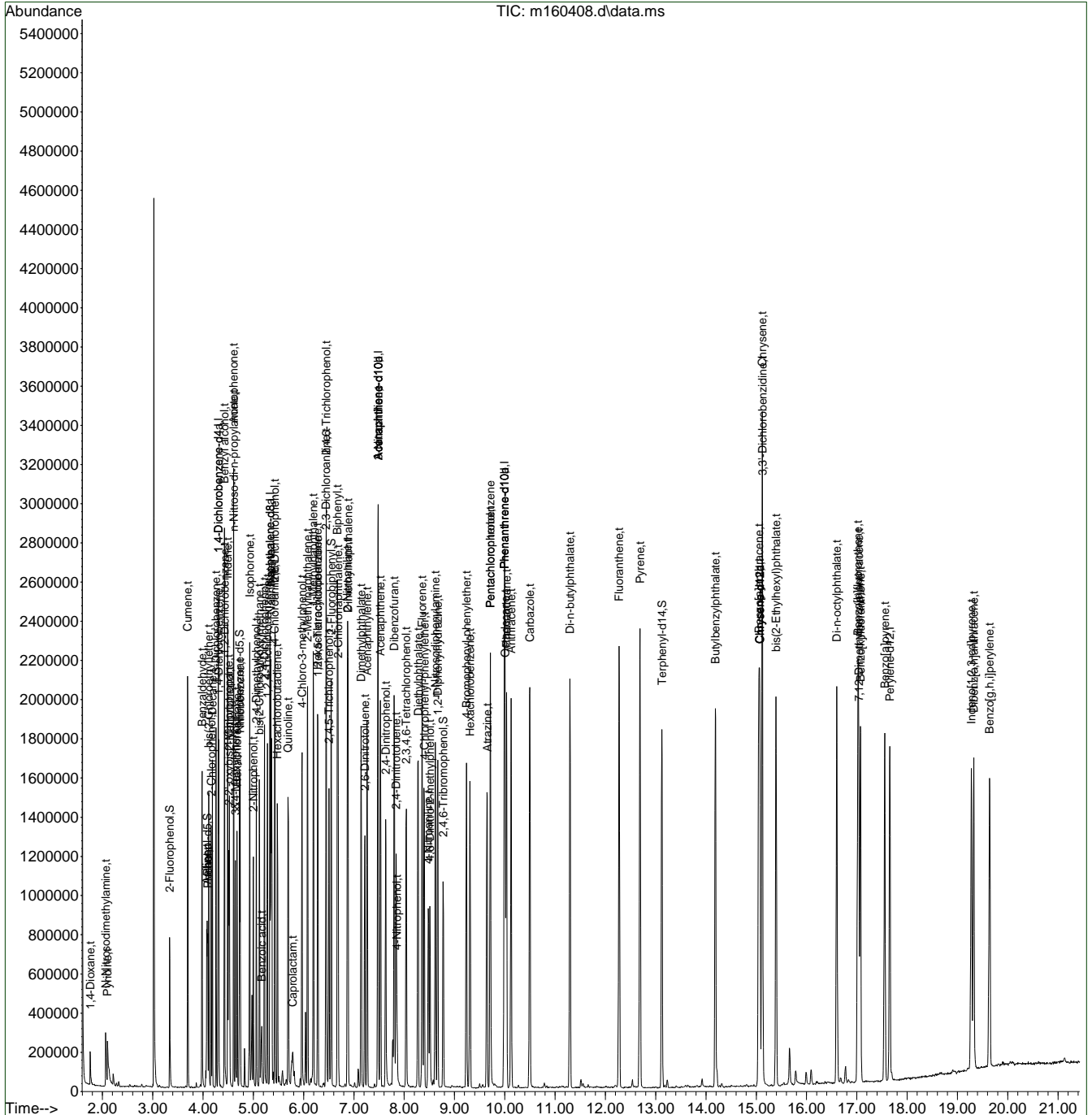
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\jeryllr\em6787\
Data File : m160408.d
Acq On : 16 Oct 2019 2:10 pm
Operator : hennys
Sample : op23204-bsd
Misc : op23204,em6787,1000,,,1,1
ALS Vial : 9 Sample Multiplier: 1

Inst : MSM

Quant Method : C:\MSDCHEM\1\METHODS\MM6777.M
Quant Results File: MM6777.RES
Quant Time: Oct 17 04:42:42 2019
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Thu Oct 17 04:20:14 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\jeryllr\em6781\
 Data File : ml60250.d
 Acq On : 11 Oct 2019 8:16 pm
 Operator : hennys
 Sample : op23230-ms Inst : MSM
 Misc : op23230,em6781,1000,,,1,1
 ALS Vial : 21 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MM6777.M
 Quant Results File: MM6777.RES
 Quant Time: Oct 14 05:56:31 2019
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 QLast Update : Mon Oct 14 05:00:48 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.361	152	197474	40.00	ppm	0.00
24) Naphthalene-d8	5.414	136	610630	40.00	ppm	0.01
47) Acenaphthene-d10	7.583	164	381504	40.00	ppm	0.00
69) Phenanthrene-d10	10.120	188	621394	40.00	ppm	0.02
83) Chrysene-d12	15.211	240	521081	40.00	ppm	0.02
91) Perylene-d12	17.797	264	628823	40.00	ppm	0.01
101) 1,4-Dichlorobenzene-d4a	4.361	152	197474	40.00	ppm	0.00
103) Acenaphthene-d10a	7.583	164	381504	40.00	ppm	0.00
105) Acenaphthene-d10b	7.583	164	381504	40.00	ppm	0.00
107) Chrysene-d12a	15.211	240	521081	40.00	ppm	0.02
110) Phenanthrene-d10a	10.120	188	621394	40.00	ppm	0.02
112) Phenanthrene-d10b	10.120	188	621394	40.00	ppm	0.02
114) Naphthalene-d8a	5.414	136	610630	40.00	ppm	0.01
116) Chrysene-d12c	15.211	240	521081	40.00	ppm	0.02
System Monitoring Compounds						
5) 2-Fluorophenol	3.405	112	136707	15.75	ppm	0.00
Spiked Amount 50.000			Recovery =	31.50%		
8) Phenol-d5	4.148	99	121708	12.20	ppm	0.00
Spiked Amount 50.000			Recovery =	24.40%		
25) Nitrobenzene-d5	4.794	82	326702	41.59	ppm	0.00
Spiked Amount 50.000			Recovery =	83.18%		
51) 2-Fluorobiphenyl	6.642	172	489363	36.97	ppm	0.00
Spiked Amount 50.000			Recovery =	73.94%		
73) 2,4,6-Tribromophenol	8.897	330	87673	35.86	ppm	0.01
Spiked Amount 50.000			Recovery =	71.72%		
85) Terphenyl-d14	13.251	244	472648	33.32	ppm	0.00
Spiked Amount 50.000			Recovery =	66.64%		
109) 1-chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
113) o-terphenyl	0.000	230	0	0.00	ppm	
Target Compounds						
2) 1,4-Dioxane	1.845	88	52785	11.13	ppm	92
3) Pyridine	2.198	79	163522	15.01	ppm	99
4) N-Nitrosodimethylamine	2.155	42	93632	19.06	ppm	85
6) Indene	4.554	116	1542300	132.61	ppm	95
7) Cumene	3.763	105	525336	25.56	ppm	99
9) Phenol	4.158	94	1120237	98.81	ppm	99
10) Aniline	4.137	93	361416	31.52	ppm	73
11) bis(2-Chloroethyl)ether	4.180	93	251317	31.83	ppm	97
12) 2-Chlorophenol	4.222	128	195142	24.81	ppm	92
13) Decane	4.244	43	147743	20.99	ppm	91
14) 1,3-Dichlorobenzene	4.324	146	184173	21.08	ppm	96
15) 1,4-Dichlorobenzene	4.377	146	186740	24.12	ppm	98
16) Benzyl alcohol	4.490	108	125811	30.71	ppm	87
17) 1,2-Dichlorobenzene	4.490	146	184431	23.58	ppm	96
18) Acetophenone	4.682	105	388120	36.18	ppm	100
19) 2-Methylphenol	4.591	108	1057356	164.11	ppm	97
20) 2,2'-oxybis(1-Chloropr...	4.554	121	146864m	71.39	ppm	
21) 3&4-Methylphenol	4.719	108	1402890	203.76	ppm	76
22) n-Nitroso-di-n-propyla...	4.687	70	225369	37.19	ppm	96
23) Hexachloroethane	4.746	201	55917	17.29	ppm	93
26) Nitrobenzene	4.810	77	309229	38.54	ppm	96
27) Quinoline	5.788	129	429240	31.75	ppm	98
28) Isophorone	5.024	82	630619	44.53	ppm	97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\jeryllr\em6781\
 Data File : ml60250.d
 Acq On : 11 Oct 2019 8:16 pm
 Operator : hennys
 Sample : op23230-ms Inst : MSM
 Misc : op23230,em6781,1000,,,1,1
 ALS Vial : 21 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MM6777.M
 Quant Results File: MM6777.RES
 Quant Time: Oct 14 05:56:31 2019
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 QLast Update : Mon Oct 14 05:00:48 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
29) 2-Nitrophenol	5.072	139	122211	36.19	ppm	#	74
30) 2,4-Dimethylphenol	5.141	107	1354456	233.66	ppm		97
31) Benzoic acid	5.259	105	162769	31.76	ppm	#	1
32) bis(2-Chloroethoxy)met...	5.205	93	329799	37.88	ppm		97
33) 2,4-Dichlorophenol	5.307	162	170816	29.38	ppm		98
34) 2,6-Dichlorophenol	5.510	162	159888	30.50	ppm		97
36) 1,2,4-Trichlorobenzene	5.360	180	153004	23.76	ppm		98
38) Naphthalene	5.446	128	8498619	506.77	ppm		89
39) 4-Chloroaniline	5.510	127	82721	10.83	ppm		98
40) 2,3-Dichloroaniline	6.536	161	217219	29.70	ppm		96
41) Caprolactam	5.959	55	27451	8.71	ppm		93
42) Hexachlorobutadiene	5.558	225	74818	19.99	ppm		93
43) 4-Chloro-3-methylphenol	6.055	107	216449	33.89	ppm		99
44) 2-Methylnaphthalene	6.172	141	1181892	112.08	ppm		100
45) 1-Methylnaphthalene	6.290	142	1289895	95.66	ppm		99
46) Dimethylnaphthalene	6.979	156	528016	44.85	ppm		98
48) Hexachlorocyclopentadiene	6.370	237	96563	24.71	ppm		99
49) 2,4,6-Trichlorophenol	6.541	196	147060	35.21	ppm		99
50) 2,4,5-Trichlorophenol	6.600	196	156686	35.12	ppm		98
52) 2-Chloronaphthalene	6.781	162	336604	26.70	ppm		98
53) Biphenyl	6.771	154	901445	53.65	ppm		98
54) 2-Nitroaniline	6.968	65	203619	50.24	ppm		91
55) Dimethylphthalate	7.246	163	572980	35.33	ppm		99
56) Acenaphthylene	7.374	152	2337336	120.33	ppm		99
57) 2,6-Dinitrotoluene	7.321	165	132999	41.46	ppm		89
58) 3-Nitroaniline	7.588	138	65887	19.35	ppm		91
59) Acenaphthene	7.641	153	1719881	146.57	ppm		98
60) 2,4-Dinitrophenol	7.743	184	112675	63.69	ppm		75
62) Dibenzofuran	7.919	168	2049976	110.04	ppm		98
63) 2,4-Dinitrotoluene	7.951	165	153167	37.36	ppm		80
64) 2,3,4,6-Tetrachlorophenol	8.154	232	134364	36.19	ppm		92
65) Diethylphthalate	8.389	149	494091	30.72	ppm		99
66) Fluorene	8.480	166	1929852	130.49	ppm		98
67) 4-Chlorophenyl-phenyle...	8.507	204	170968	23.48	ppm		97
68) 4-Nitroaniline	8.603	138	122057	34.94	ppm		93
70) 4,6-Dinitro-2-methylph...	8.630	198	80196	35.11	ppm		97
71) n-Nitrosodiphenylamine	8.737	169	396436	40.48	ppm		96
72) 1,2-Diphenylhydrazine	8.779	77	647014	42.92	ppm		92
74) 4-Bromophenyl-phenylether	9.356	248	131066	28.63	ppm		97
75) Hexachlorobenzene	9.426	284	160862	32.24	ppm		91
76) Pentachlorophenol	9.853	266	117857	40.60	ppm		96
77) Phenanthrene	10.179	178	4270148	245.35	ppm		97
78) Anthracene	10.259	178	1274872	70.40	ppm		100
79) Carbazole	10.649	167	3754211	187.89	ppm		97
80) Di-n-butylphthalate	11.424	149	931304	36.27	ppm		99
81) Fluoranthene	12.423	202	2673300	113.93	ppm		98
82) Octadecane	10.115	57	231349	30.91	ppm		99
84) Pyrene	12.834	202	2196905	101.48	ppm		99
86) Butylbenzylphthalate	14.319	149	429134	42.20	ppm		91
87) Benzo[a]anthracene	15.195	228	1285486	65.90	ppm		99
89) Chrysene	15.259	228	1097634	67.61	ppm		100
90) bis(2-Ethylhexyl)phtha...	15.521	149	591713	46.42	ppm		97
92) Di-n-octylphthalate	16.728	149	1034239	41.37	ppm		97
93) Benzo[b]fluoranthene	17.172	252	1260976	58.31	ppm		98
94) Benzo[k]fluoranthene	17.215	252	880952	45.75	ppm		97
95) Benzo[a]pyrene	17.701	252	1055763	55.31	ppm		96
96) Indeno[1,2,3-cd]pyrene	19.421	276	875805	47.12	ppm		95

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\jeryllr\em6781\
 Data File : ml60250.d
 Acq On : 11 Oct 2019 8:16 pm
 Operator : hennys
 Sample : op23230-ms Inst : MSM
 Misc : op23230,em6781,1000,,,1,1
 ALS Vial : 21 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MM6777.M
 Quant Results File: MM6777.RES
 Quant Time: Oct 14 05:56:31 2019
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 QLast Update : Mon Oct 14 05:00:48 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
98) Dibenz[a,h]anthracene	19.464	278	731623	39.49	ppm	98
99) 7,12-Dimethylbenz(a)an...	17.177	256	185733	24.64	ppm	99
100) Benzo[g,h,i]perylene	19.795	276	894368	48.20	ppm	100
102) Benzaldehyde	4.041	105	195258	36.65	ppm	91
104) Atrazine	9.832	215	85640	50.60	ppm	87
106) 1,2,4,5-Tetrachloroben...	6.375	216	137072	22.00	ppm	99
111) Pentachloronitrobenzene	9.842	295	30121	40.64	ppm	95

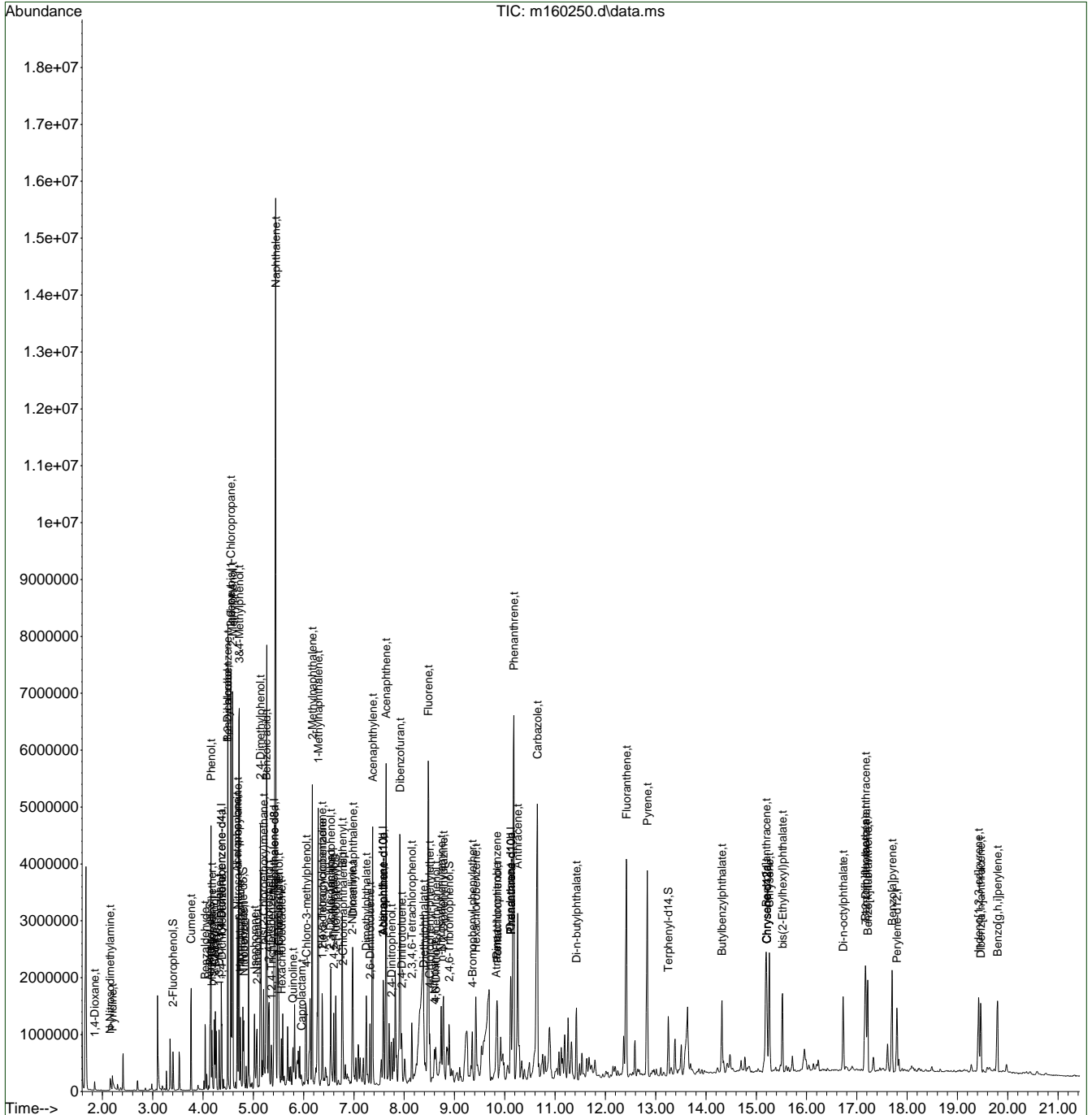
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\jeryllr\em6781\
 Data File : m160250.d
 Acq On : 11 Oct 2019 8:16 pm
 Operator : hennys
 Sample : op23230-ms
 Misc : op23230,em6781,1000,,,1,1
 ALS Vial : 21 Sample Multiplier: 1

Inst : MSM

Quant Method : C:\MSDCHEM\1\METHODS\MM6777.M
 Quant Results File: MM6777.RES
 Quant Time: Oct 14 05:56:31 2019
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 QLast Update : Mon Oct 14 05:00:48 2019
 Response via : Initial Calibration



Manual Integration Approval Summary

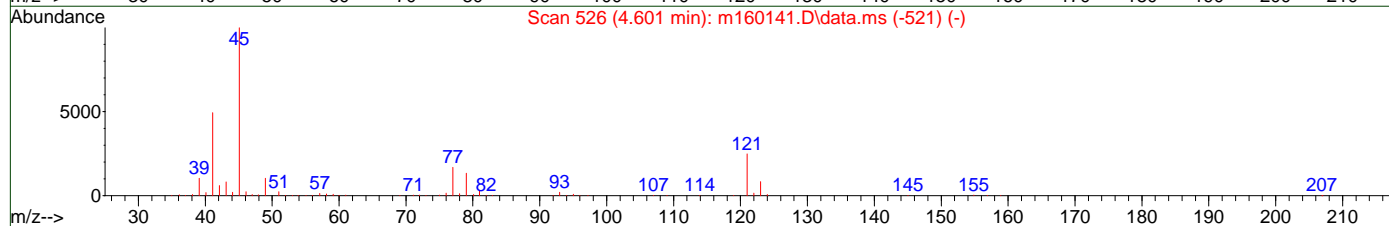
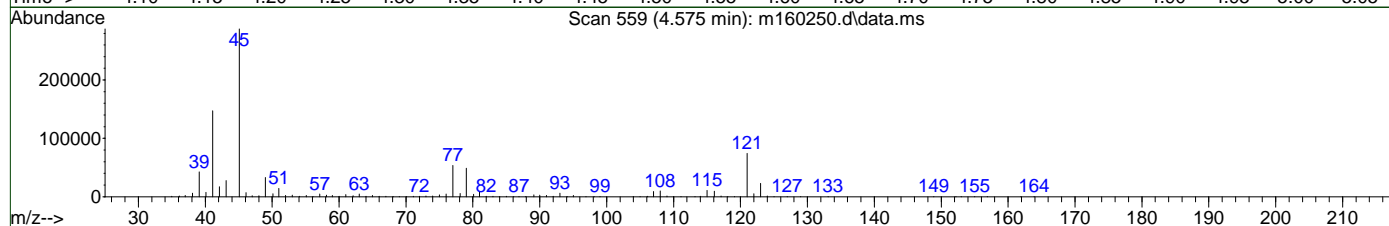
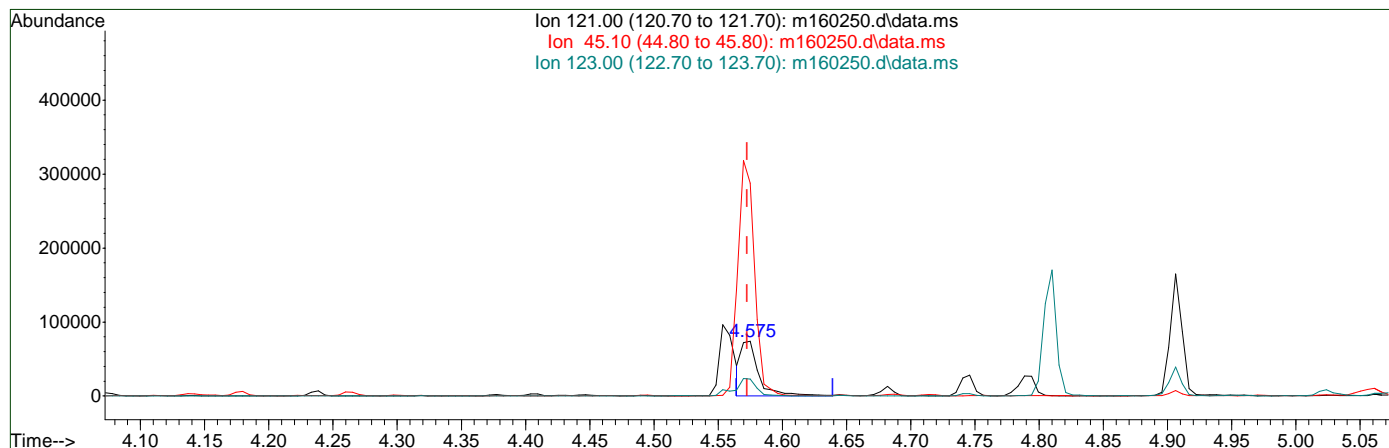
Sample Number: OP23230-MS Method: SW846 8270D
Lab FileID: M160250.D Analyst approved: 10/21/19 17:22 Nina Pandya
Injection Time: 10/11/19 20:16 Supervisor approved: 10/21/19 17:24 Nina Pandya

Parameter	CAS	Sig#	R.T. (min.)	Reason
2,2'-Oxybis(1-chloropropane)	108-60-1		4.55	Poor instrument integration

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\jeryllr\em6781\
 Data File : m160250.d
 Acq On : 11 Oct 2019 8:16 pm
 Operator : hennys
 Sample : op23230-ms Inst : MSM
 Misc : op23230,em6781,1000,,,1,1
 ALS Vial : 21 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MM6777.M
 Quant Results File: MM6777.RES
 Quant Time: Oct 14 05:04:11 2019
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 QLast Update : Mon Oct 14 05:00:48 2019
 Response via : Initial Calibration



TIC: m160250.d\data.ms

(20) 2,2'-oxybis(1-Chloropropane (t))

4.575min (+0.003) 34.67ppm

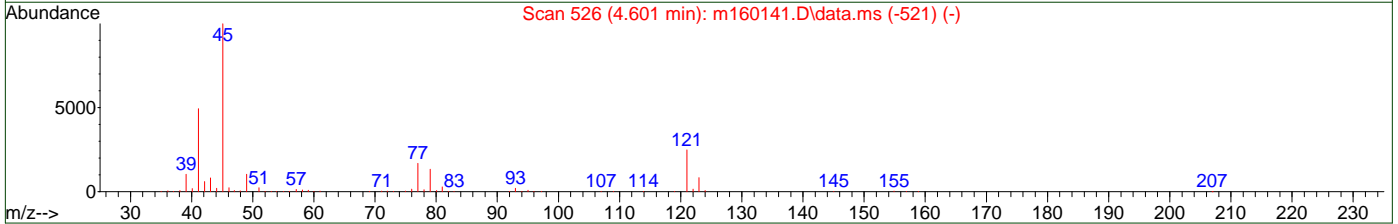
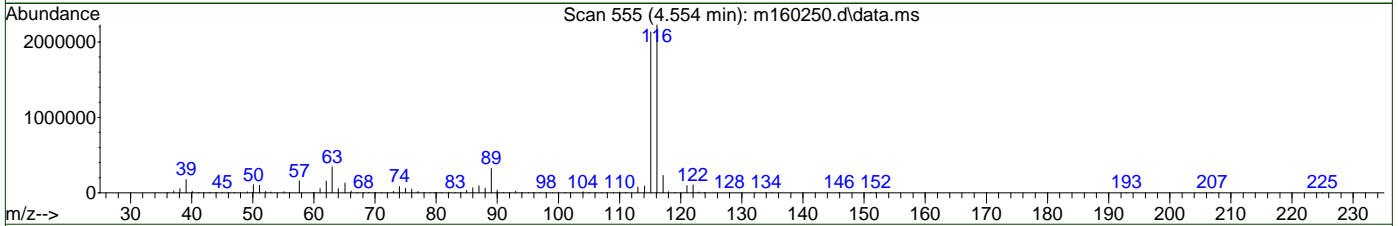
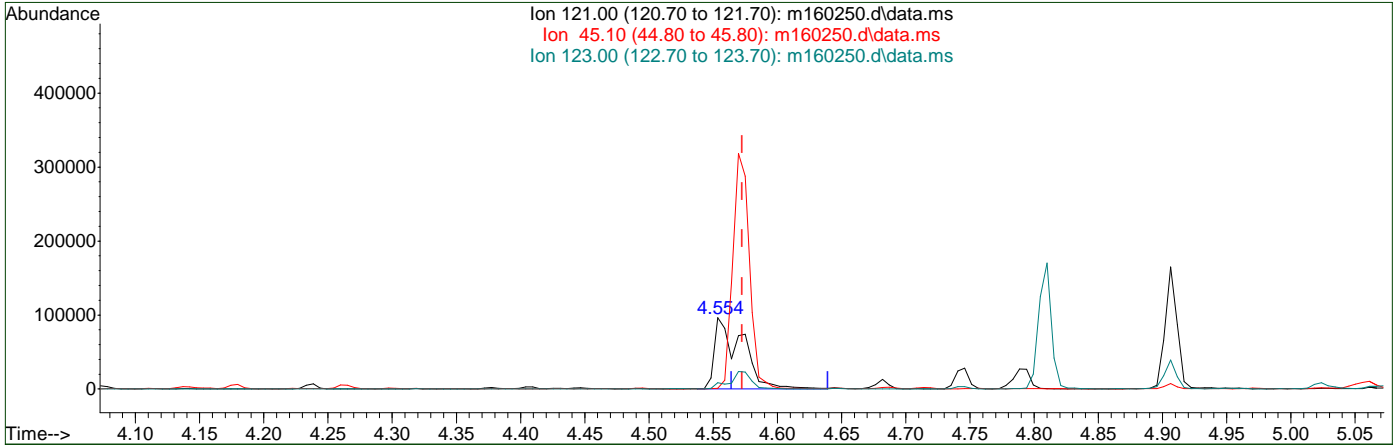
response 71329

Ion	Exp%	Act%
121.00	100	100
45.10	396.80	404.34
123.00	28.90	35.45
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\jeryllr\em6781\
 Data File : m160250.d
 Acq On : 11 Oct 2019 8:16 pm
 Operator : hennys
 Sample : op23230-ms Inst : MSM
 Misc : op23230,em6781,1000,,,1,1
 ALS Vial : 21 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MM6777.M
 Quant Results File: MM6777.RES
 Quant Time: Oct 14 05:04:11 2019
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 QLast Update : Mon Oct 14 05:00:48 2019
 Response via : Initial Calibration



TIC: m160250.d\data.ms

(20) 2,2'-oxybis(1-Chloropropane (t))
 4.554min (-0.019) 71.39ppm m
 response 146864

Ion	Exp%	Act%
121.00	100	100
45.10	396.80	0.96#
123.00	28.90	8.86
0.00	0.00	0.00

9.4.1.3
9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\jeryllr\em6781\
 Data File : ml60251.d
 Acq On : 11 Oct 2019 8:44 pm
 Operator : hennys
 Sample : op23230-msd Inst : MSM
 Misc : op23230,em6781,1000,,,1,1
 ALS Vial : 22 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MM6777.M
 Quant Results File: MM6777.RES
 Quant Time: Oct 14 05:56:04 2019
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 QLast Update : Mon Oct 14 05:00:48 2019
 Response via : Initial Calibration

Compound	R.T.	QIion	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.366	152	207083	40.00	ppm	0.00
24) Naphthalene-d8	5.424	136	625390	40.00	ppm	0.02
47) Acenaphthene-d10	7.588	164	394990	40.00	ppm	0.01
69) Phenanthrene-d10	10.120	188	626956	40.00	ppm	0.02
83) Chrysene-d12	15.211	240	569919	40.00	ppm	0.02
91) Perylene-d12	17.797	264	665428	40.00	ppm	0.01
101) 1,4-Dichlorobenzene-d4a	4.366	152	207083	40.00	ppm	0.00
103) Acenaphthene-d10a	7.588	164	394990	40.00	ppm	0.01
105) Acenaphthene-d10b	7.588	164	394990	40.00	ppm	0.01
107) Chrysene-d12a	15.211	240	569919	40.00	ppm	0.02
110) Phenanthrene-d10a	10.120	188	626956	40.00	ppm	0.02
112) Phenanthrene-d10b	10.120	188	626956	40.00	ppm	# 0.02
114) Naphthalene-d8a	5.424	136	625390	40.00	ppm	0.02
116) Chrysene-d12c	15.211	240	569919	40.00	ppm	0.02
System Monitoring Compounds						
5) 2-Fluorophenol	3.405	112	137649	15.12	ppm	0.00
Spiked Amount 50.000			Recovery =	30.24%		
8) Phenol-d5	4.147	99	122887	11.75	ppm	0.00
Spiked Amount 50.000			Recovery =	23.50%		
25) Nitrobenzene-d5	4.794	82	336539	41.83	ppm	0.00
Spiked Amount 50.000			Recovery =	83.66%		
51) 2-Fluorobiphenyl	6.642	172	481878	35.16	ppm	0.00
Spiked Amount 50.000			Recovery =	70.32%		
73) 2,4,6-Tribromophenol	8.902	330	81547	33.06	ppm	0.02
Spiked Amount 50.000			Recovery =	66.12%		
85) Terphenyl-d14	13.250	244	420401	27.10	ppm	0.00
Spiked Amount 50.000			Recovery =	54.20%		
109) 1-chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
113) o-terphenyl	0.000	230	0	0.00	ppm	
Target Compounds						
2) 1,4-Dioxane	1.845	88	57438	11.55	ppm	Qvalue 95
3) Pyridine	2.197	79	193442	16.93	ppm	96
4) N-Nitrosodimethylamine	2.160	42	91654	17.79	ppm	90
6) Indene	4.559	116	2222151	182.20	ppm	94
7) Cumene	3.763	105	560069	25.99	ppm	98
9) Phenol	4.163	94	1778915	149.63	ppm	99
10) Aniline	4.142	93	457549	38.06	ppm	# 44
11) bis(2-Chloroethyl)ether	4.179	93	261090	31.54	ppm	73
12) 2-Chlorophenol	4.228	128	195272	23.67	ppm	98
13) Decane	4.244	43	141662	19.19	ppm	92
14) 1,3-Dichlorobenzene	4.324	146	193535	21.12	ppm	98
15) 1,4-Dichlorobenzene	4.377	146	193974	23.90	ppm	97
16) Benzyl alcohol	4.500	108	114709	26.70	ppm	# 62
17) 1,2-Dichlorobenzene	4.495	146	189053	23.05	ppm	99
18) Acetophenone	4.687	105	397592	35.35	ppm	82
19) 2-Methylphenol	4.596	108	1596731	236.33	ppm	96
20) 2,2'-oxybis(1-Chloropr...	4.559	121	116358m	53.93	ppm	
21) 3&4-Methylphenol	4.724	108	2340830	324.21	ppm	78
22) n-Nitroso-di-n-propyla...	4.682	70	20053	3.16	ppm	80
23) Hexachloroethane	4.746	201	52730	15.55	ppm	98
26) Nitrobenzene	4.810	77	317068	38.59	ppm	90
27) Quinoline	5.793	129	412285	29.78	ppm	97
28) Isophorone	5.061	82	639234m	44.08	ppm	

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\jeryllr\em6781\
 Data File : ml60251.d
 Acq On : 11 Oct 2019 8:44 pm
 Operator : hennys
 Sample : op23230-msd Inst : MSM
 Misc : op23230,em6781,1000,,,1,1
 ALS Vial : 22 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MM6777.M
 Quant Results File: MM6777.RES
 Quant Time: Oct 14 05:56:04 2019
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 QLast Update : Mon Oct 14 05:00:48 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
29) 2-Nitrophenol	5.077	139	127055	36.74	ppm	# 54
30) 2,4-Dimethylphenol	5.157	107	2354857	396.66	ppm	95
31) Benzoic acid	5.269	105	190422	36.04	ppm	# 1
32) bis(2-Chloroethoxy)met...	5.216	93	321460	36.05	ppm	97
33) 2,4-Dichlorophenol	5.317	162	160566	26.97	ppm	96
34) 2,6-Dichlorophenol	5.515	162	142480	26.54	ppm	98
36) 1,2,4-Trichlorobenzene	5.381	180	144780	21.95	ppm	99
38) Naphthalene	5.467	128	18173532	1058.10	ppm	81
39) 4-Chloroaniline	5.515	127	68729	8.79	ppm	75
40) 2,3-Dichloroaniline	6.541	161	177260	23.66	ppm	96
41) Caprolactam	5.974	55	30126	9.34	ppm	93
42) Hexachlorobutadiene	5.563	225	65115	16.99	ppm	98
43) 4-Chloro-3-methylphenol	6.060	107	213486	32.64	ppm	99
44) 2-Methylnaphthalene	6.177	141	1655298	153.27	ppm	99
45) 1-Methylnaphthalene	6.290	142	1374281	99.52	ppm	99
46) Dimethylnaphthalene	6.979	156	500326	41.49	ppm	97
48) Hexachlorocyclopentadiene	6.370	237	87007	21.50	ppm	98
49) 2,4,6-Trichlorophenol	6.546	196	142913	33.05	ppm	99
50) 2,4,5-Trichlorophenol	6.599	196	146049	31.62	ppm	96
52) 2-Chloronaphthalene	6.781	162	326509	25.02	ppm	95
53) Biphenyl	6.770	154	955119	54.91	ppm	98
54) 2-Nitroaniline	6.973	65	206826	49.29	ppm	94
55) Dimethylphthalate	7.251	163	564310	33.61	ppm	99
56) Acenaphthylene	7.374	152	2549754	126.78	ppm	99
57) 2,6-Dinitrotoluene	7.321	165	130028	39.15	ppm	89
58) 3-Nitroaniline	7.588	138	56178	15.94	ppm	83
59) Acenaphthene	7.641	153	1671058	137.55	ppm	98
60) 2,4-Dinitrophenol	7.748	184	93973	52.01	ppm	# 51
62) Dibenzofuran	7.919	168	2006600	104.03	ppm	97
63) 2,4-Dinitrotoluene	7.956	165	150315	35.41	ppm	86
64) 2,3,4,6-Tetrachlorophenol	8.154	232	128015	33.30	ppm	94
65) Diethylphthalate	8.394	149	479891	28.82	ppm	99
66) Fluorene	8.485	166	1873135	122.33	ppm	96
67) 4-Chlorophenyl-phenyle...	8.512	204	156839	20.81	ppm	97
68) 4-Nitroaniline	8.613	138	119234	32.97	ppm	95
70) 4,6-Dinitro-2-methylph...	8.635	198	67361	29.23	ppm	98
71) n-Nitrosodiphenylamine	8.736	169	398847	40.37	ppm	97
72) 1,2-Diphenylhydrazine	8.779	77	660556	43.43	ppm	93
74) 4-Bromophenyl-phenylether	9.356	248	122929	26.62	ppm	95
75) Hexachlorobenzene	9.425	284	153989	30.59	ppm	93
76) Pentachlorophenol	9.858	266	105121	35.90	ppm	99
77) Phenanthrene	10.179	178	3510320	199.90	ppm	98
78) Anthracene	10.259	178	1109661	60.74	ppm	99
79) Carbazole	10.659	167	4399007	218.21	ppm	98
80) Di-n-butylphthalate	11.423	149	897723	34.66	ppm	99
81) Fluoranthene	12.417	202	1862603	78.68	ppm	97
82) Octadecane	10.115	57	193068	25.57	ppm	99
84) Pyrene	12.828	202	1581948	66.81	ppm	99
86) Butylbenzylphthalate	14.319	149	416096	37.42	ppm	89
87) Benzo[a]anthracene	15.195	228	965469	45.25	ppm	98
89) Chrysene	15.259	228	843493	47.51	ppm	99
90) bis(2-Ethylhexyl)phtha...	15.521	149	575772	41.30	ppm	96
92) Di-n-octylphthalate	16.728	149	1017953	38.47	ppm	97
93) Benzo[b]fluoranthene	17.166	252	923017	40.34	ppm	99
94) Benzo[k]fluoranthene	17.214	252	781216	38.34	ppm	98
95) Benzo[a]pyrene	17.700	252	818407	40.52	ppm	98
96) Indeno[1,2,3-cd]pyrene	19.421	276	725777	36.90	ppm	95

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\jeryllr\em6781\
 Data File : ml60251.d
 Acq On : 11 Oct 2019 8:44 pm
 Operator : hennys
 Sample : op23230-msd Inst : MSM
 Misc : op23230,em6781,1000,,,1,1
 ALS Vial : 22 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MM6777.M
 Quant Results File: MM6777.RES
 Quant Time: Oct 14 05:56:04 2019
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 QLast Update : Mon Oct 14 05:00:48 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
98) Dibenz[a,h]anthracene	19.463	278	664823	33.91	ppm	99
99) 7,12-Dimethylbenz(a)an...	17.177	256	193891	24.31	ppm	97
100) Benzo[g,h,i]perylene	19.794	276	742559	37.82	ppm	99
102) Benzaldehyde	4.046	105	174462	31.23	ppm	89
104) Atrazine	9.858	215	63550	36.27	ppm #	74
106) 1,2,4,5-Tetrachloroben...	6.375	216	121618	18.86	ppm	99
111) Pentachloronitrobenzene	9.847	295	26689	35.69	ppm	94

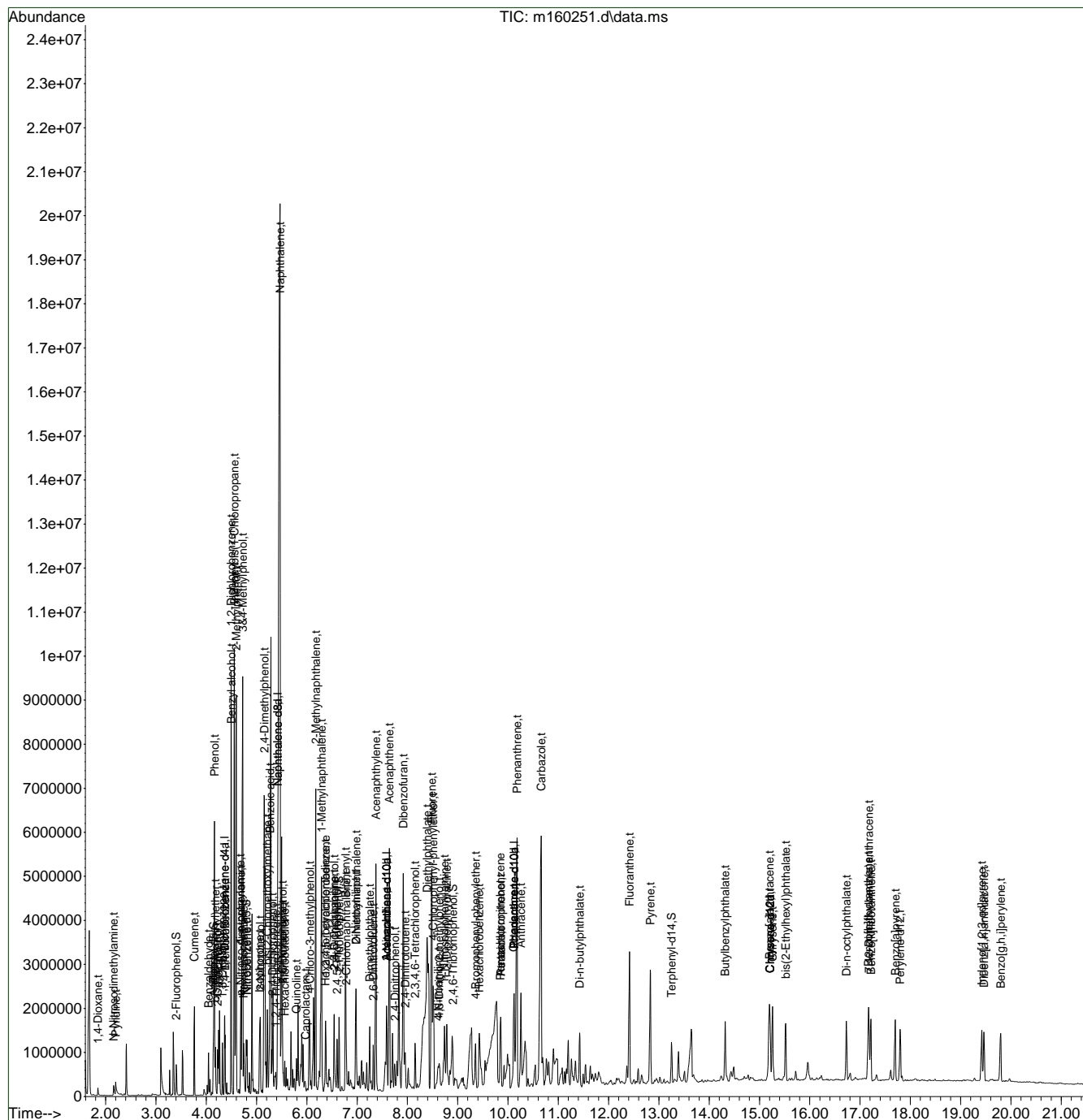
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\jeryllr\em6781\
Data File : ml60251.d
Acq On : 11 Oct 2019 8:44 pm
Operator : hennys
Sample : op23230-msd
Misc : op23230,em6781,1000,,1,1
ALS Vial : 22 Sample Multiplier: 1

Inst : MSM

Quant Method : C:\MSDCHEM\1\METHODS\MM6777.M
Quant Results File: MM6777.RES
Quant Time: Oct 14 05:56:04 2019
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Mon Oct 14 05:00:48 2019
Response via : Initial Calibration



9.4.2
9



Manual Integration Approval Summary

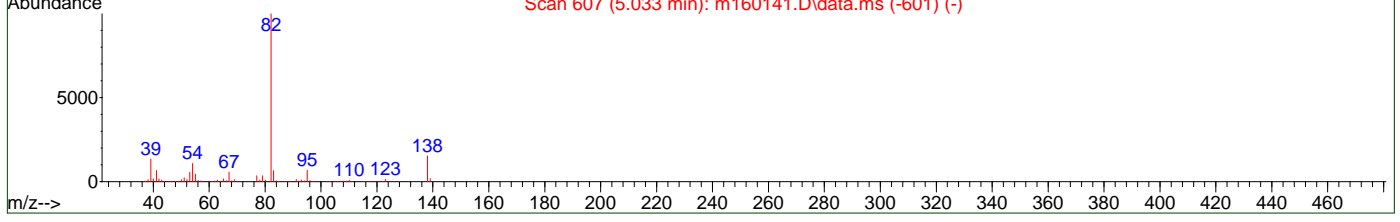
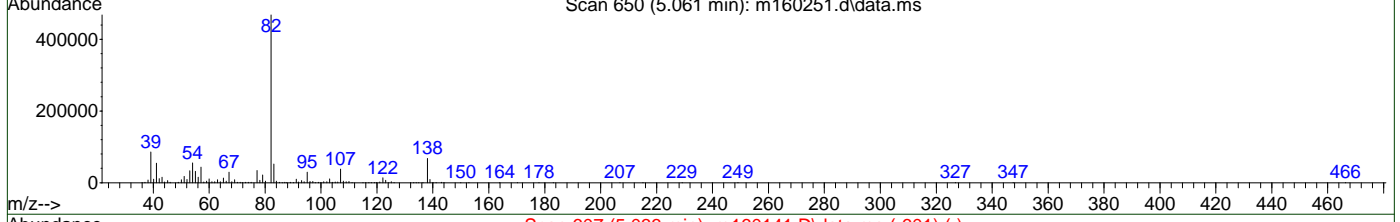
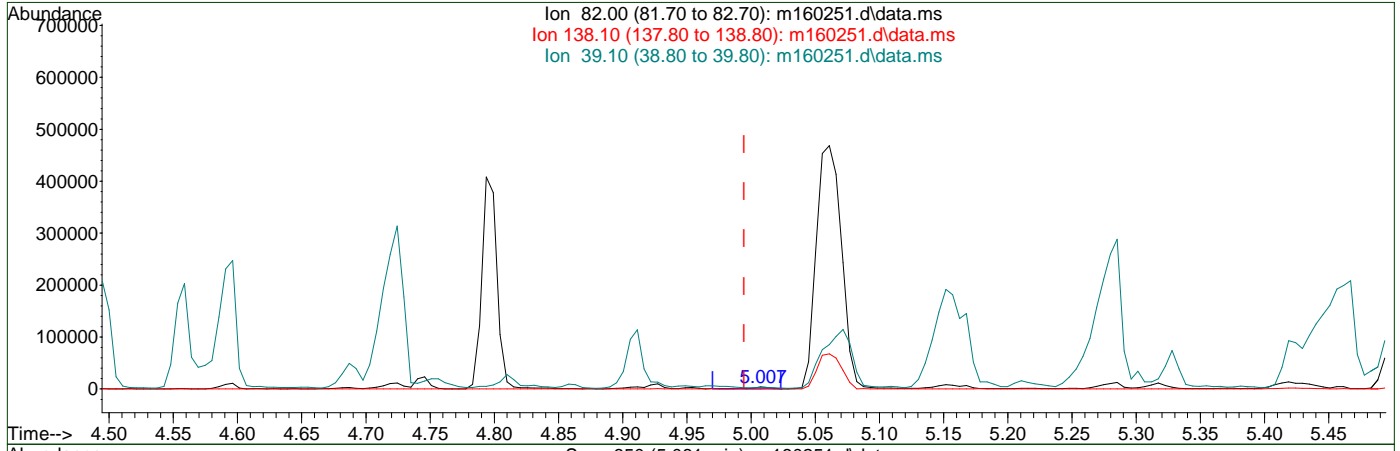
Sample Number: OP23230-MSD Method: SW846 8270D
Lab FileID: M160251.D Analyst approved: 10/21/19 17:22 Nina Pandya
Injection Time: 10/11/19 20:44 Supervisor approved: 10/21/19 17:24 Nina Pandya

Parameter	CAS	Sig#	R.T. (min.)	Reason
2,2'-Oxybis(1-chloropropane)	108-60-1		4.56	Poor instrument integration
Isophorone	78-59-1		5.06	Poor instrument integration

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\jeryllr\em6781\
 Data File : m160251.d
 Acq On : 11 Oct 2019 8:44 pm
 Operator : hennys
 Sample : op23230-msd Inst : MSM
 Misc : op23230,em6781,1000,,,1,1
 ALS Vial : 22 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MM6777.M
 Quant Results File: MM6777.RES
 Quant Time: Oct 14 05:04:19 2019
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 QLast Update : Mon Oct 14 05:00:48 2019
 Response via : Initial Calibration



TIC: m160251.d\data.ms

(28) Isophorone (t)
 5.007min (+0.013) 0.25ppm
 response 3579

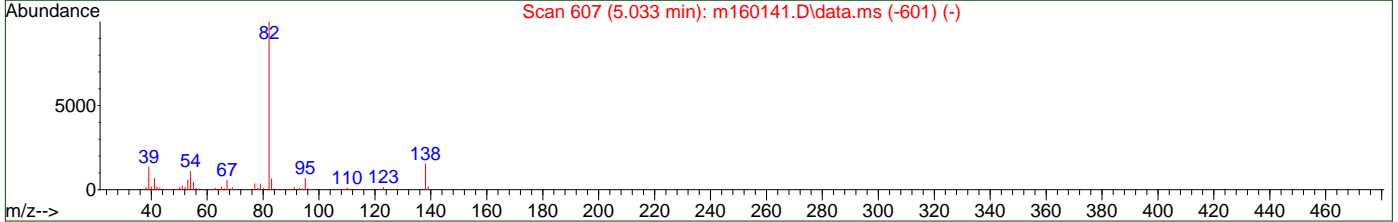
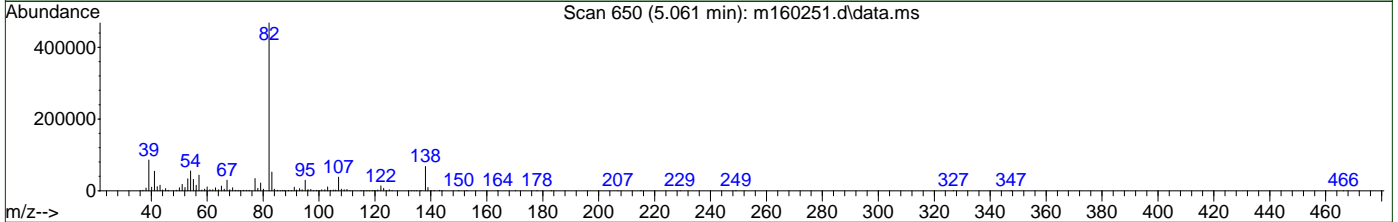
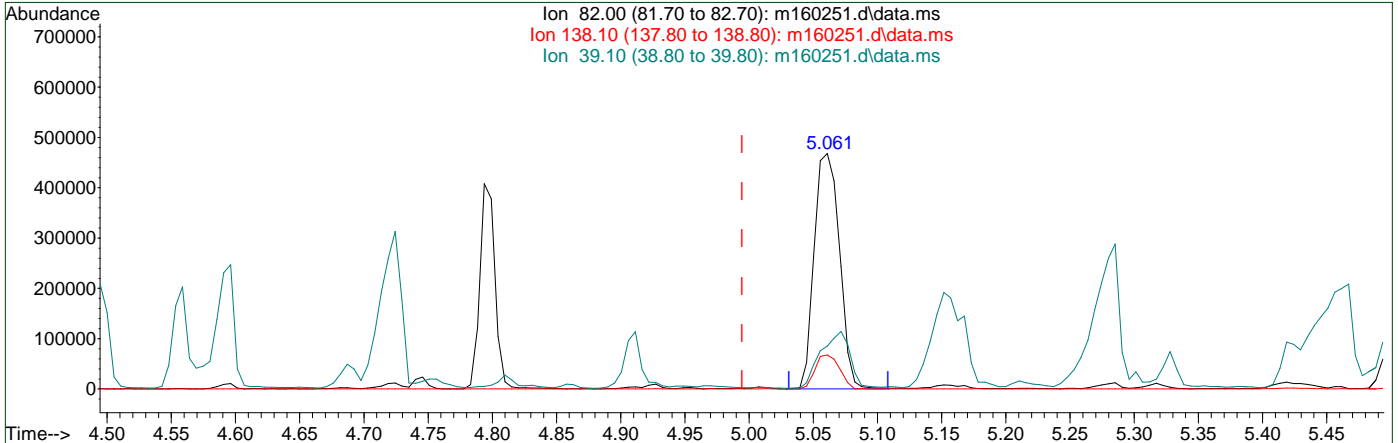
Ion	Exp%	Act%
82.00	100	100
138.10	14.60	0.00
39.10	14.90	0.00
0.00	0.00	0.00

9.4.2.2
9

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\jeryllr\em6781\
 Data File : m160251.d
 Acq On : 11 Oct 2019 8:44 pm
 Operator : hennys
 Sample : op23230-msd Inst : MSM
 Misc : op23230,em6781,1000,,,1,1
 ALS Vial : 22 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MM6777.M
 Quant Results File: MM6777.RES
 Quant Time: Oct 14 05:04:19 2019
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 QLast Update : Mon Oct 14 05:00:48 2019
 Response via : Initial Calibration



TIC: m160251.d\data.ms

(28) Isophorone (t)
 5.061min (+0.067) 44.08ppm m
 response 639234

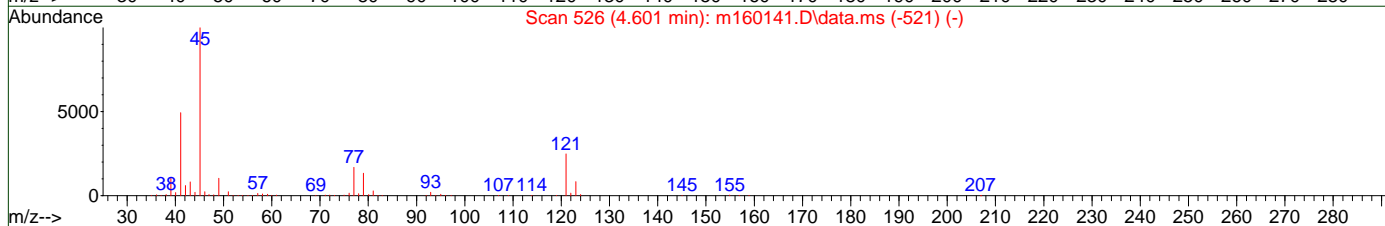
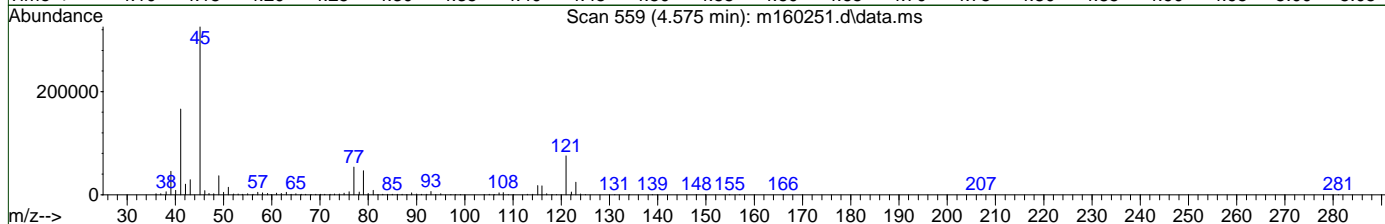
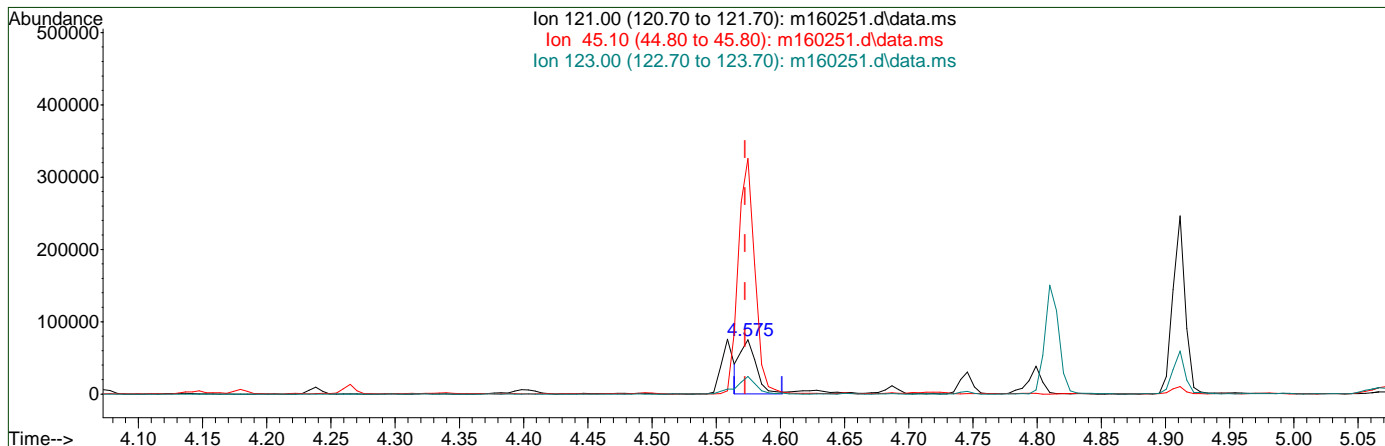
Ion	Exp%	Act%
82.00	100	100
138.10	14.60	14.45
39.10	14.90	18.25
0.00	0.00	0.00

9.4.2.3
9

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\jeryllr\em6781\
 Data File : m160251.d
 Acq On : 11 Oct 2019 8:44 pm
 Operator : hennys
 Sample : op23230-msd Inst : MSM
 Misc : op23230,em6781,1000,,,1,1
 ALS Vial : 22 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MM6777.M
 Quant Results File: MM6777.RES
 Quant Time: Oct 14 05:04:19 2019
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 QLast Update : Mon Oct 14 05:00:48 2019
 Response via : Initial Calibration



TIC: m160251.d\data.ms

(20) 2,2'-oxybis(1-Chloropropane) (t)

4.575min (+0.002) 30.43ppm

response 65660

Ion	Exp%	Act%
121.00	100	100
45.10	396.80	531.05#
123.00	28.90	38.05
0.00	0.00	0.00

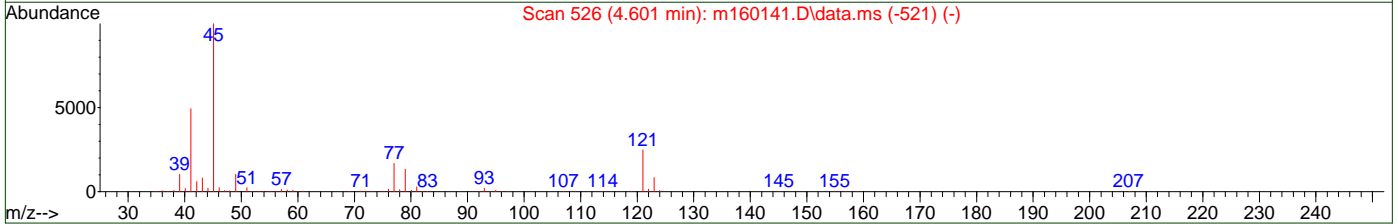
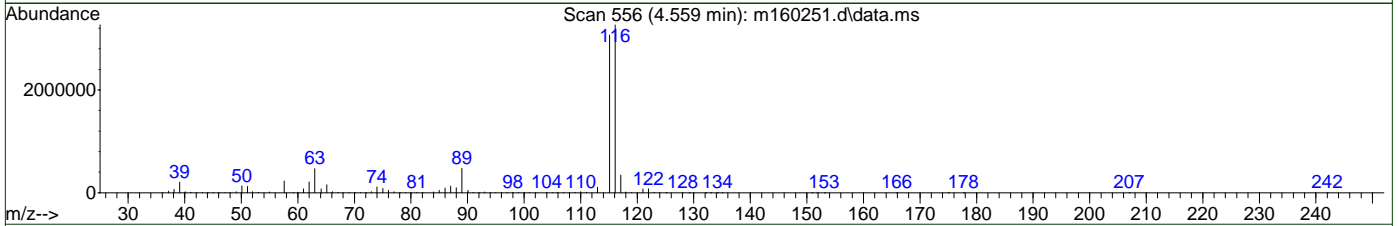
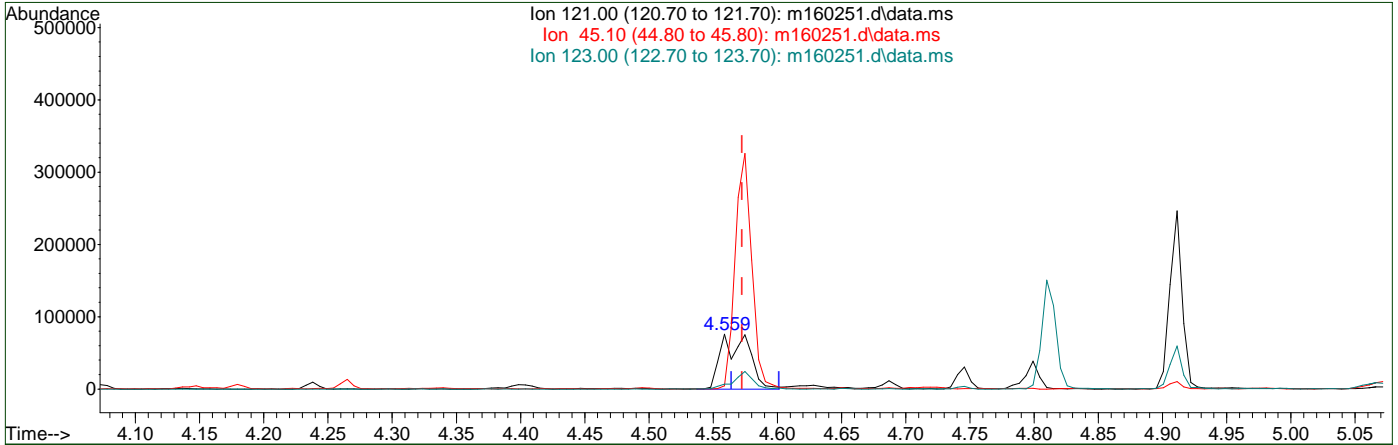
9.4.2.4
9



Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\jeryllr\em6781\
 Data File : m160251.d
 Acq On : 11 Oct 2019 8:44 pm
 Operator : hennys
 Sample : op23230-msd Inst : MSM
 Misc : op23230,em6781,1000,,,1,1
 ALS Vial : 22 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MM6777.M
 Quant Results File: MM6777.RES
 Quant Time: Oct 14 05:04:19 2019
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 QLast Update : Mon Oct 14 05:00:48 2019
 Response via : Initial Calibration



TIC: m160251.d\data.ms

(20) 2,2'-oxybis(1-Chloropropane) (t)

4.559min (-0.014) 53.93ppm m

response 116358

Ion	Exp%	Act%
121.00	100	100
45.10	396.80	5.94#
123.00	28.90	8.86
0.00	0.00	0.00

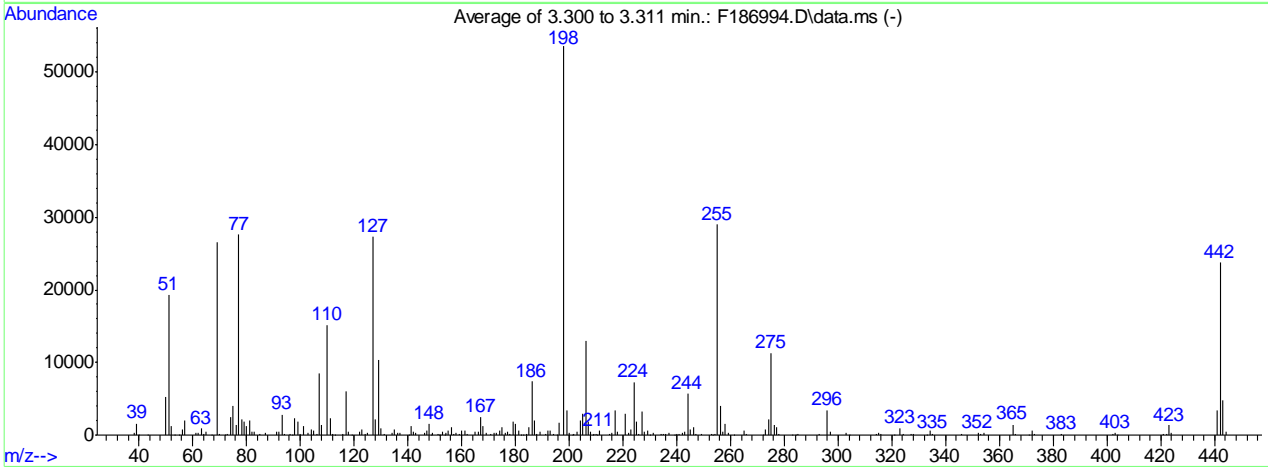
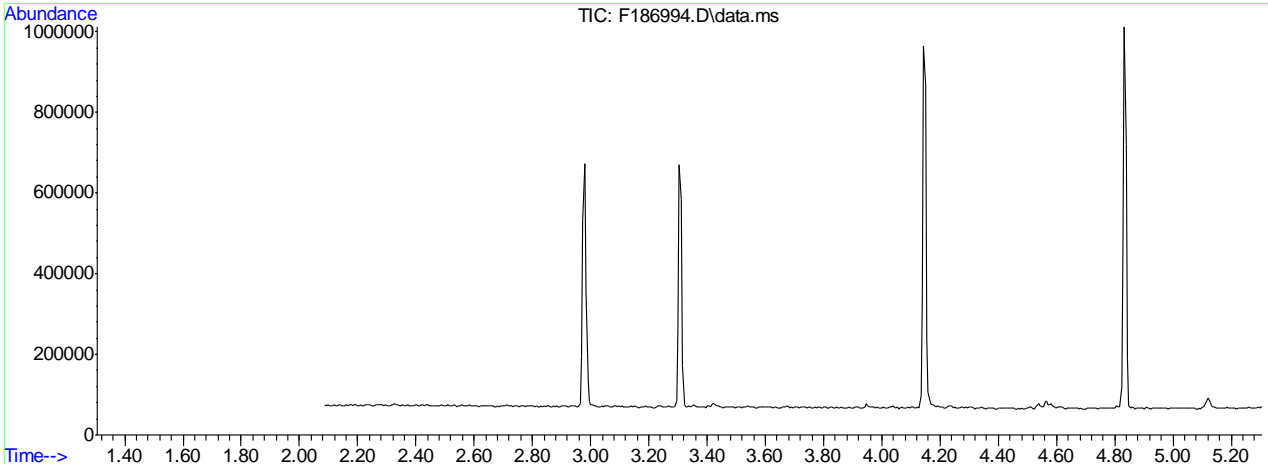
9.4.2.5
9

DFTPP

Data File : C:\MSDCHEM\1\DATA\EF8050\F186994.D
 Acq On : 9 Sep 2019 11:42 am
 Sample : dftpp
 Misc : op21602,ef8050,1000,,1,1
 MS Integration Params: RTEINT.P

Vial: 1
 Operator: angelar
 Inst : GCMSF
 Multiplr: 1.00

Method : C:\MSDCHEM\1\METHODS\DFTPPF.M (RTE Integrator)
 Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um



AutoFind: Scans 228, 229, 230; Background Corrected with Scan 224

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result
51	198	30	60	36.0	19251	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	49.6	26576	PASS
70	69	0.00	2	0.4	109	PASS
127	198	40	60	51.0	27289	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	53530	PASS
199	198	5	9	6.3	3396	PASS
275	198	10	30	21.2	11323	PASS
365	198	1	100	2.7	1420	PASS
441	443	0.10	100	70.8	3344	PASS
442	198	40	100	44.4	23777	PASS
443	442	17	23	19.9	4722	PASS

Average of 3.300 to 3.311 min.: F186994.D\data.ms

dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
38.10	283	61.05	265	75.10	4055	91.05	463
39.15	1597	62.05	289	76.15	1432	92.10	462
40.10	17	63.15	921	77.10	27621	93.10	2782
43.10	15	64.15	140	78.10	2101	94.10	221
50.10	5190	65.15	500	79.05	1808	96.10	214
51.10	19251	67.00	54	80.10	1301	97.10	52
52.10	1311	69.10	26576	81.10	2021	98.10	2277
53.10	62	70.05	109	82.00	448	99.05	1794
55.10	61	72.00	57	83.00	485	100.05	174
56.10	715	73.00	186	85.00	236	101.05	1191
57.10	1937	74.10	2433	87.00	325	103.10	374

Average of 3.300 to 3.311 min.: F186994.D\data.ms

dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
104.10	713	118.05	468	134.05	258	148.90	55
105.10	556	119.00	50	135.10	803	149.05	276
106.10	202	122.05	519	136.10	313	151.05	155
107.10	8542	123.05	820	137.05	378	151.80	57
108.05	1363	124.10	230	140.20	57	152.10	63
110.10	15151	125.05	301	141.10	1231	153.05	412
111.10	2317	127.10	27289	142.05	417	153.90	64
112.10	231	128.10	2200	143.05	307	154.10	241
113.00	63	129.10	10426	146.05	252	155.10	637
116.00	155	130.05	885	147.05	604	156.05	1104
117.10	5998	131.05	143	148.10	1536	157.05	156

Average of 3.300 to 3.311 min.: F186994.D\data.ms

dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
158.00	245	172.00	287	182.90	66	195.30	53
159.10	186	173.10	249	184.10	159	196.05	1652
160.10	548	174.05	602	185.10	1036	198.00	53530
161.05	636	175.10	1055	186.10	7368	199.00	3396
162.15	173	176.10	383	187.10	2019	200.10	339
165.10	405	177.05	471	188.10	207	201.20	67
166.05	408	178.05	154	189.05	404	201.55	225
167.10	2553	179.05	1897	191.10	143	203.05	424
168.10	1280	180.10	1496	192.00	624	204.10	2014
169.05	284	181.05	691	193.05	666	205.10	2874
171.00	116	182.20	67	194.05	160	206.10	12929

Average of 3.300 to 3.311 min.: F186994.D\data.ms

dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
207.10	1852	221.05	2904	234.00	236	246.10	1071
208.10	450	222.00	340	235.10	228	247.10	202
208.90	51	223.10	846	236.05	171	249.10	164
209.10	91	224.10	7325	237.05	279	253.00	103
210.10	189	225.10	1850	239.10	68	253.20	55
210.50	76	226.00	184	240.05	110	254.00	94
211.15	563	227.10	3194	241.00	141	255.10	28972
214.95	127	228.05	485	242.10	360	256.10	3974
216.05	358	229.00	662	243.05	397	257.05	398
217.10	3478	230.10	64	244.10	5684	258.10	1545
218.05	445	231.10	242	245.10	749	259.05	281

Average of 3.300 to 3.311 min.: F186994.D\data.ms

dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
261.10	61	284.00	58	323.10	1007	365.05	1420
265.05	615	285.10	203	324.15	157	365.95	236
266.00	142	293.05	190	327.00	211	371.10	50
272.00	57	296.05	3466	328.10	124	372.05	607

273.05	776	297.05	483	333.00	67	373.10	145
274.10	2174	303.05	378	334.05	679	383.05	152
275.10	11323	304.00	68	335.10	200	402.10	162
276.10	1470	314.20	84	345.95	181	403.00	264
277.10	1061	315.00	366	352.00	301	404.00	63
278.10	171	316.05	125	353.10	212	420.95	185
282.90	56	321.00	59	354.10	248	422.05	158

Average of 3.300 to 3.311 min.: F186994.D\data.ms
dftpp

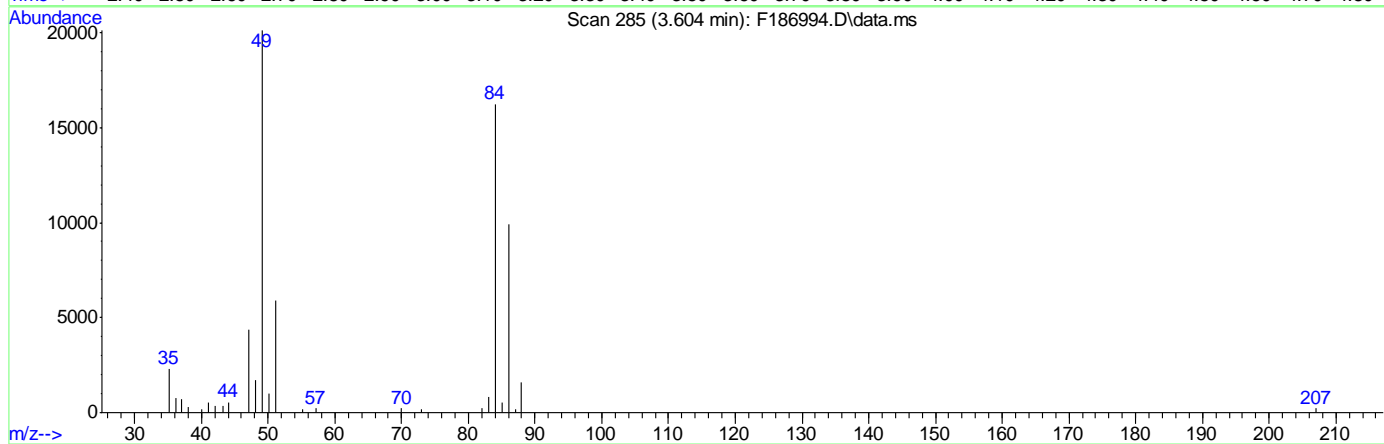
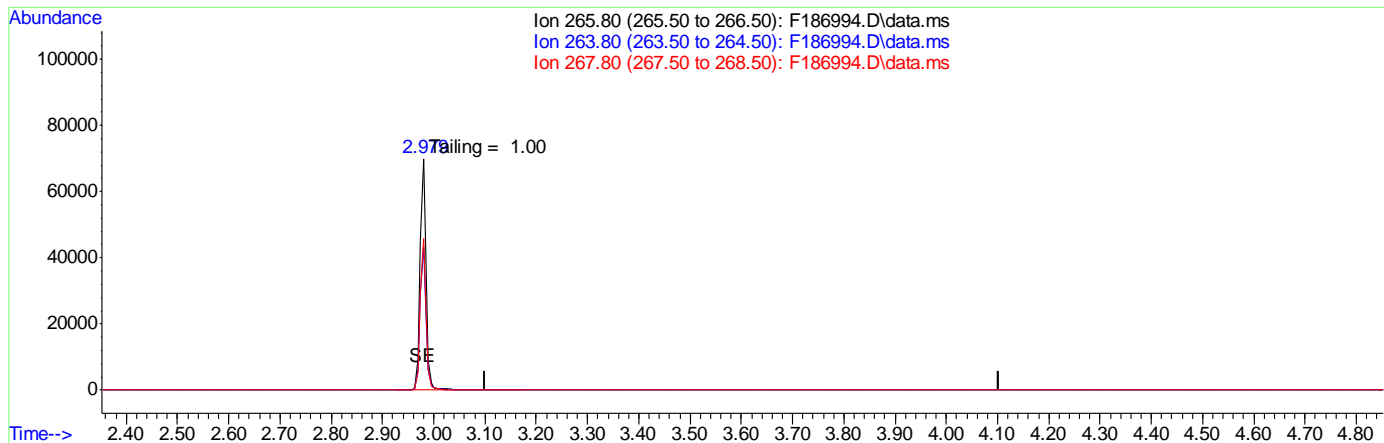
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.
423.10	1344				
424.00	289				
441.05	3344				
442.10	23777				
443.05	4722				
444.10	412				

Quantitation Report (Qedit)

Data Path : C:\MSDCHEM\1\DATA\EF8050\
 Data File : F186994.D
 Acq On : 9 Sep 2019 11:42 am
 Operator : angelar
 Sample : dftpp
 Misc : op21602,ef8050,1000,,,1,1
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 09 11:48:50 2019
 Quant Method : C:\MSDCHEM\1\METHODS\DFTPPF.M
 Quant Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um
 QLast Update : Thu Jun 20 21:18:44 2019
 Response via : Initial Calibration



TIC: F186994.D\data.ms

(1) Pentachlorophenol (t)

3.602min (-3.602) 0.00ppb

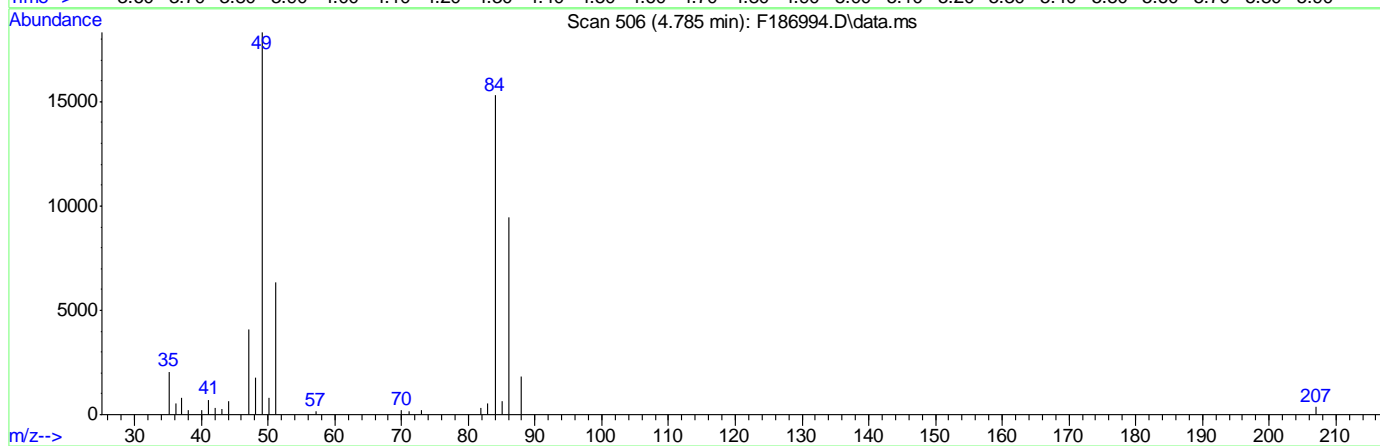
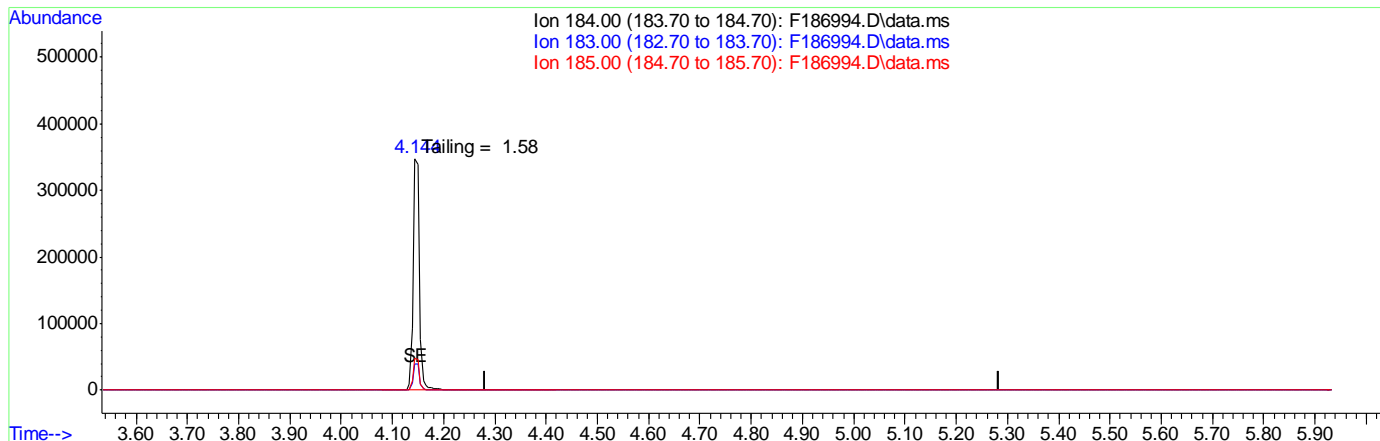
response 0

Ion	Exp%	Act%
265.80	100	0.00
263.80	63.80	0.00#
267.80	63.70	0.00#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\MSDCHEM\1\DATA\EF8050\
 Data File : F186994.D
 Acq On : 9 Sep 2019 11:42 am
 Operator : angelar
 Sample : dftpp
 Misc : op21602,ef8050,1000,,,1,1
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 09 11:48:50 2019
 Quant Method : C:\MSDCHEM\1\METHODS\DFTPPF.M
 Quant Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um
 QLast Update : Thu Jun 20 21:18:44 2019
 Response via : Initial Calibration



TIC: F186994.D\data.ms

(2) Benzidine (t)

4.783min (-4.783) 0.00ppb

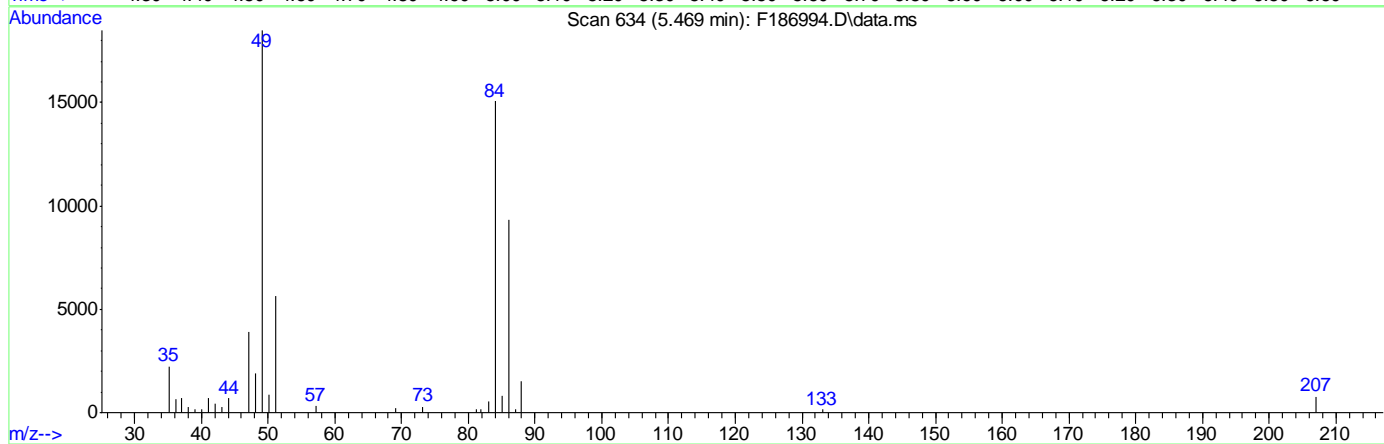
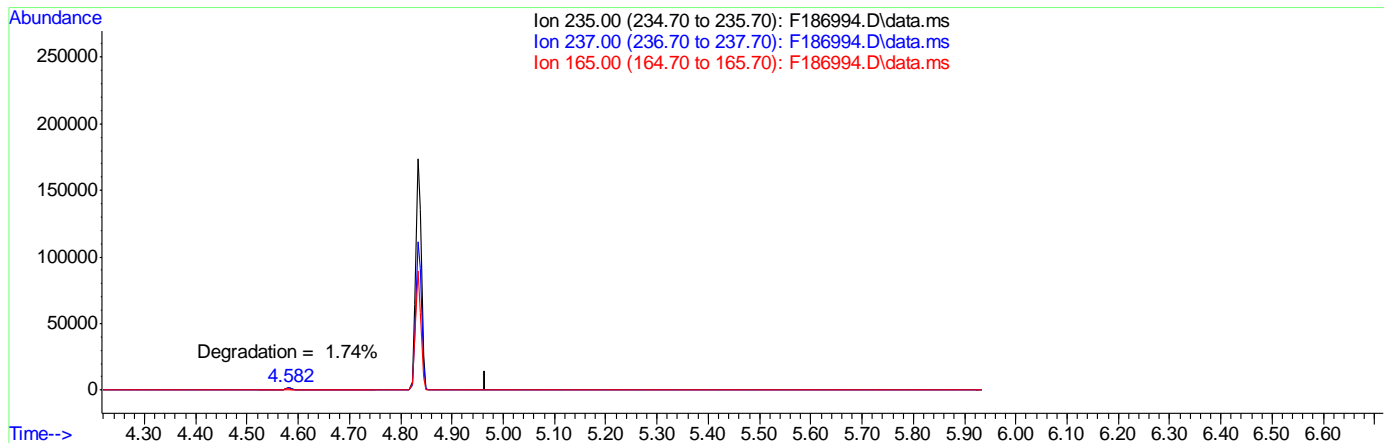
response 0

Ion	Exp%	Act%
184.00	100	0.00
183.00	10.40	0.00
185.00	13.80	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\MSDCHEM\1\DATA\EF8050\
 Data File : F186994.D
 Acq On : 9 Sep 2019 11:42 am
 Operator : angelar
 Sample : dftpp
 Misc : op21602,ef8050,1000,,,1,1
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 09 11:48:50 2019
 Quant Method : C:\MSDCHEM\1\METHODS\DFTPPF.M
 Quant Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um
 QLast Update : Thu Jun 20 21:18:44 2019
 Response via : Initial Calibration



TIC: F186994.D\data.ms

(3) ddt (t)

5.467min (-5.467) 0.00ppb

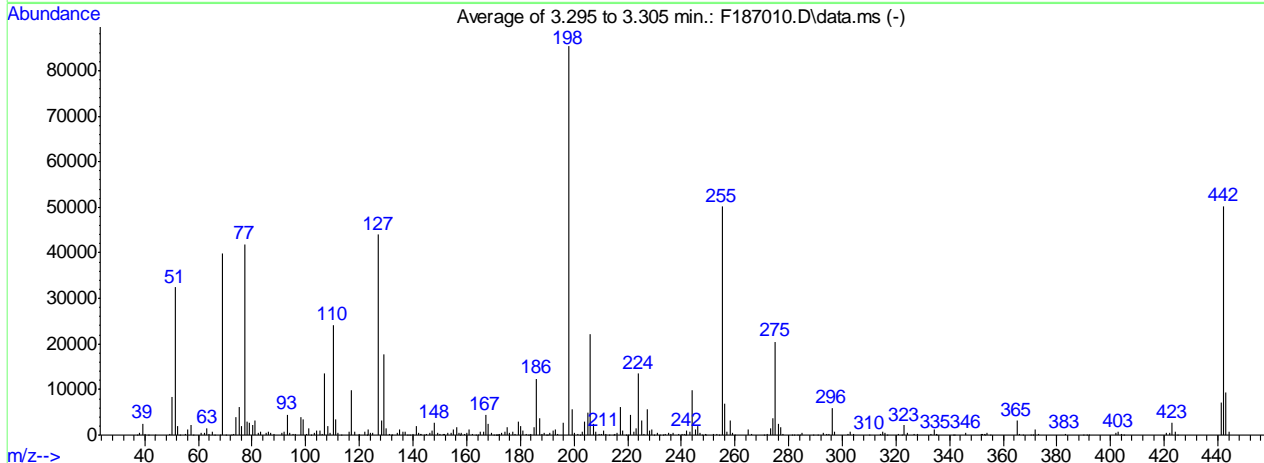
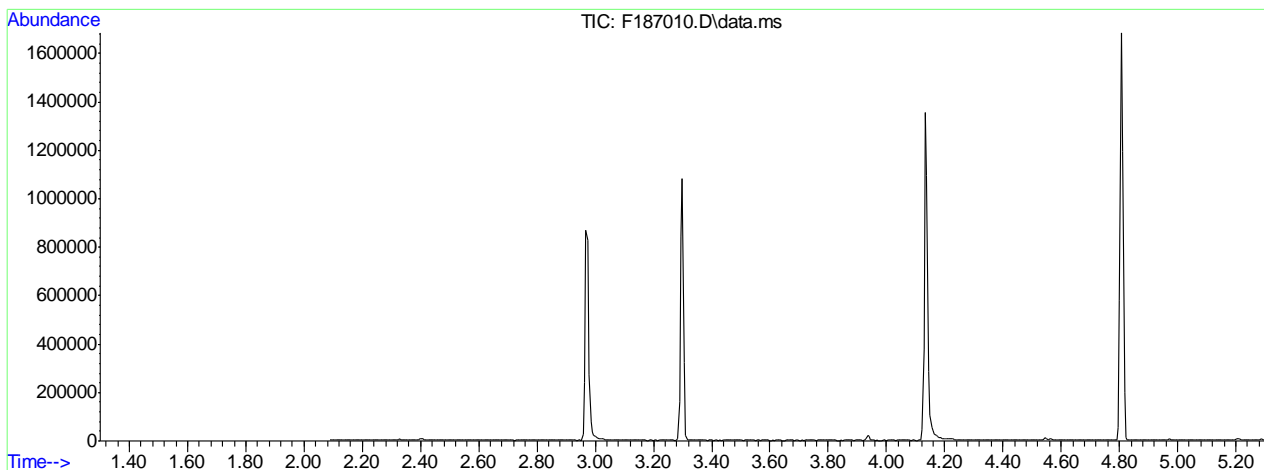
response 0

Ion	Exp%	Act%
235.00	100	0.00
237.00	63.70	0.00#
165.00	52.30	0.00#
0.00	0.00	0.00

DFTPP

Data File : C:\MSDCHEM\1\DATA\EF8050\F187010.D Vial: 1
 Acq On : 9 Sep 2019 10:54 pm Operator: angelar
 Sample : dftpp Inst : GCMSF
 Misc : op21602,ef8051,1000,,,1,1 Multiplr: 1.00
 MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\DFTPPF.M (RTE Integrator)
 Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um



AutoFind: Scans 227, 228, 229; Background Corrected with Scan 222

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result
51	198	30	60	37.9	32371	PASS
68	69	0.00	2	0.3	110	PASS
69	198	0.00	100	46.7	39802	PASS
70	69	0.00	2	0.3	125	PASS
127	198	40	60	51.6	43974	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	85301	PASS
199	198	5	9	6.8	5791	PASS
275	198	10	30	24.0	20470	PASS
365	198	1	100	3.7	3126	PASS
441	443	0.10	100	77.4	7257	PASS
442	198	40	100	59.0	50296	PASS
443	442	17	23	18.7	9381	PASS

Average of 3.295 to 3.305 min.: F187010.D\data.ms

dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
37.00	68	55.15	186	69.10	39802	81.10	3308
38.20	548	56.10	1165	70.00	125	82.10	622
39.15	2559	57.10	2228	72.20	55	83.10	711
40.05	213	57.90	61	73.05	213	85.05	599
41.20	62	61.10	402	74.10	3924	86.10	796
44.00	129	62.10	554	75.10	6140	87.05	532
49.10	136	63.10	1501	76.15	2039	88.05	189
50.10	8437	64.10	235	77.10	41947	91.05	601
51.20	32371	65.20	733	78.10	3009	92.10	639
52.15	1960	66.10	52	79.10	2659	93.10	4453
53.10	54	68.10	110	80.05	2235	94.10	387

Average of 3.295 to 3.305 min.: F187010.D\data.ms

dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
95.15	149	107.10	13518	122.10	712	132.20	78
96.05	210	108.10	2041	122.70	81	134.00	398
98.10	3902	109.10	458	123.10	1203	135.15	1320
99.10	3467	110.10	24162	124.10	448	136.05	677
100.10	278	111.10	3403	125.10	567	137.10	842
101.05	1474	112.10	435	127.10	43974	137.80	125
102.10	81	113.10	129	128.10	3147	138.90	63
103.10	395	116.10	676	129.10	17660	140.05	222
104.10	927	117.10	9860	130.10	1501	141.05	1874
105.10	1040	118.05	640	131.00	242	142.00	603
106.10	321	120.05	222	132.00	105	142.80	178

Average of 3.295 to 3.305 min.: F187010.D\data.ms

dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
143.10	178	154.00	420	164.30	53	173.10	558
144.10	60	155.10	1136	165.10	861	174.10	855
145.05	151	156.10	1765	166.10	661	175.10	1705
146.10	410	157.15	413	167.10	4399	176.05	538
147.10	1003	157.70	107	168.10	2522	177.05	789
148.10	2679	158.00	422	169.05	453	178.00	261
149.10	572	159.10	343	170.00	121	179.05	2971
150.05	268	160.05	618	170.85	113	180.10	2069
151.15	308	161.05	1135	171.20	67	181.10	991
151.60	137	162.05	281	171.90	77	182.10	168
153.05	605	163.40	60	172.15	259	183.10	108

Average of 3.295 to 3.305 min.: F187010.D\data.ms

dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
184.05	215	194.05	333	207.10	2509	218.05	890
185.15	1713	196.10	2631	208.10	690	219.30	59
186.10	12324	198.00	85301	209.15	281	220.10	82
187.10	3616	199.10	5791	210.05	259	221.10	4433
188.10	323	200.10	599	211.10	893	222.10	766
189.00	619	201.60	341	211.70	134	223.05	1568
189.90	82	202.20	74	213.00	52	224.10	13510
190.10	118	203.05	709	214.90	55	225.10	3111
191.10	442	204.10	3071	215.05	245	226.20	335
192.10	916	205.10	5030	216.10	560	227.10	5784
193.15	1150	206.10	22111	217.10	6266	228.10	969

Average of 3.295 to 3.305 min.: F187010.D\data.ms

dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
229.05	1200	241.00	247	252.10	164	270.90	75
230.00	69	241.30	59	253.05	286	272.15	168
231.10	380	242.05	982	254.00	84	273.10	1366
232.05	122	243.10	753	255.10	50125	274.10	3717

233.10	68	244.10	9747	256.10	6987	275.10	20470
234.05	359	245.10	1244	257.15	661	276.10	2399
235.10	473	246.05	1920	258.10	3144	277.10	1820
236.05	236	247.10	401	259.05	512	277.95	220
237.05	415	247.95	114	260.10	57	281.30	61
239.00	167	249.00	122	265.05	1151	282.10	51
240.10	201	249.20	132	266.05	168	283.20	96

Average of 3.295 to 3.305 min.: F187010.D\data.ms
dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
284.20	127	304.10	175	328.05	246	353.20	53
285.05	474	310.10	53	333.10	137	354.05	436
289.20	51	314.05	292	334.10	1222	355.10	118
291.00	68	315.05	839	334.90	91	365.00	3126
293.05	506	316.05	433	335.10	271	366.05	366
294.15	136	316.90	55	341.20	99	367.10	50
295.15	144	321.10	251	342.00	54	370.00	60
296.10	5952	322.20	128	346.00	465	371.00	55
297.00	867	323.10	2178	352.00	378	372.05	1329
301.95	149	324.10	405	352.20	167	373.10	163
303.10	755	326.95	204	353.00	250	383.05	279

Average of 3.295 to 3.305 min.: F187010.D\data.ms
dftpp

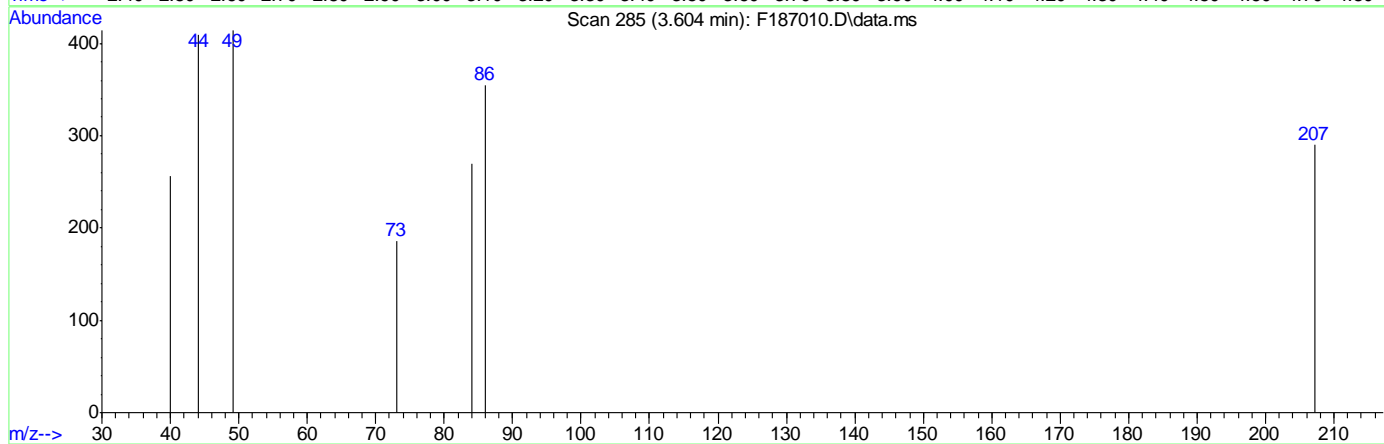
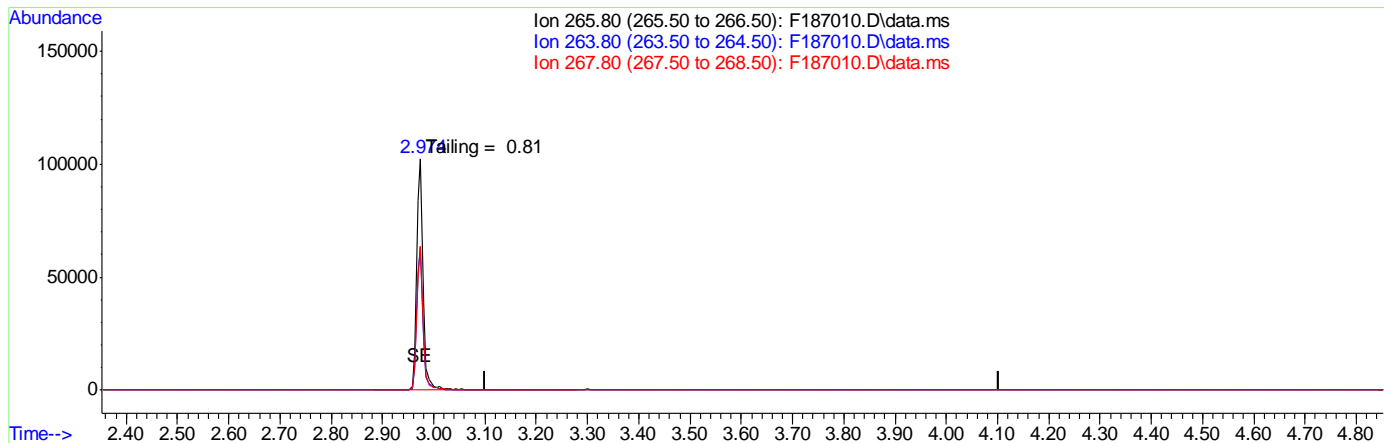
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
390.00	54	425.10	62				
391.20	77	441.05	7257				
392.00	57	442.10	50296				
402.05	419	443.05	9381				
403.00	685	444.00	819				
404.00	143						
404.90	62						
420.95	476						
422.05	420						
423.05	2598						
424.05	751						

Quantitation Report (Qedit)

Data Path : C:\MSDCHEM\1\DATA\EF8050\
 Data File : F187010.D
 Acq On : 9 Sep 2019 10:54 pm
 Operator : angelar
 Sample : dftpp
 Misc : op21602,ef8051,1000,,,1,1
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 09 23:00:44 2019
 Quant Method : C:\MSDCHEM\1\METHODS\DFTPPF.M
 Quant Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um
 QLast Update : Thu Jun 20 21:18:44 2019
 Response via : Initial Calibration



TIC: F187010.D\data.ms

(1) Pentachlorophenol (t)

3.602min (-3.602) 0.00ppb

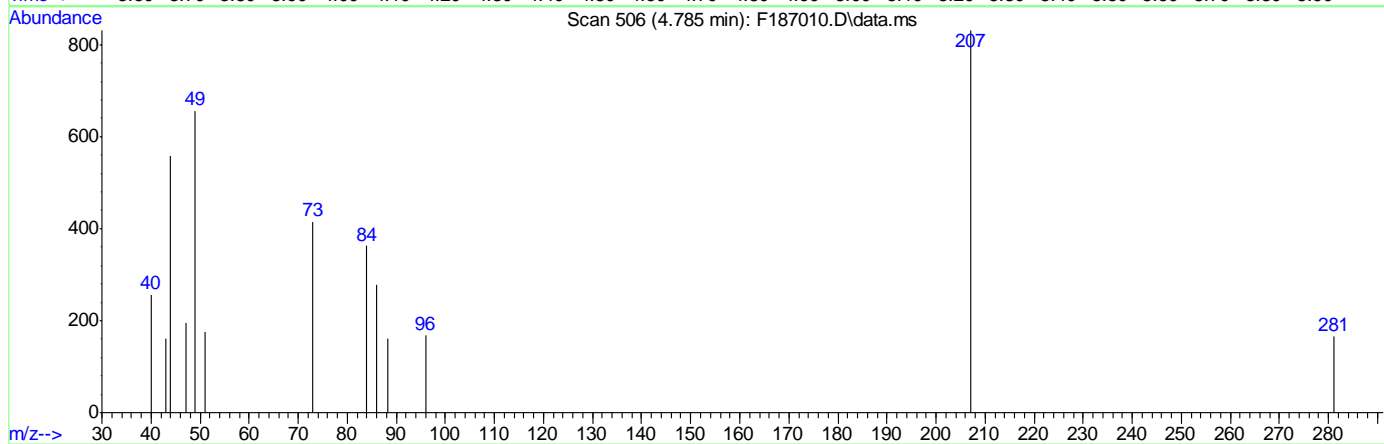
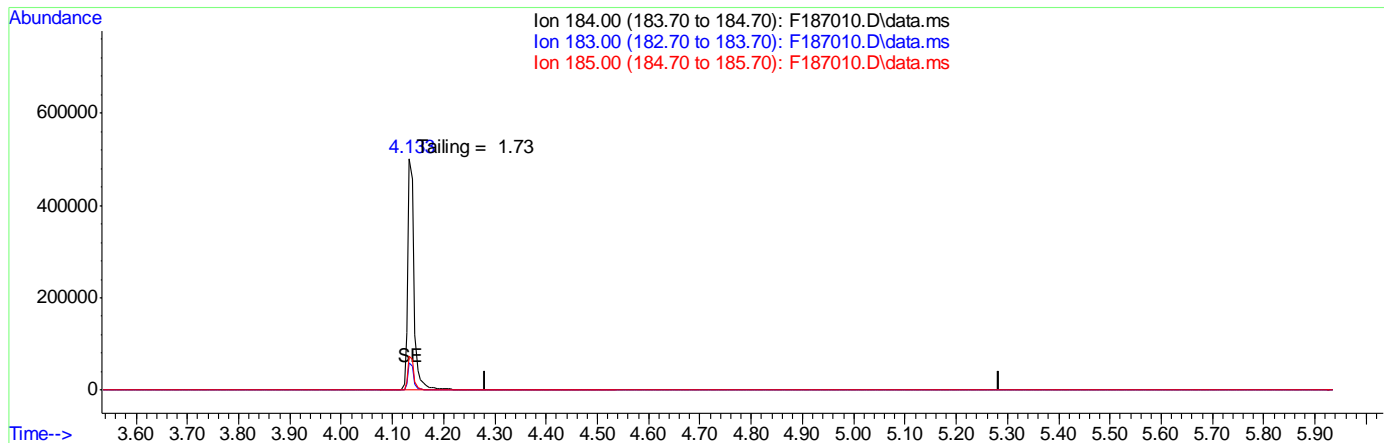
response 0

Ion	Exp%	Act%
265.80	100	0.00
263.80	63.80	0.00#
267.80	63.70	0.00#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\MSDCHEM\1\DATA\EF8050\
 Data File : F187010.D
 Acq On : 9 Sep 2019 10:54 pm
 Operator : angelar
 Sample : dftpp
 Misc : op21602,ef8051,1000,,,1,1
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 09 23:00:44 2019
 Quant Method : C:\MSDCHEM\1\METHODS\DFTPPF.M
 Quant Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um
 QLast Update : Thu Jun 20 21:18:44 2019
 Response via : Initial Calibration



TIC: F187010.D\data.ms

(2) Benzidine (t)

4.783min (-4.783) 0.00ppb

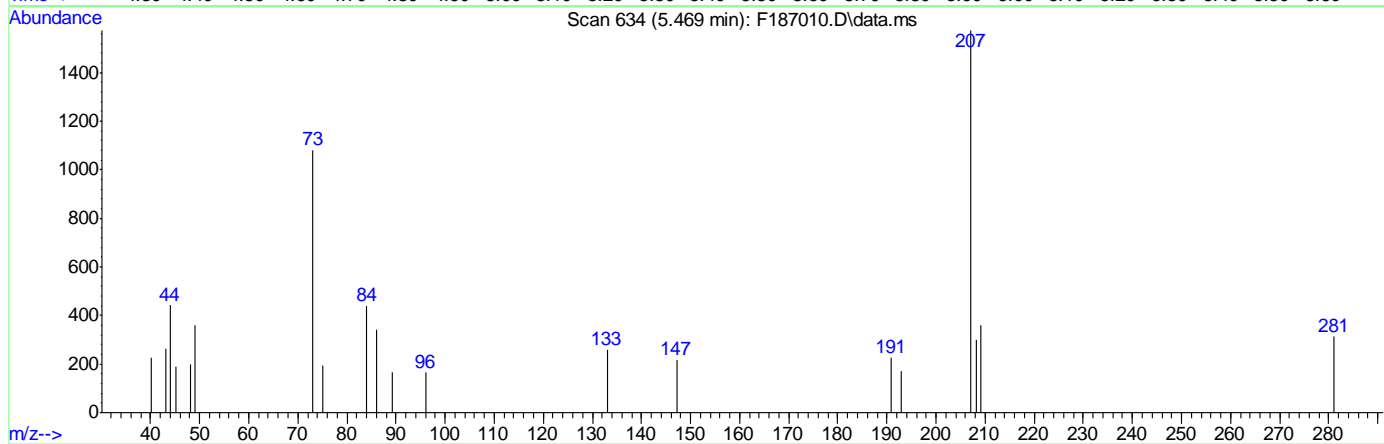
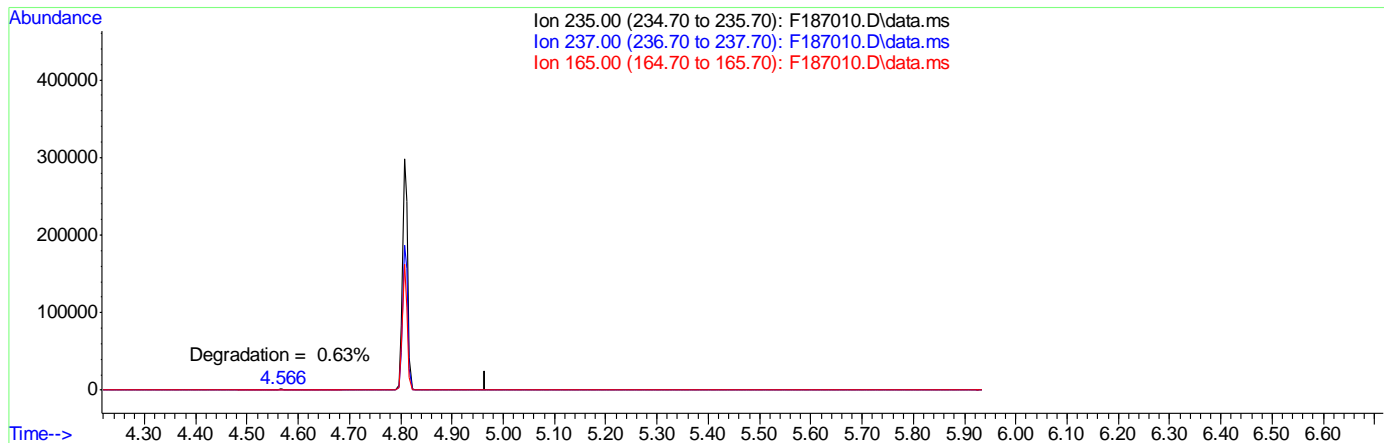
response 0

Ion	Exp%	Act%
184.00	100	0.00
183.00	10.40	0.00
185.00	13.80	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\MSDCHEM\1\DATA\EF8050\
 Data File : F187010.D
 Acq On : 9 Sep 2019 10:54 pm
 Operator : angelar
 Sample : dftpp
 Misc : op21602,ef8051,1000,,,1,1
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 09 23:00:44 2019
 Quant Method : C:\MSDCHEM\1\METHODS\DFTPPF.M
 Quant Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um
 QLast Update : Thu Jun 20 21:18:44 2019
 Response via : Initial Calibration



TIC: F187010.D\data.ms

(3) ddt (t)

5.467min (-5.467) 0.00ppb

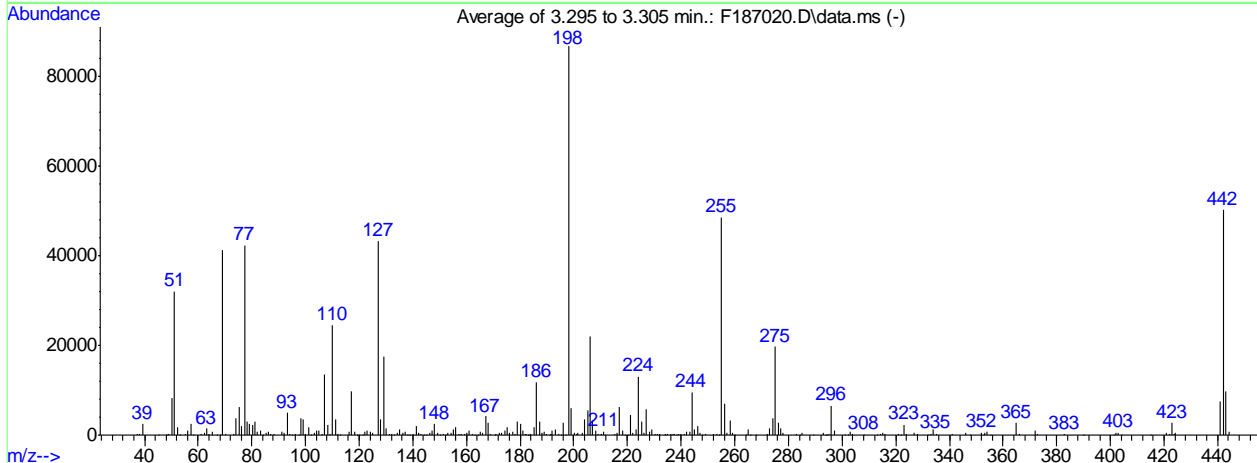
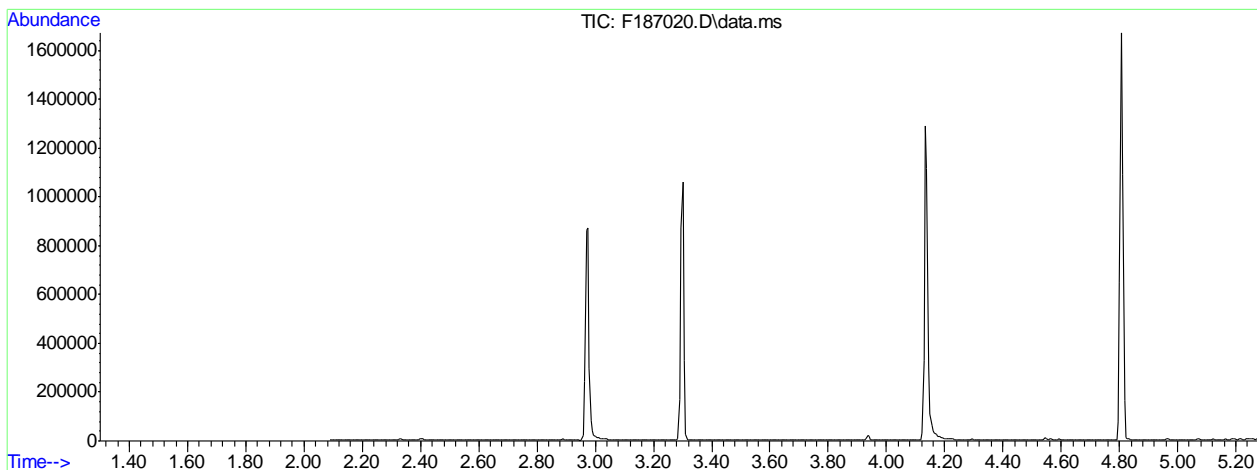
response 0

Ion	Exp%	Act%
235.00	100	0.00
237.00	63.70	0.00#
165.00	52.30	0.00#
0.00	0.00	0.00

DFTPP

Data File : C:\MSDCHEM\1\DATA\EF8050\F187020.D Vial: 1
 Acq On : 10 Sep 2019 3:24 am Operator: angular
 Sample : dftpp Inst : GCMSF
 Misc : op21602,ef8052,1000,,1,1 Multiplr: 1.00
 MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\DFTPPF.M (RTE Integrator)
 Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um



AutoFind: Scans 227, 228, 229; Background Corrected with Scan 222

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result
51	198	30	60	37.0	32045	PASS
68	69	0.00	2	0.2	85	PASS
69	198	0.00	100	47.6	41247	PASS
70	69	0.00	2	0.5	208	PASS
127	198	40	60	50.0	43296	PASS
197	198	0.00	1	0.1	117	PASS
198	198	100	100	100.0	86586	PASS
199	198	5	9	6.9	6005	PASS
275	198	10	30	22.7	19688	PASS
365	198	1	100	3.1	2644	PASS
441	443	0.10	100	78.2	7583	PASS
442	198	40	100	57.9	50101	PASS
443	442	17	23	19.4	9696	PASS

Average of 3.295 to 3.305 min.: F187020.D\data.ms

dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
37.05	176	55.15	230	69.10	41247	82.05	758
38.10	366	56.10	965	70.10	208	83.10	886
39.20	2481	57.10	2446	73.15	352	84.00	48
45.10	61	58.20	60	74.10	3868	85.10	592
47.90	60	61.10	366	75.10	6248	86.00	797
48.20	53	62.15	508	76.10	2012	87.10	312
49.10	277	63.10	1395	77.15	42342	88.05	248
50.15	8368	64.10	213	78.10	3071	91.10	655
51.15	32045	65.15	769	79.10	2560	92.15	618
52.15	1657	67.10	62	80.10	2183	93.10	4920
53.00	70	68.00	85	81.10	2982	94.00	328

Average of 3.295 to 3.305 min.: F187020.D\data.ms

dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
94.85	117	106.10	185	119.10	118	131.10	232
96.15	174	107.10	13599	120.10	109	131.95	169
97.20	64	108.10	2354	121.20	72	133.10	59
98.10	3675	109.10	162	122.10	689	134.05	504
99.10	3540	110.10	24546	123.10	1126	135.10	1332
100.05	279	111.10	3547	124.05	722	136.10	607
101.05	1707	112.10	329	125.05	481	137.10	817
102.20	116	113.00	62	127.10	43296	138.05	133
103.05	471	116.10	759	128.10	3499	138.90	58
104.10	935	117.10	9736	129.10	17491	140.05	151
105.05	1104	118.10	737	130.10	1476	141.10	1915

Average of 3.295 to 3.305 min.: F187020.D\data.ms

dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
142.10	586	153.15	529	164.10	65	175.15	1842
143.10	319	154.10	476	165.10	804	176.05	578
144.10	84	155.10	1380	166.15	622	177.05	779
145.10	107	156.10	1787	167.10	4245	178.10	322
146.10	563	157.10	362	168.10	2859	179.05	3116
147.05	941	158.15	339	169.00	383	180.10	2451
148.10	2417	159.15	290	170.50	68	181.10	1110
149.10	592	160.05	564	171.05	192	182.00	152
150.05	125	161.10	989	172.10	422	182.20	140
151.15	240	162.05	258	173.05	505	182.90	91
152.20	112	163.00	67	174.10	1041	183.20	79

Average of 3.295 to 3.305 min.: F187020.D\data.ms

dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
183.95	285	194.15	293	205.10	5499	217.10	6228
185.10	1653	195.00	86	206.10	21964	218.10	1110
186.10	11756	196.10	2806	207.10	3220	219.10	118
187.10	3097	196.90	117	208.10	901	220.40	107
188.00	438	198.05	86586	209.00	366	221.10	4615
189.05	782	199.10	6005	210.10	211	222.05	617
189.90	144	200.05	561	210.40	158	223.10	1329
191.10	114	201.00	139	211.10	832	224.10	13078
191.30	260	201.65	479	211.70	87	225.10	3131
192.05	999	203.10	626	215.10	217	226.10	498
193.10	1312	204.10	3389	216.05	579	227.10	5754

Average of 3.295 to 3.305 min.: F187020.D\data.ms

dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
228.10	750	238.20	59	249.05	377	265.00	1204
229.10	1197	239.05	264	252.00	159	265.95	7
230.10	163	240.00	150	253.15	265	267.90	120
231.00	334	241.10	279	254.10	121	272.05	156

232.05	150	242.00	708	255.10	48546	273.05	1609
233.90	298	243.15	725	256.10	7099	274.10	3716
234.10	71	244.10	9509	257.05	516	275.10	19688
235.05	347	245.10	1186	258.10	3172	276.10	2849
236.10	298	246.10	1925	259.10	424	277.00	1609
237.00	382	247.05	459	260.10	121	278.05	511
237.20	139	248.00	112	264.00	56	283.10	143

Average of 3.295 to 3.305 min.: F187020.D\data.ms
dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
284.10	125	303.10	747	327.00	555	353.05	449
285.05	398	304.00	169	328.00	157	354.10	761
289.10	97	308.10	88	332.00	71	355.10	60
293.00	531	313.10	105	333.10	280	365.00	2644
294.00	76	314.10	339	334.10	1320	366.00	366
294.30	62	315.00	615	335.10	362	372.05	974
295.05	169	316.00	337	341.10	245	373.00	266
296.10	6535	321.05	136	346.00	488	382.90	206
297.00	904	321.90	66	347.90	76	390.05	126
301.05	115	323.10	2379	351.95	562	401.10	100
302.00	104	324.10	379	352.80	79	402.00	515

Average of 3.295 to 3.305 min.: F187020.D\data.ms
dftpp

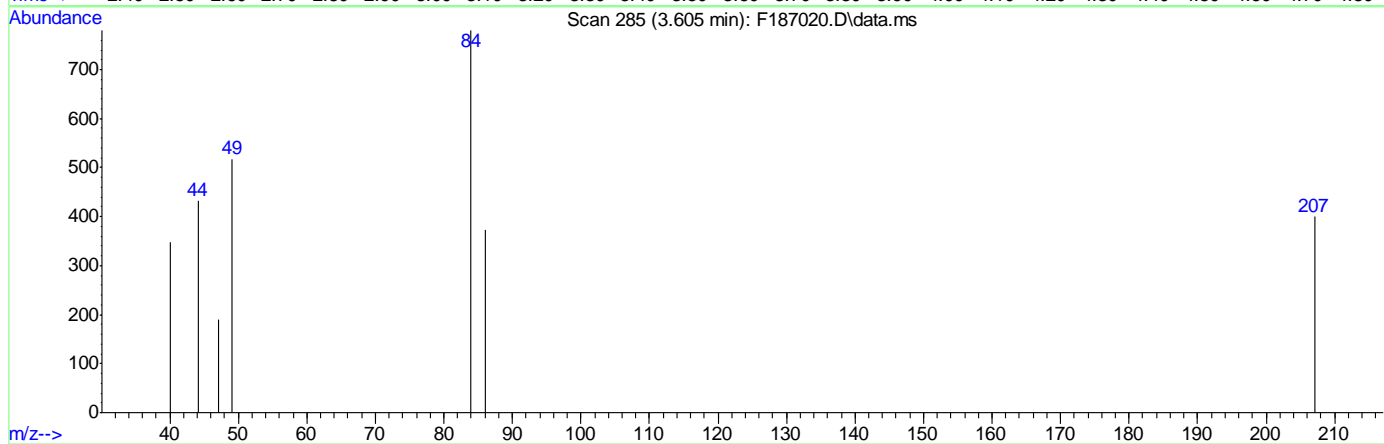
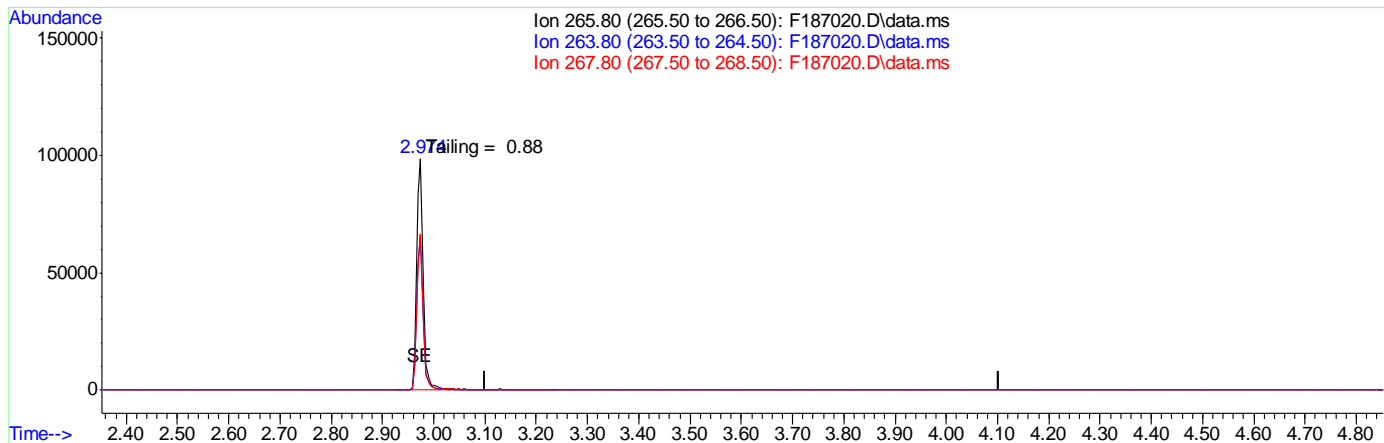
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
403.05	601	444.10	763				
404.05	129						
415.00	55						
420.95	567						
422.05	367						
423.00	2659						
423.90	191						
424.10	551						
441.05	7583						
442.10	50101						
443.05	9696						

Quantitation Report (Qedit)

Data Path : C:\MSDCHEM\1\DATA\EF8050\
 Data File : F187020.D
 Acq On : 10 Sep 2019 3:24 am
 Operator : angelar
 Sample : dftpp
 Misc : op21602,ef8052,1000,,,1,1
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 10 03:30:49 2019
 Quant Method : C:\MSDCHEM\1\METHODS\DFTPPF.M
 Quant Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um
 QLast Update : Thu Jun 20 21:18:44 2019
 Response via : Initial Calibration



TIC: F187020.D\data.ms

(1) Pentachlorophenol (t)

3.602min (-3.602) 0.00ppb

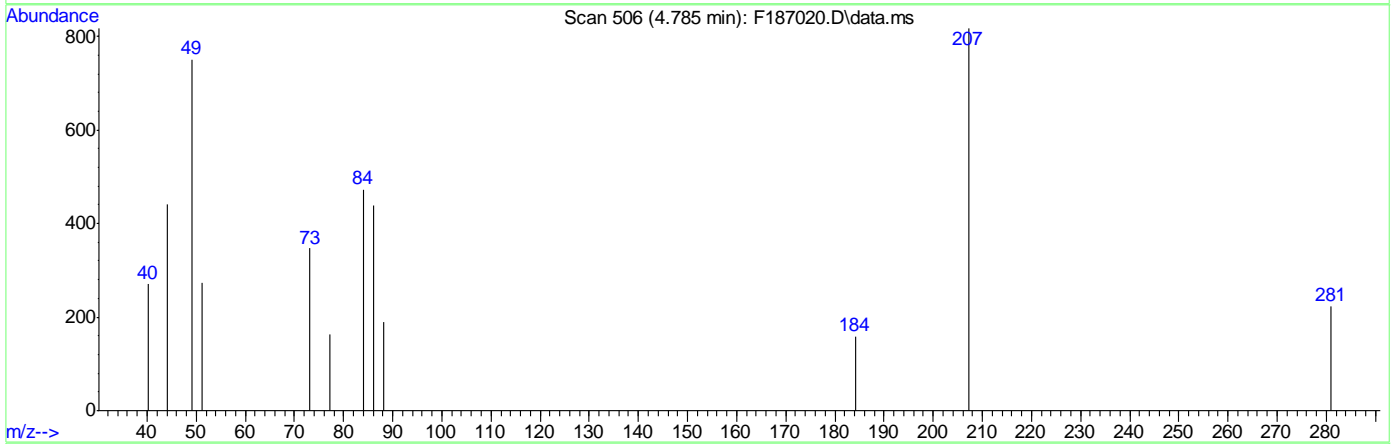
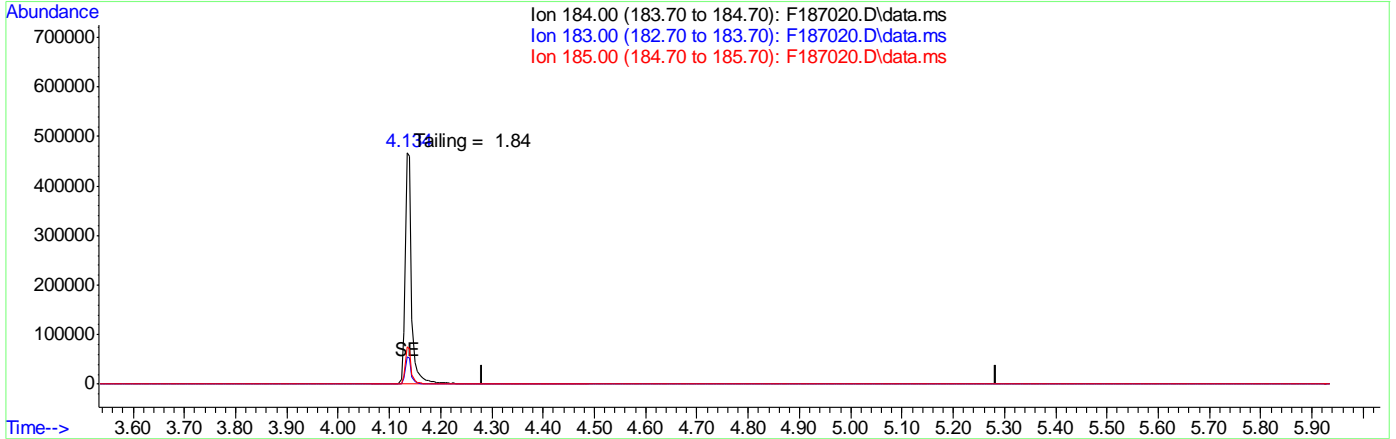
response 0

Ion	Exp%	Act%
265.80	100	0.00
263.80	63.80	0.00#
267.80	63.70	0.00#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\MSDCHEM\1\DATA\EF8050\
 Data File : F187020.D
 Acq On : 10 Sep 2019 3:24 am
 Operator : angelar
 Sample : dftpp
 Misc : op21602,ef8052,1000,,,1,1
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 10 03:30:49 2019
 Quant Method : C:\MSDCHEM\1\METHODS\DFTPPF.M
 Quant Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um
 QLast Update : Thu Jun 20 21:18:44 2019
 Response via : Initial Calibration



TIC: F187020.D\data.ms

(2) Benzidine (t)

4.783min (-4.783) 0.00ppb

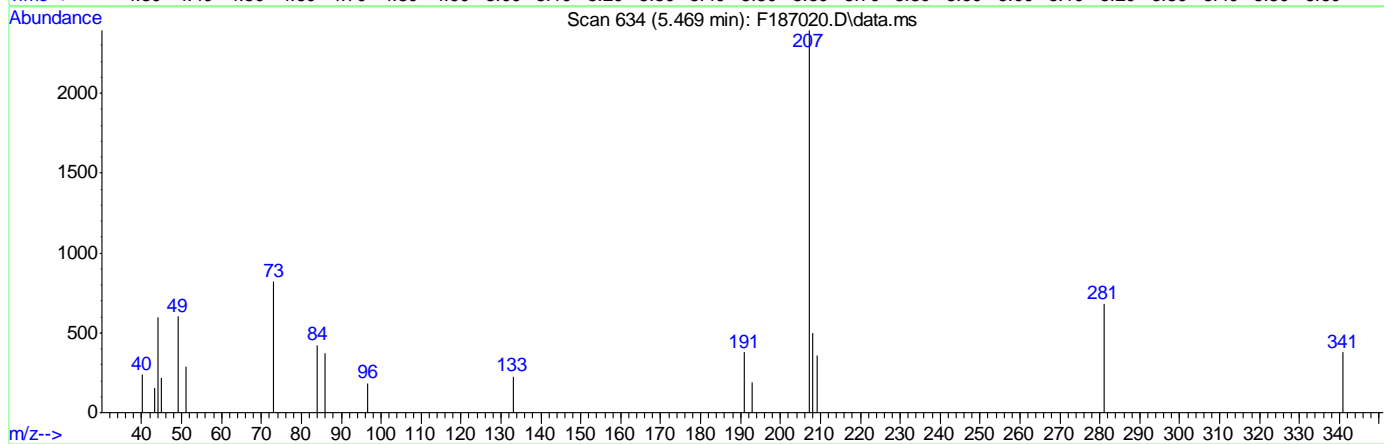
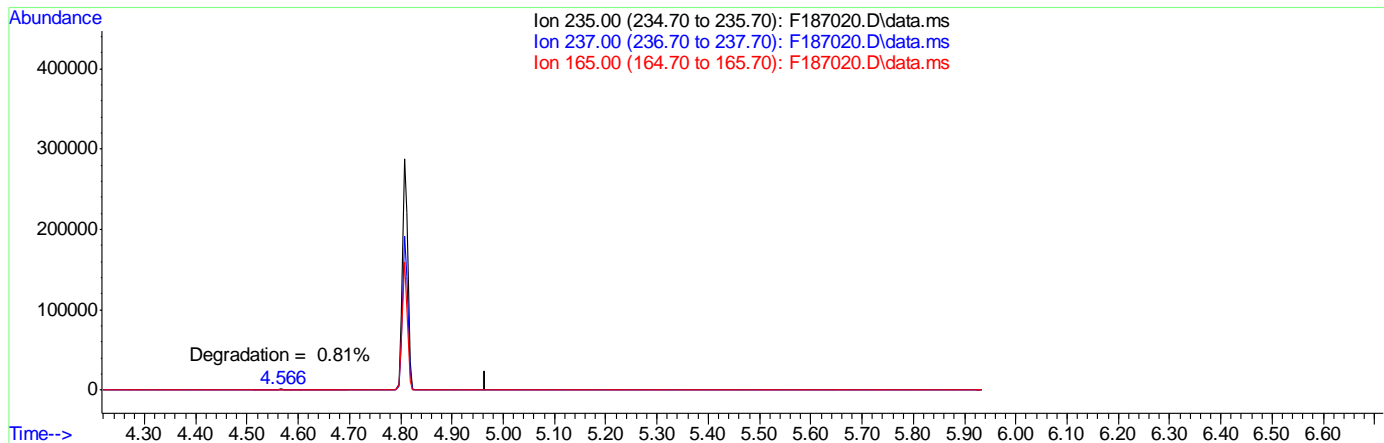
response 0

Ion	Exp%	Act%
184.00	100	0.00
183.00	10.40	0.00
185.00	13.80	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\MSDCHEM\1\DATA\EF8050\
 Data File : F187020.D
 Acq On : 10 Sep 2019 3:24 am
 Operator : angelar
 Sample : dftpp
 Misc : op21602,ef8052,1000,,,1,1
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 10 03:30:49 2019
 Quant Method : C:\MSDCHEM\1\METHODS\DFTPPF.M
 Quant Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um
 QLast Update : Thu Jun 20 21:18:44 2019
 Response via : Initial Calibration



TIC: F187020.D\data.ms

(3) ddt (t)

5.467min (-5.467) 0.00ppb

response 0

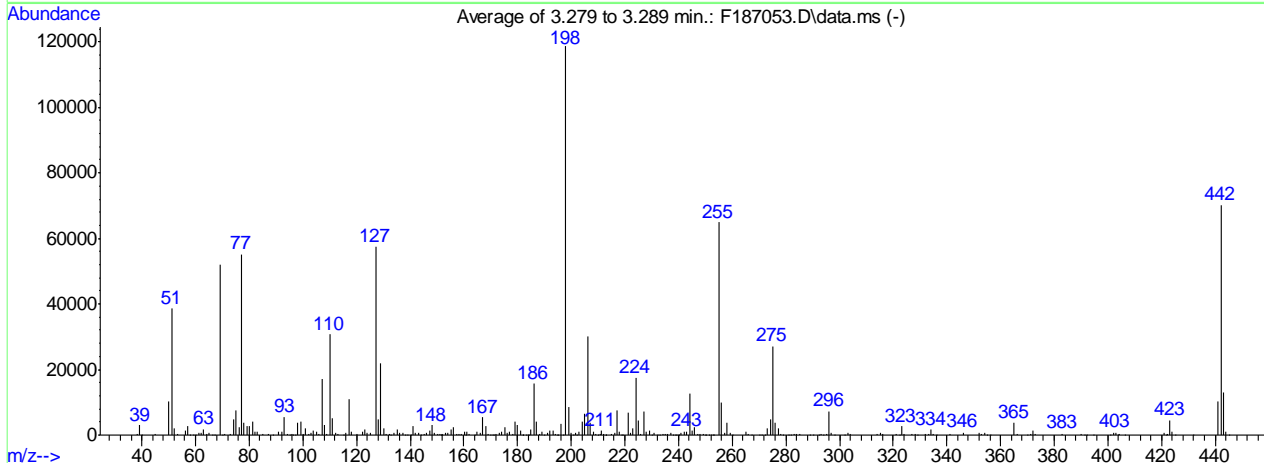
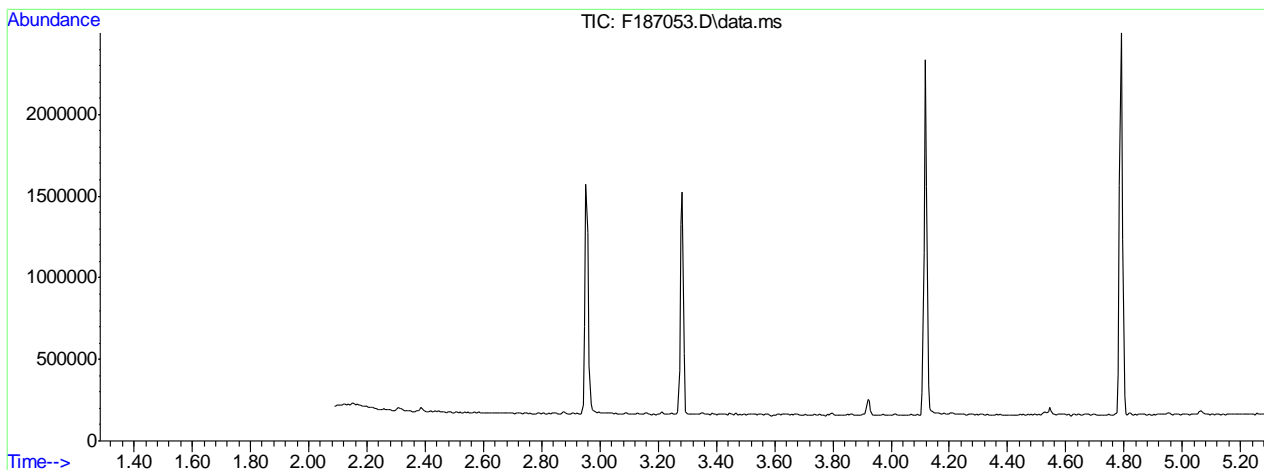
Ion	Exp%	Act%
235.00	100	0.00
237.00	63.70	0.00#
165.00	52.30	0.00#
0.00	0.00	0.00

9.5.3.3
9

DFTPP

Data File : C:\MSDCHEM\1\DATA\EF8054\F187053.D Vial: 1
 Acq On : 11 Sep 2019 2:43 am Operator: chriss2
 Sample : dftpp Inst : GCMSF
 Misc : op21602,ef8054,1000,,,1,1 Multiplr: 1.00
 MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\DFTPPF.M (RTE Integrator)
 Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um



AutoFind: Scans 224, 225, 226; Background Corrected with Scan 219

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result
51	198	30	60	32.5	38586	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	43.8	51915	PASS
70	69	0.00	2	0.1	67	PASS
127	198	40	60	48.4	57364	PASS
197	198	0.00	1	0.1	106	PASS
198	198	100	100	100.0	118581	PASS
199	198	5	9	7.1	8410	PASS
275	198	10	30	22.9	27168	PASS
365	198	1	100	3.1	3712	PASS
441	443	0.10	100	79.3	10381	PASS
442	198	40	100	59.3	70301	PASS
443	442	17	23	18.6	13094	PASS

9.5.4 9

Average of 3.279 to 3.289 min.: F187053.D\data.ms

dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
38.10	362	59.10	53	71.00	286	83.05	997
39.15	3021	60.05	21	73.05	234	85.00	448
40.05	11	61.10	672	74.10	4810	87.10	426
45.10	257	62.10	555	75.10	7567	89.00	38
50.10	10156	63.10	1755	76.15	2532	91.10	897
51.10	38586	64.10	267	77.10	55231	92.05	969
52.10	2064	65.10	752	78.10	3767	93.10	5608
53.15	333	66.10	89	79.10	2620	94.10	454
56.10	1420	67.10	125	80.05	2627	95.00	2
57.10	2855	69.10	51915	81.10	4173	96.10	322
58.10	4	70.00	67	82.05	1107	96.30	91

Average of 3.279 to 3.289 min.: F187053.D\data.ms

dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
97.30	109	107.10	17125	120.05	290	132.80	67
98.10	3863	108.10	3051	122.10	1035	134.05	595
99.10	4062	109.00	213	123.00	1552	135.05	1714
100.05	255	110.10	30628	124.10	755	136.05	649
100.30	51	111.10	5062	125.05	821	137.10	796
101.05	2166	112.05	526	127.10	57364	138.00	114
102.10	185	113.00	329	128.10	4732	139.10	54
103.05	829	115.05	129	129.10	21985	140.05	51
104.00	1327	116.10	837	130.10	1954	141.10	2698
105.10	1093	117.10	11075	131.15	321	142.05	762
106.10	356	118.10	916	132.10	194	143.05	623

Average of 3.279 to 3.289 min.: F187053.D\data.ms

dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
143.90	66	153.10	854	163.90	152	174.05	1141
145.05	218	154.10	610	165.05	930	175.10	2519
146.10	532	155.10	1770	166.10	755	176.05	791
147.10	1297	156.10	2383	167.10	5354	177.05	954
148.10	3008	157.20	468	168.10	2896	178.10	467
149.05	793	158.05	489	169.10	387	179.10	4071
150.05	200	159.10	403	170.00	112	180.10	3011
151.10	226	160.10	873	170.80	137	181.05	1450
151.40	147	160.80	91	171.10	127	181.90	138
151.75	261	161.10	1175	172.05	518	182.10	108
152.10	123	162.05	417	173.05	709	183.05	117

Average of 3.279 to 3.289 min.: F187053.D\data.ms

dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
183.90	142	194.10	312	203.05	977	212.90	51
184.10	162	194.90	68	204.10	4032	213.10	87
185.10	1878	195.10	92	205.10	6589	215.10	335
186.10	15618	196.00	3326	206.10	30187	216.15	532
187.05	4172	196.90	106	207.10	3922	217.05	7564
188.15	500	198.00	118581	208.10	1074	218.05	1047
189.05	965	199.05	8410	209.10	403	218.70	87
190.00	106	200.05	696	210.10	168	219.00	87
191.10	528	200.90	106	210.60	360	221.10	6996
192.05	1336	201.55	623	211.10	1252	222.00	722
193.10	1316	202.20	101	212.00	195	223.05	2005

Average of 3.279 to 3.289 min.: F187053.D\data.ms

dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
224.10	17374	235.05	514	244.10	12576	253.10	163
225.10	4558	236.00	261	245.10	1470	255.10	64984
226.05	487	237.10	643	246.05	2457	256.10	9861
227.10	7267	238.00	172	247.10	495	257.05	827

228.00	962	239.00	117	248.00	208	258.10	3780
229.05	1468	239.15	177	249.05	368	259.10	643
230.00	175	239.90	77	249.90	61	260.10	140
231.05	694	240.10	102	250.10	76	265.05	1207
231.95	137	241.05	525	251.20	56	266.00	287
233.00	70	242.05	980	252.20	115	267.00	55
234.10	429	243.10	1141	252.80	110	270.20	75

Average of 3.279 to 3.289 min.: F187053.D\data.ms
dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
270.95	135	283.15	254	298.20	77	327.00	522
272.10	139	284.10	213	302.00	60	328.05	287
273.10	2039	285.10	425	303.05	817	329.00	57
274.10	4743	289.00	60	304.05	186	332.00	241
275.10	27168	290.10	62	314.05	406	333.05	309
276.10	3806	292.20	142	315.10	820	334.10	1599
277.10	2072	293.05	498	316.15	389	335.05	348
278.10	424	294.10	64	321.05	287	336.10	56
279.00	53	295.00	193	322.20	62	341.05	359
281.10	156	296.05	7266	323.10	2599	346.00	697
282.00	60	297.05	865	324.10	523	352.05	680

Average of 3.279 to 3.289 min.: F187053.D\data.ms
dftpp

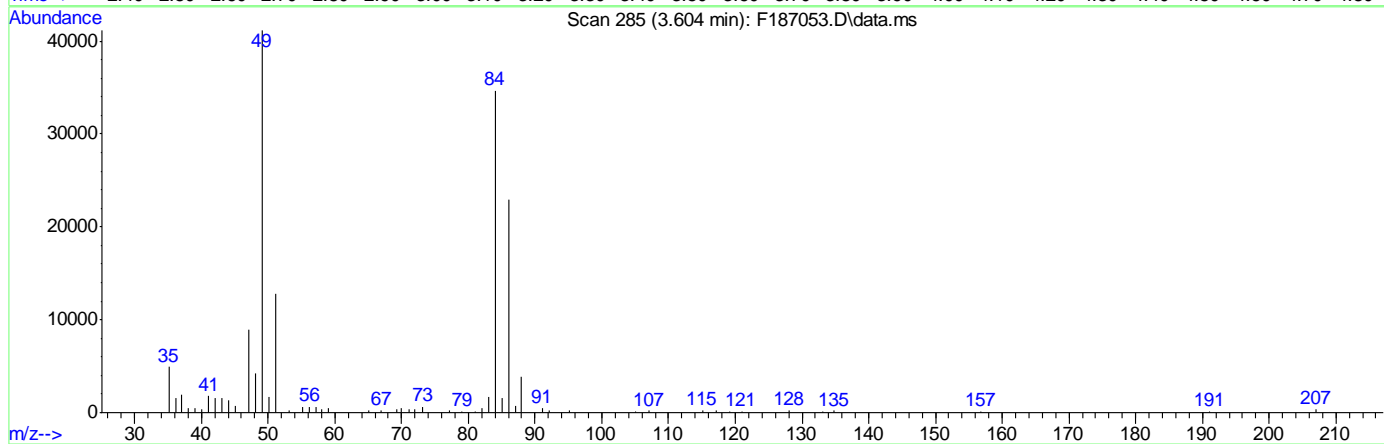
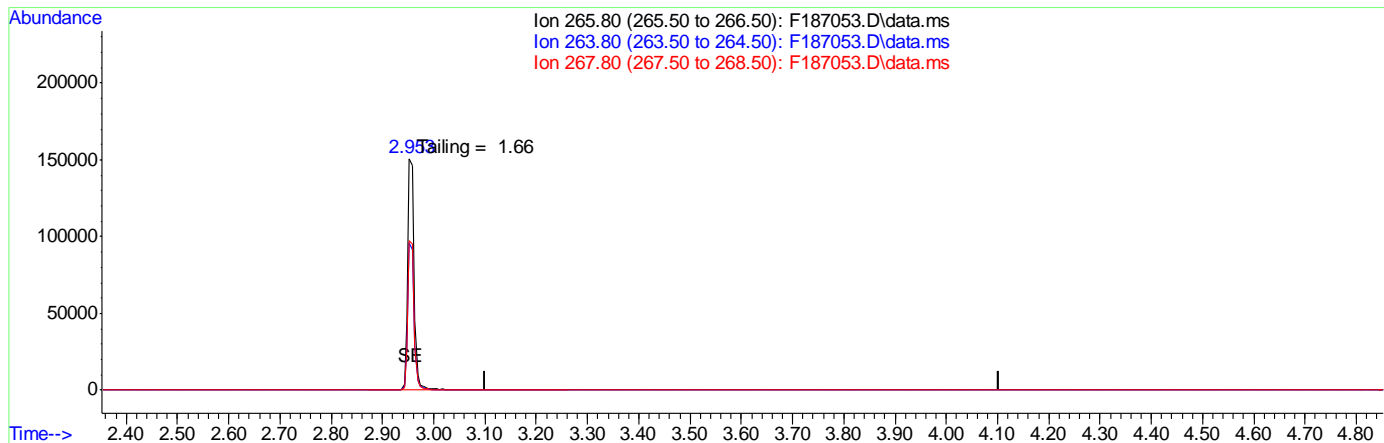
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
352.95	454	390.05	185	421.90	120		
354.15	710	391.10	75	422.10	506		
355.00	81	392.00	53	423.05	4599		
356.20	53	394.80	57	424.00	919		
365.00	3712	401.00	69	425.20	64		
366.10	467	401.95	560	431.80	54		
370.10	62	402.95	783	441.05	10381		
371.05	210	404.00	68	442.05	70301		
372.05	1471	404.15	188	443.00	13094		
373.10	345	406.30	58	444.10	1133		
383.00	414	420.95	674	445.00	65		

Quantitation Report (Qedit)

Data Path : C:\MSDCHEM\1\DATA\EF8054\
 Data File : F187053.D
 Acq On : 11 Sep 2019 2:43 am
 Operator : chriss2
 Sample : dftpp
 Misc : op21602,ef8054,1000,,,1,1
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 11 02:49:51 2019
 Quant Method : C:\MSDCHEM\1\METHODS\DFTPPF.M
 Quant Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um
 QLast Update : Thu Jun 20 21:18:44 2019
 Response via : Initial Calibration



TIC: F187053.D\data.ms

(1) Pentachlorophenol (t)

3.602min (-3.602) 0.00ppb

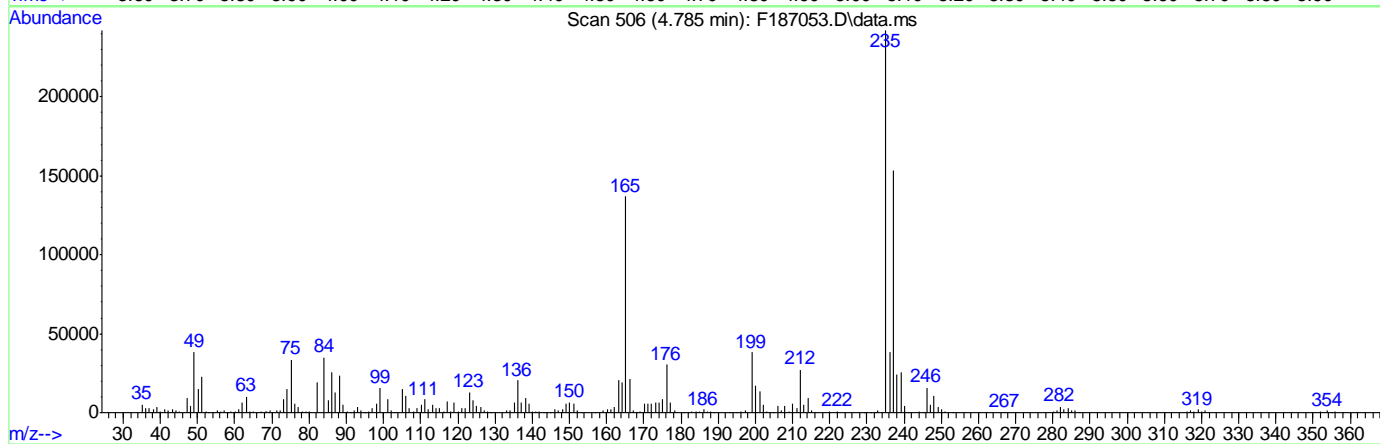
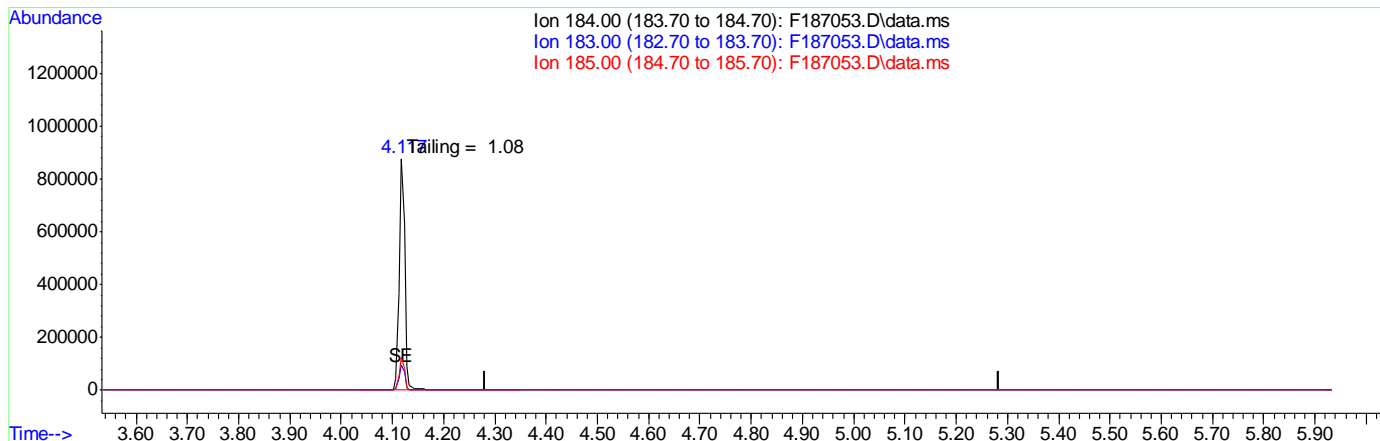
response 0

Ion	Exp%	Act%
265.80	100	0.00
263.80	63.80	0.00#
267.80	63.70	0.00#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\MSDCHEM\1\DATA\EF8054\
 Data File : F187053.D
 Acq On : 11 Sep 2019 2:43 am
 Operator : chriss2
 Sample : dftpp
 Misc : op21602,ef8054,1000,,,1,1
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 11 02:49:51 2019
 Quant Method : C:\MSDCHEM\1\METHODS\DFTPPF.M
 Quant Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um
 QLast Update : Thu Jun 20 21:18:44 2019
 Response via : Initial Calibration



TIC: F187053.D\data.ms

(2) Benzidine (t)

4.783min (-4.783) 0.00ppb

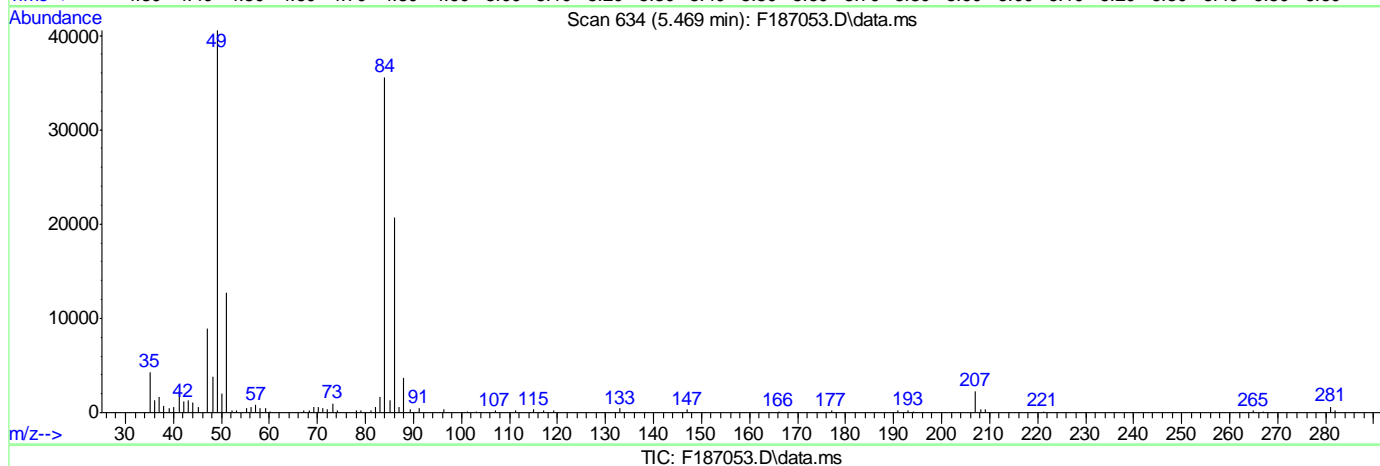
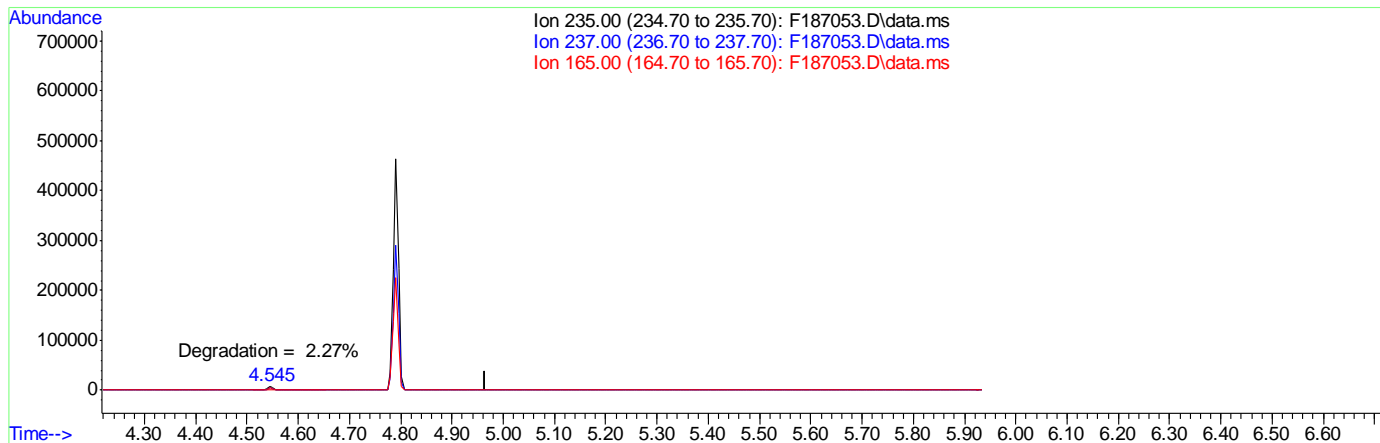
response 0

Ion	Exp%	Act%
184.00	100	0.00
183.00	10.40	0.00
185.00	13.80	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\MSDCHEM\1\DATA\EF8054\
 Data File : F187053.D
 Acq On : 11 Sep 2019 2:43 am
 Operator : chriss2
 Sample : dftpp
 Misc : op21602,ef8054,1000,,,1,1
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 11 02:49:51 2019
 Quant Method : C:\MSDCHEM\1\METHODS\DFTPPF.M
 Quant Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um
 QLast Update : Thu Jun 20 21:18:44 2019
 Response via : Initial Calibration



(3) ddt (t)

5.467min (-5.467) 0.00ppb

response 0

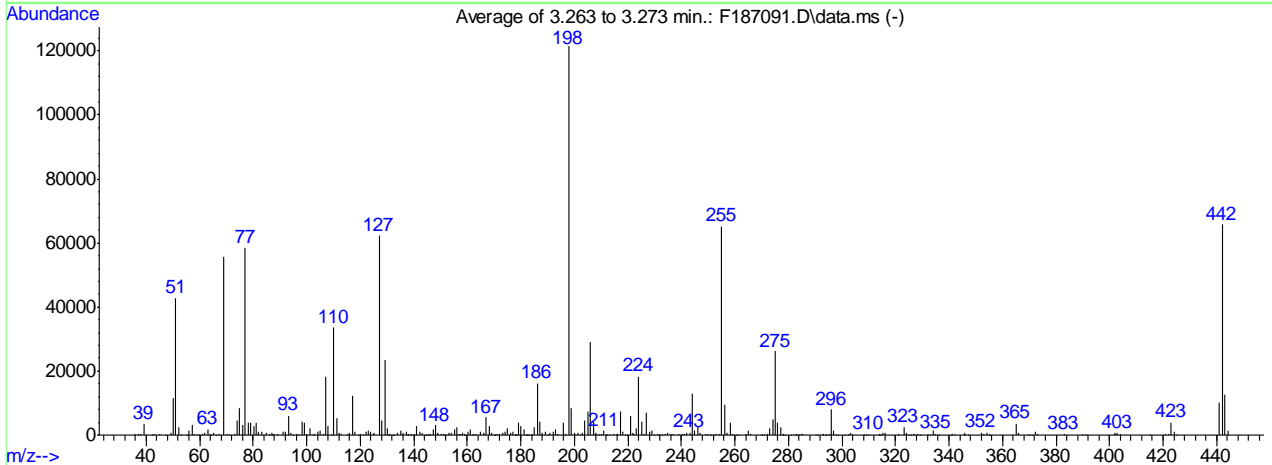
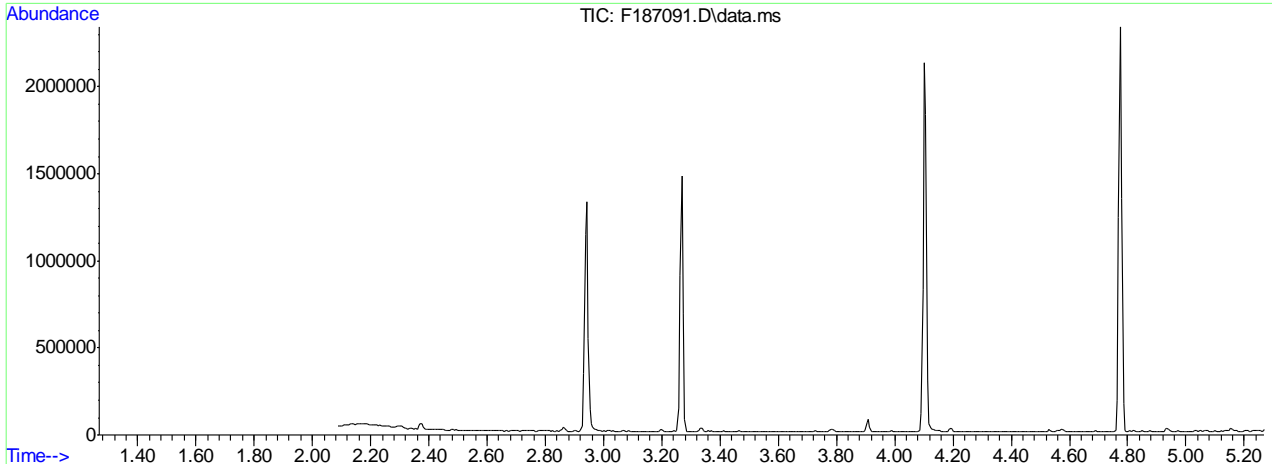
Ion	Exp%	Act%
235.00	100	0.00
237.00	63.70	0.00#
165.00	52.30	0.00#
0.00	0.00	0.00

DFTPP

Data File : C:\MSDCHEM\1\DATA\EF8057\F187091.D
 Acq On : 12 Sep 2019 3:46 am
 Sample : dftpp
 Misc : op21602,ef8057,1000,,1,1
 MS Integration Params: RTEINT.P

Vial: 1
 Operator: chriss2
 Inst : GCMSF
 Multiplr: 1.00

Method : C:\MSDCHEM\1\METHODS\DFTPPF.M (RTE Integrator)
 Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um



AutoFind: Scans 221, 222, 223; Background Corrected with Scan 216

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	35.3	42890	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	45.8	55629	PASS
70	69	0.00	2	0.8	421	PASS
127	198	40	60	51.3	62322	PASS
197	198	0.00	1	0.3	316	PASS
198	198	100	100	100.0	121405	PASS
199	198	5	9	7.0	8462	PASS
275	198	10	30	21.5	26141	PASS
365	198	1	100	2.9	3567	PASS
441	443	0.10	100	80.1	10000	PASS
442	198	40	100	54.2	65794	PASS
443	442	17	23	19.0	12478	PASS

Average of 3.263 to 3.273 min.: F187091.D\data.ms

dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.10	251	51.10	42890	63.10	1916	75.05	8305
37.00	220	52.10	2392	64.10	231	76.10	3013
38.10	455	53.10	55	64.30	132	77.10	58360
39.15	3343	55.05	164	65.10	690	78.10	3740
40.05	85	56.10	1383	66.00	57	79.10	3895
42.00	51	57.10	3338	67.10	242	80.10	2774
43.10	288	58.10	273	69.10	55629	81.05	3917
45.10	300	59.10	8	70.05	421	82.10	1060
47.05	13	59.90	54	71.15	184	83.05	974
49.10	562	61.10	533	73.10	339	85.00	602
50.10	11494	62.05	761	74.10	4611	86.00	352

Average of 3.263 to 3.273 min.: F187091.D\data.ms

dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
87.00	614	98.10	4294	108.10	2800	120.00	251
87.20	103	99.10	3870	109.10	182	121.10	90
87.95	208	100.00	393	110.10	33522	122.00	1057
89.10	203	101.05	2006	111.10	5200	123.05	1509
91.10	1090	102.15	134	112.10	701	124.05	928
92.05	1003	102.90	227	113.15	222	124.90	224
93.10	5975	103.10	431	115.05	182	125.10	628
94.05	580	104.10	1203	116.10	881	127.10	62322
95.05	93	105.10	1404	117.10	12240	128.10	4636
96.15	328	106.15	297	118.05	956	129.10	23438
96.80	51	107.10	18083	119.05	146	130.10	2016

Average of 3.263 to 3.273 min.: F187091.D\data.ms

dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
130.70	56	139.10	96	148.10	3067	157.20	383
131.00	255	140.00	224	149.05	786	158.15	628
132.10	128	141.05	2718	150.15	271	159.00	166
132.70	110	142.10	891	151.05	200	159.20	315
134.05	639	143.05	616	151.50	96	160.10	1047
135.05	1491	144.20	185	152.05	174	161.10	1612
136.10	775	144.60	68	153.10	878	162.00	140
137.10	925	145.10	155	154.00	641	162.20	236
137.70	73	146.00	441	155.10	1596	163.25	311
138.10	243	146.20	141	156.10	2532	165.05	1099
138.75	134	147.10	1744	157.00	224	166.10	593

Average of 3.263 to 3.273 min.: F187091.D\data.ms

dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
166.30	212	176.10	691	183.10	87	194.00	449
167.10	5530	177.10	1087	184.10	374	196.10	3800
168.05	2786	177.70	78	185.10	2324	196.80	316
169.10	625	178.00	93	186.10	16214	198.00	121405
170.00	121	178.20	123	187.10	4326	199.00	8462
170.20	56	179.05	4019	188.05	599	200.10	763
171.05	233	180.10	2854	189.10	1174	201.50	717
172.00	495	181.10	1853	190.20	164	202.30	61
173.10	659	181.90	129	191.00	544	203.05	685
174.10	1098	182.20	69	192.10	1130	204.05	4494
175.10	2143	182.50	77	193.10	1656	205.10	7530

Average of 3.263 to 3.273 min.: F187091.D\data.ms

dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
206.10	28968	215.90	225	225.10	4204	235.05	650
207.10	4172	216.10	502	226.10	389	236.00	328
207.90	336	217.05	7312	227.10	7042	237.05	537
208.10	761	218.05	1044	228.10	991	239.05	267

209.10	203	219.00	56	229.05	1471	240.10	248
209.95	445	219.90	66	230.00	90	241.05	435
211.10	1345	221.10	5960	231.10	524	242.10	865
212.00	57	221.80	671	231.30	155	243.05	882
212.30	53	222.10	359	231.90	54	244.10	12934
213.20	56	223.05	1940	232.90	99	245.10	1527
214.95	335	224.10	18232	234.05	436	246.05	2366

Average of 3.263 to 3.273 min.: F187091.D\data.ms
dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
247.05	570	258.10	3968	273.10	2108	283.20	234
249.05	399	259.05	454	274.05	4753	284.15	207
250.00	206	260.20	69	275.10	26141	284.95	238
250.90	127	261.10	98	276.10	3804	285.20	191
251.05	120	264.05	207	277.10	2507	290.10	67
252.10	77	265.05	1285	277.90	68	291.10	60
253.00	400	266.05	227	278.10	307	292.80	77
254.00	326	269.90	56	279.00	53	293.10	459
255.10	65301	270.20	71	281.00	52	293.90	68
256.10	9389	271.05	169	282.00	114	294.10	77
257.10	821	272.20	267	283.00	37	295.20	223

Average of 3.263 to 3.273 min.: F187091.D\data.ms
dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
296.10	7906	313.95	292	326.95	378	345.80	69
297.00	1249	314.10	140	328.05	307	345.95	650
297.80	62	314.30	74	328.90	70	347.00	55
298.50	59	315.10	841	332.20	140	352.05	809
301.05	124	316.05	543	333.00	129	353.05	449
302.10	51	321.05	265	334.10	1454	354.05	871
303.10	847	323.15	2587	335.05	459	355.00	149
304.05	258	324.00	574	336.30	50	355.20	55
308.10	55	325.00	73	340.90	105	365.00	3567
308.90	58	325.90	59	341.15	338	366.00	612
310.00	81	326.70	77	342.00	86	369.50	54

Average of 3.263 to 3.273 min.: F187091.D\data.ms
dftpp

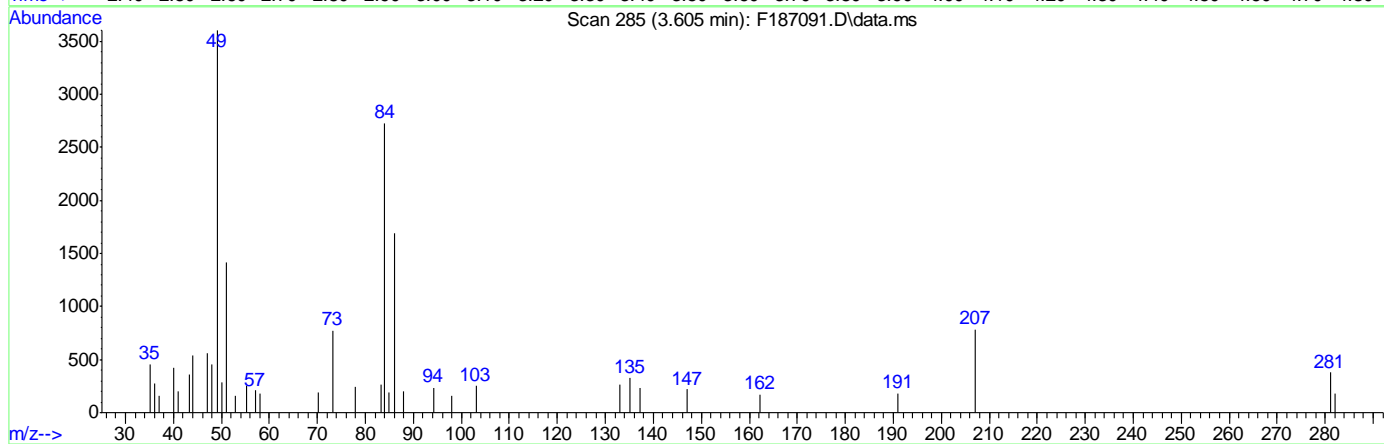
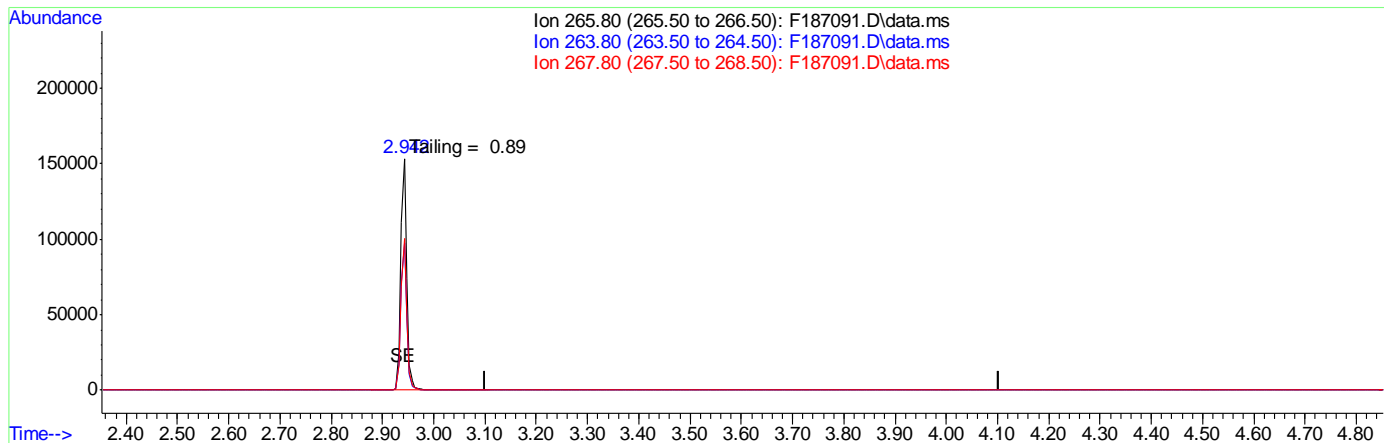
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
370.10	59	414.80	54				
371.10	182	421.00	488				
372.10	1165	422.10	498				
373.00	319	423.05	3982				
383.00	310	424.05	904				
390.00	78	425.20	83				
391.00	151	441.05	10000				
401.80	88	442.05	65794				
402.00	618	443.05	12478				
403.00	690	444.10	1356				
403.95	219						

Quantitation Report (Qedit)

Data Path : C:\MSDCHEM\1\DATA\EF8057\
 Data File : F187091.D
 Acq On : 12 Sep 2019 3:46 am
 Operator : chriss2
 Sample : dftpp
 Misc : op21602,ef8057,1000,,,1,1
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 12 03:52:38 2019
 Quant Method : C:\MSDCHEM\1\METHODS\DFTPPF.M
 Quant Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um
 QLast Update : Thu Jun 20 21:18:44 2019
 Response via : Initial Calibration



TIC: F187091.D\data.ms

(1) Pentachlorophenol (t)

3.602min (-3.602) 0.00ppb

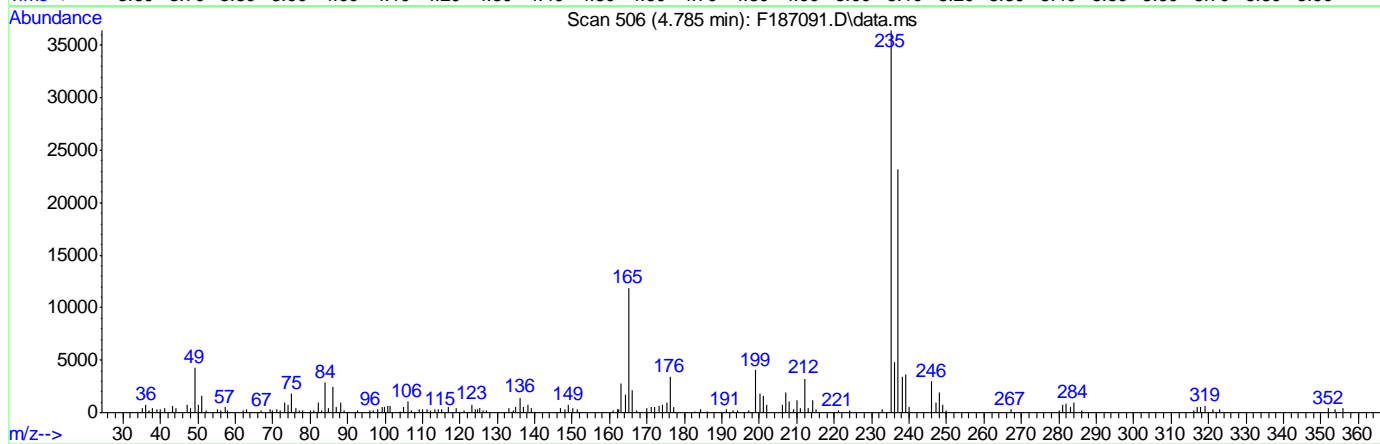
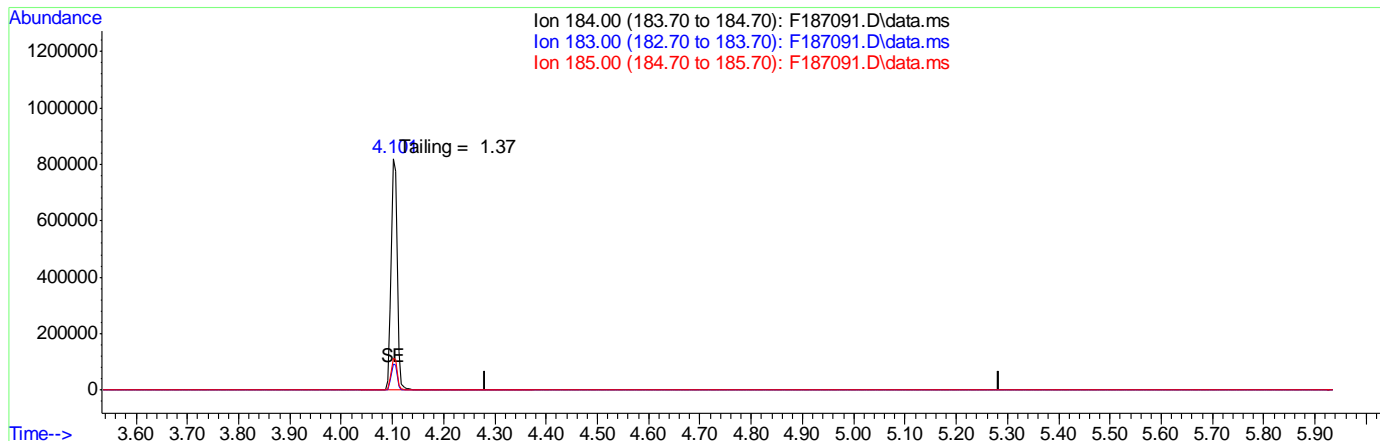
response 0

Ion	Exp%	Act%
265.80	100	0.00
263.80	63.80	0.00#
267.80	63.70	0.00#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\MSDCHEM\1\DATA\EF8057\
 Data File : F187091.D
 Acq On : 12 Sep 2019 3:46 am
 Operator : chriss2
 Sample : dftpp
 Misc : op21602,ef8057,1000,,,1,1
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 12 03:52:38 2019
 Quant Method : C:\MSDCHEM\1\METHODS\DFTPPF.M
 Quant Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um
 QLast Update : Thu Jun 20 21:18:44 2019
 Response via : Initial Calibration



TIC: F187091.D\data.ms

(2) Benzidine (t)

4.783min (-4.783) 0.00ppb

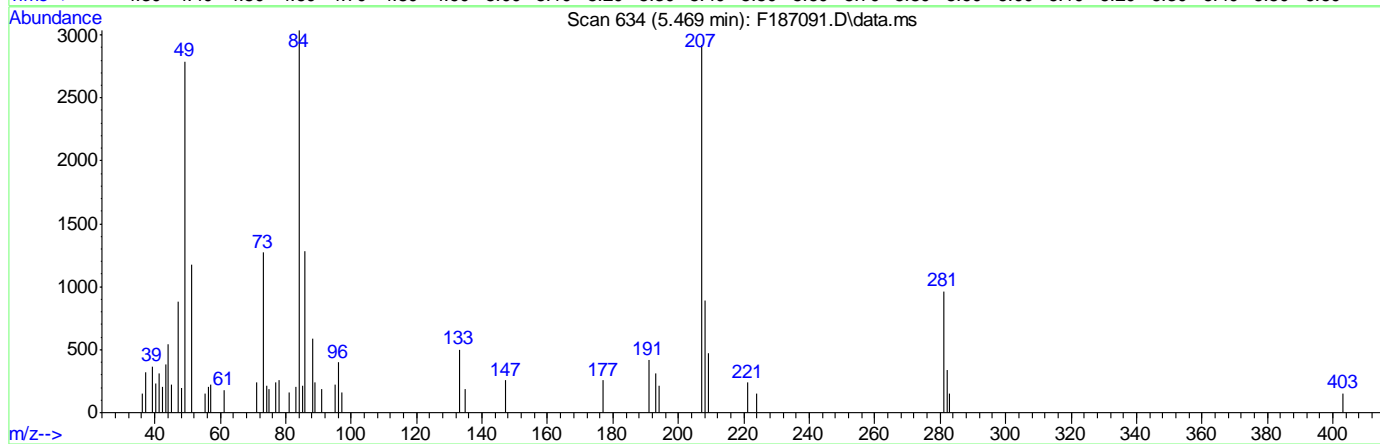
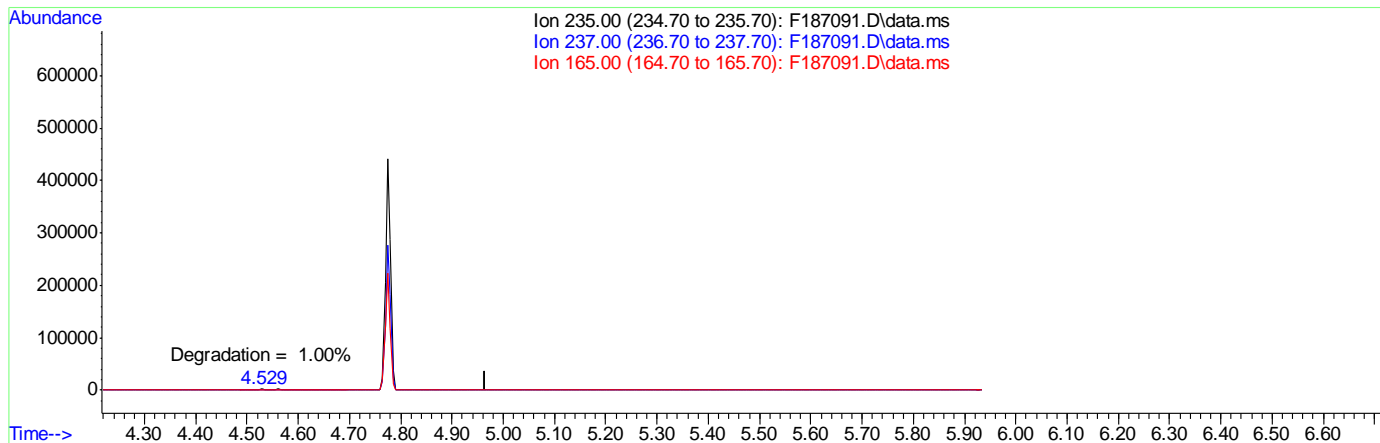
response 0

Ion	Exp%	Act%
184.00	100	0.00
183.00	10.40	0.00
185.00	13.80	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\MSDCHEM\1\DATA\EF8057\
 Data File : F187091.D
 Acq On : 12 Sep 2019 3:46 am
 Operator : chriss2
 Sample : dftpp
 Misc : op21602,ef8057,1000,,,1,1
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 12 03:52:38 2019
 Quant Method : C:\MSDCHEM\1\METHODS\DFTPPF.M
 Quant Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um
 QLast Update : Thu Jun 20 21:18:44 2019
 Response via : Initial Calibration



TIC: F187091.D\data.ms

(3) ddt (t)

5.467min (-5.467) 0.00ppb

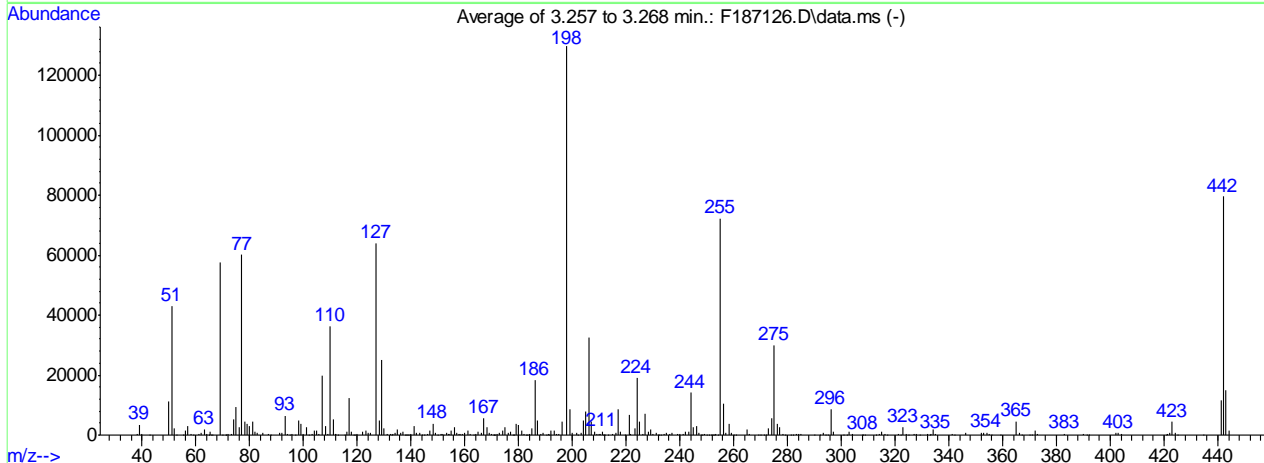
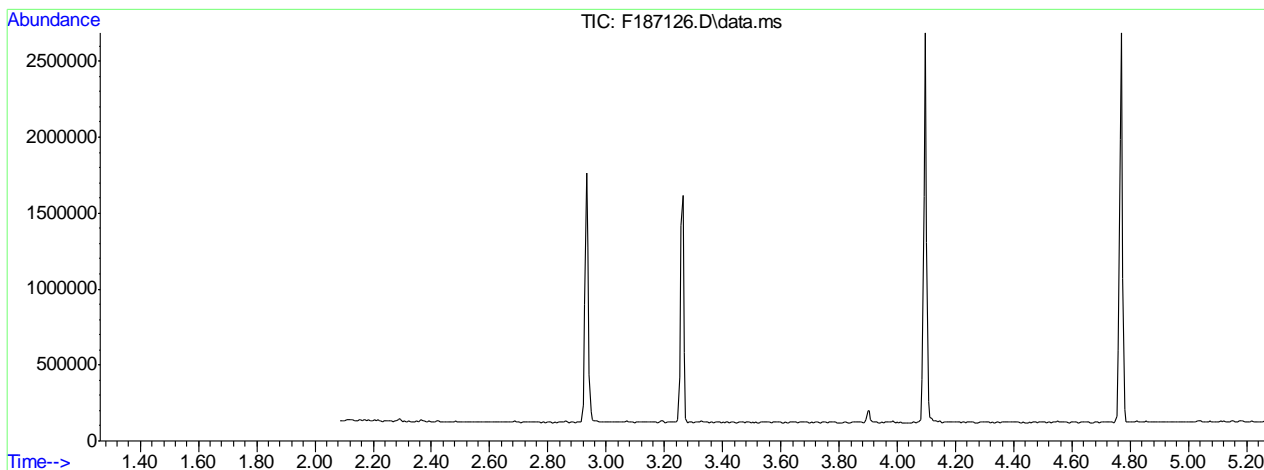
response 0

Ion	Exp%	Act%
235.00	100	0.00
237.00	63.70	0.00#
165.00	52.30	0.00#
0.00	0.00	0.00

DFTPP

Data File : C:\MSDCHEM\1\DATA\EF8059\F187126.D Vial: 1
 Acq On : 12 Sep 2019 11:42 pm Operator: chriss2
 Sample : dftpp Inst : GCMSF
 Misc : op21602,ef8059,1000,,1,1 Multiplr: 1.00
 MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\DFTPPF.M (RTE Integrator)
 Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um



AutoFind: Scans 220, 221, 222; Background Corrected with Scan 215

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result
51	198	30	60	33.3	43168	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	44.3	57435	PASS
70	69	0.00	2	0.3	192	PASS
127	198	40	60	49.4	64088	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	129645	PASS
199	198	5	9	6.8	8792	PASS
275	198	10	30	23.2	30086	PASS
365	198	1	100	3.5	4561	PASS
441	443	0.10	100	76.9	11601	PASS
442	198	40	100	61.4	79602	PASS
443	442	17	23	19.0	15086	PASS

Average of 3.257 to 3.268 min.: F187126.D\data.ms

dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
38.10	484	58.10	280	70.00	192	80.10	2862
39.10	3379	59.20	131	71.00	81	81.10	4497
40.05	341	61.10	535	71.20	51	82.10	1096
43.05	55	62.10	817	72.05	272	83.05	861
50.10	11098	63.10	1879	73.10	486	85.00	905
51.10	43168	64.10	211	74.10	5097	87.10	349
52.10	2388	64.90	94	75.10	9256	88.00	8
53.00	51	65.20	970	76.15	2753	91.10	810
55.20	116	65.90	57	77.10	60137	92.10	694
56.10	1424	66.40	51	78.10	4420	93.10	6460
57.05	3074	69.10	57435	79.10	3849	93.95	362

Average of 3.257 to 3.268 min.: F187126.D\data.ms

dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
95.10	145	106.00	201	117.10	12288	129.10	24892
96.00	398	107.10	19750	118.05	1097	130.05	2376
97.10	134	108.10	2946	118.90	69	131.05	405
98.10	4939	109.15	419	119.20	116	132.30	217
99.05	3928	110.10	36298	120.05	301	132.90	65
100.05	481	111.10	5239	122.10	1149	133.10	202
101.10	2518	112.00	286	123.10	1633	134.00	699
102.10	116	112.15	302	124.05	816	135.05	1730
103.10	541	113.05	188	125.10	854	136.05	831
104.10	1546	115.20	68	127.10	64088	137.05	1077
105.10	1449	116.05	1024	128.10	5005	137.90	144

Average of 3.257 to 3.268 min.: F187126.D\data.ms

dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
138.20	70	148.10	3871	157.15	681	167.10	5640
138.90	75	149.10	807	157.90	246	168.10	2646
139.10	99	150.10	162	158.10	541	169.15	599
140.00	271	151.20	341	159.10	364	170.15	259
141.05	2831	151.55	294	160.05	911	170.70	146
142.10	888	152.20	120	161.10	1420	171.00	161
143.10	723	153.10	931	162.05	486	171.20	78
144.15	184	154.00	370	163.10	62	172.05	572
145.00	141	154.20	412	164.00	289	173.05	777
146.10	427	155.10	1547	165.10	1278	174.10	1580
147.05	1342	156.10	2706	166.10	759	175.10	2471

Average of 3.257 to 3.268 min.: F187126.D\data.ms

dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
176.05	728	185.15	2320	195.10	418	207.10	4477
177.05	1093	186.10	18337	196.10	4422	208.10	1190
178.00	103	187.10	4698	198.00	129645	209.10	500
178.20	85	188.15	529	199.00	8792	210.10	393
179.10	3902	189.10	793	200.05	611	210.50	268
180.10	3197	190.20	138	201.50	650	211.10	1303
181.05	1530	191.10	388	202.20	52	211.50	199
182.10	309	191.30	83	203.10	801	211.80	82
182.80	101	192.10	1512	204.10	4993	212.10	120
183.20	136	193.10	1660	205.10	7772	213.10	101
184.00	448	194.05	278	206.10	32576	215.10	356

Average of 3.257 to 3.268 min.: F187126.D\data.ms

dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
216.10	612	228.10	1078	239.05	256	249.00	498
217.05	8735	229.10	1920	240.10	250	250.15	129
218.05	1195	230.10	226	241.05	504	251.00	61
219.70	51	231.10	678	242.10	1276	251.80	90

221.10	6859	231.90	89	243.10	1021	252.10	83
221.80	234	232.10	85	244.10	14069	252.60	53
223.10	2087	233.05	172	245.10	2449	253.00	144
224.10	18992	234.05	412	246.05	2934	253.25	340
225.10	4596	235.00	691	247.00	626	254.00	78
226.10	539	236.05	407	247.80	76	255.10	72258
227.10	7264	237.10	587	248.10	91	256.10	10372

Average of 3.257 to 3.268 min.: F187126.D\data.ms
dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
257.05	851	273.05	2163	285.10	429	304.05	295
258.10	3829	274.10	5442	290.00	150	307.80	78
259.00	665	275.10	30086	292.05	131	308.05	107
260.00	122	276.10	3868	293.10	731	308.90	61
261.00	70	277.10	2588	294.20	97	313.00	66
265.10	1700	278.10	501	295.05	192	314.05	425
266.00	235	279.30	55	296.10	8686	315.10	1273
269.20	80	281.10	59	297.10	1293	316.10	545
270.00	141	282.00	81	300.95	108	316.95	129
271.05	130	283.10	488	302.20	50	321.05	231
272.10	176	284.15	228	303.10	1122	322.05	156

Average of 3.257 to 3.268 min.: F187126.D\data.ms
dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
323.10	2736	341.05	274	367.00	50	404.05	242
324.05	560	342.10	57	370.00	58	420.90	112
324.90	61	346.10	704	371.00	89	421.10	568
327.00	517	352.00	779	372.10	1525	422.05	714
328.10	211	353.05	711	373.00	390	423.10	4434
329.00	50	354.05	802	383.05	423	424.10	943
332.05	277	355.05	239	389.95	267	424.90	51
332.90	75	356.00	51	391.10	161	434.40	64
333.15	218	359.00	67	392.05	111	441.05	11601
334.10	1907	365.00	4561	402.05	657	442.05	79602
335.10	473	366.05	642	403.05	729	443.05	15086

Average of 3.257 to 3.268 min.: F187126.D\data.ms
dftpp

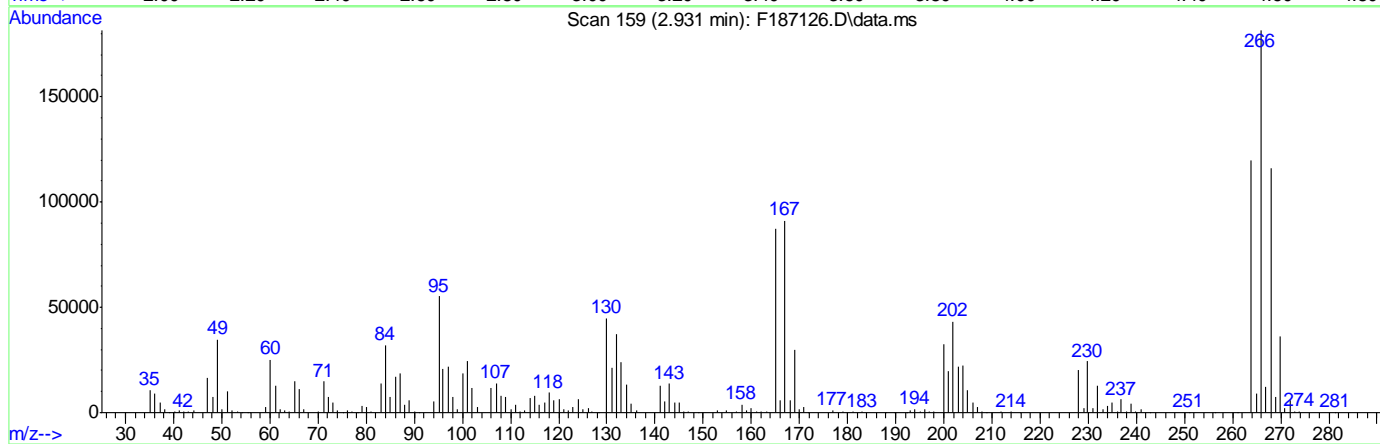
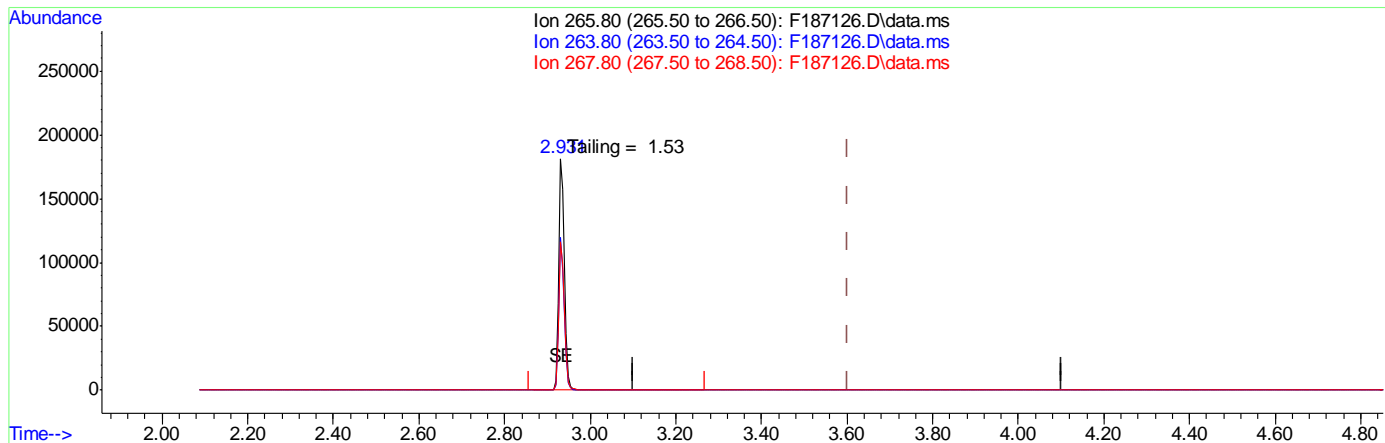
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
444.00	1457						

Quantitation Report (Qedit)

Data Path : C:\MSDCHEM\1\DATA\EF8059\
 Data File : F187126.D
 Acq On : 12 Sep 2019 11:42 pm
 Operator : chriss2
 Sample : dftpp
 Misc : op21602,ef8059,1000,,,1,1
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 12 23:48:02 2019
 Quant Method : C:\MSDCHEM\1\METHODS\DFTPPF.M
 Quant Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um
 QLast Update : Thu Jun 20 21:18:44 2019
 Response via : Initial Calibration



TIC: F187126.D\data.ms

(1) Pentachlorophenol (t)

2.931min (-0.671) 123.16ppb m

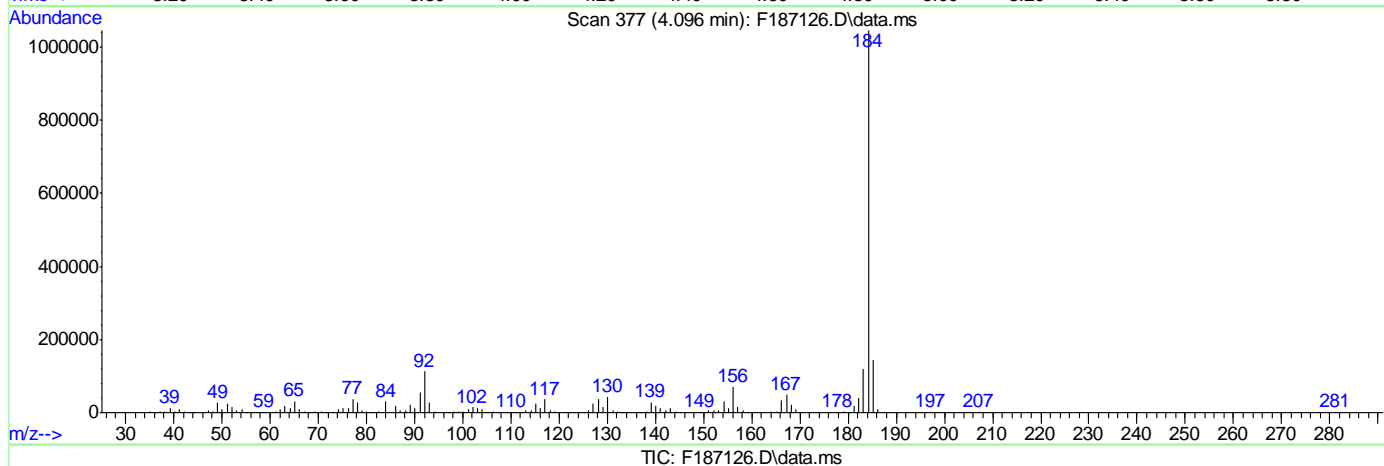
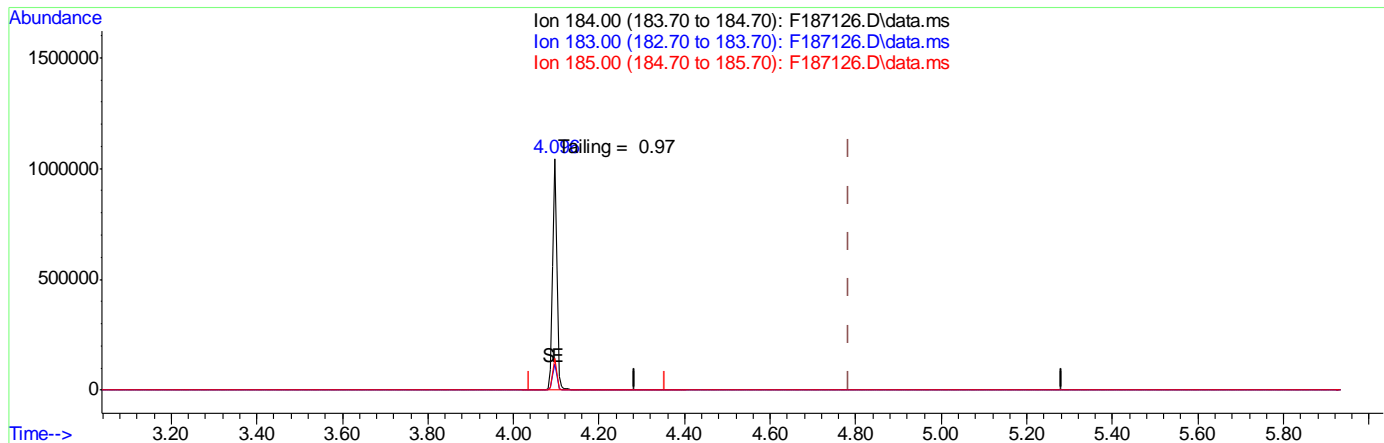
response 154377

Ion	Exp%	Act%
265.80	100	100
263.80	63.80	65.95
267.80	63.70	63.90
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\MSDCHEM\1\DATA\EF8059\
 Data File : F187126.D
 Acq On : 12 Sep 2019 11:42 pm
 Operator : chriss2
 Sample : dftpp
 Misc : op21602,ef8059,1000,,,1,1
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 12 23:48:02 2019
 Quant Method : C:\MSDCHEM\1\METHODS\DFTPPF.M
 Quant Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um
 QLast Update : Thu Jun 20 21:18:44 2019
 Response via : Initial Calibration



(2) Benzidine (t)

4.096min (-0.687) 64.45ppb m

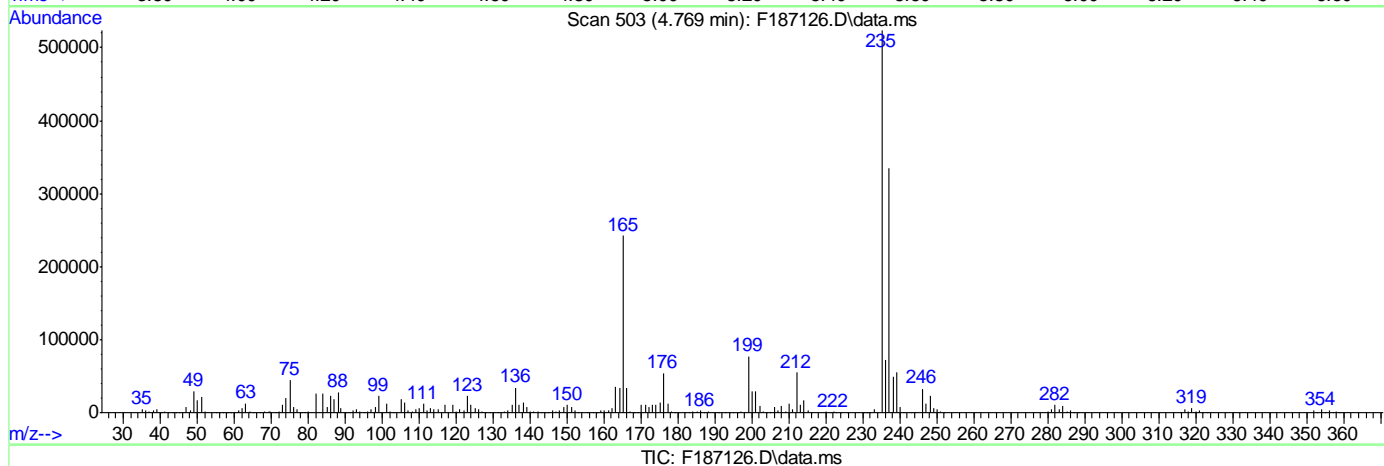
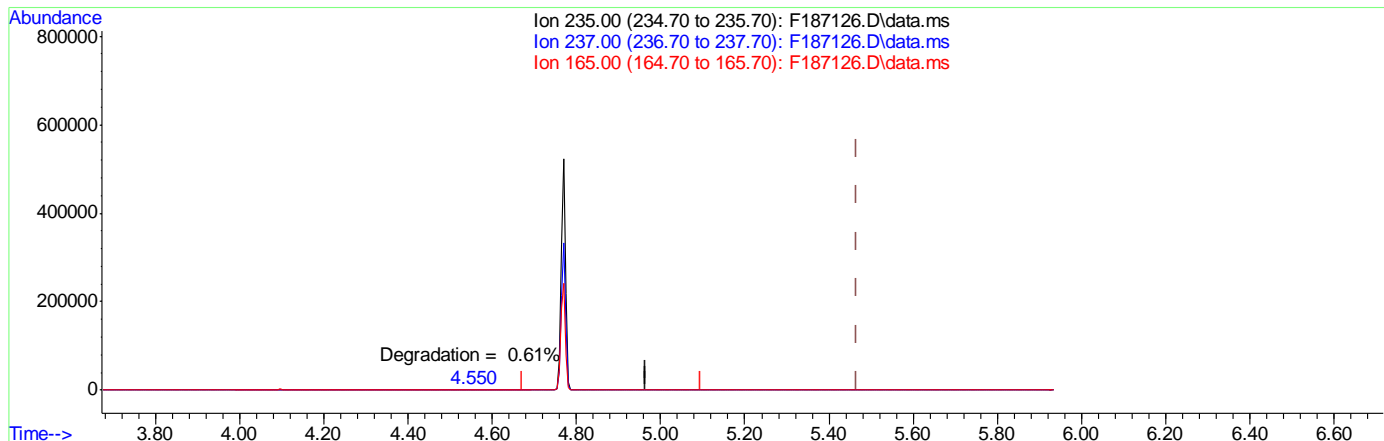
response 763367

Ion	Exp%	Act%
184.00	100	100
183.00	10.40	0.00
185.00	13.80	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\MSDCHEM\1\DATA\EF8059\
 Data File : F187126.D
 Acq On : 12 Sep 2019 11:42 pm
 Operator : chriss2
 Sample : dftpp
 Misc : op21602,ef8059,1000,,,1,1
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 12 23:48:02 2019
 Quant Method : C:\MSDCHEM\1\METHODS\DFTPPF.M
 Quant Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um
 QLast Update : Thu Jun 20 21:18:44 2019
 Response via : Initial Calibration



(3) ddt (t)

4.769min (-0.698) 43.27ppb m

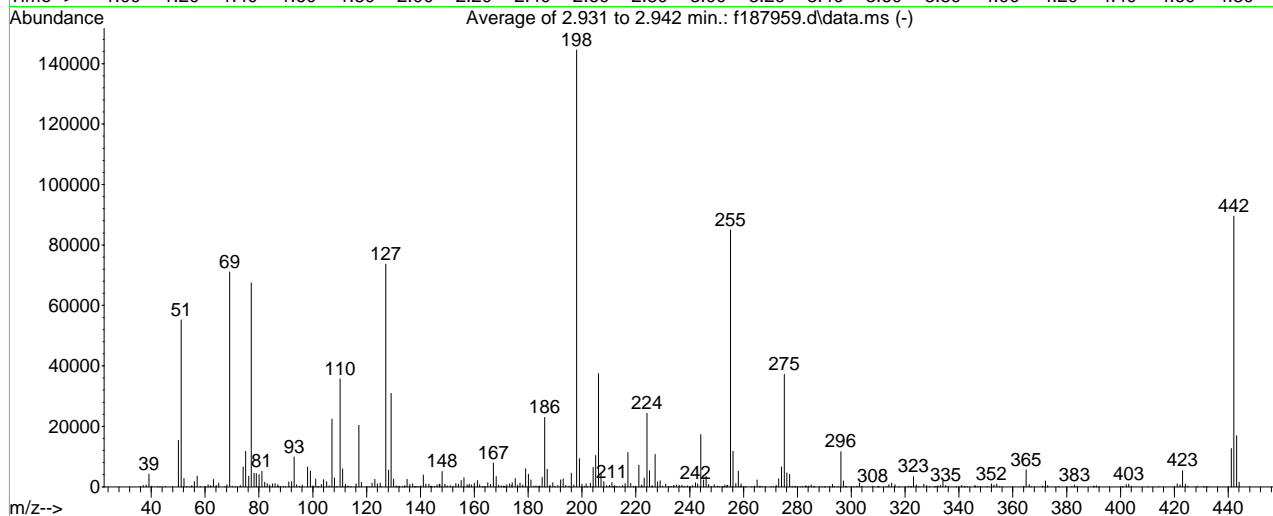
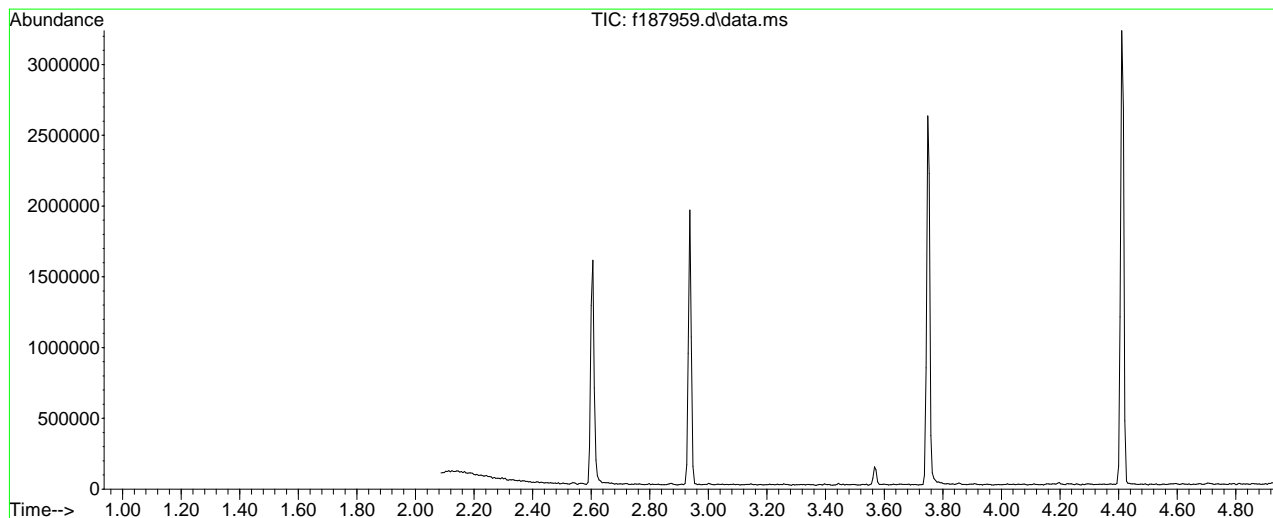
response 374147

Ion	Exp%	Act%
235.00	100	100
237.00	63.70	0.00#
165.00	52.30	0.00#
0.00	0.00	0.00

DFTPP

Data File : C:\msdchem\1\data\da...meel\ef8099\f187959.d Vial: 1
 Acq On : 19 Oct 2019 12:16 am Operator: chriss2
 Sample : dftpp Inst : GCMSF
 Misc : op21602,ef8099,1000,,,1,1 Multiplr: 1.00
 MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\DFTPPF.M (RTE Integrator)
 Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um



AutoFind: Scans 159, 160, 161; Background Corrected with Scan 154

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	38.2	55219	PASS
68	69	0.00	2	1.0	718	PASS
69	198	0.00	100	49.2	71097	PASS
70	69	0.00	2	0.4	279	PASS
127	198	40	60	51.0	73691	PASS
197	198	0.00	1	0.4	620	PASS
198	198	100	100	100.0	144461	PASS
199	198	5	9	6.4	9299	PASS
275	198	10	30	25.8	37208	PASS
365	198	1	100	3.9	5617	PASS
441	443	0.10	100	74.7	12616	PASS
442	198	40	100	62.0	89544	PASS
443	442	17	23	18.9	16883	PASS

Average of 2.931 to 2.942 min.: f187959.d\data.ms

dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.05	107	53.20	96	64.10	451	77.10	67469
37.10	452	54.40	52	65.10	1257	78.15	4514
38.10	641	55.10	422	67.40	85	79.05	4394
39.15	4240	56.05	1715	68.10	718	80.10	4045
40.20	271	57.10	3557	69.10	71097	81.05	5143
42.30	82	58.15	141	70.10	279	82.10	1505
43.20	61	60.30	76	71.20	62	83.10	1038
45.15	124	61.15	709	73.10	392	84.00	562
50.10	15333	62.00	346	74.10	6641	85.10	965
51.10	55219	62.20	308	75.10	11725	86.00	1067
52.15	2791	63.10	2442	76.20	3464	87.00	700

Average of 2.931 to 2.942 min.: f187959.d\data.ms

dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
87.20	187	99.10	5247	108.05	2921	121.00	77
88.00	19	99.90	57	109.00	97	122.05	1251
89.15	149	100.15	307	110.10	35763	123.10	2419
90.00	53	101.05	2591	111.10	5897	124.00	956
91.10	1660	101.90	58	112.15	777	125.00	1300
92.10	1714	102.15	147	113.10	317	125.60	72
93.10	9843	103.15	783	114.25	115	127.10	73691
94.05	693	104.05	2388	116.05	968	128.10	5559
95.00	206	105.10	1740	117.10	20338	129.10	30928
96.10	590	106.05	307	118.10	1482	130.00	2582
98.10	6577	107.10	22410	120.00	191	130.95	290

Average of 2.931 to 2.942 min.: f187959.d\data.ms

dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
131.20	75	138.30	121	147.00	860	157.30	707
132.00	194	139.10	66	147.20	819	157.70	218
132.20	90	140.10	332	148.05	5088	158.10	865
133.20	78	141.10	3983	149.05	925	159.00	601
134.00	267	142.00	909	149.95	295	160.05	1261
134.15	373	143.10	935	151.10	388	161.10	2061
135.05	2432	143.80	99	152.05	135	162.00	737
136.10	825	144.05	206	153.10	1077	162.90	62
137.05	1011	144.30	73	154.05	919	163.10	102
137.70	84	145.20	111	155.10	2060	163.95	154
138.10	62	146.15	717	156.10	3014	165.00	1345

Average of 2.931 to 2.942 min.: f187959.d\data.ms

dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
166.05	779	174.10	1367	184.00	253	193.95	468
167.05	7820	175.15	2697	184.30	208	195.20	248
168.10	3423	176.10	610	185.15	3086	196.05	4541
169.05	596	177.00	1240	186.10	22960	197.00	620
170.00	353	178.05	567	187.05	5772	198.00	144461
170.85	200	179.05	6020	188.15	505	199.00	9299
171.15	212	180.10	4100	189.10	1353	200.00	925
171.40	60	181.05	2238	190.00	157	200.90	148
172.05	709	182.05	270	191.00	428	201.55	947
173.10	967	182.95	294	192.10	2243	202.10	60
173.90	493	183.70	117	193.05	2636	203.10	1194

Average of 2.931 to 2.942 min.: f187959.d\data.ms

dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
204.10	6412	214.00	60	224.10	24318	234.00	212
205.10	10326	215.05	420	225.10	5356	234.15	533
206.10	37395	216.05	1055	226.00	455	235.00	639
207.10	4272	217.05	11373	226.20	177	236.05	484
208.10	1703	218.05	1198	227.10	10745	237.15	512
209.10	464	219.10	180	228.05	1621	238.00	104
210.15	537	219.90	201	229.05	2041	239.15	305
211.10	1454	221.10	7193	229.95	205	240.00	61
211.70	151	222.00	575	231.10	841	240.20	77
212.20	431	222.20	289	232.20	97	241.10	456
212.95	167	223.10	2910	233.10	174	242.10	1348

Average of 2.931 to 2.942 min.: f187959.d\data.ms

dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
243.00	1011	253.05	590	263.10	62	274.05	6574
244.10	17282	253.80	437	264.00	201	275.10	37208
245.15	2298	254.10	498	265.05	2255	276.05	4621
246.10	3442	255.10	84947	265.90	107	277.10	4146
247.05	796	256.10	11762	266.15	252	278.00	199
248.10	75	257.10	1113	267.00	65	278.90	69
249.10	696	258.10	5147	268.00	72	279.30	101
250.20	212	258.90	261	270.20	89	281.10	50
251.00	112	259.10	1023	271.05	58	281.85	164
252.15	178	260.00	149	272.15	527	282.95	328
252.40	86	260.90	103	273.05	2653	283.20	195

Average of 2.931 to 2.942 min.: f187959.d\data.ms

dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
284.15	266	293.80	153	309.80	56	322.30	119
285.15	566	295.10	77	310.10	91	323.10	3371
286.00	65	296.10	11606	310.30	72	324.10	636
286.30	98	297.10	1927	313.20	126	325.10	119
288.10	81	297.90	98	314.00	683	327.00	847
289.10	77	298.15	154	315.00	1244	328.05	385
290.00	52	301.00	171	316.00	145	329.10	108
290.40	62	302.05	274	316.20	719	330.80	77
291.75	156	303.05	1283	317.80	61	331.40	107
292.90	86	304.00	285	321.10	272	332.15	323
293.05	806	308.05	213	322.00	68	333.10	423

Average of 2.931 to 2.942 min.: f187959.d\data.ms

dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
334.05	1879	348.00	72	371.10	255	392.00	63
335.05	433	350.50	52	372.10	1951	400.80	82
336.00	71	352.05	948	373.00	461	401.00	55
338.90	51	352.95	622	377.10	106	402.10	691
341.00	455	354.05	917	381.90	53	403.05	877
341.95	135	355.05	189	382.80	55	403.95	253
342.30	80	364.10	106	383.00	612	410.20	77
343.10	85	365.00	5617	383.90	190	414.20	71
345.90	415	366.05	743	389.95	218	421.10	1009
346.10	221	366.90	71	390.20	116	422.05	751
347.00	127	371.00	50	391.10	289	423.05	5383

Average of 2.931 to 2.942 min.: f187959.d\data.ms

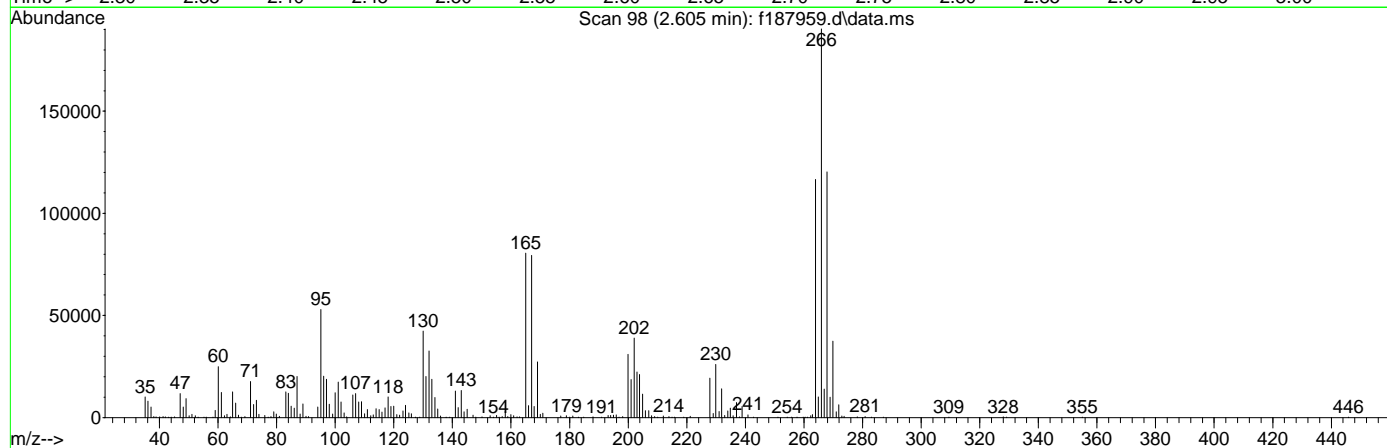
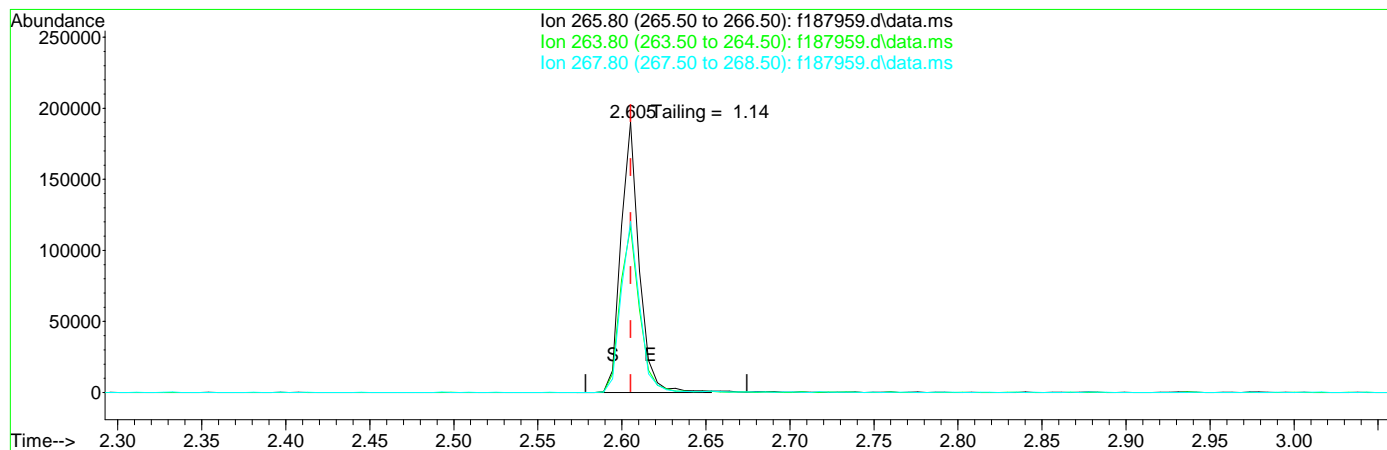
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
424.05	848						
425.05	253						
428.70	119						
430.70	66						
431.30	50						
432.40	77						
441.10	12616						
442.10	89544						
443.10	16883						
444.05	1498						

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\data_aimeel\ef8099\
 Data File : f187959.d
 Acq On : 19 Oct 2019 12:16 am
 Operator : chriss2
 Sample : dftpp
 Misc : op21602,ef8099,1000,,,1,1
 ALS Vial : 1 Sample Multiplier: 1
 Inst : GCMSF

Quant Method : C:\MSDCHEM\1\METHODS\DFTPPF.M
 Quant Results File: DFTPPF.RES
 Quant Time: Oct 21 05:02:53 2019
 Quant Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um
 QLast Update : Mon Oct 21 05:02:47 2019
 Response via : Initial Calibration



TIC: f187959.d\data.ms

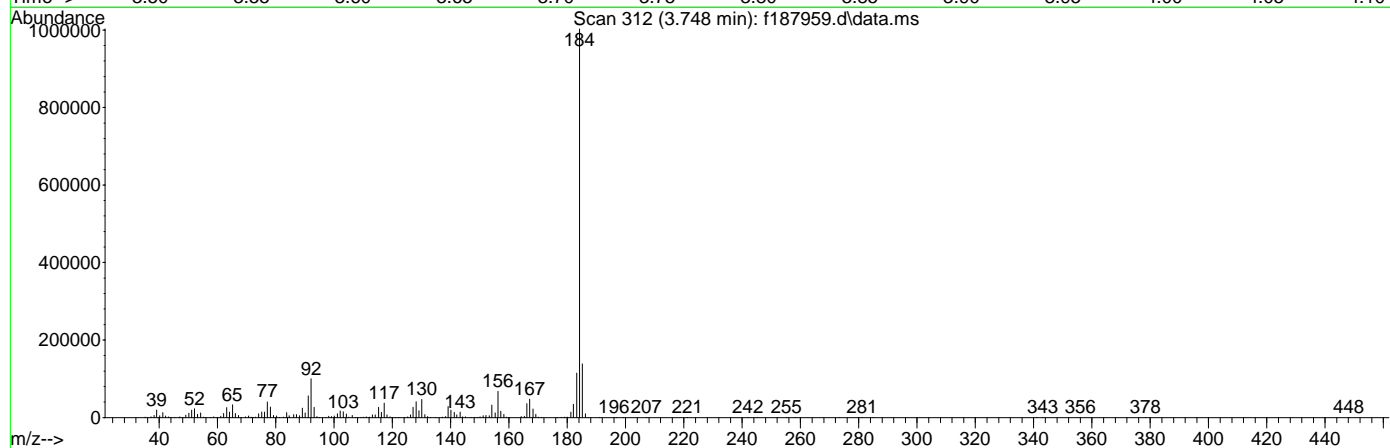
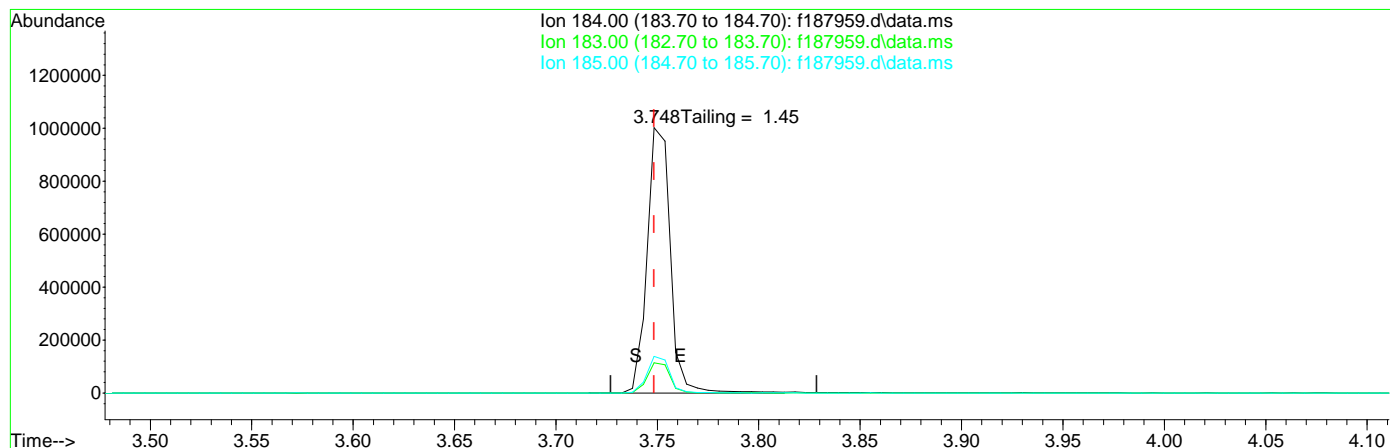
(1) Pentachlorophenol (t)
 2.605min (0.000) 77.91ppb
 response 144838

Ion	Exp%	Act%
265.80	100	100
263.80	61.20	61.16
267.80	63.20	63.10
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\data_aimeel\ef8099\
 Data File : f187959.d
 Acq On : 19 Oct 2019 12:16 am
 Operator : chriss2
 Sample : dftpp
 Misc : op21602,ef8099,1000,,,1,1
 ALS Vial : 1 Sample Multiplier: 1
 Inst : GCMSF

Quant Method : C:\MSDCHEM\1\METHODS\DFTPPF.M
 Quant Results File: DFTPPF.RES
 Quant Time: Oct 21 05:02:53 2019
 Quant Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um
 QLast Update : Mon Oct 21 05:02:47 2019
 Response via : Initial Calibration



TIC: f187959.d\data.ms

(2) Benzidine (t)

3.748min (0.000) 42.99ppb

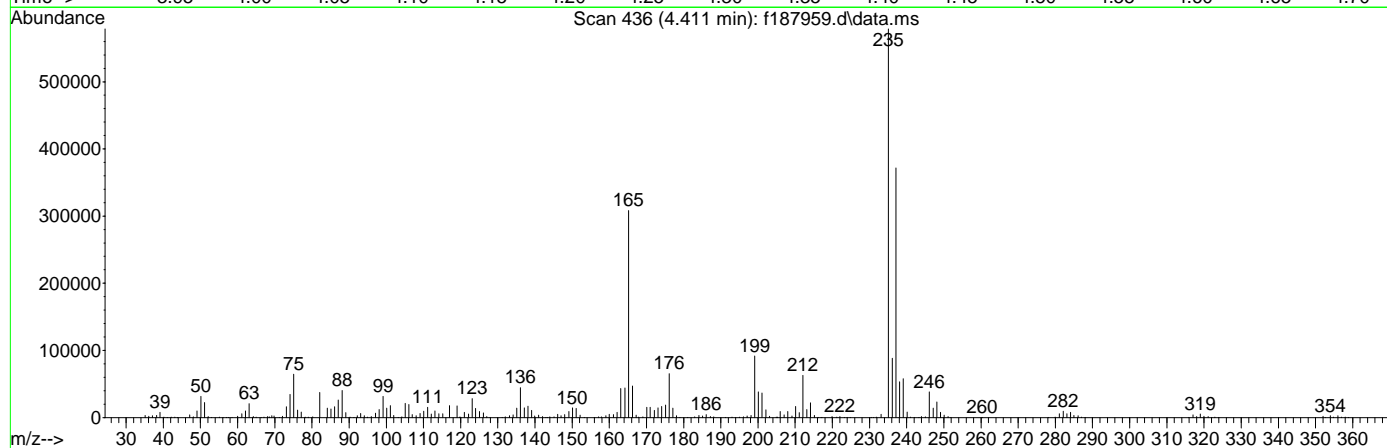
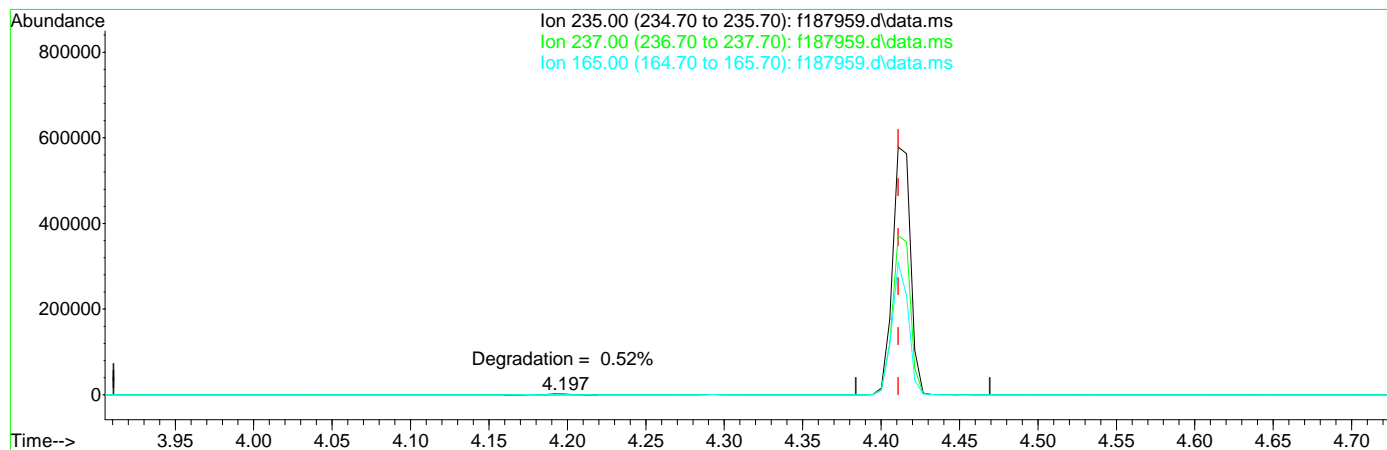
response 805391

Ion	Exp%	Act%
184.00	100	100
183.00	11.40	11.30
185.00	13.80	13.46
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\data_aimeel\ef8099\
 Data File : f187959.d
 Acq On : 19 Oct 2019 12:16 am
 Operator : chriss2
 Sample : dftpp
 Misc : op21602,ef8099,1000,,,1,1
 ALS Vial : 1 Sample Multiplier: 1
 Inst : GCMSF

Quant Method : C:\MSDCHEM\1\METHODS\DFTPPF.M
 Quant Results File: DFTPPF.RES
 Quant Time: Oct 21 05:02:53 2019
 Quant Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um
 QLast Update : Mon Oct 21 05:02:47 2019
 Response via : Initial Calibration



TIC: f187959.d\data.ms

(3) ddt (t)

4.411min (0.000) 29.85ppb

response 463459

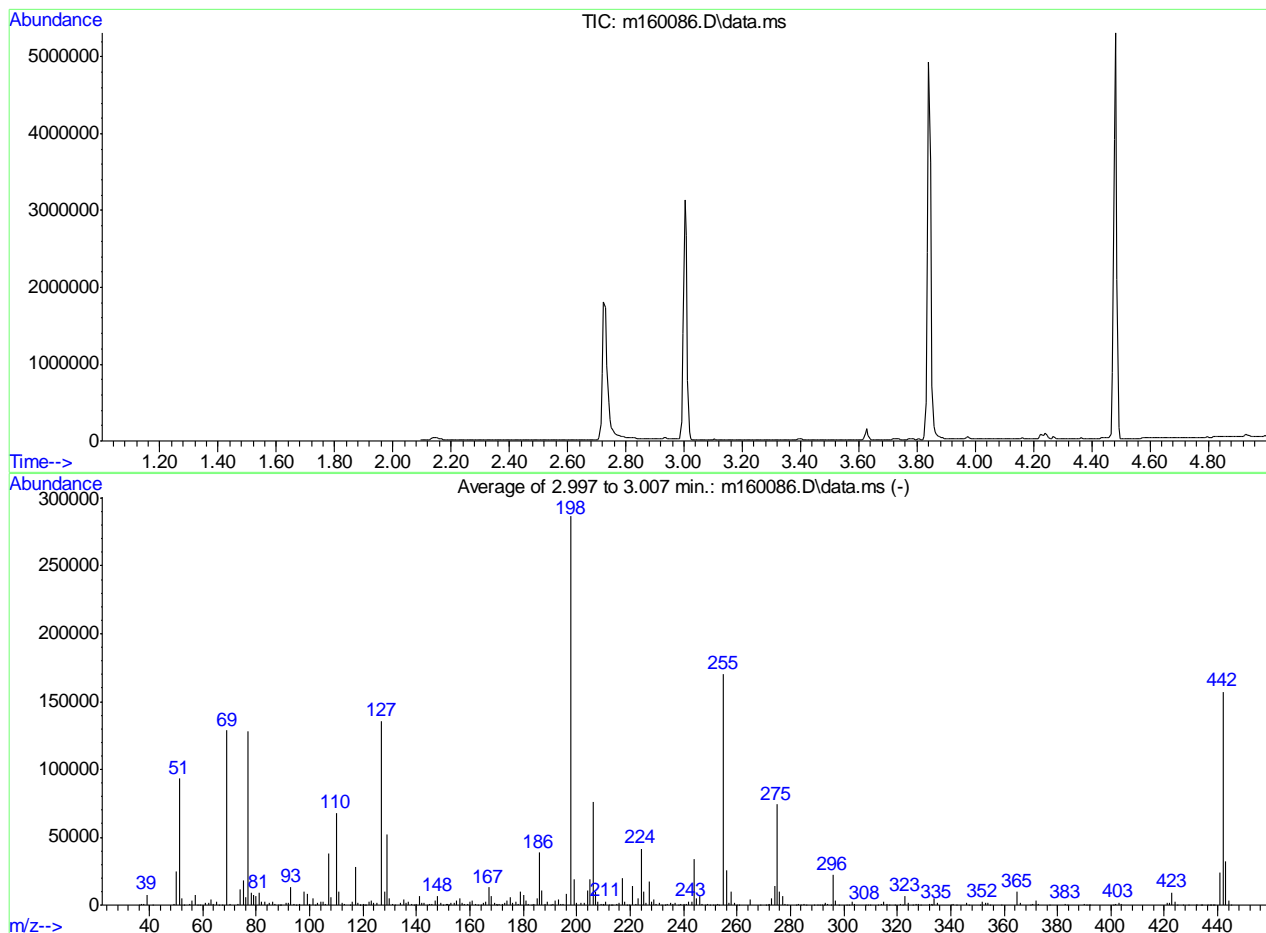
Ion	Exp%	Act%
235.00	100	100
237.00	64.20	64.15
165.00	53.30	48.89
0.00	0.00	0.00

DFTPPR

Data File : C:\msdchem\1\DATA\EM6772\m160086.D
 Acq On : 3 Oct 2019 7:56 pm
 Sample : dftpp
 Misc : op21044,em6772,1000,,1,1
 MS Integration Params: rteint.p

Vial: 1
 Operator: hennys
 Inst : MSM
 Multiplr: 1.00

Method : C:\MSDCHEM\1\METHODS\DFTPPM.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS rxi-5silms 30mSat Sep 21 08:34:58 2019



AutoFind: Scans 170, 171, 172; Background Corrected with Scan 165

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	32.5	93148	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	45.0	128856	PASS
70	69	0.00	2	0.5	641	PASS
127	198	40	60	47.3	135586	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	286464	PASS
199	198	5	9	6.7	19121	PASS
275	198	10	30	25.8	73989	PASS
365	198	1	100	3.4	9736	PASS
441	443	0.10	100	74.3	23667	PASS
442	198	40	100	54.9	157184	PASS
443	442	17	23	20.3	31861	PASS

m160086.D DFTPPM.M Fri Oct 04 11:50:32 2019

Average of 2.997 to 3.007 min.: m160086.D\data.ms

dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
35.95	260	56.00	2957	69.00	128856	82.00	2417
37.05	548	57.00	7193	69.95	641	83.00	2482
38.00	996	57.95	57	73.00	553	83.95	22
39.05	7463	59.00	77	74.00	11841	85.00	1953
41.05	17	61.00	1332	75.00	18464	85.95	2431
48.95	917	62.00	1538	76.05	6015	87.00	1262
50.05	24920	63.00	4226	77.00	127741	88.00	433
51.05	93148	64.00	719	78.00	9267	88.90	165
52.10	4892	65.00	2238	78.95	7399	89.10	70
53.00	90	66.00	366	80.00	6281	91.00	1820
54.95	529	67.00	112	81.00	8775	92.00	2034

Average of 2.997 to 3.007 min.: m160086.D\data.ms

dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
93.00	13468	104.95	2846	118.00	1963	128.00	10022
93.95	1065	106.00	561	118.80	120	129.00	51938
94.95	79	107.00	37880	119.00	228	129.95	4634
96.00	649	108.00	5731	119.95	603	130.95	927
98.00	10034	110.00	67874	120.60	72	131.95	430
99.00	8224	111.00	10161	120.95	218	133.95	1372
99.95	735	111.95	1302	122.00	2175	135.00	4177
101.00	4899	112.95	501	123.00	3428	135.95	1495
101.90	359	114.85	164	123.95	1581	137.00	2236
102.95	1385	116.00	2101	124.95	1505	138.00	531
104.00	2847	117.00	27832	127.00	135586	139.00	178

Average of 2.997 to 3.007 min.: m160086.D\data.ms

dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
140.00	776	151.00	874	159.95	2201	170.20	74
141.00	6630	151.55	455	161.00	3159	170.85	687
142.00	2023	151.90	165	161.95	838	171.95	1061
142.90	1376	152.10	209	163.00	331	172.95	1818
144.00	371	153.00	1958	164.05	427	174.00	3378
144.90	466	153.95	1592	164.90	1948	175.00	5554
145.90	892	154.95	3622	166.00	2196	175.95	1423
147.00	3284	156.00	5087	166.95	13111	177.00	2370
148.00	6778	157.05	1319	168.00	6711	178.00	811
149.00	1555	157.95	1104	169.00	1330	178.95	9974
149.95	435	158.95	900	169.95	505	180.00	7221

Average of 2.997 to 3.007 min.: m160086.D\data.ms

dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
181.00	3453	192.00	3171	205.00	18734	214.95	947
182.00	477	192.95	4002	206.00	76296	215.95	1872
182.95	347	194.00	1017	207.00	9908	216.90	19474
183.95	851	194.90	596	207.95	2604	217.95	2680
185.00	5009	196.00	8297	208.90	702	218.90	145
186.00	38530	197.90	286464	209.80	218	219.60	125
187.00	10863	198.90	19121	210.00	1068	221.00	14033
188.00	1200	199.95	1746	210.95	2752	222.00	1251
188.95	2339	201.45	1306	211.85	422	222.95	4614
190.00	435	202.95	1929	212.90	101	224.00	41738
190.90	1191	203.95	10957	213.10	123	225.00	10262

Average of 2.997 to 3.007 min.: m160086.D\data.ms

dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
226.00	1303	237.00	1648	247.95	441	259.00	1697
226.95	17009	238.10	159	248.95	1218	259.90	351
227.90	2288	238.90	720	249.90	144	260.90	284
228.95	3795	239.95	561	250.95	364	264.95	4488

229.85	827	240.95	979	251.95	416	268.70	91
230.95	1838	242.00	2347	252.95	732	270.90	332
231.90	322	243.00	2552	253.20	191	271.80	177
233.00	315	244.00	34298	255.00	170640	272.00	471
233.90	1208	244.95	4668	255.95	25518	272.95	4956
234.95	1335	246.00	6754	256.95	1950	274.00	13858
235.85	847	246.95	1235	257.95	9647	275.00	73989

Average of 2.997 to 3.007 min.: m160086.D\data.ms
dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
276.00	9932	290.95	221	303.00	2352	321.00	711
276.95	6256	291.90	222	304.00	703	321.90	382
277.95	1003	292.50	74	307.95	267	323.00	6688
278.95	240	292.90	1591	308.85	226	324.00	1352
282.10	81	293.85	515	309.85	198	325.90	82
282.95	918	295.00	199	312.90	188	326.90	1132
283.90	346	295.95	22295	314.00	1094	327.90	530
284.90	981	297.00	3207	314.90	2218	328.90	75
285.95	204	297.90	126	315.95	1170	331.95	448
288.85	196	300.95	188	317.00	170	332.80	71
289.95	290	301.95	397	318.90	74	333.00	594

Average of 2.997 to 3.007 min.: m160086.D\data.ms
dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
333.95	4586	354.90	415	389.90	466	423.95	2282
334.95	1327	359.00	332	390.95	304	425.00	259
340.10	86	364.90	9736	391.80	120	426.80	76
340.95	803	365.90	1433	392.00	97	429.00	90
342.00	219	370.00	147	400.85	200	431.80	69
345.90	1370	370.90	483	401.95	1263	432.20	75
346.90	336	372.00	3617	403.00	1866	433.50	80
351.00	69	373.00	1009	403.95	573	434.10	102
352.00	2335	377.00	67	420.95	1562	436.00	114
353.00	1506	382.90	999	421.90	1409	437.00	105
354.00	1970	383.85	248	422.95	9274	437.30	197

Average of 2.997 to 3.007 min.: m160086.D\data.ms
dftpp

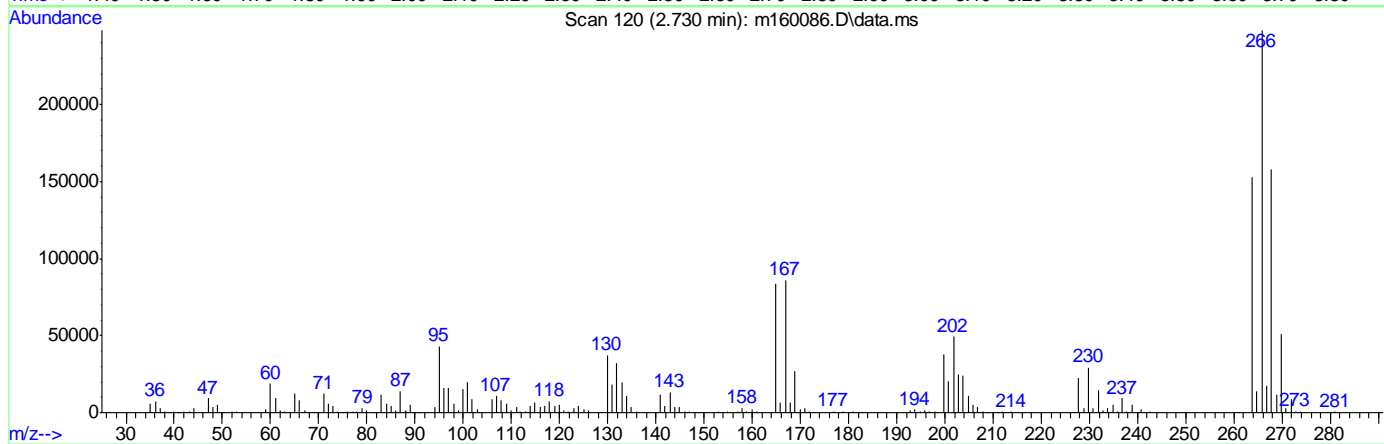
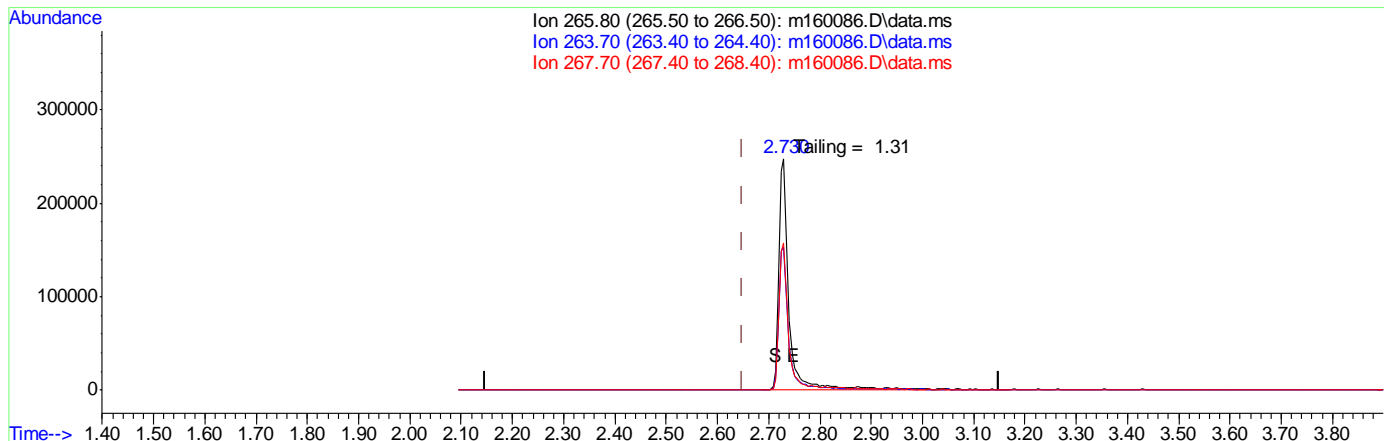
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
438.10	69						
438.90	246						
441.00	23667						
442.00	157184						
443.00	31861						
444.00	2977						
444.85	237						

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EM6772\
 Data File : m160086.D
 Acq On : 3 Oct 2019 7:56 pm
 Operator : hennys
 Sample : dftpp
 Misc : op21044,em6772,1000,,,1,1
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Oct 03 20:01:43 2019
 Quant Method : C:\MSDCHEM\1\METHODS\DFTPPM.M
 Quant Title : Semi Volatile Extractables by GC/MS rxi-5silms 30mSat Sep 21 08:34:58 2019
 QLast Update : Sat Sep 21 08:34:58 2019
 Response via : Continuing Cal File:



TIC: m160086.D\data.ms

(1) Pentachlorophenol (MC)

2.730min (+0.081) 0.00ppm

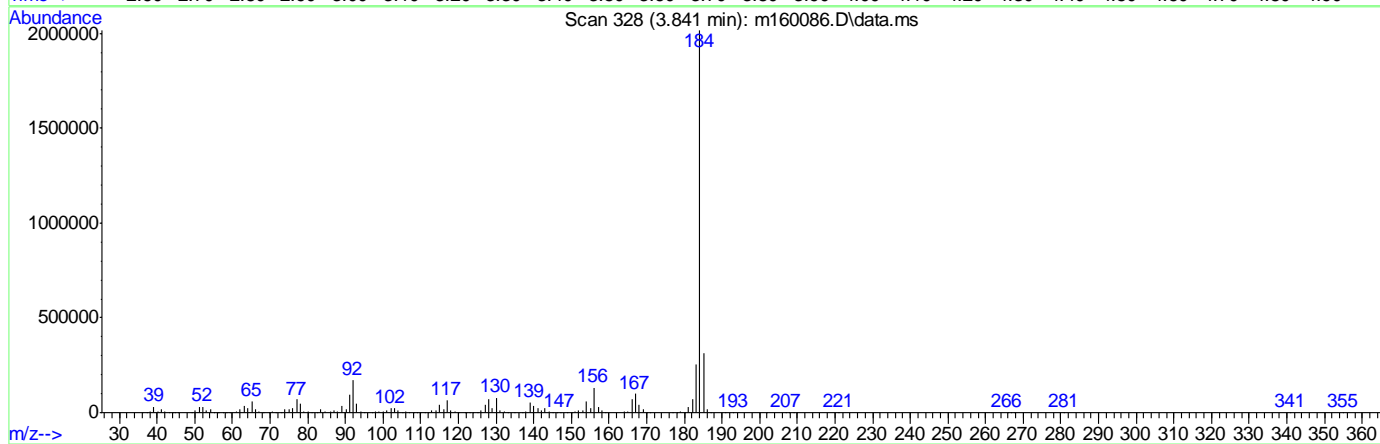
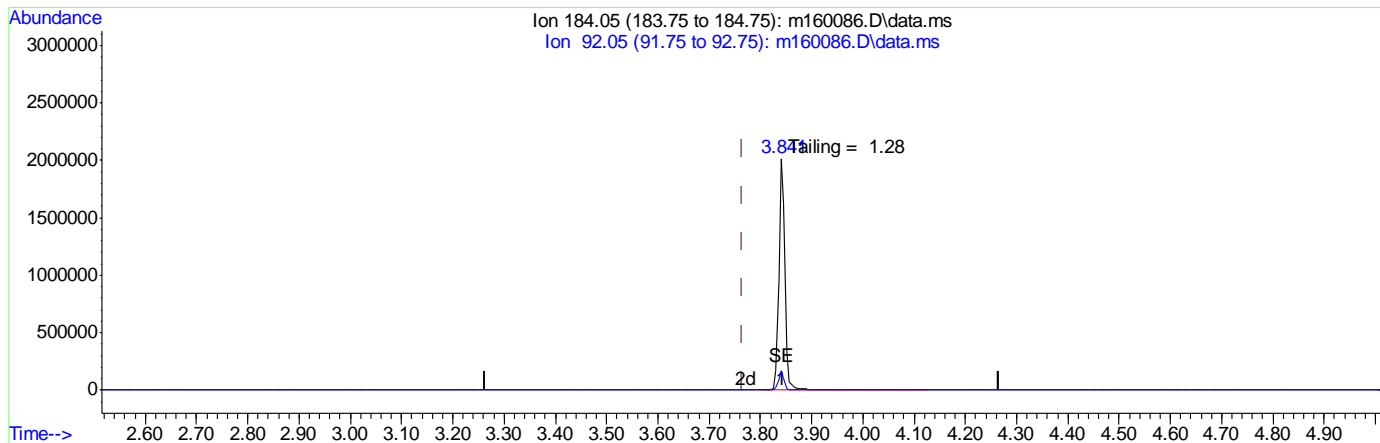
response 320261

Ion	Exp%	Act%
265.80	100	100
263.70	62.70	61.59
267.70	66.40	63.45
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EM6772\
 Data File : m160086.D
 Acq On : 3 Oct 2019 7:56 pm
 Operator : hennys
 Sample : dftpp
 Misc : op21044,em6772,1000,,,1,1
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Oct 03 20:01:43 2019
 Quant Method : C:\MSDCHEM\1\METHODS\DFTPPM.M
 Quant Title : Semi Volatile Extractables by GC/MS rxi-5silms 30mSat Sep 21 08:34:58 2019
 QLast Update : Sat Sep 21 08:34:58 2019
 Response via : Continuing Cal File:



TIC: m160086.D\data.ms

(2) Benzidine (M)

3.841min (+0.075) 0.00ppm

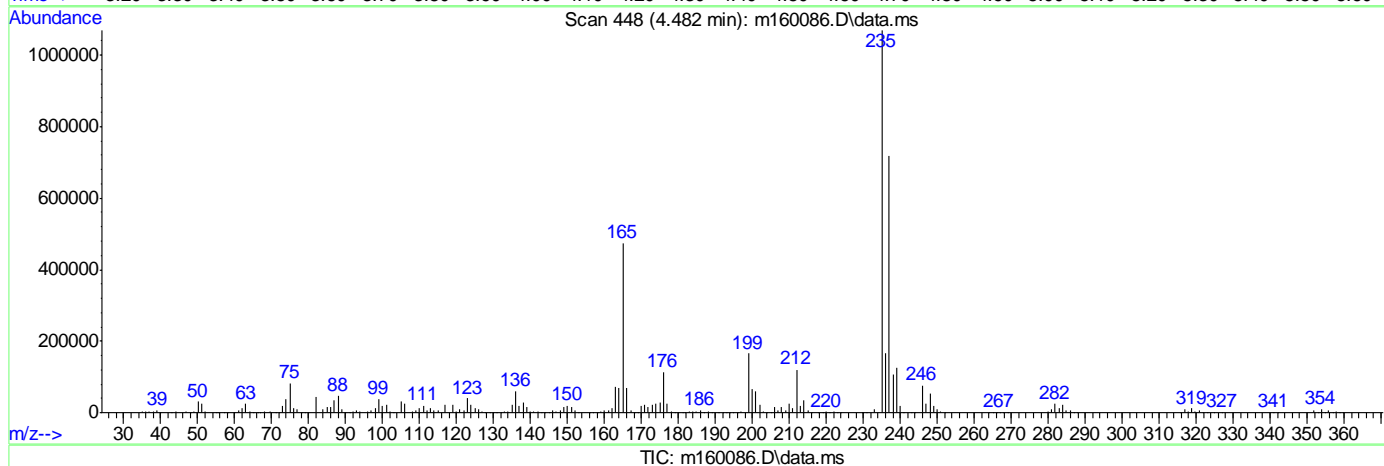
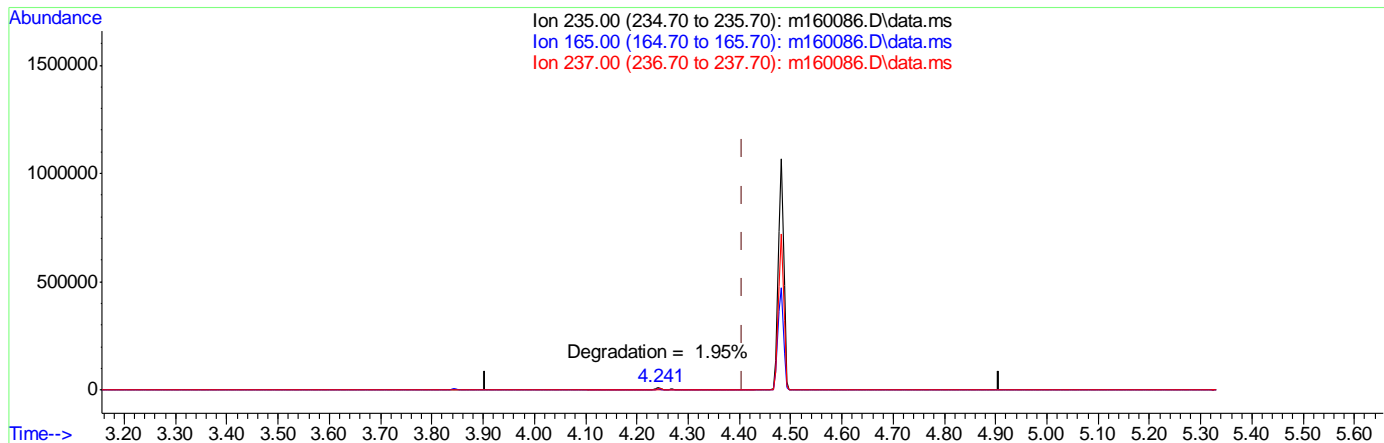
response 1712217

Ion	Exp%	Act%
184.05	100	100
92.05	9.90	8.51
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EM6772\
 Data File : m160086.D
 Acq On : 3 Oct 2019 7:56 pm
 Operator : hennys
 Sample : dftpp
 Misc : op21044,em6772,1000,,,1,1
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Oct 03 20:01:43 2019
 Quant Method : C:\MSDCHEM\1\METHODS\DFTPPM.M
 Quant Title : Semi Volatile Extractables by GC/MS rxi-5silms 30mSat Sep 21 08:34:58 2019
 QLast Update : Sat Sep 21 08:34:58 2019
 Response via : Continuing Cal File:



(3) PP-DDT (MC)

4.482min (+0.076) 0.00ppm

response 792703

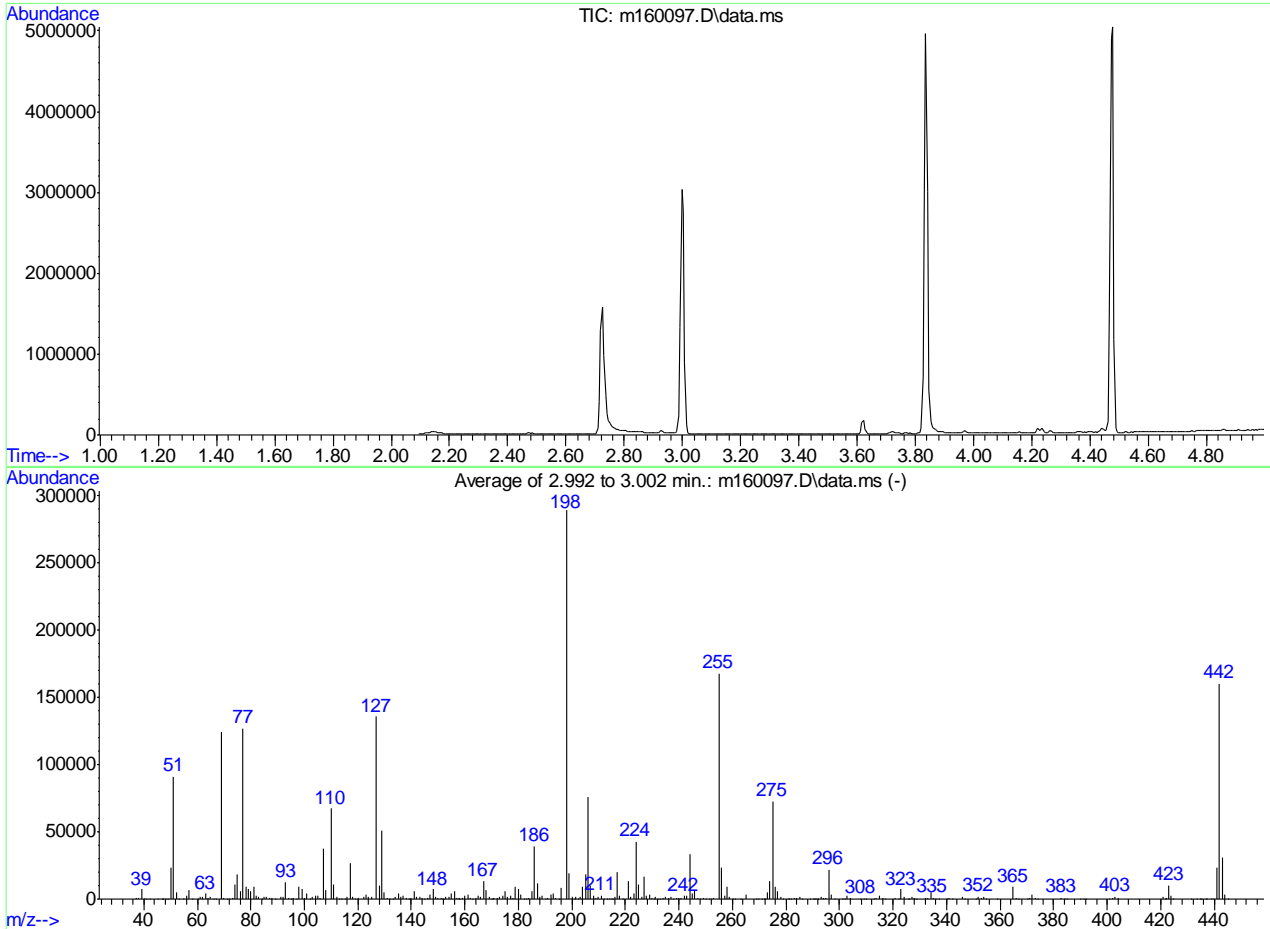
Ion	Exp%	Act%
235.00	100	100
165.00	50.40	44.28
237.00	65.60	67.22
0.00	0.00	0.00

DFTPPR

Data File : C:\msdchem\1\DATA\EM6773\m160097.D
 Acq On : 4 Oct 2019 12:23 am
 Sample : dftpp
 Misc : op21044,em6773,1000,,1,1
 MS Integration Params: rteint.p

Vial: 1
 Operator: hennys
 Inst : MSM
 Multiplr: 1.00

Method : C:\MSDCHEM\1\METHODS\DFTPPM.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS rxi-5silms 30mSat Sep 21 08:34:58 2019



AutoFind: Scans 169, 170, 171; Background Corrected with Scan 164

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result
51	198	30	60	31.6	91120	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	43.1	124296	PASS
70	69	0.00	2	0.5	576	PASS
127	198	40	60	47.0	135613	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	288640	PASS
199	198	5	9	6.7	19443	PASS
275	198	10	30	25.1	72549	PASS
365	198	1	100	3.1	8920	PASS
441	443	0.10	100	75.5	23580	PASS
442	198	40	100	55.5	160314	PASS
443	442	17	23	19.5	31242	PASS

m160097.D DFTPPM.M Fri Oct 04 12:59:59 2019

Average of 2.992 to 3.002 min.: m160097.D\data.ms

dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
37.00	478	50.05	23424	63.05	3923	75.00	18238
38.05	910	51.10	91120	63.95	608	76.10	5985
39.05	7231	52.05	4899	65.00	2101	77.00	126864
40.00	1	53.05	192	66.05	202	78.05	8865
41.00	334	54.95	399	67.00	64	79.00	7739
42.10	76	56.00	2834	69.00	124296	80.00	6063
44.95	345	57.00	6612	69.95	576	81.00	8826
46.90	109	58.05	379	71.05	214	82.00	2223
47.10	105	60.05	268	71.90	72	83.00	2105
48.00	66	61.00	1355	73.00	887	83.95	77
49.00	164	62.00	1477	74.00	11151	85.00	1490

Average of 2.992 to 3.002 min.: m160097.D\data.ms

dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
85.95	1948	98.00	8899	110.00	67234	122.00	2013
86.95	1073	99.00	7898	111.00	10966	123.00	3656
87.95	546	100.00	804	112.00	1318	123.95	1464
89.05	191	100.95	4445	112.95	393	125.00	1770
91.00	1793	101.90	352	114.00	71	127.00	135613
92.00	2053	103.00	1535	114.95	193	128.00	10010
93.00	12751	104.00	2572	116.05	1870	129.00	50658
94.00	744	105.00	2671	117.00	26877	129.90	4672
95.00	13	106.00	1199	117.95	1758	131.00	1000
95.95	639	107.00	37517	118.95	390	131.95	390
96.95	46	108.00	6644	120.00	517	132.90	107

Average of 2.992 to 3.002 min.: m160097.D\data.ms

dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
133.95	1609	144.95	347	155.00	3837	164.85	2439
135.00	3795	145.95	1264	156.00	5862	165.95	1979
135.95	1535	146.95	3360	157.05	1091	166.95	13367
137.00	2172	148.00	7147	157.80	222	168.00	6896
138.05	522	149.00	1671	158.00	864	168.95	1320
138.90	106	149.95	479	158.95	951	169.95	362
139.95	568	151.05	928	159.95	2330	170.30	182
141.00	6153	151.60	164	160.95	3063	171.00	448
141.95	1990	151.95	376	161.95	703	171.95	1094
142.95	1374	152.95	1914	162.95	253	173.00	1686
144.00	497	153.95	1562	164.00	491	174.00	2765

Average of 2.992 to 3.002 min.: m160097.D\data.ms

dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
175.00	5507	186.00	39378	197.90	288640	207.90	2630
176.00	1535	187.00	11282	198.90	19443	208.90	587
176.95	2314	187.95	1447	199.95	1895	209.95	1356
178.05	910	188.95	2608	200.75	235	210.95	2806
178.90	9565	189.95	362	201.40	1384	211.95	415
180.00	7579	191.00	1092	202.10	242	213.00	228
180.95	3313	191.95	3321	202.95	1727	213.95	154
182.00	406	193.00	4108	203.95	9520	214.80	393
182.90	370	193.95	910	205.00	18109	215.00	373
183.95	851	194.90	323	206.00	75722	215.95	1291
184.95	5446	196.00	8267	207.00	9659	216.90	19856

Average of 2.992 to 3.002 min.: m160097.D\data.ms

dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
217.90	2755	229.95	524	239.95	469	251.05	259
218.90	201	230.80	253	240.95	1076	251.95	411
221.00	13372	231.00	1473	242.00	2439	252.95	984
221.95	1519	231.90	348	243.00	2413	255.00	167653

223.00	4305	232.95	279	244.00	33335	255.95	23632
224.00	42661	233.90	1102	244.95	4512	256.90	2195
225.00	10690	234.95	1299	245.90	6273	257.95	9042
226.05	1305	235.95	740	246.90	1205	258.95	1563
226.95	17011	236.95	1524	247.95	359	259.95	390
227.95	2237	237.90	240	248.95	1184	260.90	213
228.90	3728	238.95	588	249.90	322	262.80	121

Average of 2.992 to 3.002 min.: m160097.D\data.ms

dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
264.95	3746	277.90	1392	290.70	104	301.95	392
268.80	155	278.95	348	290.90	71	302.95	2536
269.85	412	280.80	134	291.80	158	304.00	584
270.95	360	281.00	68	292.00	118	307.90	296
271.90	280	281.85	231	292.95	1544	308.90	116
272.10	232	282.95	925	293.90	505	310.00	213
272.95	5196	283.90	546	294.90	474	312.90	179
274.00	13671	284.95	1374	295.95	21865	313.85	1083
275.00	72549	285.90	162	296.95	3031	314.90	2260
276.00	9394	289.00	276	297.95	140	315.95	1216
276.95	5674	290.00	92	301.00	260	317.10	102

Average of 2.992 to 3.002 min.: m160097.D\data.ms

dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
320.95	770	332.95	526	351.95	1906	373.00	792
321.90	376	334.00	4651	353.00	1220	374.00	72
322.95	7296	335.00	1245	354.00	1989	382.95	857
323.95	1395	335.90	197	354.90	358	383.95	300
325.80	72	337.10	69	359.00	158	384.90	89
326.00	73	340.00	104	364.90	8920	390.00	436
326.90	1428	340.95	866	365.90	1239	391.00	221
327.80	75	341.95	302	366.80	79	391.90	100
327.95	722	345.90	1753	370.00	111	400.90	184
328.90	102	346.90	220	370.90	557	401.95	1246
331.95	546	350.90	87	372.00	3638	402.90	1712

Average of 2.992 to 3.002 min.: m160097.D\data.ms

dftpp

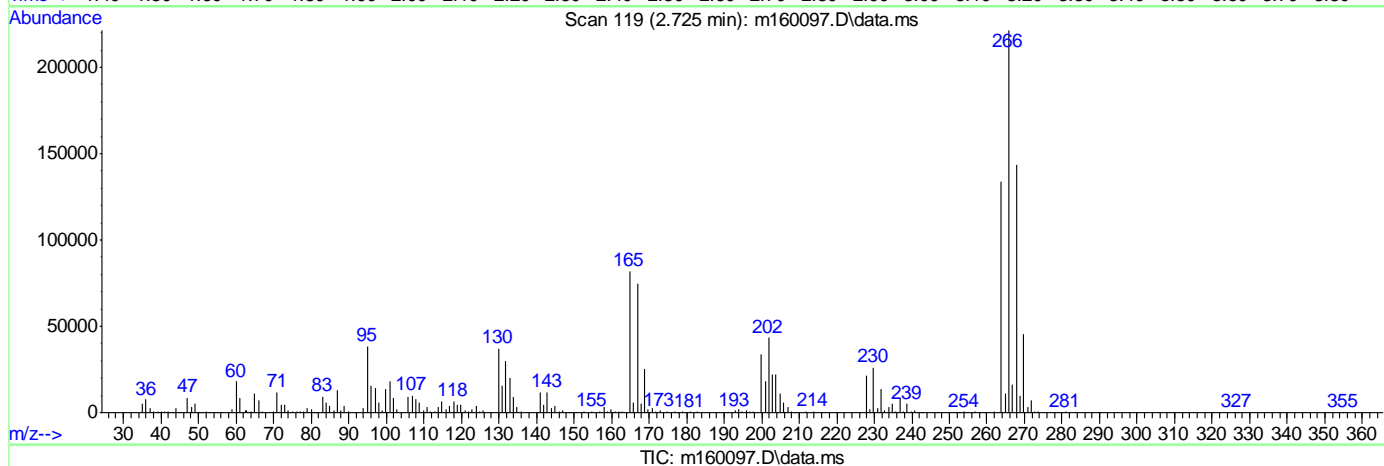
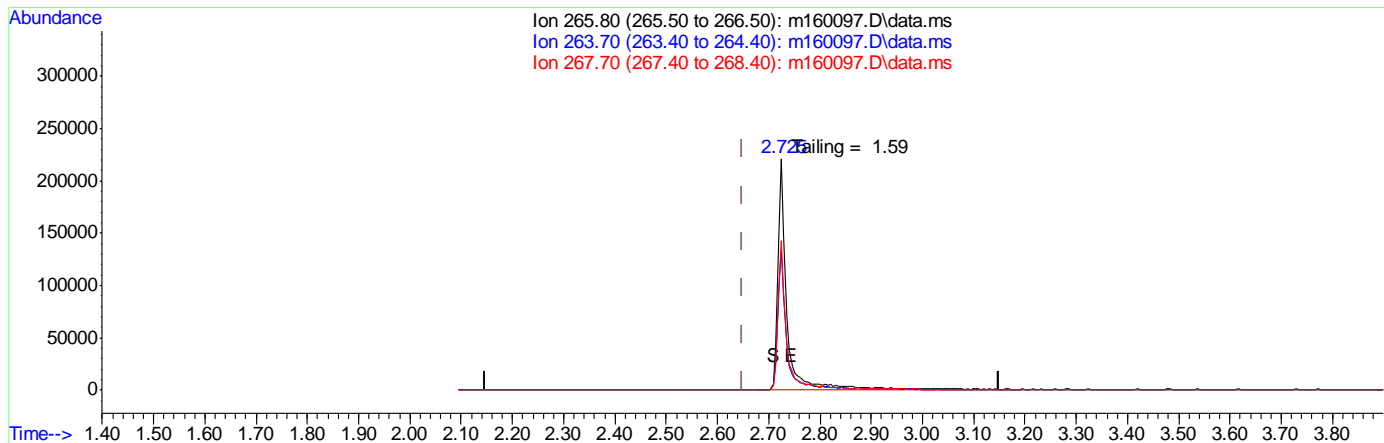
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
403.95	541	436.70	113				
421.00	1365	437.30	73				
421.70	96	438.70	114				
421.95	1123	439.70	98				
423.00	10027	441.00	23580				
423.95	2201	442.00	160314				
424.85	167	443.00	31242				
431.50	108	444.00	3039				
433.60	71	445.00	173				
434.90	71						
435.30	84						

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EM6773\
 Data File : m160097.D
 Acq On : 4 Oct 2019 12:23 am
 Operator : hennys
 Sample : dftpp
 Misc : op21044,em6773,1000,,,1,1
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Oct 04 00:28:55 2019
 Quant Method : C:\MSDCHEM\1\METHODS\DFTPPM.M
 Quant Title : Semi Volatile Extractables by GC/MS rxi-5silms 30mSat Sep 21 08:34:58 2019
 QLast Update : Sat Sep 21 08:34:58 2019
 Response via : Continuing Cal File:



(1) Pentachlorophenol (MC)

2.725min (+0.076) 0.00ppm

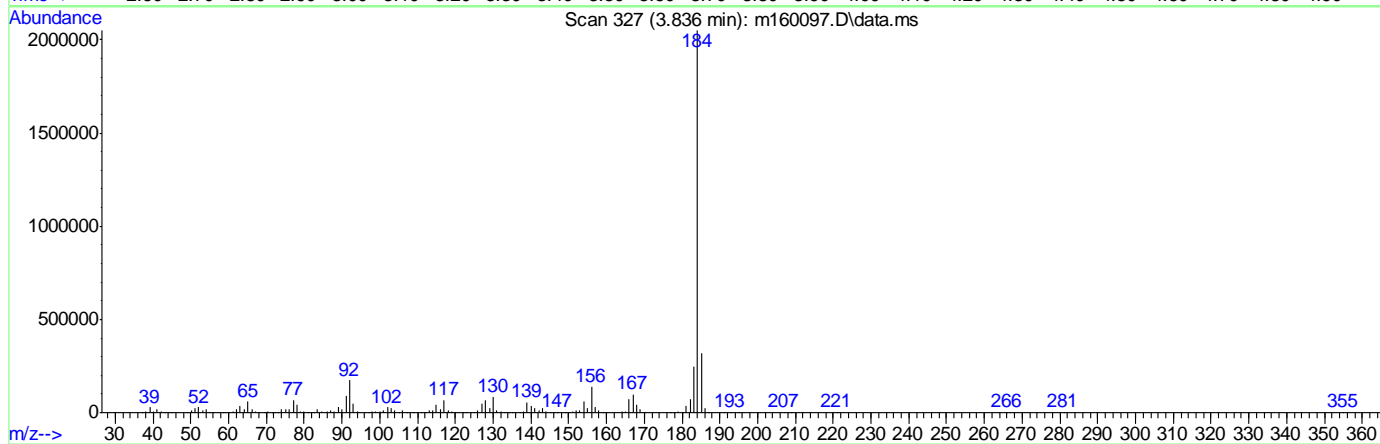
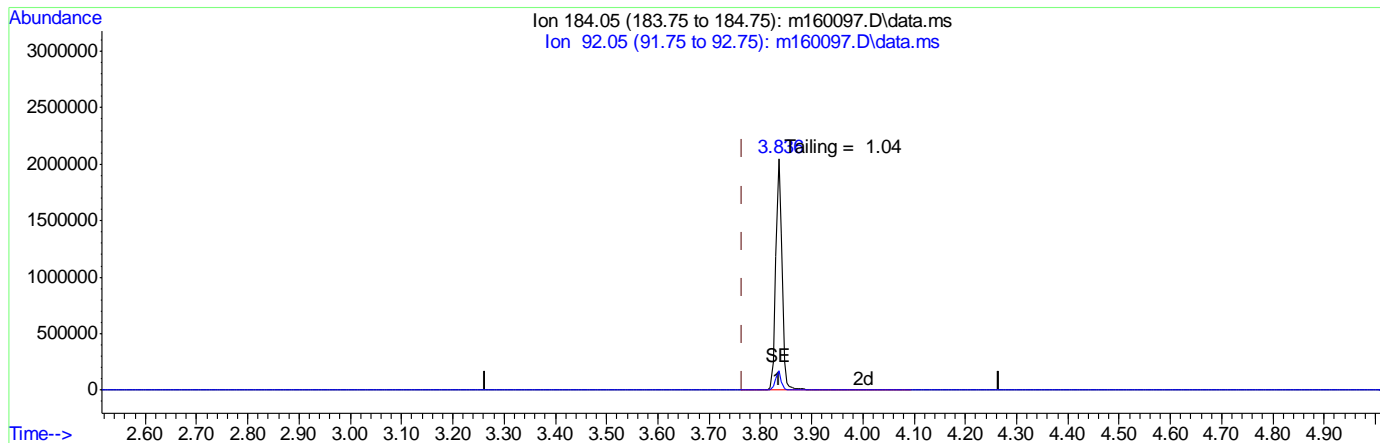
response 272136

Ion	Exp%	Act%
265.80	100	100
263.70	62.70	60.33
267.70	66.40	64.58
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EM6773\
 Data File : m160097.D
 Acq On : 4 Oct 2019 12:23 am
 Operator : hennys
 Sample : dftpp
 Misc : op21044,em6773,1000,,,1,1
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Oct 04 00:28:55 2019
 Quant Method : C:\MSDCHEM\1\METHODS\DFTPPM.M
 Quant Title : Semi Volatile Extractables by GC/MS rxi-5silms 30mSat Sep 21 08:34:58 2019
 QLast Update : Sat Sep 21 08:34:58 2019
 Response via : Continuing Cal File:



TIC: m160097.D\data.ms

(2) Benzidine (M)

3.836min (+0.070) 0.00ppm

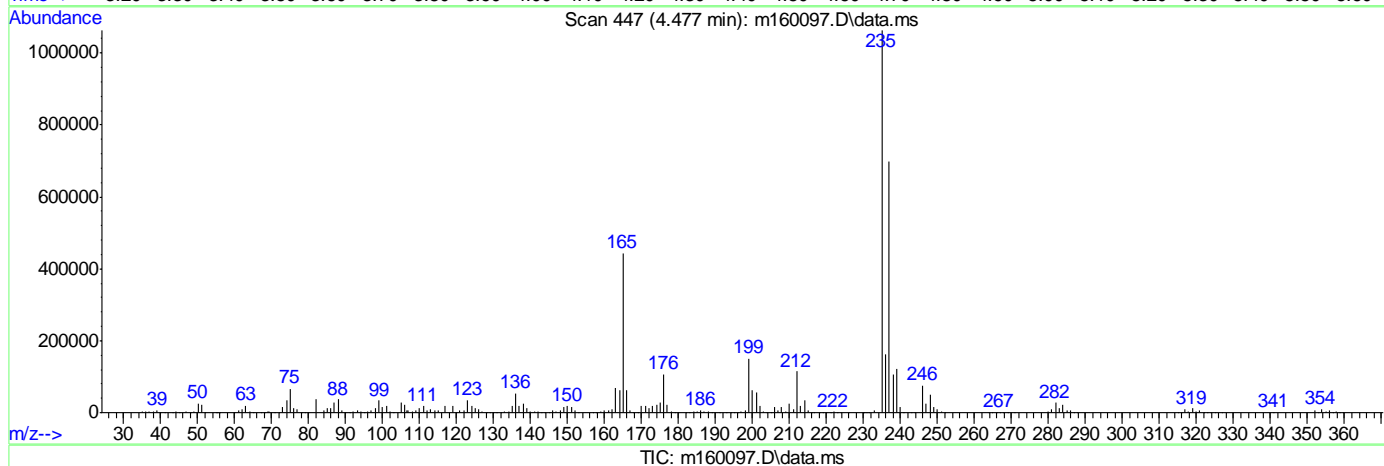
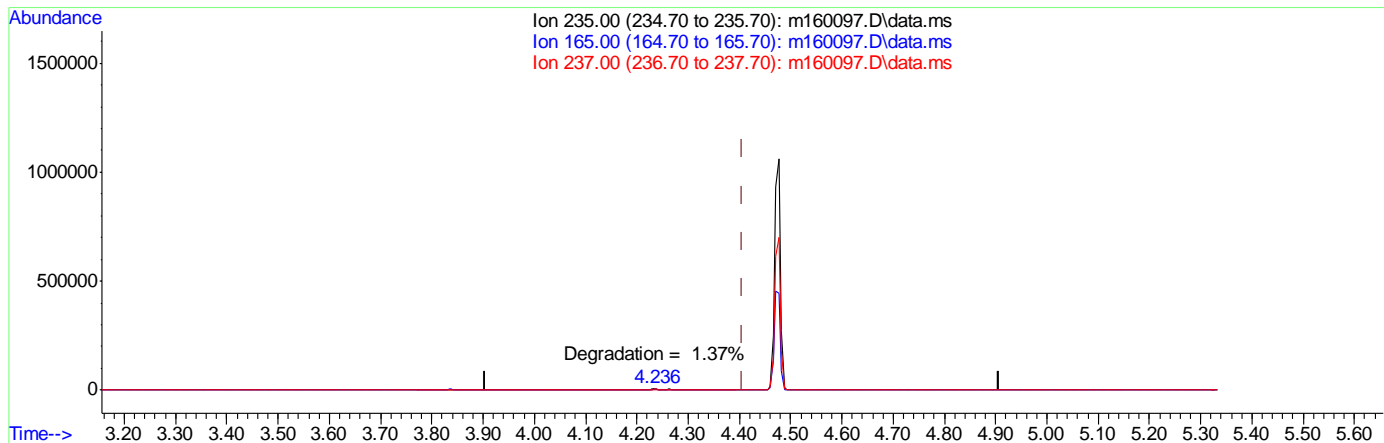
response 1727804

Ion	Exp%	Act%
184.05	100	100
92.05	9.90	8.48
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EM6773\
 Data File : m160097.D
 Acq On : 4 Oct 2019 12:23 am
 Operator : hennys
 Sample : dftpp
 Misc : op21044,em6773,1000,,,1,1
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Oct 04 00:28:55 2019
 Quant Method : C:\MSDCHEM\1\METHODS\DFTPPM.M
 Quant Title : Semi Volatile Extractables by GC/MS rxi-5silms 30mSat Sep 21 08:34:58 2019
 QLast Update : Sat Sep 21 08:34:58 2019
 Response via : Continuing Cal File:



(3) PP-DDT (MC)

4.477min (+0.071) 0.00ppm

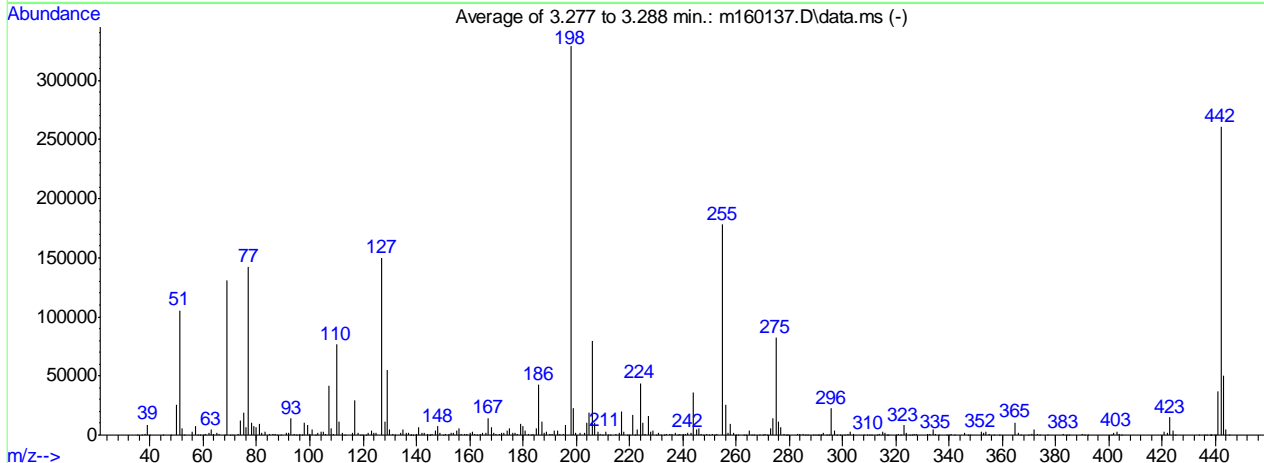
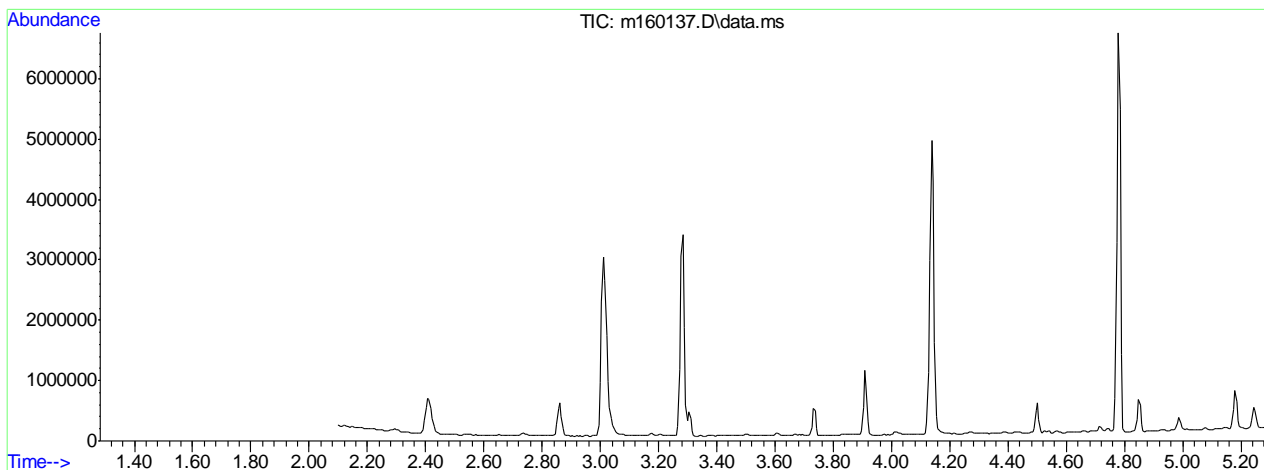
response 818427

Ion	Exp%	Act%
235.00	100	100
165.00	50.40	41.74
237.00	65.60	65.79
0.00	0.00	0.00

DFTPPR

Data File : C:\msdchem\1\DATA\EM6777\m160137.D Vial: 1
 Acq On : 7 Oct 2019 9:55 am Operator: hennys
 Sample : dftpp Inst : MSM
 Misc : op21044,em6777,1000,,1,1 Multiplr: 1.00
 MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\DFTPPM.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS rxi-5silms 30mSun Oct 06 13:37:34 2019



AutoFind: Scans 222, 223, 224; Background Corrected with Scan 216

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result
51	198	30	60	32.0	105279	PASS
68	69	0.00	2	0.4	477	PASS
69	198	0.00	100	39.8	130894	PASS
70	69	0.00	2	0.3	437	PASS
127	198	40	60	45.5	149552	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	328704	PASS
199	198	5	9	6.9	22592	PASS
275	198	10	30	25.0	82088	PASS
365	198	1	100	3.2	10535	PASS
441	443	0.10	100	73.1	36957	PASS
442	198	40	100	79.3	260672	PASS
443	442	17	23	19.4	50546	PASS

9.5.10
9

Average of 3.277 to 3.288 min.: m160137.D\data.ms

dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
35.00	333	56.00	3249	67.95	477	80.00	6471
37.00	253	57.00	7442	69.00	130894	81.00	9175
38.00	1216	57.95	395	70.05	437	82.00	2234
39.05	8788	58.95	101	71.05	95	83.00	2505
40.00	29	60.00	77	73.00	710	85.00	1294
45.00	57	61.00	1396	74.00	12013	85.90	1059
48.00	70	62.00	1577	74.95	19010	86.95	992
50.05	26082	62.95	4714	76.05	6504	87.95	365
51.05	105279	64.00	841	77.00	142169	89.00	413
52.10	5538	65.00	2260	78.00	10016	91.00	2068
53.05	392	66.00	579	79.00	7708	92.00	2187

Average of 3.277 to 3.288 min.: m160137.D\data.ms

dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
93.00	14117	104.00	2745	116.95	29035	129.00	55368
93.95	986	105.00	2700	118.00	2090	129.95	4783
95.00	49	106.05	1097	118.95	360	131.00	896
96.00	548	107.00	41767	119.90	502	131.95	393
97.00	216	108.00	6069	121.00	14	133.95	1456
98.00	10311	109.00	596	122.00	2400	135.00	4452
99.00	8352	110.00	76403	123.00	4109	136.00	1661
99.95	695	111.00	11594	123.95	1883	137.00	2210
101.00	5187	112.00	1627	124.95	1855	137.70	224
102.05	279	113.00	426	127.00	149552	138.05	360
102.95	1916	115.95	1946	128.00	11519	138.90	377

Average of 3.277 to 3.288 min.: m160137.D\data.ms

dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
139.95	698	149.90	335	161.00	3243	171.95	1471
141.00	6473	151.00	989	161.95	934	173.00	1689
141.95	2284	152.00	727	162.90	446	174.00	3467
143.00	1601	152.95	2027	164.00	663	175.00	5700
144.00	531	153.95	1902	164.90	1825	176.00	1829
144.95	476	154.95	3973	165.95	2083	176.95	2138
145.20	75	156.00	6107	167.00	14707	178.00	903
146.00	1121	156.95	1340	168.00	6872	178.95	9803
146.95	3602	157.95	1250	168.95	1468	180.00	7545
148.00	7173	158.95	996	170.00	519	181.00	3707
149.00	1677	160.00	2264	170.95	604	181.95	717

Average of 3.277 to 3.288 min.: m160137.D\data.ms

dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
182.90	492	194.00	877	207.00	10316	219.05	319
183.95	852	194.95	765	207.95	2850	219.80	183
185.00	5434	196.00	8435	208.95	606	221.00	17355
186.00	42512	197.90	328704	210.00	430	221.90	497
187.00	11698	198.90	22592	210.90	2968	223.00	4622
188.00	1535	199.95	1754	211.90	198	224.00	43925
188.90	2496	201.40	1606	213.00	382	225.00	10294
189.90	628	203.00	2242	214.90	894	225.95	1065
190.90	1159	203.95	10904	215.95	1565	227.00	16391
191.95	3370	205.00	18889	216.90	19989	227.95	2654
192.95	3522	206.00	79816	218.00	2587	228.95	3605

Average of 3.277 to 3.288 min.: m160137.D\data.ms

dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
229.85	287	240.95	1226	251.95	420	265.00	4002
231.00	1677	242.00	2358	252.95	841	265.80	288
231.90	234	243.00	2330	255.00	177949	266.85	16
232.95	435	244.00	36517	255.95	25472	268.90	82

233.95	1220	245.00	4952	256.90	1970	269.85	111
234.90	1423	245.95	6182	257.90	9272	271.00	530
235.95	739	246.90	1374	258.95	1505	271.90	426
237.00	1490	247.90	324	259.95	352	272.95	5871
237.95	211	248.95	1402	260.95	240	273.95	14426
238.95	847	249.95	424	262.90	89	275.00	82088
239.95	659	250.90	523	263.80	181	276.00	11432

Average of 3.277 to 3.288 min.: m160137.D\data.ms
dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
276.95	6341	290.80	88	300.90	345	315.95	1629
277.90	1185	291.10	103	301.95	578	316.80	110
278.90	151	291.80	157	302.95	2874	317.00	114
279.10	79	291.95	217	304.00	825	319.95	142
282.90	700	292.95	1605	307.90	335	320.95	834
284.00	602	293.90	428	309.00	68	321.95	425
285.00	1164	294.90	116	309.90	366	322.95	8166
286.00	150	295.90	22394	311.00	76	323.95	1481
287.00	66	296.90	3380	312.95	188	325.00	70
288.95	411	298.00	163	313.95	1351	325.90	74
289.90	198	299.10	73	314.90	2651	326.90	1373

Average of 3.277 to 3.288 min.: m160137.D\data.ms
dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
327.90	878	346.85	330	369.90	287	391.95	385
331.95	589	347.80	82	370.90	630	400.75	164
332.95	677	351.95	2504	372.00	4733	401.95	2116
334.00	4863	352.95	1565	372.95	1078	402.95	2948
334.95	1345	353.95	2595	373.80	70	403.95	971
336.00	69	355.00	642	376.90	200	404.90	144
338.90	78	356.90	144	382.90	1232	420.90	2436
339.90	70	358.95	233	383.95	336	421.95	2013
340.90	871	364.90	10535	384.90	77	422.95	15145
341.90	190	365.90	1644	389.95	634	423.95	3452
345.90	1731	366.90	89	390.95	402	425.00	126

Average of 3.277 to 3.288 min.: m160137.D\data.ms
dftpp

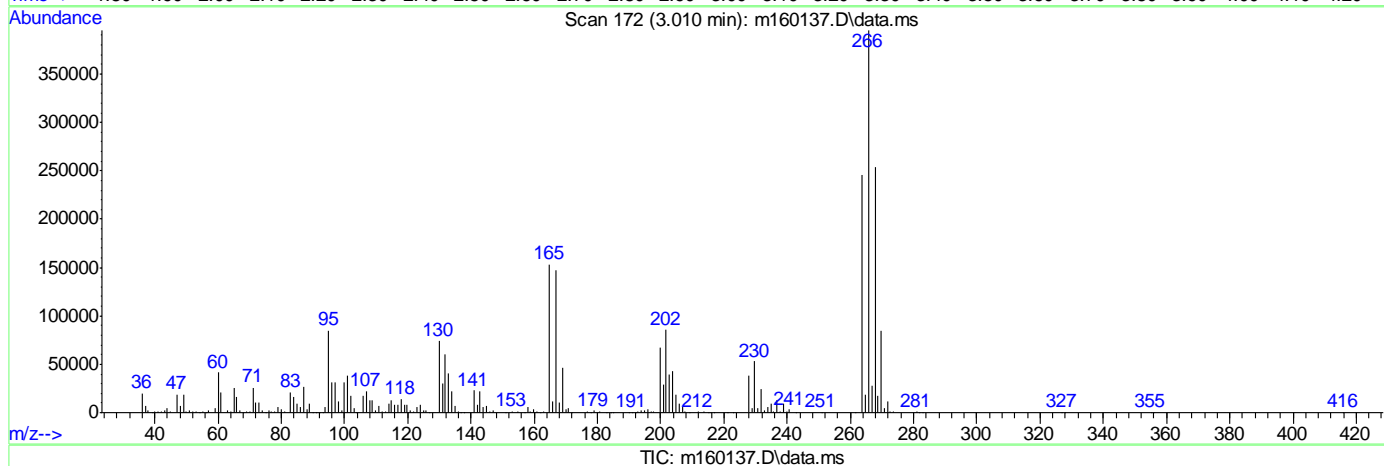
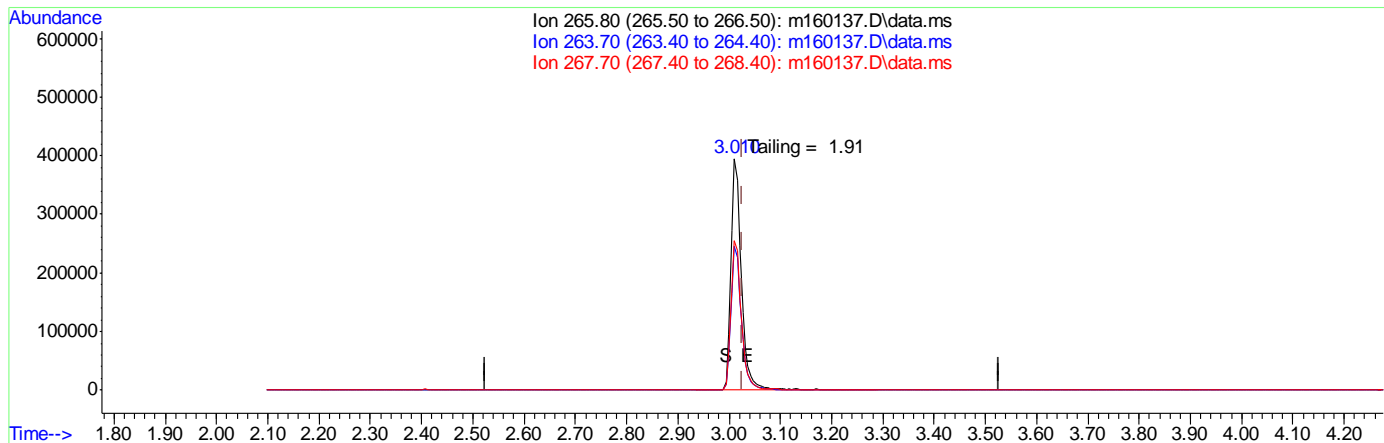
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
433.80	70	443.95	5197				
436.00	75	444.95	350				
436.80	89						
437.80	142						
438.30	73						
438.50	166						
439.60	73						
439.90	68						
440.95	36957						
442.00	260672						
442.95	50546						

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EM6777\
 Data File : m160137.D
 Acq On : 7 Oct 2019 9:55 am
 Operator : hennys
 Sample : dftpp
 Misc : op21044,em6777,1000,,,1,1
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Oct 07 10:00:52 2019
 Quant Method : C:\MSDCHEM\1\METHODS\DFTPPM.M
 Quant Title : Semi Volatile Extractables by GC/MS rxi-5silms 30mSun Oct 06 13:37:34 2019
 QLast Update : Sun Oct 06 13:37:34 2019
 Response via : Continuing Cal File:



(1) Pentachlorophenol (MC)

3.010min (-0.016) 0.00ppm

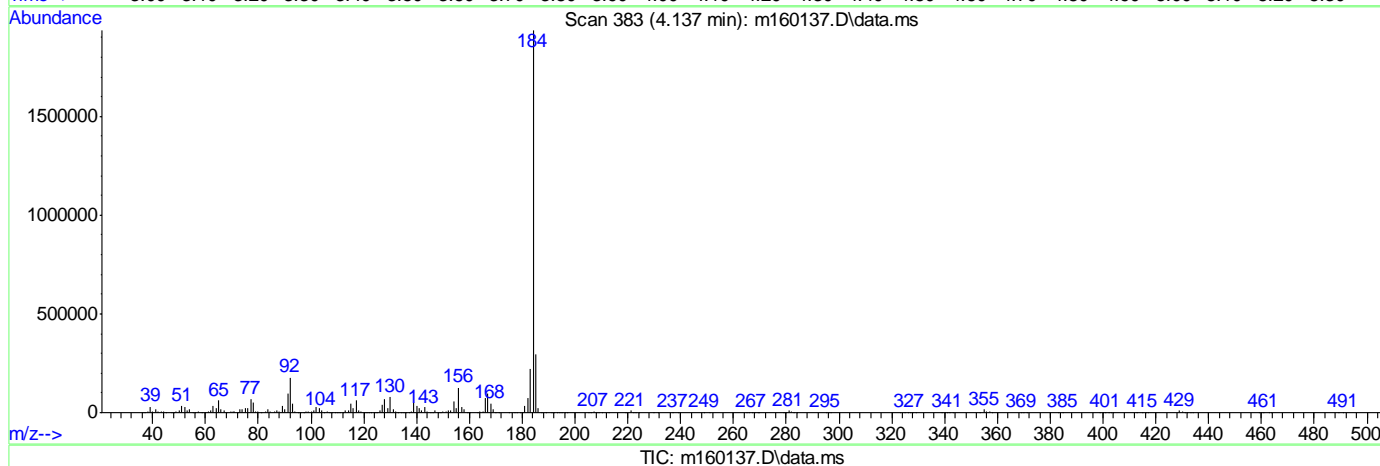
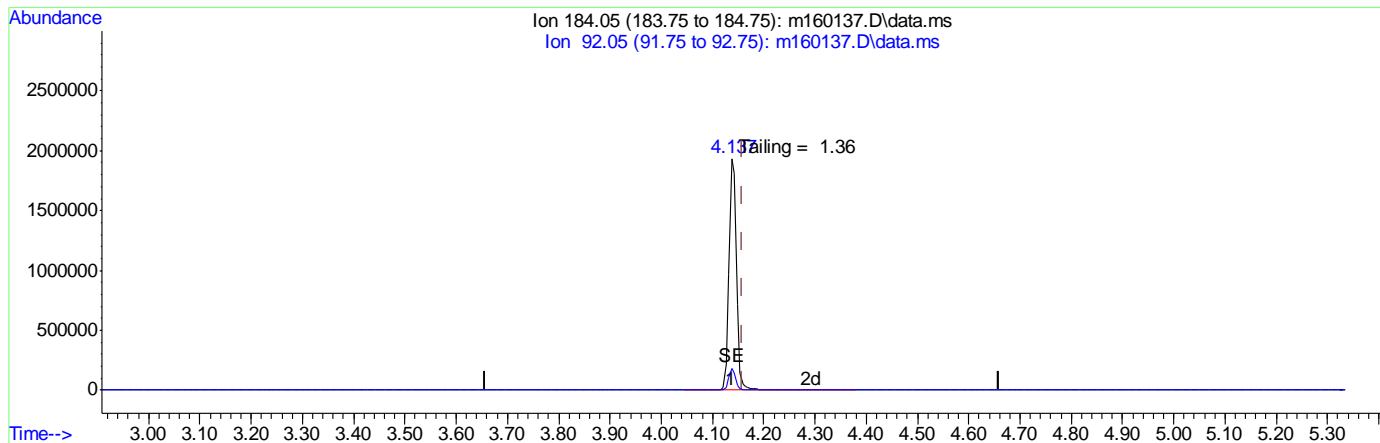
response 555043

Ion	Exp%	Act%
265.80	100	100
263.70	62.90	62.05
267.70	64.90	64.37
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EM6777\
 Data File : m160137.D
 Acq On : 7 Oct 2019 9:55 am
 Operator : hennys
 Sample : dftpp
 Misc : op21044,em6777,1000,,,1,1
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Oct 07 10:00:52 2019
 Quant Method : C:\MSDCHEM\1\METHODS\DFTPPM.M
 Quant Title : Semi Volatile Extractables by GC/MS rxi-5silms 30mSun Oct 06 13:37:34 2019
 QLast Update : Sun Oct 06 13:37:34 2019
 Response via : Continuing Cal File:



(2) Benzidine (M)

4.137min (-0.021) 0.00ppm

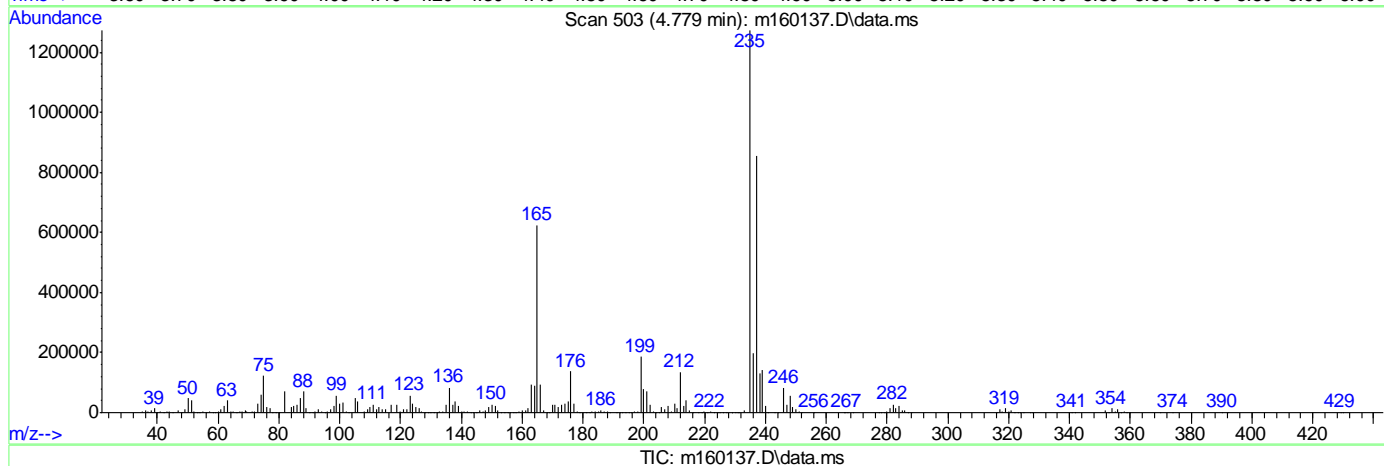
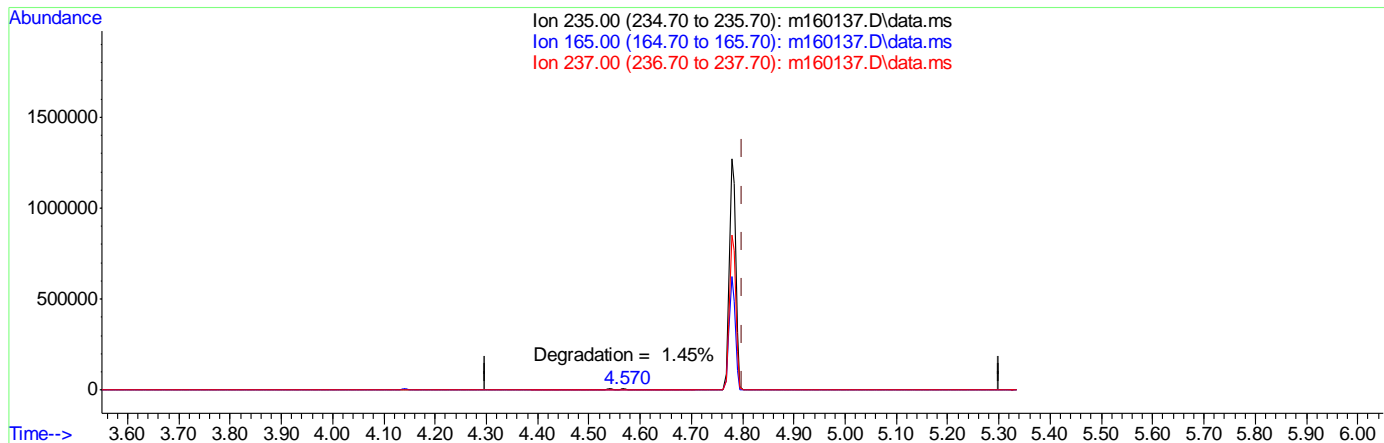
response 1932307

Ion	Exp%	Act%
184.05	100	100
92.05	7.70	9.20
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EM6777\
 Data File : m160137.D
 Acq On : 7 Oct 2019 9:55 am
 Operator : hennys
 Sample : dftpp
 Misc : op21044,em6777,1000,,,1,1
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Oct 07 10:00:52 2019
 Quant Method : C:\MSDCHEM\1\METHODS\DFTPPM.M
 Quant Title : Semi Volatile Extractables by GC/MS rxi-5silms 30mSun Oct 06 13:37:34 2019
 QLast Update : Sun Oct 06 13:37:34 2019
 Response via : Continuing Cal File:



(3) PP-DDT (MC)

4.779min (-0.021) 0.00ppm

response 1086200

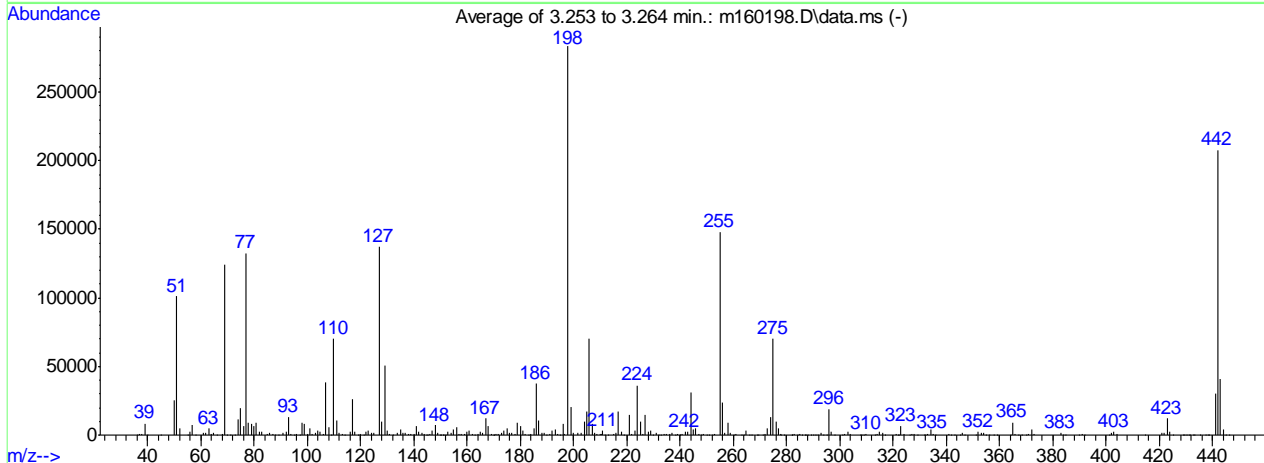
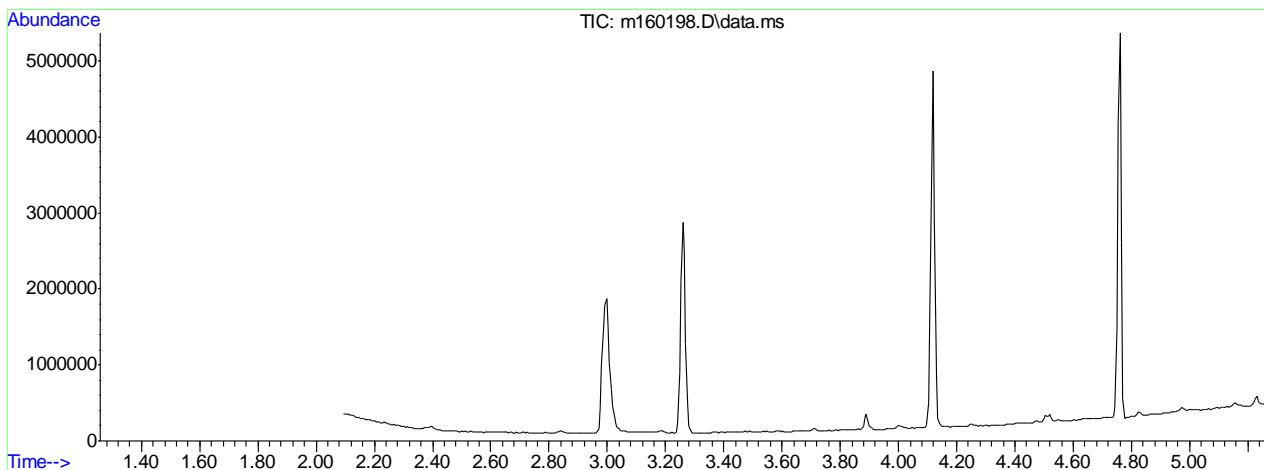
Ion	Exp%	Act%
235.00	100	100
165.00	41.70	49.07
237.00	67.40	67.14
0.00	0.00	0.00

DFTPPR

Data File : C:\msdchem\1\DATA\EM6780\m160198.D
 Acq On : 10 Oct 2019 8:51 am
 Sample : dftpp
 Misc : op21044,em6780,1000,,1,1
 MS Integration Params: rteint.p

Vial: 1
 Operator: hennys
 Inst : MSM
 Multiplr: 1.00

Method : C:\MSDCHEM\1\METHODS\DFTPPM.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS rxi-5silms 30mSun Oct 06 13:37:34 2019



AutoFind: Scans 218, 219, 220; Background Corrected with Scan 212

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	35.7	101101	PASS
68	69	0.00	2	0.9	1083	PASS
69	198	0.00	100	43.8	123969	PASS
70	69	0.00	2	0.2	204	PASS
127	198	40	60	48.3	136912	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	283264	PASS
199	198	5	9	7.1	20173	PASS
275	198	10	30	24.7	69986	PASS
365	198	1	100	3.3	9354	PASS
441	443	0.10	100	75.0	30482	PASS
442	198	40	100	73.3	207573	PASS
443	442	17	23	19.6	40664	PASS

9.5.11
9

Average of 3.253 to 3.264 min.: m160198.D\data.ms

dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.00	85	57.00	7782	71.10	63	83.00	2323
37.00	543	58.00	289	73.00	89	85.00	1255
38.00	1131	61.05	1423	74.00	11334	85.95	1826
39.10	8283	62.00	1287	75.00	19386	86.95	918
40.00	216	63.00	4670	76.05	6465	87.90	434
45.05	365	64.00	728	77.00	132669	89.05	362
49.95	25680	65.00	2048	78.00	9050	91.00	1776
51.00	101101	65.95	148	79.00	8388	92.00	2316
52.05	5320	68.00	1083	80.00	6188	93.00	13250
55.05	208	69.00	123969	81.00	8923	93.95	945
56.00	2635	70.00	204	82.00	2215	95.05	192

Average of 3.253 to 3.264 min.: m160198.D\data.ms

dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
96.00	558	107.00	38309	118.95	144	131.00	662
97.05	98	108.00	5850	119.95	639	131.95	254
97.95	9352	109.00	439	121.05	39	133.95	1359
99.00	7888	109.95	70202	121.90	2129	135.00	4011
100.00	830	111.00	10663	123.00	3655	135.95	1627
100.95	4882	111.95	1323	123.95	1562	136.95	1601
101.95	519	113.05	666	125.00	1448	138.00	632
102.95	1391	114.00	234	127.00	136912	139.05	463
103.95	3022	116.00	2122	128.00	10115	140.00	814
105.00	2382	117.00	26252	129.00	50953	140.95	6195
106.00	1132	117.95	2192	130.00	3467	141.95	2193

Average of 3.253 to 3.264 min.: m160198.D\data.ms

dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
142.90	1422	151.20	443	161.95	717	171.90	1223
144.00	641	151.90	363	162.95	293	173.00	1772
144.90	188	152.95	2099	164.00	653	174.00	3326
145.05	336	153.90	1629	164.90	2249	175.00	4951
145.90	1106	155.00	3845	166.00	1738	175.95	1540
147.00	3157	156.00	5669	166.95	12246	176.90	1932
147.95	7292	156.95	1147	167.95	6382	177.95	596
148.95	1442	157.95	1184	169.00	1089	178.95	8800
149.90	263	158.95	999	169.85	106	179.95	6310
150.10	205	159.95	2275	170.10	258	181.00	3317
150.95	108	160.95	2906	171.00	525	181.90	461

Average of 3.253 to 3.264 min.: m160198.D\data.ms

dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
183.05	112	193.95	708	206.00	70280	216.90	17276
184.00	832	195.00	427	207.00	8190	217.95	2331
185.00	4703	196.00	8180	208.00	1884	218.95	326
186.00	37237	196.60	591	208.95	693	221.00	14962
187.00	11010	197.90	283264	210.05	1117	221.90	625
188.00	1325	198.90	20173	210.30	486	222.90	3561
188.95	1705	199.85	1709	211.00	2898	224.00	36181
189.90	390	201.50	1469	211.85	367	225.00	9590
190.95	817	202.90	1850	213.00	28	226.00	1203
192.00	3327	204.00	9647	214.90	836	227.00	14549
193.00	3803	204.95	16912	215.95	1339	227.95	2612

Average of 3.253 to 3.264 min.: m160198.D\data.ms

dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
228.95	3015	239.80	116	249.95	321	262.95	155
229.80	434	240.00	302	250.85	364	263.95	350
230.95	1301	240.95	718	252.00	417	264.95	3365
231.95	317	241.95	2344	252.95	873	265.80	132

232.95	420	243.00	2320	255.00	148176	266.85	116
233.95	1006	244.00	31434	256.00	23578	268.90	318
234.90	1206	245.00	4177	256.95	1787	269.40	79
235.95	840	245.95	5208	257.95	8822	270.95	415
237.00	1406	246.95	1245	258.95	1695	271.95	506
238.05	167	248.00	313	260.00	179	272.95	4738
238.95	791	248.95	1090	261.00	472	273.95	13263

Average of 3.253 to 3.264 min.: m160198.D\data.ms
dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
275.00	69986	286.00	178	295.95	18881	312.95	218
275.95	9537	287.00	94	296.90	2473	314.00	947
276.95	5271	287.20	98	297.85	266	314.90	2194
277.80	193	287.70	72	300.85	242	315.95	1274
277.95	785	288.95	294	301.95	470	317.00	281
278.95	354	289.90	80	303.00	2521	321.00	696
281.80	114	291.05	170	303.90	652	321.90	213
282.00	27	291.85	289	307.80	84	322.20	108
282.90	710	292.90	1429	308.00	122	322.95	6838
284.00	422	293.95	428	309.10	86	324.00	1236
284.95	1214	295.00	292	309.95	460	326.00	207

Average of 3.253 to 3.264 min.: m160198.D\data.ms
dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
326.90	1223	343.00	90	358.90	80	383.85	246
327.90	806	345.10	87	364.10	88	384.90	74
328.95	170	345.90	1596	364.90	9354	389.90	322
331.80	184	346.95	312	365.85	1130	390.95	652
332.00	370	351.00	249	366.90	68	392.00	236
332.95	624	351.95	2238	368.10	87	400.95	267
334.00	4423	352.95	1440	370.00	195	401.90	1562
334.95	1077	353.95	1964	370.95	728	402.95	2278
336.00	67	355.00	270	371.95	4015	403.90	707
340.90	962	356.00	142	372.95	1021	414.80	71
341.90	318	357.70	71	382.90	1301	420.90	1610

Average of 3.253 to 3.264 min.: m160198.D\data.ms
dftpp

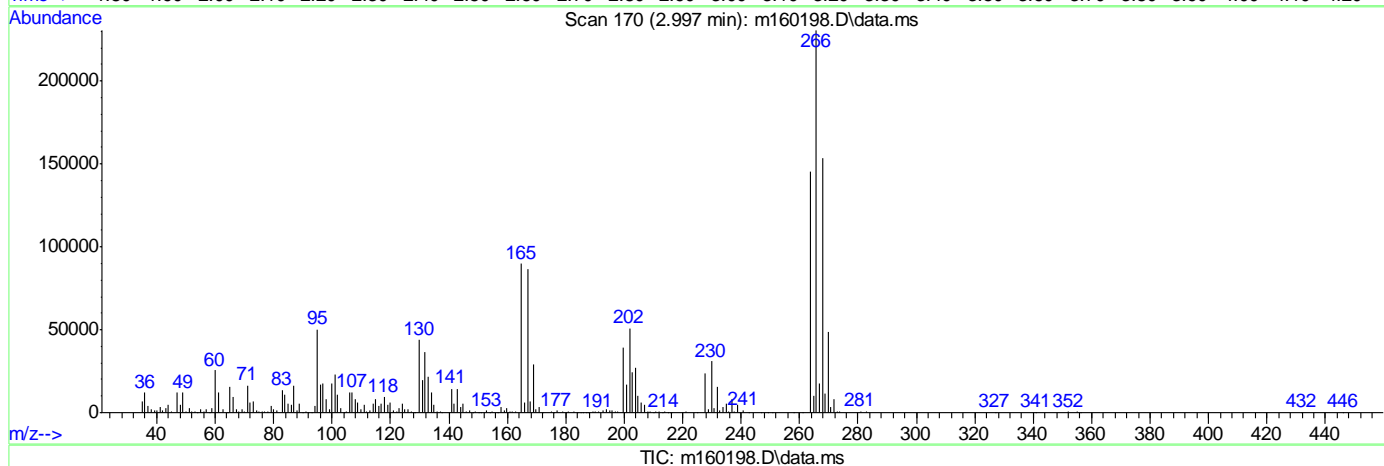
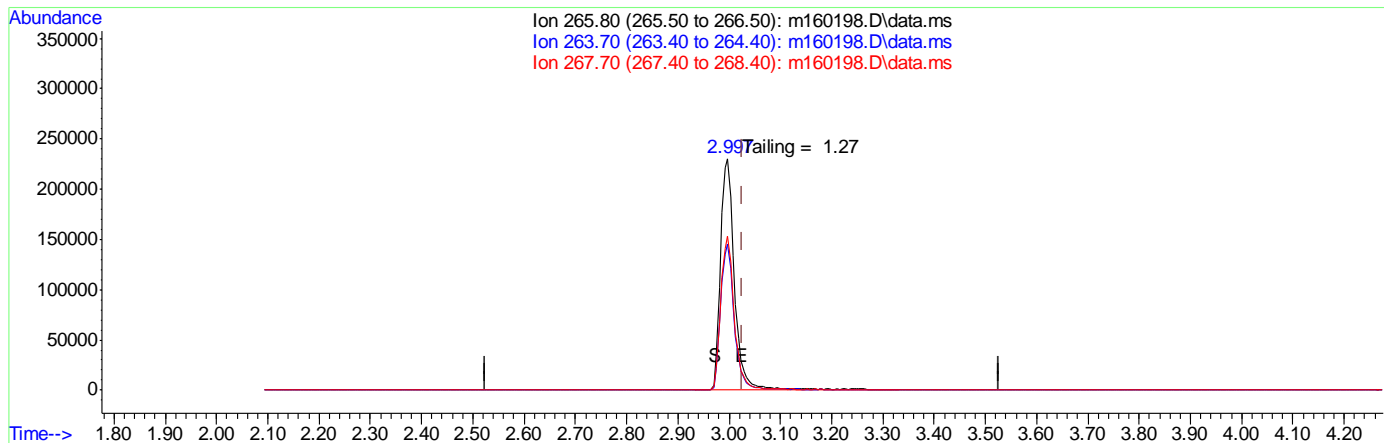
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
421.90	1634	435.20	108				
422.95	12266	437.50	102				
423.95	2339	438.00	83				
425.00	121	438.40	110				
428.80	67	440.95	30482				
429.20	71	441.95	207573				
430.00	94	442.95	40664				
431.10	73	443.95	3885				
431.60	67	444.85	321				
432.80	98	446.00	83				
433.00	91						

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EM6780\
 Data File : m160198.D
 Acq On : 10 Oct 2019 8:51 am
 Operator : hennys
 Sample : dftpp
 Misc : op21044,em6780,1000,,,1,1
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Oct 10 08:56:37 2019
 Quant Method : C:\MSDCHEM\1\METHODS\DFTPPM.M
 Quant Title : Semi Volatile Extractables by GC/MS rxi-5silms 30mSun Oct 06 13:37:34 2019
 QLast Update : Sun Oct 06 13:37:34 2019
 Response via : Continuing Cal File:



(1) Pentachlorophenol (MC)

2.997min (-0.029) 0.00ppm

response 434471

Ion	Exp%	Act%
265.80	100	100
263.70	62.90	63.01
267.70	64.90	66.40
0.00	0.00	0.00

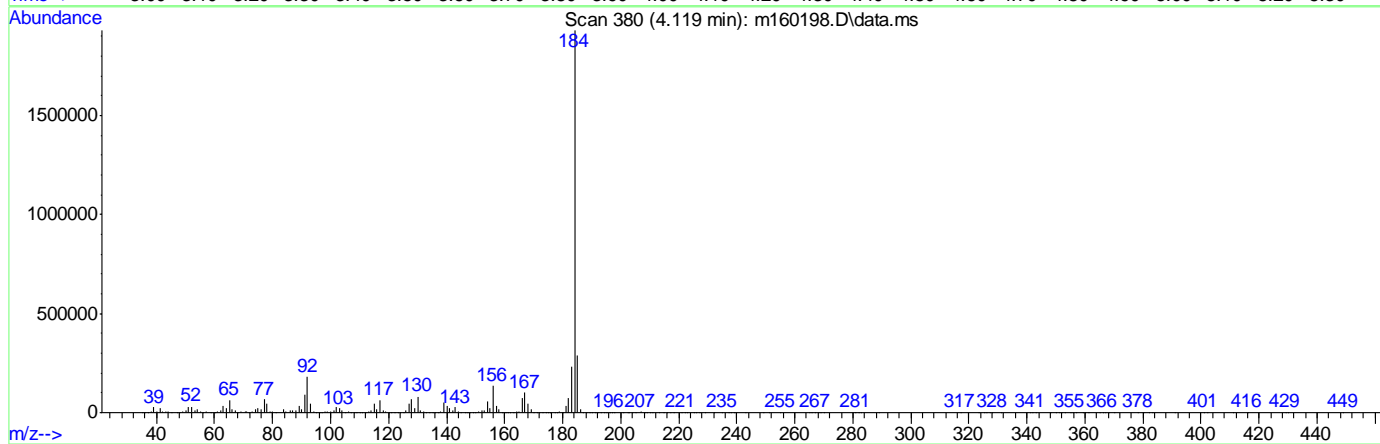
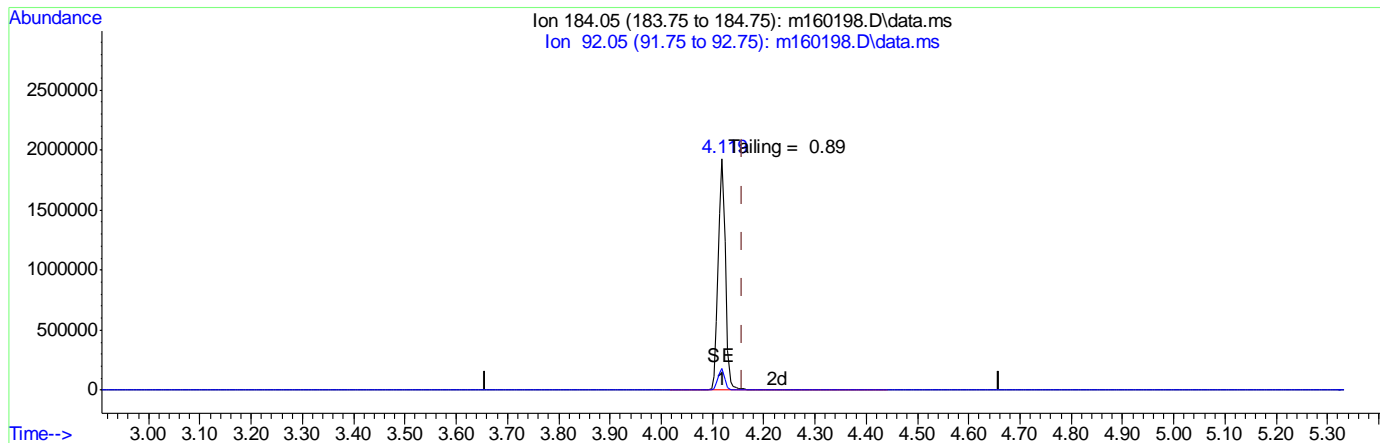
9.5.11.1

9

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EM6780\
 Data File : m160198.D
 Acq On : 10 Oct 2019 8:51 am
 Operator : hennys
 Sample : dftpp
 Misc : op21044,em6780,1000,,,1,1
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Oct 10 08:56:37 2019
 Quant Method : C:\MSDCHEM\1\METHODS\DFTPPM.M
 Quant Title : Semi Volatile Extractables by GC/MS rxi-5silms 30mSun Oct 06 13:37:34 2019
 QLast Update : Sun Oct 06 13:37:34 2019
 Response via : Continuing Cal File:



TIC: m160198.D\data.ms

(2) Benzidine (M)

4.119min (-0.040) 0.00ppm

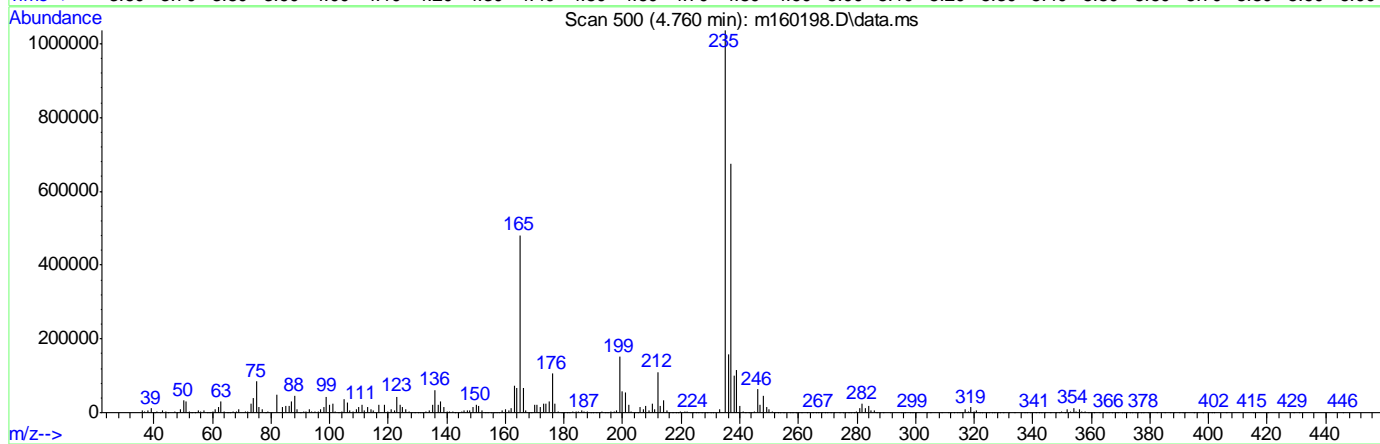
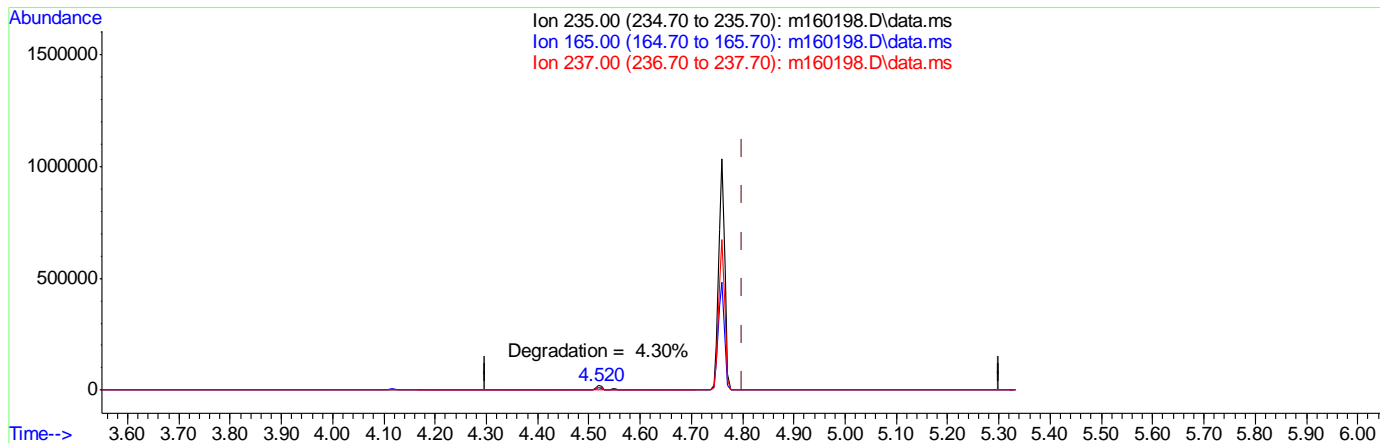
response 1878400

Ion	Exp%	Act%
184.05	100	100
92.05	7.70	9.30
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EM6780\
 Data File : m160198.D
 Acq On : 10 Oct 2019 8:51 am
 Operator : hennys
 Sample : dftpp
 Misc : op21044,em6780,1000,,,1,1
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Oct 10 08:56:37 2019
 Quant Method : C:\MSDCHEM\1\METHODS\DFTPPM.M
 Quant Title : Semi Volatile Extractables by GC/MS rxi-5silms 30mSun Oct 06 13:37:34 2019
 QLast Update : Sun Oct 06 13:37:34 2019
 Response via : Continuing Cal File:



TIC: m160198.D\data.ms

(3) PP-DDT (MC)

4.760min (-0.040) 0.00ppm

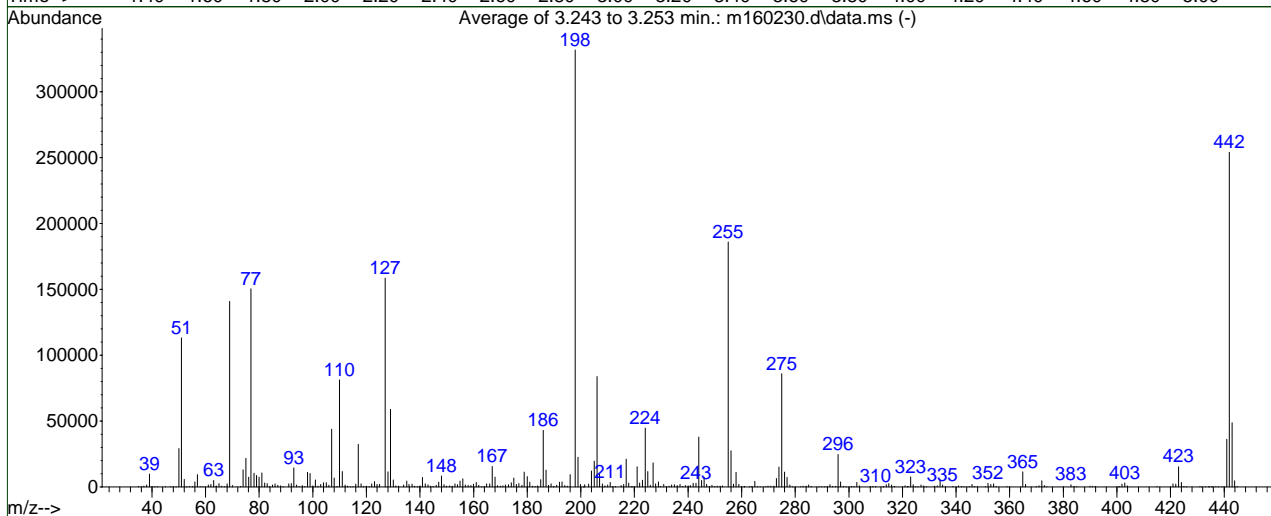
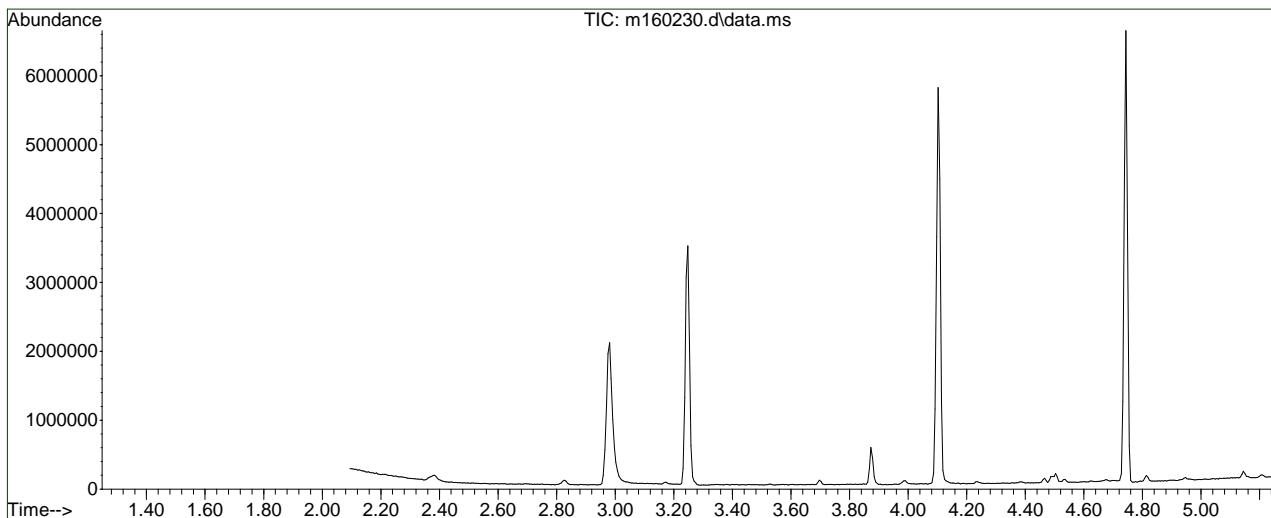
response 828890

Ion	Exp%	Act%
235.00	100	100
165.00	41.70	46.34
237.00	67.40	65.00
0.00	0.00	0.00

DFTPPR

Data File : C:\msdchem\1\data\jeryllr\em6781\m160230.d Vial: 1
 Acq On : 11 Oct 2019 11:06 am Operator: hennys
 Sample : dftpp Inst : MSM
 Misc : op21044,em6781,1000,,,1,1 Multiplr: 1.00
 MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\DFTPPM.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS rxi-5silms 30mSun Feb 18 15:20:41 2018



AutoFind: Scans 216, 217, 218; Background Corrected with Scan 209

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	34.1	113149	PASS
68	69	0.00	2	1.5	2155	PASS
69	198	0.00	100	42.4	140761	PASS
70	69	0.00	2	0.7	1009	PASS
127	198	40	60	47.8	158405	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	331648	PASS
199	198	5	9	6.8	22552	PASS
275	198	10	30	25.9	85829	PASS
365	198	1	100	3.4	11436	PASS
441	443	0.10	100	74.2	36157	PASS
442	198	40	100	76.6	254144	PASS
443	442	17	23	19.2	48701	PASS

Average of 3.243 to 3.253 min.: m160230.d\data.ms
dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
35.00	301	49.00	161	61.00	1466	74.00	12967
36.00	31	50.05	28976	62.00	1712	75.00	21521
36.95	449	51.00	113149	63.00	4744	76.05	7286
38.05	1300	52.05	5631	63.95	793	76.95	150461
39.05	9805	52.95	138	65.00	2362	78.05	10233
40.00	216	54.00	74	66.00	497	79.00	8711
41.10	113	55.05	289	67.05	67	80.00	7338
42.00	42	56.00	3779	68.00	2155	81.00	10652
45.00	180	57.00	9375	69.00	140761	82.00	2796
47.00	179	58.00	99	70.00	1009	83.00	2529
47.95	117	59.00	58	73.05	273	83.90	28

Average of 3.243 to 3.253 min.: m160230.d\data.ms
dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
85.00	1358	97.00	111	108.00	6788	119.00	304
85.95	2314	98.00	11012	109.05	422	119.95	492
86.95	1140	99.00	10142	110.00	81158	121.00	93
88.00	748	100.00	838	111.00	11608	122.00	2278
88.95	201	100.95	5303	112.00	1447	123.00	3974
91.00	2166	101.95	467	113.00	530	124.00	1768
92.00	2478	103.00	1837	114.00	79	124.95	1897
92.95	14401	104.00	3124	114.95	33	127.00	158405
94.00	1357	105.00	3099	116.00	2098	128.00	11377
94.95	52	106.00	1134	117.00	32357	129.00	58878
96.05	920	107.00	43840	118.00	2182	130.00	5178

Average of 3.243 to 3.253 min.: m160230.d\data.ms
dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
130.95	764	142.95	1568	153.95	1557	164.90	2257
132.05	635	143.95	574	154.95	4294	166.00	2235
133.95	1469	144.90	435	155.95	6109	166.95	15359
135.00	4426	146.00	1195	156.95	1343	168.00	7249
135.90	1903	146.95	3519	157.90	1094	168.95	1005
137.00	2022	148.00	8285	158.95	1026	169.95	535
138.00	563	148.95	1544	159.95	2134	170.95	835
139.00	288	149.95	510	160.95	3414	171.90	1394
139.95	709	151.00	751	161.95	1102	173.00	1656
140.95	7090	152.00	643	162.95	129	174.00	3189
142.00	2241	153.00	2282	163.90	400	174.95	6635

Average of 3.243 to 3.253 min.: m160230.d\data.ms
dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
175.95	1786	187.00	12656	197.90	331648	208.95	833
176.90	2511	188.00	1242	198.90	22552	210.00	1435
178.00	1249	188.95	2292	199.90	1824	210.95	3225
178.90	11150	189.80	138	200.90	10	211.95	352
180.00	7871	189.95	279	201.40	1523	212.95	328
181.00	3466	191.00	1190	202.90	1993	215.00	1042
181.95	615	192.00	3534	204.00	12053	216.00	1877
182.95	305	192.95	3659	205.00	19426	216.90	20940
183.90	722	194.00	909	206.00	83733	217.90	2838
185.00	5544	194.95	541	207.00	9537	218.80	98
186.00	42915	196.00	9180	208.00	2251	219.10	258

Average of 3.243 to 3.253 min.: m160230.d\data.ms
dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
220.00	128	230.95	1834	241.95	2691	252.90	806
221.00	15169	231.85	89	243.00	2760	255.00	185856
221.95	2837	232.95	477	244.00	37885	256.00	27309
223.00	5081	233.90	1374	245.00	4899	256.95	2026
224.00	44672	234.90	1514	245.95	7048	257.95	10961
225.00	11560	235.90	1031	246.95	1735	258.90	1866
225.95	1079	236.95	1906	247.95	357	259.90	291
227.00	18124	238.00	313	248.90	1246	260.90	83
227.85	2197	238.95	868	250.00	359	261.05	254
228.90	3735	240.00	773	250.90	538	262.90	73
229.80	245	240.90	1031	251.95	507	263.80	344

Average of 3.243 to 3.253 min.: m160230.d\data.ms

dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
264.95	4166	276.90	7243	291.90	398	303.90	690
265.80	77	277.95	1336	292.95	1654	307.90	385
266.90	52	278.90	195	293.85	436	308.90	252
268.95	209	281.95	155	295.00	445	310.00	420
269.85	570	282.90	646	295.95	24640	312.80	91
270.90	474	284.00	566	296.95	3690	313.00	116
272.05	582	284.95	1350	297.95	290	313.95	1520
272.95	6207	285.90	250	299.00	68	314.90	2418
273.95	15086	288.90	192	300.95	382	315.95	1379
275.00	85829	289.95	202	301.95	316	316.95	395
275.95	11244	290.80	192	303.00	3293	321.00	791

Average of 3.243 to 3.253 min.: m160230.d\data.ms

dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
321.90	367	334.00	5337	350.95	175	372.95	946
322.10	92	334.95	1364	351.95	2701	373.90	211
323.00	7632	336.00	177	352.90	1747	382.90	1553
324.00	1517	338.85	253	354.00	2328	383.95	390
324.95	217	340.95	763	354.90	446	385.05	138
325.80	67	341.95	337	359.00	189	389.95	648
326.90	1484	342.90	71	364.90	11436	390.90	413
327.95	802	344.90	76	365.95	1819	391.95	330
328.95	172	345.90	1853	369.85	236	400.75	179
331.95	516	346.85	292	370.95	787	401.00	135
333.00	691	347.90	90	371.95	4482	401.90	2039

Average of 3.243 to 3.253 min.: m160230.d\data.ms

dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
402.90	2916	433.00	76	443.95	4556		
403.90	823	434.20	68	444.85	327		
414.95	194	434.50	106				
420.95	2208	435.20	91				
421.95	2005	435.80	89				
423.00	15328	436.90	113				
424.00	3292	437.80	129				
424.95	415	439.20	98				
426.00	67	440.95	36157				
430.90	77	441.95	254144				
431.70	115	443.00	48701				

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\jeryllr\em6781\
 Data File : m160230.d
 Acq On : 11 Oct 2019 11:06 am
 Operator : hennys
 Sample : dftpp
 Misc : op21044,em6781,1000,,,1,1
 ALS Vial : 1 Sample Multiplier: 1

Inst : MSM

Quant Method : C:\MSDCHEM\1\METHODS\DFTPPM.M

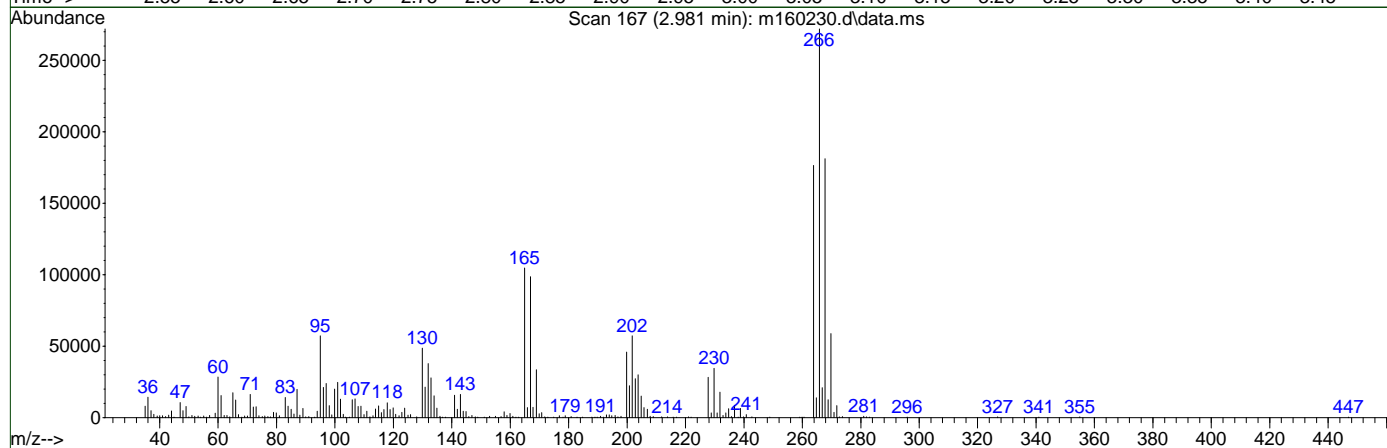
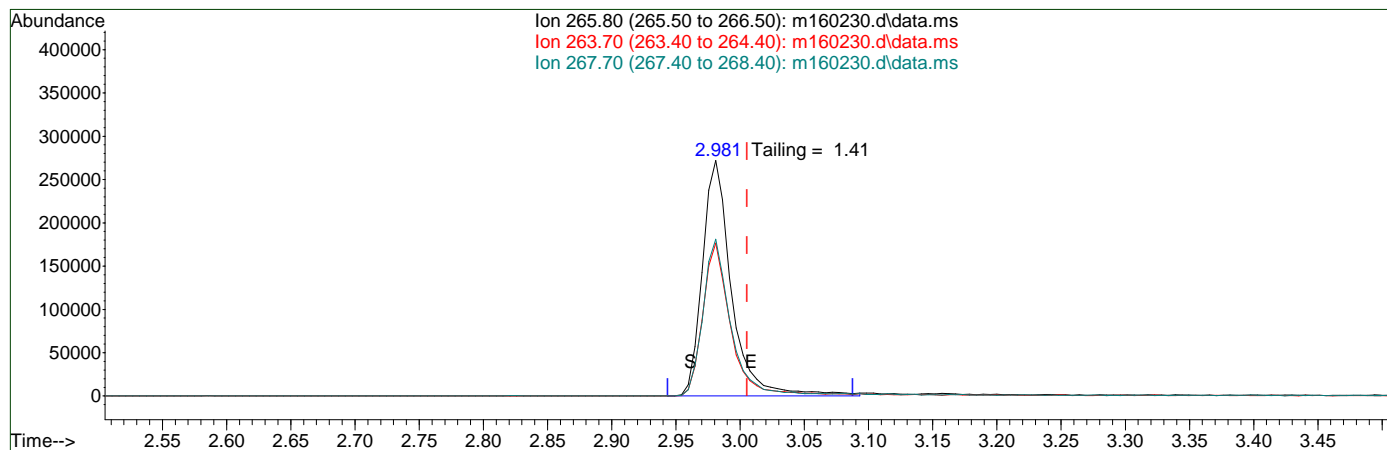
Quant Results File: DFTPPM.RES

Quant Time: Oct 14 04:40:03 2019

Quant Title : Semi Volatile Extractables by GC/MS rxi-5silms 30mSun Feb 18 15:20:41 2018

QLast Update : Thu Oct 10 05:44:30 2019

Response via : Initial Calibration



TIC: m160230.d\data.ms

(1) Pentachlorophenol (MC)

2.981min (-0.024) 147.62ppm

response 430613

Ion	Exp%	Act%
265.80	100	100
263.70	61.90	64.92
267.70	65.60	66.53
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\jeryllr\em6781\
 Data File : m160230.d
 Acq On : 11 Oct 2019 11:06 am
 Operator : hennys
 Sample : dftpp
 Misc : op21044,em6781,1000,,,1,1
 ALS Vial : 1 Sample Multiplier: 1

Inst : MSM

Quant Method : C:\MSDCHEM\1\METHODS\DFTPPM.M

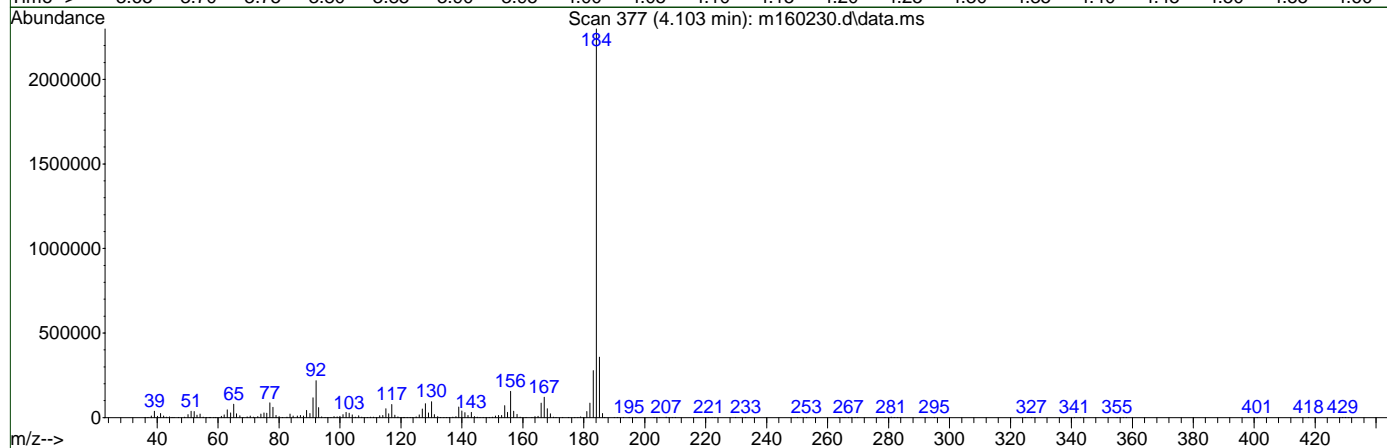
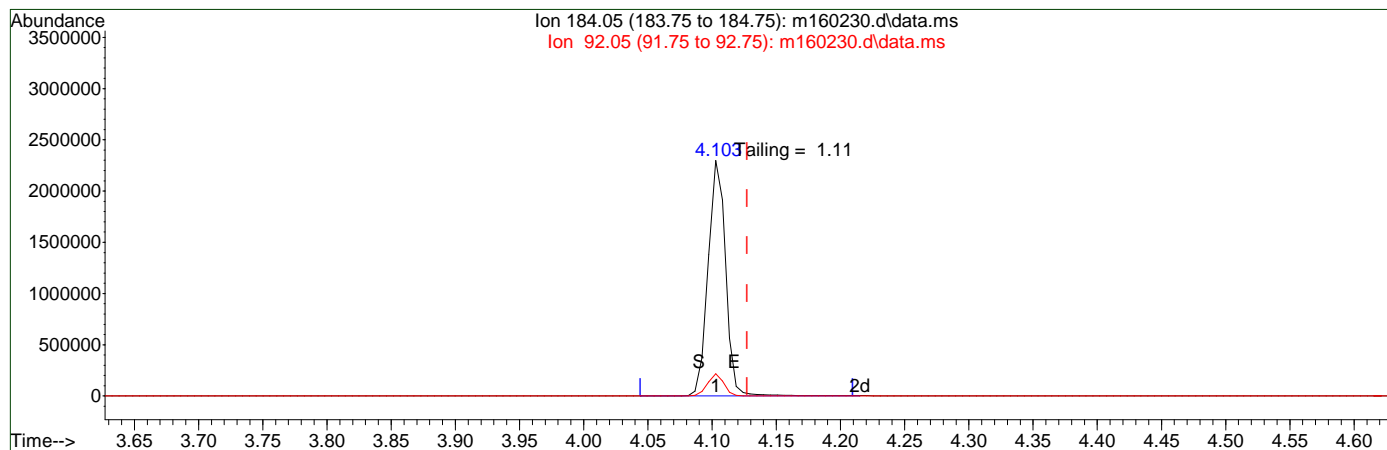
Quant Results File: DFTPPM.RES

Quant Time: Oct 14 04:40:03 2019

Quant Title : Semi Volatile Extractables by GC/MS rxi-5silms 30mSun Feb 18 15:20:41 2018

QLast Update : Thu Oct 10 05:44:30 2019

Response via : Initial Calibration



TIC: m160230.d\data.ms

(2) Benzidine (M)

4.103min (-0.024) 164.39ppm

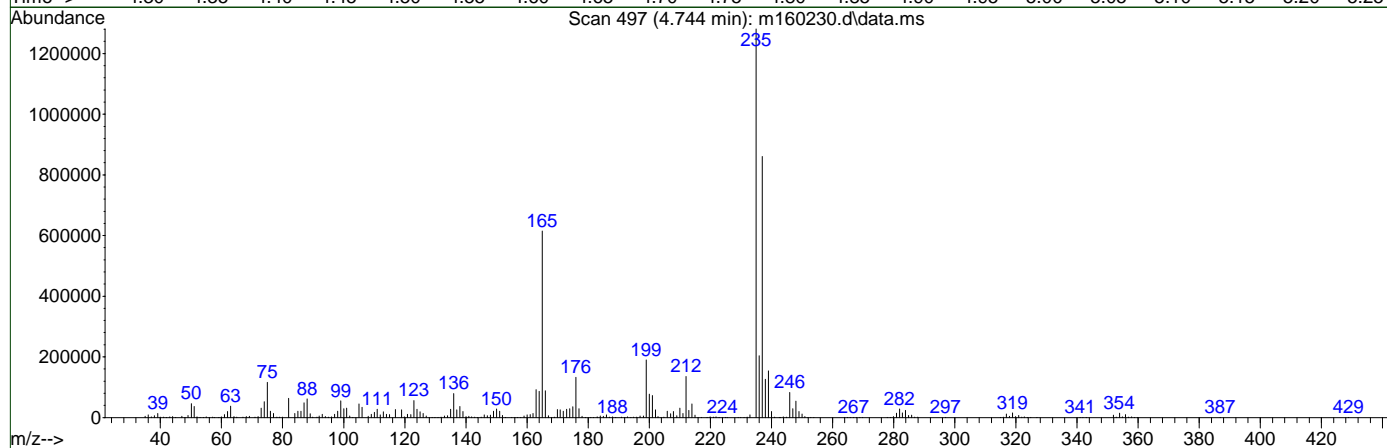
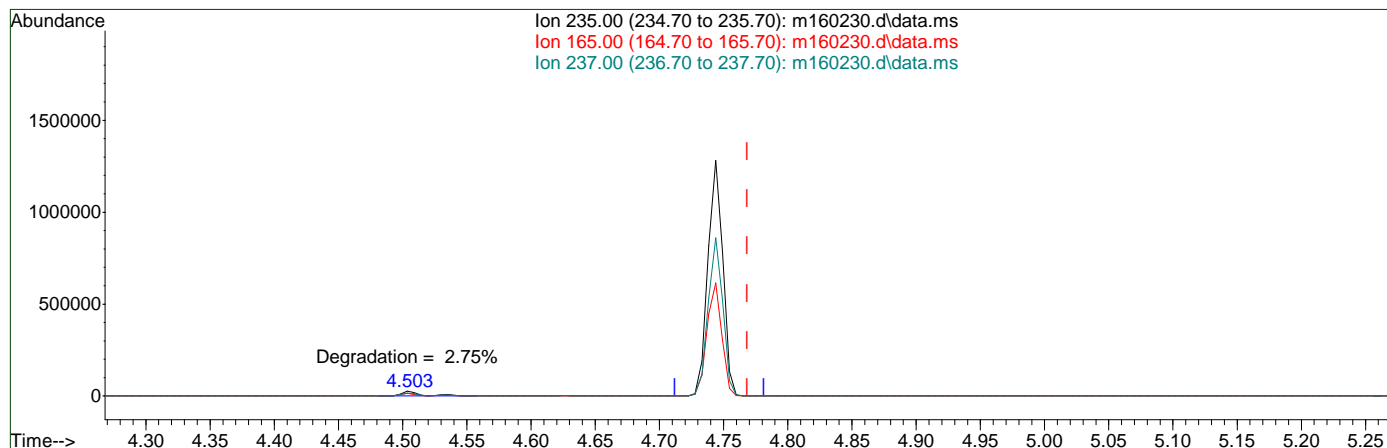
response 2188609

Ion	Exp%	Act%
184.05	100	100
92.05	9.30	9.47
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\jeryllr\em6781\
 Data File : m160230.d
 Acq On : 11 Oct 2019 11:06 am
 Operator : hennys
 Sample : dftpp
 Misc : op21044,em6781,1000,,,1,1
 ALS Vial : 1 Sample Multiplier: 1
 Inst : MSM

Quant Method : C:\MSDCHEM\1\METHODS\DFTPPM.M
 Quant Results File: DFTPPM.RES
 Quant Time: Oct 14 04:40:03 2019
 Quant Title : Semi Volatile Extractables by GC/MS rxi-5silms 30mSun Feb 18 15:20:41 2018
 QLast Update : Thu Oct 10 05:44:30 2019
 Response via : Initial Calibration



TIC: m160230.d\data.ms

(3) PP-DDT (MC)

4.744min (-0.024) 180.31ppm

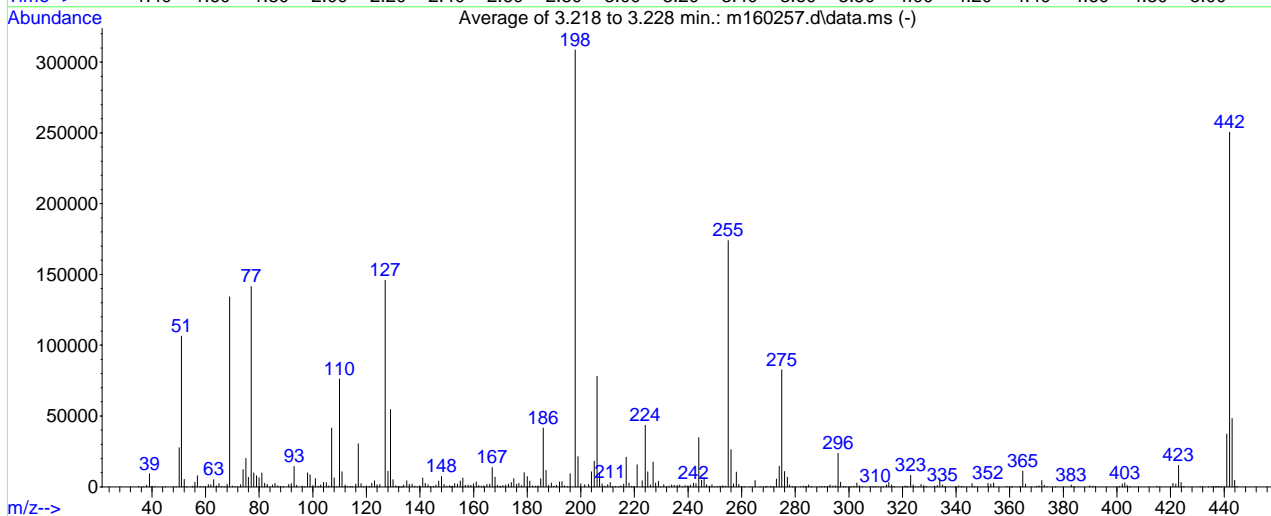
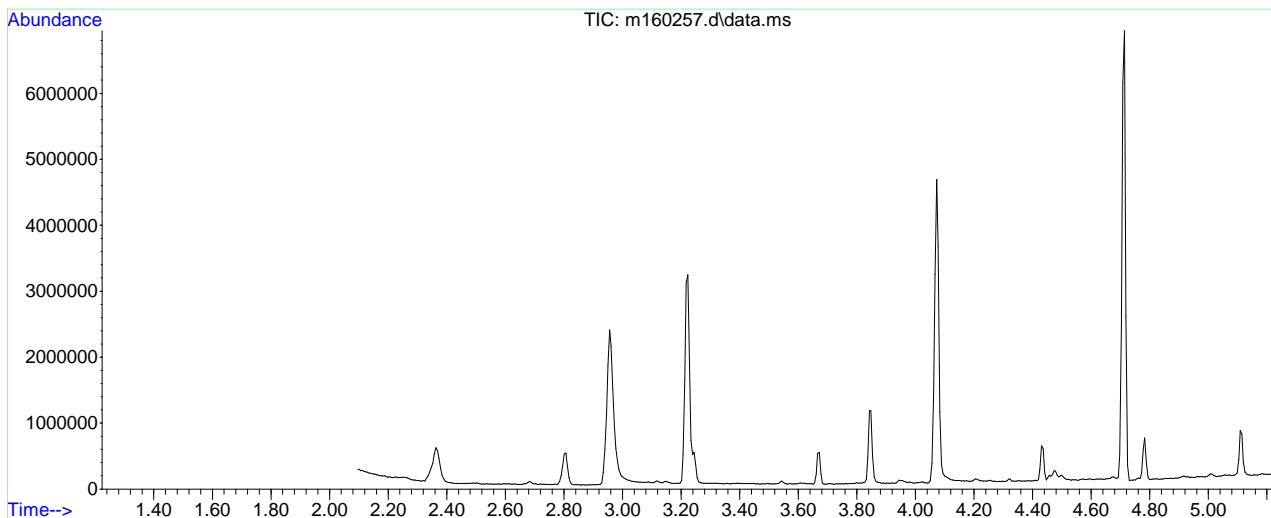
response 1036532

Ion	Exp%	Act%
235.00	100	100
165.00	48.20	47.95
237.00	66.60	67.18
0.00	0.00	0.00

DFTPPR

Data File : C:\msdchem\1\data\altheam\em6782\m160257.d Vial: 1
 Acq On : 12 Oct 2019 3:04 pm Operator: jamescl
 Sample : dftpp Inst : MSM
 Misc : op21044,em6782,1000,,,1,1 Multiplr: 1.00
 MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\DFTPPM.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS rxi-5silms 30mSun Feb 18 15:20:41 2018



AutoFind: Scans 211, 212, 213; Background Corrected with Scan 203

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	34.5	106400	PASS
68	69	0.00	2	1.4	1927	PASS
69	198	0.00	100	43.5	134206	PASS
70	69	0.00	2	0.4	526	PASS
127	198	40	60	47.3	145898	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	308480	PASS
199	198	5	9	6.9	21330	PASS
275	198	10	30	26.8	82576	PASS
365	198	1	100	3.6	11237	PASS
441	443	0.10	100	77.3	37272	PASS
442	198	40	100	81.2	250496	PASS
443	442	17	23	19.2	48208	PASS

9.5.13
9

Average of 3.218 to 3.228 min.: m160257.d\data.ms

dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
35.00	326	53.00	154	66.00	395	78.00	9864
37.00	189	55.05	451	67.00	81	79.00	7848
38.00	1165	56.00	3304	68.00	1927	80.00	6427
39.10	9215	57.00	7755	69.00	134206	81.00	9885
40.00	361	58.00	276	70.00	526	82.00	2384
41.05	165	59.10	100	71.05	49	83.00	1769
45.00	87	61.00	1533	73.00	1432	85.00	1393
49.00	123	61.95	1553	74.00	12274	85.95	2571
50.10	27540	63.00	5037	75.00	20047	87.00	638
51.00	106400	64.05	786	76.00	6647	87.95	335
52.05	5270	64.95	2256	77.00	141387	89.00	239

Average of 3.218 to 3.228 min.: m160257.d\data.ms

dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
91.00	1742	102.95	1323	114.00	214	125.00	1642
92.00	2297	104.00	3107	114.80	122	127.00	145898
93.00	14449	105.00	2816	116.00	1969	128.00	11101
94.00	1094	106.00	733	116.95	30441	129.00	54533
96.00	491	107.00	41448	118.00	2269	129.95	5131
97.00	176	108.00	6341	118.95	220	131.00	640
98.00	9872	108.95	164	119.95	738	131.90	262
99.00	8487	110.00	76099	121.00	255	132.20	138
100.00	839	110.95	10558	122.00	2576	133.00	6
101.00	5830	112.00	1383	123.00	4308	133.95	1396
102.00	514	112.95	281	124.00	1540	135.00	4310

Average of 3.218 to 3.228 min.: m160257.d\data.ms

dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
136.00	1689	147.00	4032	156.00	6195	166.95	13673
137.00	1808	148.00	7250	156.95	1028	168.00	6933
138.05	604	148.95	1644	158.00	1378	168.90	1056
138.95	130	150.00	523	159.00	1019	169.90	419
139.90	694	151.00	957	159.95	2010	170.10	206
141.00	6291	151.60	109	161.00	3494	170.90	817
142.00	2470	151.90	342	161.95	989	171.95	1309
142.95	1548	152.05	454	163.00	474	173.00	1884
143.95	319	152.95	2221	163.85	619	174.00	3145
144.95	296	153.95	1933	164.95	1770	175.00	5869
145.95	1394	155.00	4087	165.95	1873	176.00	1653

Average of 3.218 to 3.228 min.: m160257.d\data.ms

dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
176.90	2456	188.00	1181	199.95	2081	211.80	115
177.90	912	189.00	2694	201.40	1511	212.95	380
178.90	10037	189.95	510	202.90	1684	214.10	70
180.00	7268	190.90	1187	203.95	10675	214.95	623
181.00	3982	192.00	3388	205.00	18193	216.00	1817
182.00	690	193.00	3625	206.00	78213	216.90	20985
183.00	436	193.95	780	207.00	9938	217.95	2735
184.00	713	195.05	323	207.95	2139	218.90	281
185.00	5620	196.00	9180	209.00	518	219.50	91
186.00	41549	197.90	308480	210.00	1489	221.00	15552
187.00	11547	198.90	21330	211.00	3181	222.90	4212

Average of 3.218 to 3.228 min.: m160257.d\data.ms

dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
224.00	43555	234.85	1090	246.00	6361	256.00	26344
225.00	10598	235.95	1061	246.90	1479	256.95	2047
226.00	1340	236.90	1217	247.95	427	258.00	10452
227.00	17584	237.90	314	248.95	1449	258.95	1716
227.95	2699	238.90	834	250.00	122	259.95	296
228.90	3933	239.95	618	250.95	400	260.95	242
229.85	144	240.90	1303	251.95	553	263.10	79
230.95	1501	242.00	2408	252.90	618	265.00	4409
231.85	37	243.00	2342	253.10	287	266.90	42
232.95	445	244.00	34845	254.00	463	268.90	112
233.90	1337	245.00	4719	255.00	173965	269.10	95

Average of 3.218 to 3.228 min.: m160257.d\data.ms

dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
269.70	22	281.95	83	294.00	487	307.95	238
270.80	103	282.95	593	294.95	653	309.00	244
270.95	388	283.90	305	296.00	23688	309.90	307
271.90	308	284.10	155	296.95	3194	310.90	69
272.95	5425	284.95	1256	297.95	324	312.80	213
274.00	14637	286.00	360	298.80	90	314.00	1255
275.00	82576	288.95	200	300.90	312	314.90	3038
276.00	10757	289.95	211	301.95	487	315.95	1365
277.00	6845	290.85	251	302.95	2698	316.90	234
277.90	1213	291.95	283	303.95	692	320.95	787
278.90	378	292.95	1366	305.00	68	321.70	108

Average of 3.218 to 3.228 min.: m160257.d\data.ms

dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
321.95	304	335.00	1370	358.90	257	376.95	146
323.00	8075	335.95	278	360.70	70	383.00	1327
323.95	1361	339.90	94	361.00	78	383.95	415
324.90	36	340.95	798	363.80	72	389.90	780
325.90	140	341.95	377	364.90	11237	391.00	426
326.90	1658	342.80	67	365.90	1890	391.90	390
327.95	882	345.90	2210	369.95	297	400.95	411
328.95	307	346.90	359	370.95	699	401.95	2022
331.95	537	351.95	2564	371.95	4459	402.95	2602
332.95	855	352.95	1864	372.95	1199	403.90	908
333.95	5367	353.95	2709	374.00	72	405.00	84

Average of 3.218 to 3.228 min.: m160257.d\data.ms

dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
414.90	255	436.70	140				
420.95	2399	437.00	101				
421.95	1907	437.30	68				
422.95	15232	437.90	73				
423.95	3017	438.40	190				
424.95	367	439.00	78				
431.10	69	440.95	37272				
432.00	89	442.00	250496				
434.20	70	443.00	48208				
435.40	77	443.95	4581				
436.10	86	444.85	312				



Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\altheam\em6782\
 Data File : m160257.d
 Acq On : 12 Oct 2019 3:04 pm
 Operator : jamescl
 Sample : dftpp
 Misc : op21044,em6782,1000,,,1,1
 ALS Vial : 1 Sample Multiplier: 1

Inst : MSM

Quant Method : C:\MSDCHEM\1\METHODS\DFTPPM.M

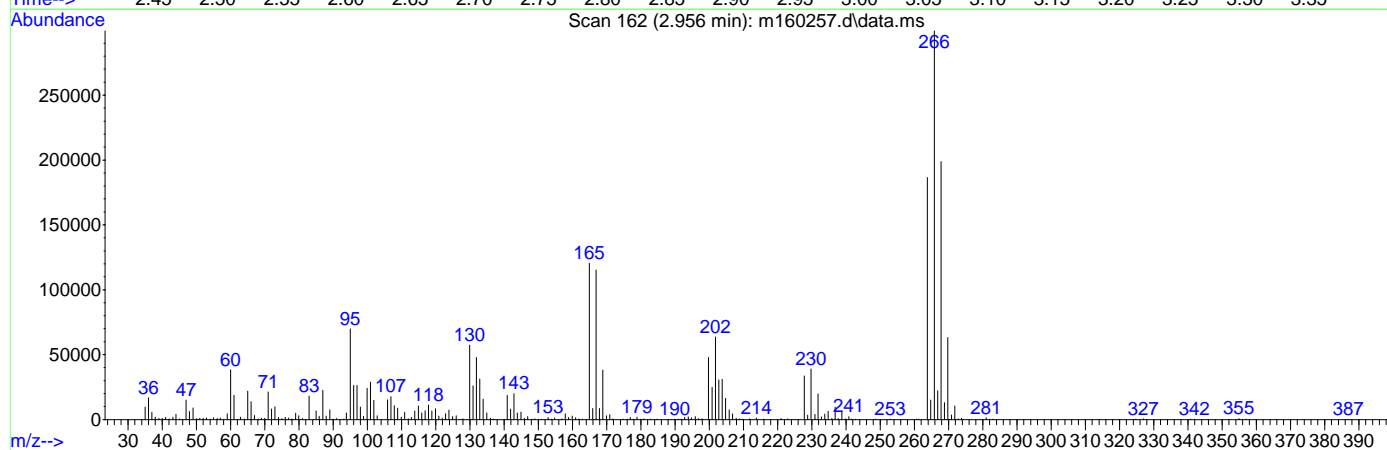
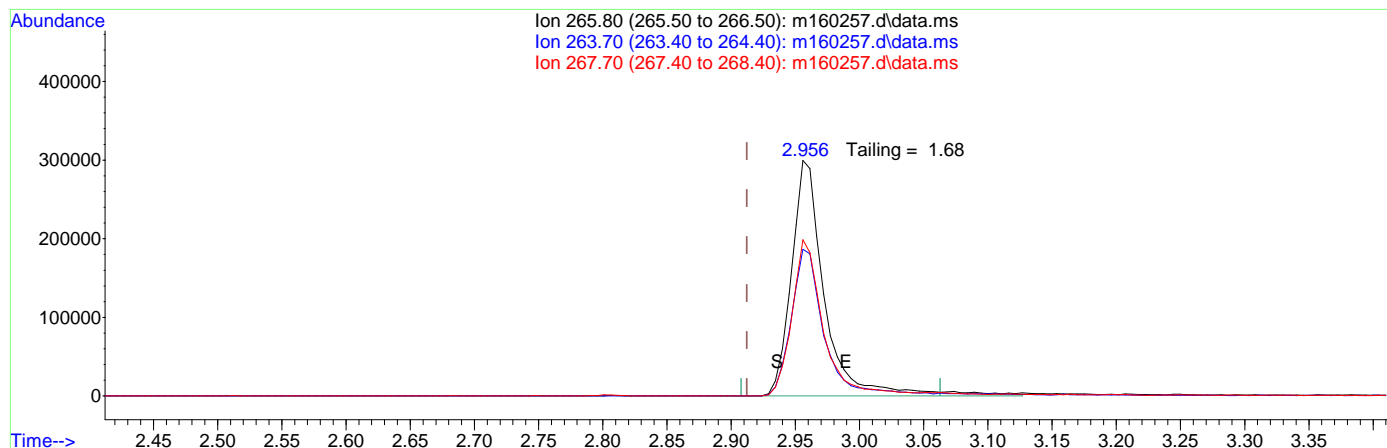
Quant Results File: DFTPPM.RES

Quant Time: Oct 14 03:04:00 2019

Quant Title : Semi Volatile Extractables by GC/MS rxi-5silms 30mSun Feb 18 15:20:41 2018

QLast Update : Sun Feb 18 15:20:41 2018

Response via : Continuing Cal File:



TIC: m160257.d\data.ms

(1) Pentachlorophenol (MC)

2.956min (+0.044) 0.00ppm

response 529337

Ion	Exp%	Act%
265.80	100	100
263.70	61.50	62.12
267.70	64.40	66.14
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\altheam\em6782\
 Data File : m160257.d
 Acq On : 12 Oct 2019 3:04 pm
 Operator : jamescl
 Sample : dftpp
 Misc : op21044,em6782,1000,,,1,1
 ALS Vial : 1 Sample Multiplier: 1

Inst : MSM

Quant Method : C:\MSDCHEM\1\METHODS\DFTPPM.M

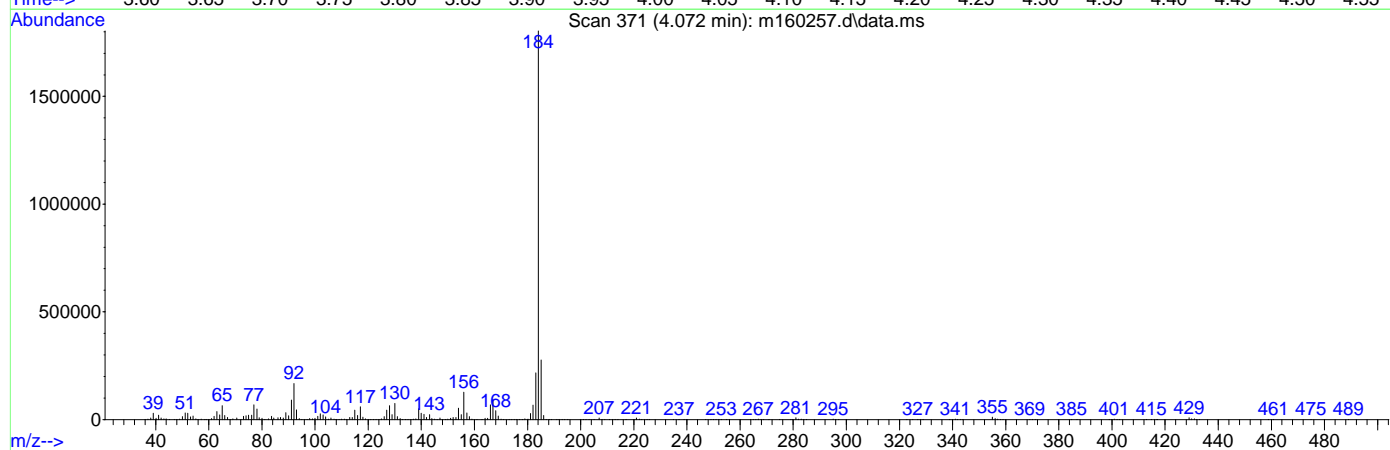
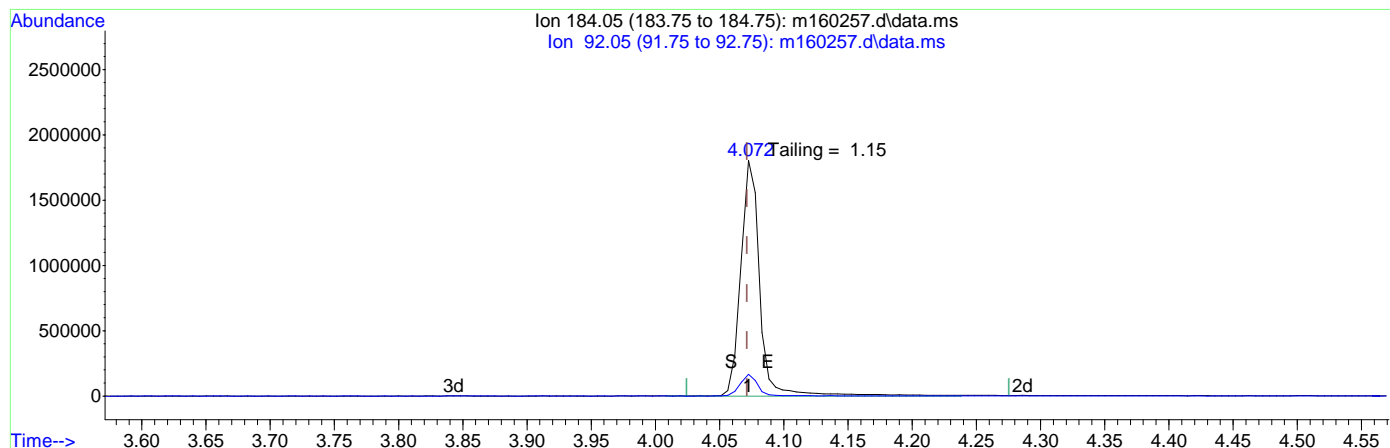
Quant Results File: DFTPPM.RES

Quant Time: Oct 14 03:04:00 2019

Quant Title : Semi Volatile Extractables by GC/MS rxi-5silms 30mSun Feb 18 15:20:41 2018

QLast Update : Sun Feb 18 15:20:41 2018

Response via : Continuing Cal File:



TIC: m160257.d\data.ms

(2) Benzidine (M)

4.072min (+0.001) 0.00ppm

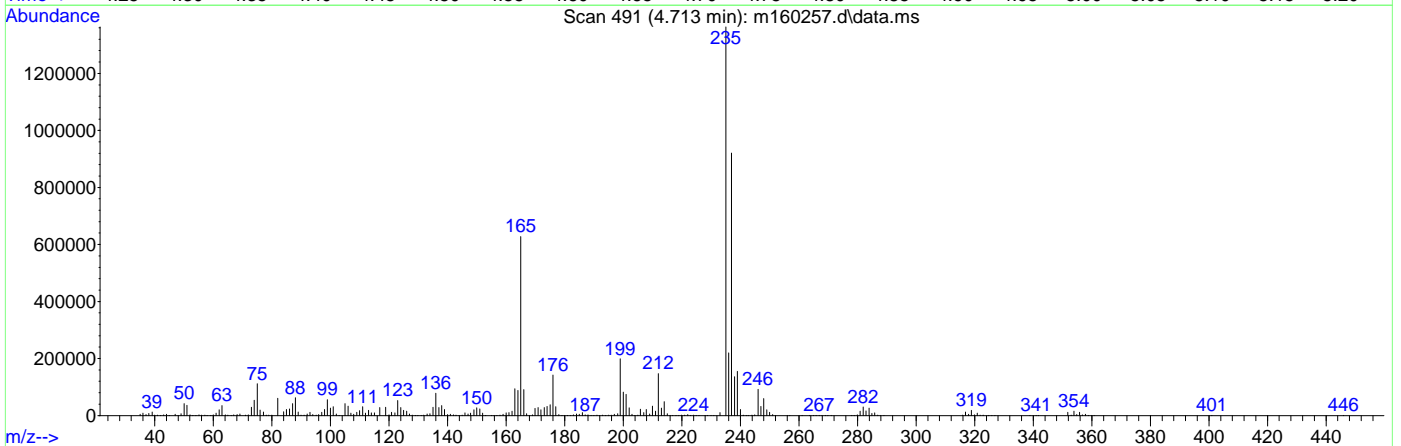
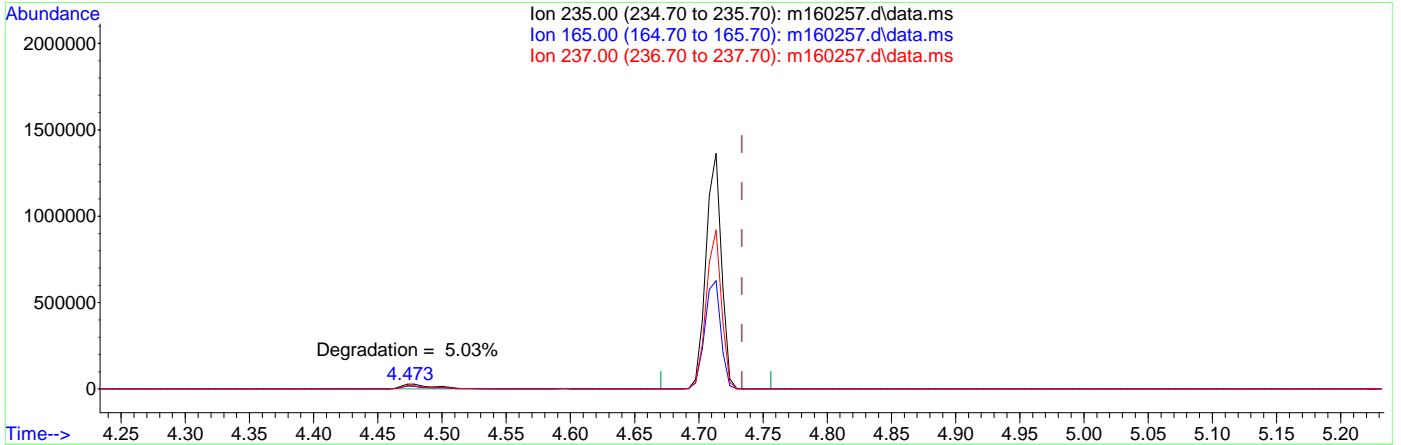
response 1886782

Ion	Exp%	Act%
184.05	100	100
92.05	7.20	9.26
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\altheam\em6782\
 Data File : m160257.d
 Acq On : 12 Oct 2019 3:04 pm
 Operator : jamescl
 Sample : dftpp
 Misc : op21044,em6782,1000,,,1,1
 ALS Vial : 1 Sample Multiplier: 1
 Inst : MSM

Quant Method : C:\MSDCHEM\1\METHODS\DFTPPM.M
 Quant Results File: DFTPPM.RES
 Quant Time: Oct 14 03:04:00 2019
 Quant Title : Semi Volatile Extractables by GC/MS rxi-5silms 30mSun Feb 18 15:20:41 2018
 QLast Update : Sun Feb 18 15:20:41 2018
 Response via : Continuing Cal File:



TIC: m160257.d\data.ms

(3) PP-DDT (MC)

4.713min (-0.020) 0.00ppm

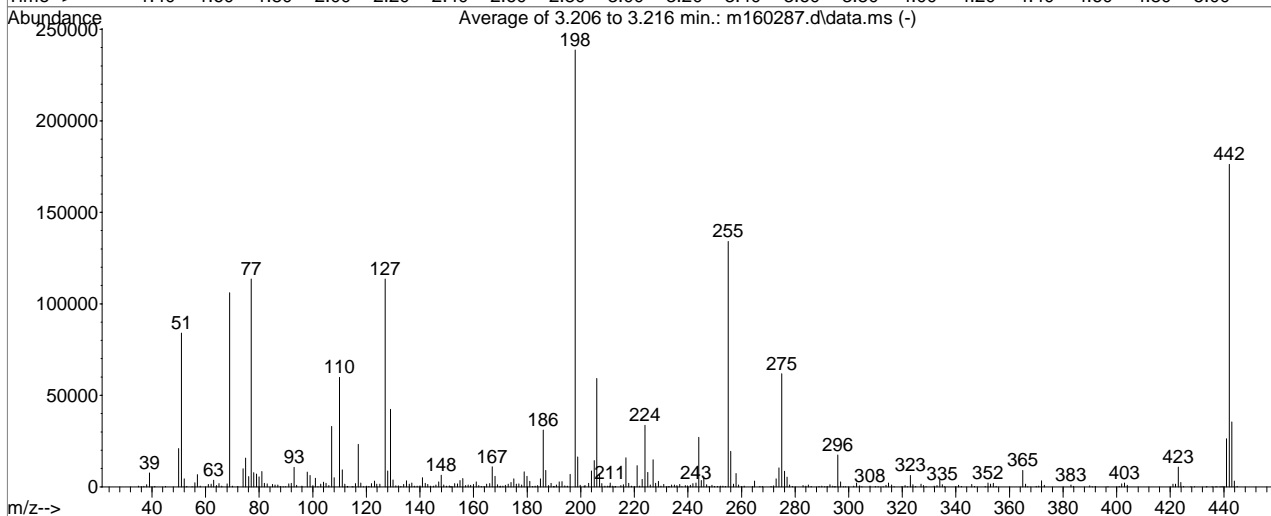
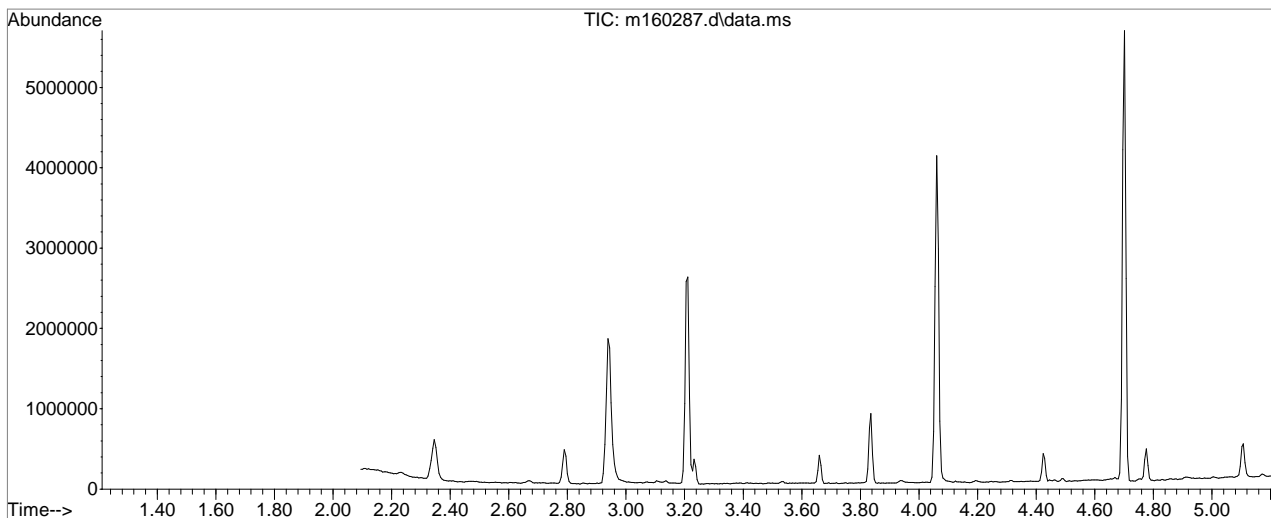
response 1146573

Ion	Exp%	Act%
235.00	100	100
165.00	42.80	45.98
237.00	66.60	67.52
0.00	0.00	0.00

DFTPPR

Data File : C:\msdchem\1\data\jo...1519\em6783\m160287.d Vial: 1
 Acq On : 13 Oct 2019 9:18 am Operator: hennys
 Sample : dftpp Inst : MSM
 Misc : op21044,em6783,1000,,,1,1 Multiplr: 1.00
 MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\DFTPPM.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS rxi-5silms 30mSun Feb 18 15:20:41 2018



AutoFind: Scans 209, 210, 211; Background Corrected with Scan 202

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	35.2	84083	PASS
68	69	0.00	2	1.5	1623	PASS
69	198	0.00	100	44.4	106044	PASS
70	69	0.00	2	0.4	444	PASS
127	198	40	60	47.6	113608	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	238635	PASS
199	198	5	9	6.9	16363	PASS
275	198	10	30	25.9	61861	PASS
365	198	1	100	3.7	8900	PASS
441	443	0.10	100	74.3	26275	PASS
442	198	40	100	73.8	176213	PASS
443	442	17	23	20.1	35387	PASS

Average of 3.206 to 3.216 min.: m160287.d\data.ms

dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
35.00	409	55.00	67	69.00	106044	82.00	1957
36.00	145	56.00	2293	70.00	444	83.00	1614
37.00	204	57.00	6696	72.00	199	85.00	1329
38.05	1144	58.00	427	74.00	9917	85.90	1021
39.10	7602	61.00	1250	74.95	15711	86.95	1065
41.05	256	62.10	1406	76.05	5532	87.95	221
45.00	240	63.05	3559	77.00	113527	88.95	28
50.00	20980	64.05	634	78.00	7664	89.90	92
51.00	84083	65.05	1758	79.00	6999	91.00	1556
52.00	4412	66.05	399	80.00	5422	92.00	1888
53.00	261	68.00	1623	81.00	8350	93.00	10706

Average of 3.206 to 3.216 min.: m160287.d\data.ms

dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
93.95	806	107.00	33056	117.95	2098	129.95	3740
96.00	406	108.00	5025	119.00	128	130.95	618
98.00	8111	110.00	59845	120.05	466	131.95	611
99.00	6175	111.00	9201	121.00	164	132.90	238
100.00	671	112.00	1435	121.95	1813	133.95	1363
101.00	4698	112.90	195	123.00	3193	135.00	3231
101.90	62	113.05	211	123.90	1477	136.00	1429
103.00	1398	114.70	131	125.00	1481	137.00	2006
104.00	2534	115.00	126	127.00	113608	137.95	414
104.95	1913	115.95	1784	128.00	8634	138.95	358
106.05	635	117.00	23191	129.00	42339	139.95	493

Average of 3.206 to 3.216 min.: m160287.d\data.ms

dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
140.95	4956	151.30	76	161.00	2641	171.00	443
142.00	1894	151.60	143	161.95	657	171.90	896
142.95	1340	151.90	201	162.90	275	172.95	1408
143.95	397	153.00	1709	163.95	253	174.00	2382
145.00	423	154.00	1571	164.90	1401	175.00	4316
146.00	961	155.00	3447	166.00	1765	175.95	1499
147.00	2738	156.00	4514	166.95	10923	176.95	1688
147.95	6331	157.00	769	168.00	5743	178.00	956
148.90	1050	158.00	969	169.00	1158	178.90	8221
149.95	458	158.95	810	169.80	137	179.95	5786
151.00	549	159.95	1330	170.00	352	181.00	2974

Average of 3.206 to 3.216 min.: m160287.d\data.ms

dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
182.00	305	191.95	2754	204.00	8700	213.00	174
182.95	360	193.00	2809	205.00	14353	214.95	720
183.95	653	194.05	616	206.00	59147	215.95	1118
185.00	4303	194.95	349	207.00	6971	216.90	15869
186.00	31006	196.00	6768	207.90	1794	217.95	1929
187.00	9027	197.90	238635	209.00	469	218.95	318
187.95	754	198.90	16363	210.10	315	220.00	110
188.95	1982	199.85	847	210.70	344	221.00	11566
189.90	172	201.30	434	211.00	2011	222.00	339
190.10	259	201.60	759	211.95	352	222.95	4016
190.95	979	203.00	1967	212.80	76	224.00	33621

Average of 3.206 to 3.216 min.: m160287.d\data.ms

dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
225.00	7895	234.95	1040	245.90	5390	257.00	1445
225.95	960	235.90	651	246.95	1141	257.95	7226
227.00	14777	236.90	1284	247.95	298	258.90	1010
227.90	1932	237.80	83	248.95	839	260.00	209
228.95	2955	239.00	702	249.95	211	260.95	372
229.90	446	239.90	621	251.05	208	264.10	160
231.00	1350	240.90	801	252.10	322	264.90	3182
232.10	100	241.90	1774	253.00	412	266.90	165
232.80	89	243.00	2100	254.00	309	267.80	167
233.10	149	244.00	27057	255.00	134133	271.00	306
233.95	1033	245.00	3379	256.00	19407	272.00	491

Average of 3.206 to 3.216 min.: m160287.d\data.ms

dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
272.95	4433	288.90	215	298.80	73	316.00	1032
273.95	10339	289.95	343	301.90	443	316.90	91
275.00	61861	291.00	85	302.95	2132	319.90	75
276.00	8462	292.00	277	304.05	548	321.00	645
276.95	5232	292.95	1200	304.90	81	322.00	159
277.95	977	294.00	359	308.00	361	323.00	6142
279.00	217	294.70	75	309.95	227	324.00	1088
282.95	750	295.00	74	311.00	75	324.95	183
284.00	384	295.95	17439	312.90	131	326.95	1473
284.95	1032	296.95	2700	313.95	780	327.90	672
285.95	219	298.00	113	314.85	2022	328.90	78

Average of 3.206 to 3.216 min.: m160287.d\data.ms

dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
331.95	466	351.95	2076	382.95	1046	421.95	1444
332.95	627	352.95	1455	383.85	268	423.00	10862
334.00	3813	353.95	1976	389.95	543	423.90	2427
334.95	1103	355.00	192	390.90	103	425.00	185
335.80	79	364.90	8900	392.00	215	427.70	78
339.90	80	365.95	1505	396.70	67	429.10	112
340.95	874	366.80	80	400.90	234	433.40	83
342.00	260	370.00	267	401.90	1569	433.70	76
345.90	1306	370.95	457	402.90	2026	435.60	88
346.95	197	371.95	3326	403.95	798	437.00	79
350.95	185	373.00	807	420.95	1485	437.40	93

Average of 3.206 to 3.216 min.: m160287.d\data.ms

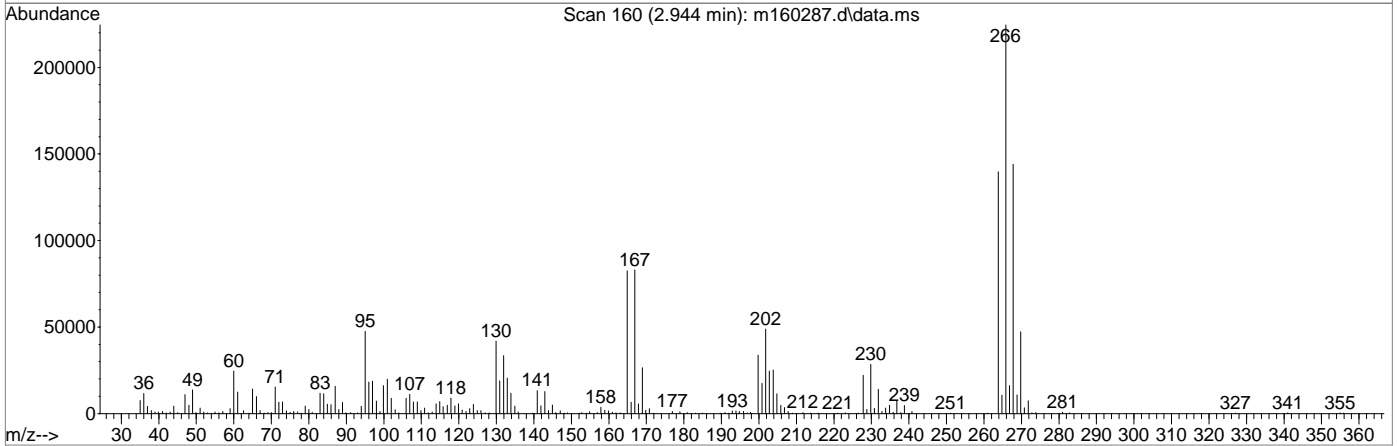
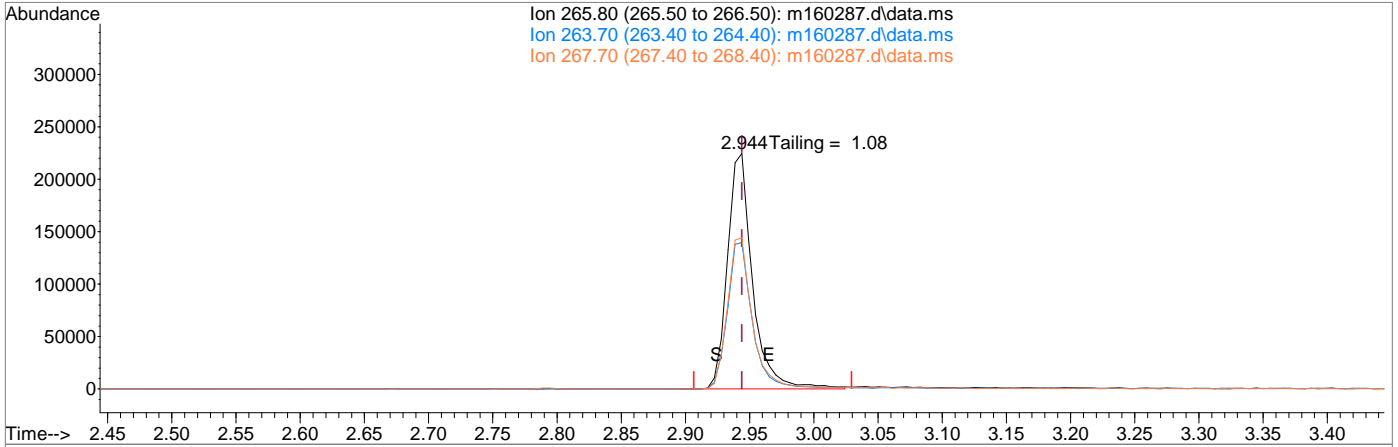
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
438.60	74						
439.25	166						
440.00	110						
440.95	26275						
442.00	176213						
443.00	35387						
443.95	3150						
444.95	234						

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\jonkm\101519\em6783\
 Data File : m160287.d
 Acq On : 13 Oct 2019 9:18 am
 Operator : hennys
 Sample : dftpp
 Misc : op21044,em6783,1000,,,1,1
 ALS Vial : 1 Sample Multiplier: 1
 Inst : MSM

Quant Method : C:\MSDCHEM\1\METHODS\DFTPPM.M
 Quant Results File: DFTPPM.RES
 Quant Time: Oct 14 23:03:58 2019
 Quant Title : Semi Volatile Extractables by GC/MS rxi-5silms 30mSun Feb 18 15:20:41 2018
 QLast Update : Mon Oct 14 23:03:32 2019
 Response via : Continuing Cal File:



TIC: m160287.d\data.ms

(1) Pentachlorophenol (MC)

2.944min (0.000) 0.00ppm

response 307354

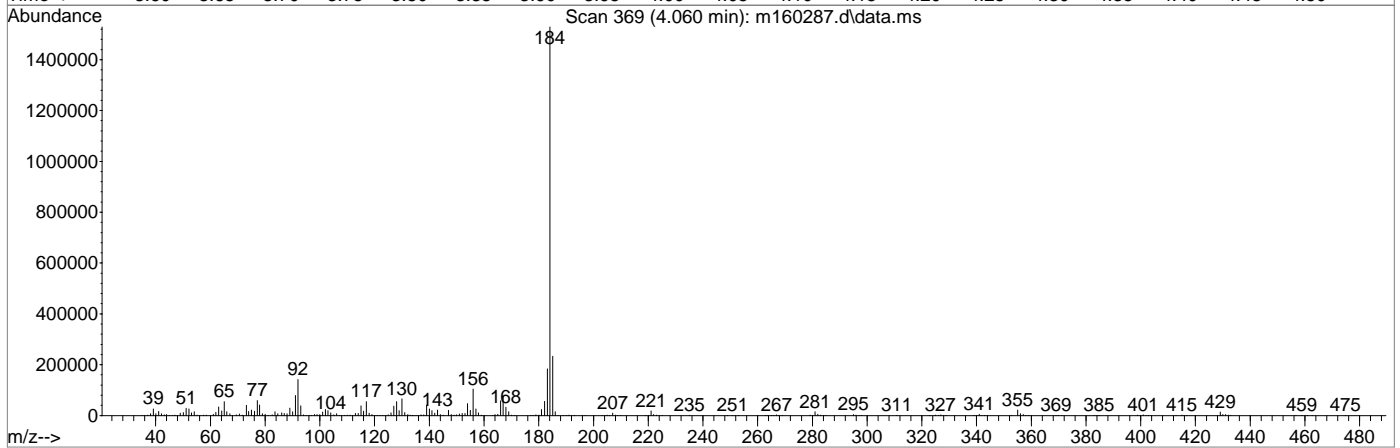
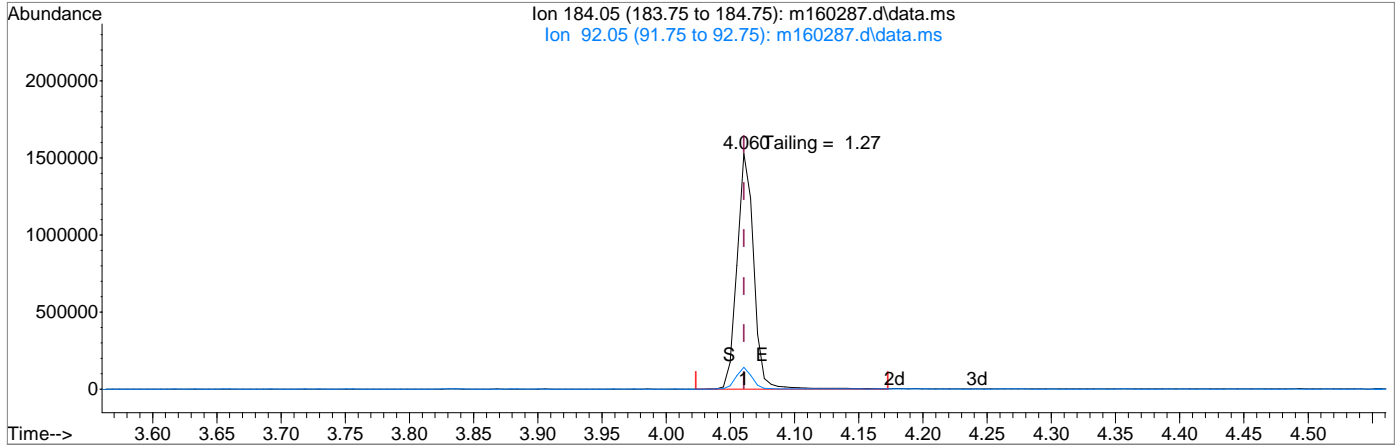
Ion	Exp%	Act%
265.80	100	100
263.70	62.20	62.15
267.70	64.10	64.09
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\jonkm\101519\em6783\
 Data File : m160287.d
 Acq On : 13 Oct 2019 9:18 am
 Operator : hennys
 Sample : dftpp
 Misc : op21044,em6783,1000,,,1,1
 ALS Vial : 1 Sample Multiplier: 1

Inst : MSM

Quant Method : C:\MSDCHEM\1\METHODS\DFTPPM.M
 Quant Results File: DFTPPM.RES
 Quant Time: Oct 14 23:03:58 2019
 Quant Title : Semi Volatile Extractables by GC/MS rxi-5silms 30mSun Feb 18 15:20:41 2018
 QLast Update : Mon Oct 14 23:03:32 2019
 Response via : Continuing Cal File:



TIC: m160287.d\data.ms

(2) Benzidine (M)

4.060min (0.000) 0.00ppm

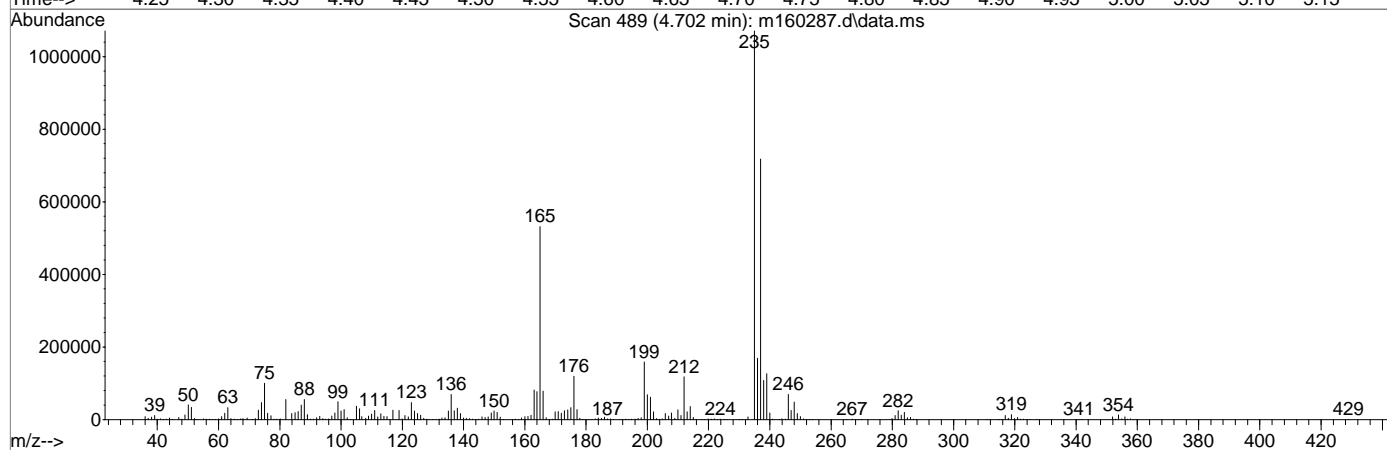
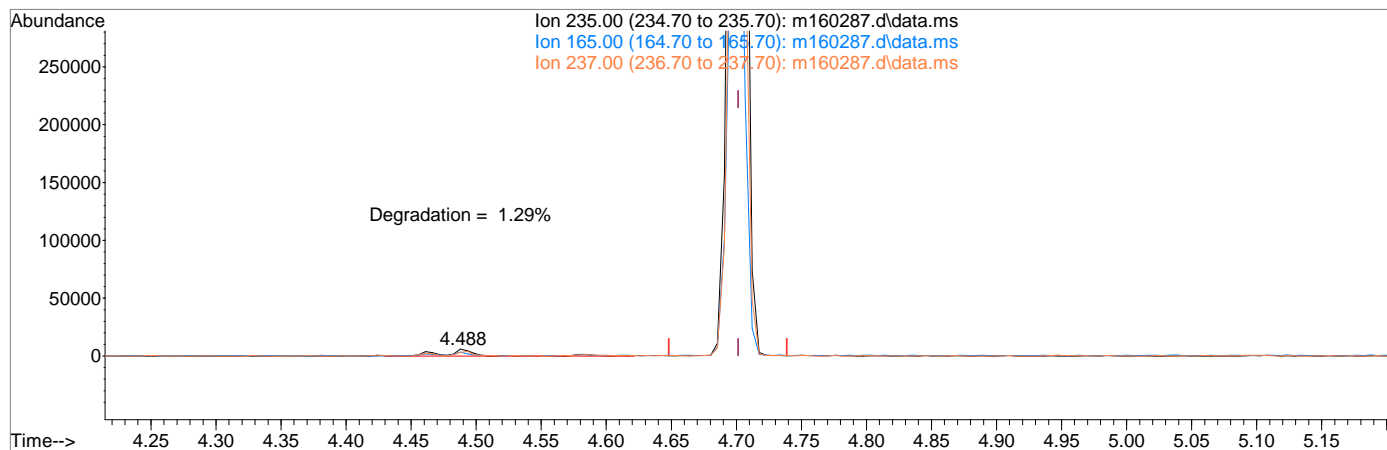
response 1379916

Ion	Exp%	Act%
184.05	100	100
92.05	9.30	9.27
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\jonkm\101519\em6783\
 Data File : m160287.d
 Acq On : 13 Oct 2019 9:18 am
 Operator : hennys
 Sample : dftpp
 Misc : op21044,em6783,1000,,,1,1
 ALS Vial : 1 Sample Multiplier: 1
 Inst : MSM

Quant Method : C:\MSDCHEM\1\METHODS\DFTPPM.M
 Quant Results File: DFTPPM.RES
 Quant Time: Oct 14 23:03:58 2019
 Quant Title : Semi Volatile Extractables by GC/MS rxi-5silms 30mSun Feb 18 15:20:41 2018
 QLast Update : Mon Oct 14 23:03:32 2019
 Response via : Continuing Cal File:



TIC: m160287.d\data.ms

(3) PP-DDT (MC)

4.702min (0.000) 0.00ppm

response 834698

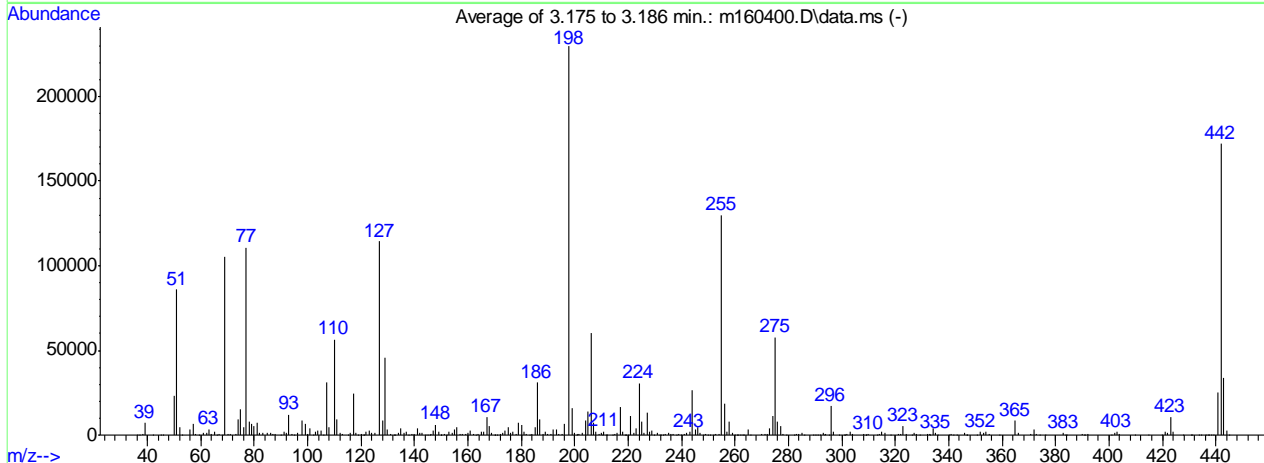
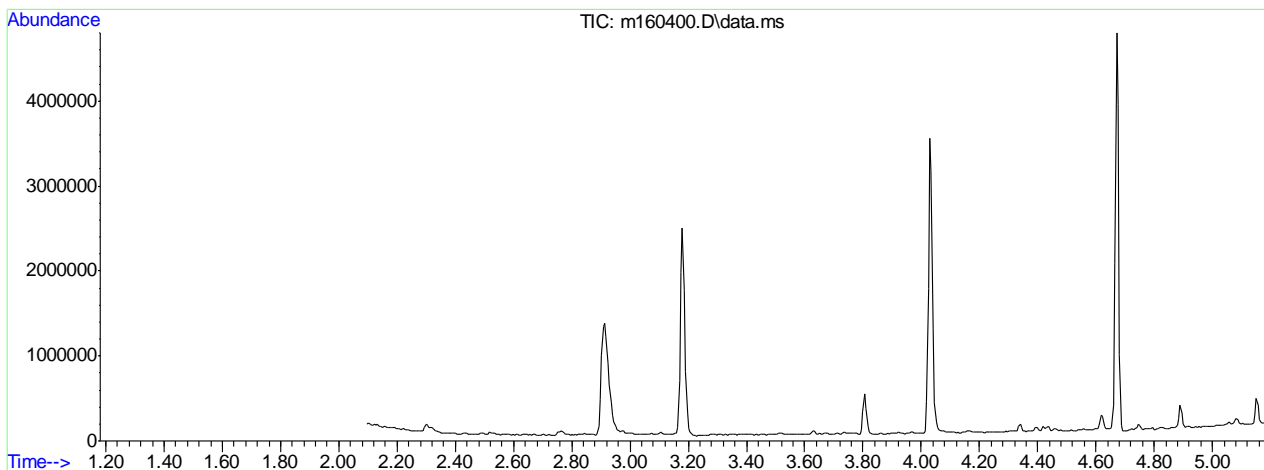
Ion	Exp%	Act%
235.00	100	100
165.00	49.60	49.58
237.00	67.00	67.00
0.00	0.00	0.00

DFTPPR

Data File : C:\msdchem\1\DATA\EM6787\m160400.D
 Acq On : 16 Oct 2019 10:42 am
 Sample : dftpp
 Misc : op21044,em6787,1000,,1,1
 MS Integration Params: rteint.p

Vial: 1
 Operator: hennys
 Inst : MSM
 Multiplr: 1.00

Method : C:\MSDCHEM\1\METHODS\DFTPPM.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS rxi-5silms 30mSun Oct 06 13:37:34 2019



AutoFind: Scans 203, 204, 205; Background Corrected with Scan 197

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result
51	198	30	60	37.4	85902	PASS
68	69	0.00	2	0.1	128	PASS
69	198	0.00	100	45.7	104992	PASS
70	69	0.00	2	0.6	650	PASS
127	198	40	60	49.9	114480	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	229525	PASS
199	198	5	9	6.8	15694	PASS
275	198	10	30	25.1	57698	PASS
365	198	1	100	3.6	8332	PASS
441	443	0.10	100	73.8	24905	PASS
442	198	40	100	74.9	171968	PASS
443	442	17	23	19.6	33728	PASS

m160400.D DFTPPM.M Wed Oct 16 12:27:12 2019

Average of 3.175 to 3.186 min.: m160400.D\data.ms

dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.00	109	56.00	3100	68.10	128	80.00	5358
37.20	173	57.00	6731	69.00	104992	81.00	7340
38.10	886	58.05	567	70.00	650	82.00	1306
39.05	7149	59.10	98	70.85	353	83.00	1214
42.00	112	61.00	1223	73.05	719	85.00	1342
45.05	44	62.05	1518	74.00	9554	85.95	1438
46.00	74	63.05	3592	75.00	15508	87.00	834
50.00	23002	64.05	723	76.05	4856	87.95	631
51.05	85902	65.00	1853	77.00	110704	89.90	83
52.00	4621	66.00	90	78.05	7888	91.00	1897
53.05	237	67.00	547	79.00	6321	92.00	1323

Average of 3.175 to 3.186 min.: m160400.D\data.ms

dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
92.95	12097	105.00	2404	117.95	1648	128.95	45976
93.95	947	106.05	69	118.95	77	129.95	3404
94.90	238	107.00	31102	119.95	469	130.90	518
96.10	1051	108.00	4933	120.90	54	132.10	337
98.00	8628	110.00	56298	121.10	92	132.80	307
99.00	6743	111.00	8992	122.00	1758	134.00	1341
99.95	865	111.95	1312	122.95	2940	135.00	3947
101.00	4148	113.05	510	124.00	1390	135.95	1380
101.95	87	114.90	347	125.05	1284	137.00	1958
103.00	1824	116.00	1549	127.00	114480	137.95	154
103.95	2676	117.00	24260	128.00	8563	138.90	402

Average of 3.175 to 3.186 min.: m160400.D\data.ms

dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
139.95	618	149.85	29	160.00	1576	170.10	171
141.00	4232	150.10	136	160.95	2933	170.85	227
142.00	1442	151.00	735	162.00	417	172.00	691
142.95	1547	152.05	174	163.05	94	172.90	1391
144.00	342	152.95	1949	163.85	540	174.00	2463
144.95	327	153.95	1031	164.90	1842	175.00	4840
145.80	298	155.00	3187	166.00	1865	176.00	1206
145.95	708	156.00	4768	166.95	10820	176.95	1780
146.95	2923	156.95	979	168.00	5528	178.05	816
148.00	6045	158.00	953	168.95	1475	178.90	7361
149.00	2161	159.00	795	169.90	199	180.00	5755

Average of 3.175 to 3.186 min.: m160400.D\data.ms

dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
181.00	2225	191.95	3172	202.95	1598	212.05	346
181.95	700	192.95	3397	203.95	8857	214.05	265
183.00	256	193.90	370	204.95	14223	214.90	878
183.95	827	195.05	589	206.00	60482	215.95	1516
185.00	4491	195.95	6834	207.00	6989	216.90	16507
186.00	31053	197.90	229525	208.00	2208	217.95	1957
187.00	9225	198.90	15694	208.95	805	218.90	74
188.00	937	199.95	1385	210.05	1100	219.10	338
188.95	2223	200.70	69	210.30	285	220.10	214
189.95	645	200.95	478	210.95	2336	220.95	11118
190.90	948	201.65	975	211.80	179	221.90	1586

Average of 3.175 to 3.186 min.: m160400.D\data.ms

dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
222.95	3768	232.95	154	244.00	26304	255.00	129842
224.00	30522	233.95	900	245.00	3475	256.00	18604
225.00	7680	234.95	1094	245.95	4705	256.95	1742
225.95	1070	235.85	743	246.90	1089	257.95	7868

226.95	13554	236.95	636	247.95	264	258.95	1439
227.95	2178	237.95	243	248.90	556	259.95	317
228.90	2884	238.95	563	249.95	244	260.85	256
229.85	290	239.90	265	250.70	68	261.10	136
230.90	1318	240.90	746	251.95	283	261.90	78
231.80	157	242.00	1637	252.95	871	262.75	156
232.00	191	243.00	1814	253.90	577	263.10	81

Average of 3.175 to 3.186 min.: m160400.D\data.ms
dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
264.95	3607	279.00	224	293.60	82	308.10	364
265.70	318	281.95	27	293.95	480	308.85	196
270.00	375	282.95	757	294.95	199	309.10	70
271.00	429	284.00	383	295.90	17089	309.95	400
271.85	507	284.95	1041	296.95	2211	313.00	149
273.00	3750	286.10	167	299.10	68	313.95	758
273.95	10966	289.05	229	300.90	222	314.90	2093
275.00	57698	290.10	149	301.20	68	315.95	1163
276.00	7659	291.10	80	301.95	453	318.30	67
276.95	5052	291.95	189	302.90	2126	321.00	616
277.95	1006	292.90	1148	303.90	504	321.95	391

Average of 3.175 to 3.186 min.: m160400.D\data.ms
dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
323.00	5583	336.00	156	353.95	1853	383.80	156
324.00	939	339.95	186	355.00	636	384.00	66
326.10	96	340.95	740	359.00	95	390.00	527
326.85	1077	341.90	228	364.90	8332	390.80	84
327.95	467	343.10	80	365.90	1401	391.00	155
329.10	69	345.85	1319	370.85	434	391.90	399
332.00	399	346.70	108	371.95	3218	400.90	253
332.80	127	346.90	160	372.95	839	401.95	1528
333.00	486	350.70	86	373.90	82	402.90	1728
334.00	4086	351.95	1970	376.00	184	403.95	947
335.05	1064	352.95	1322	382.95	1056	409.90	67

Average of 3.175 to 3.186 min.: m160400.D\data.ms
dftpp

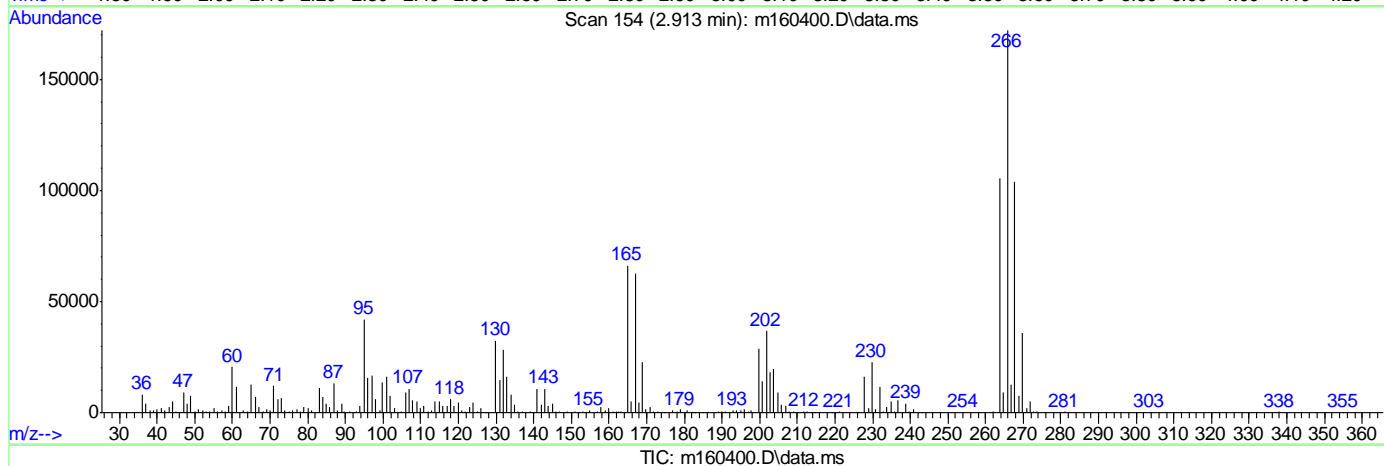
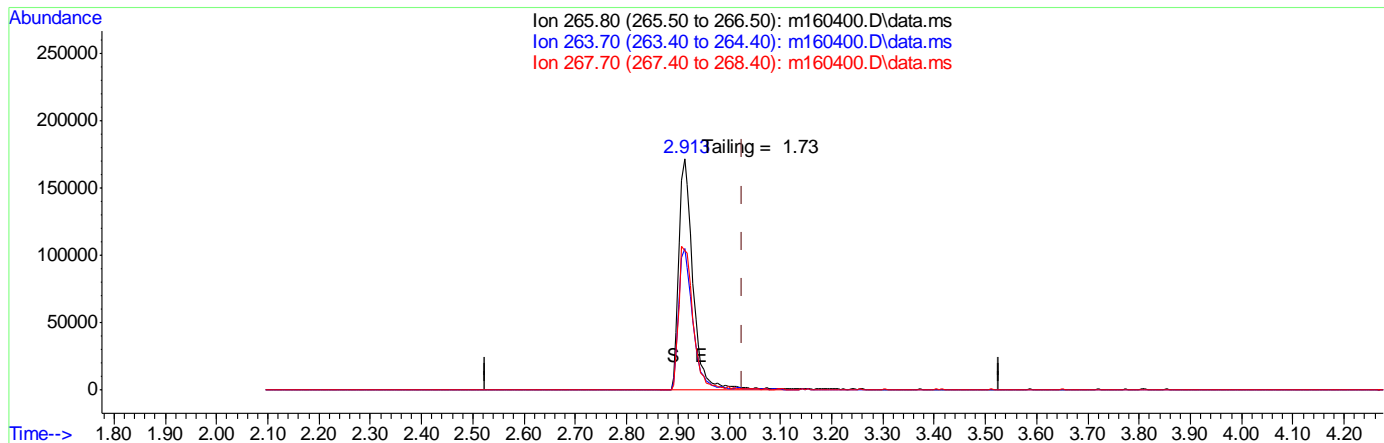
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
414.90	101	436.20	187				
419.70	73	436.80	123				
420.95	1727	437.30	128				
421.95	1260	438.40	119				
422.95	10848	438.95	191				
423.95	2218	440.90	24905				
427.70	69	441.95	171968				
430.60	105	442.95	33728				
431.00	127	443.95	2991				
433.50	116	444.80	119				
434.50	88						

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EM6787\
 Data File : m160400.D
 Acq On : 16 Oct 2019 10:42 am
 Operator : hennys
 Sample : dftpp
 Misc : op21044,em6787,1000,,,1,1
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Oct 16 10:47:32 2019
 Quant Method : C:\MSDCHEM\1\METHODS\DFTPPM.M
 Quant Title : Semi Volatile Extractables by GC/MS rxi-5silms 30mSun Oct 06 13:37:34 2019
 QLast Update : Sun Oct 06 13:37:34 2019
 Response via : Continuing Cal File:



(1) Pentachlorophenol (MC)

2.913min (-0.113) 0.00ppm

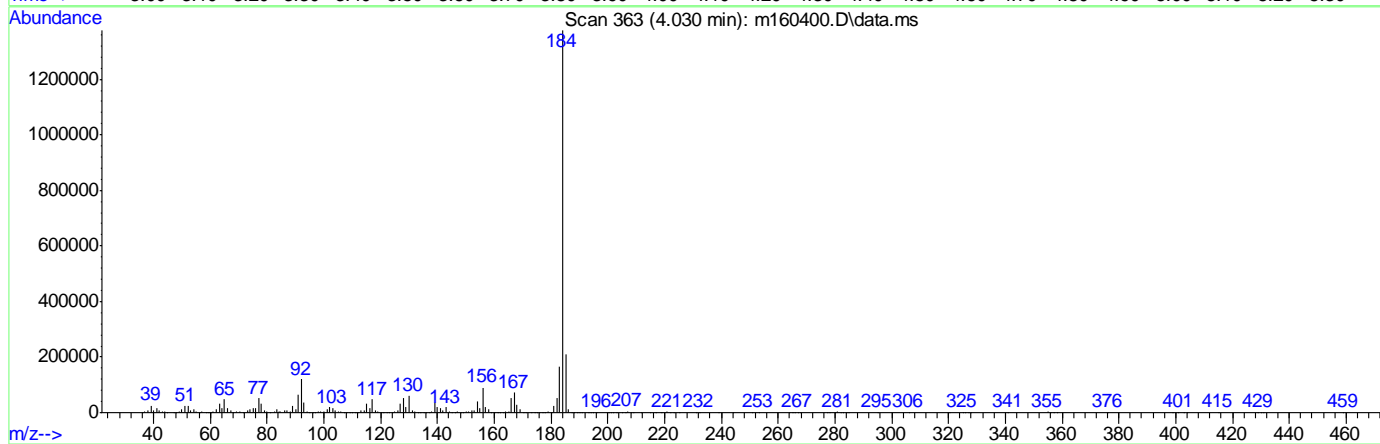
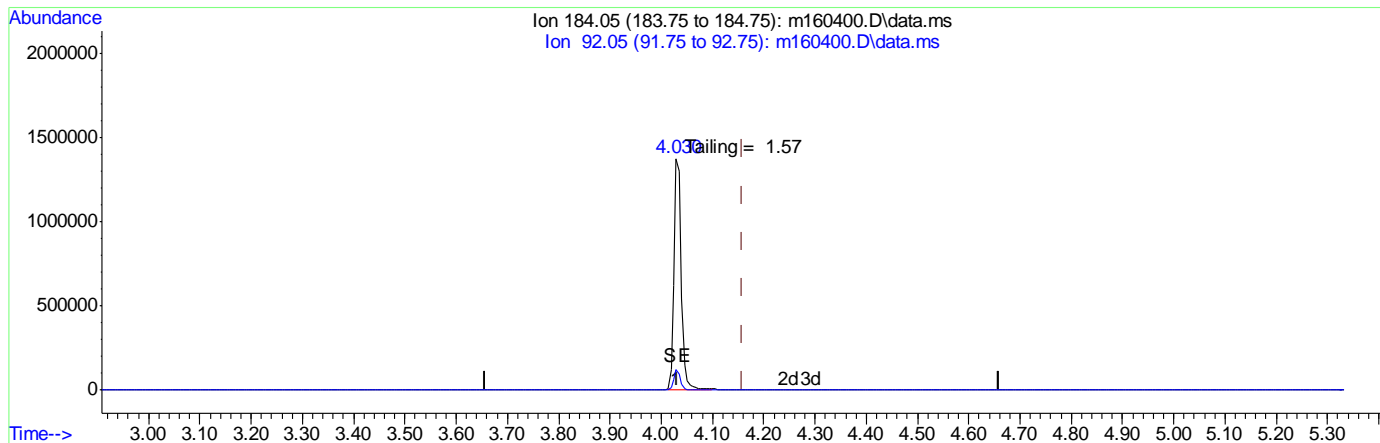
response 327002

Ion	Exp%	Act%
265.80	100	100
263.70	62.90	61.37
267.70	64.90	60.31
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EM6787\
 Data File : m160400.D
 Acq On : 16 Oct 2019 10:42 am
 Operator : hennys
 Sample : dftpp
 Misc : op21044,em6787,1000,,,1,1
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Oct 16 10:47:32 2019
 Quant Method : C:\MSDCHEM\1\METHODS\DFTPPM.M
 Quant Title : Semi Volatile Extractables by GC/MS rxi-5silms 30mSun Oct 06 13:37:34 2019
 QLast Update : Sun Oct 06 13:37:34 2019
 Response via : Continuing Cal File:



TIC: m160400.D\data.ms

(2) Benzidine (M)

4.030min (-0.129) 0.00ppm

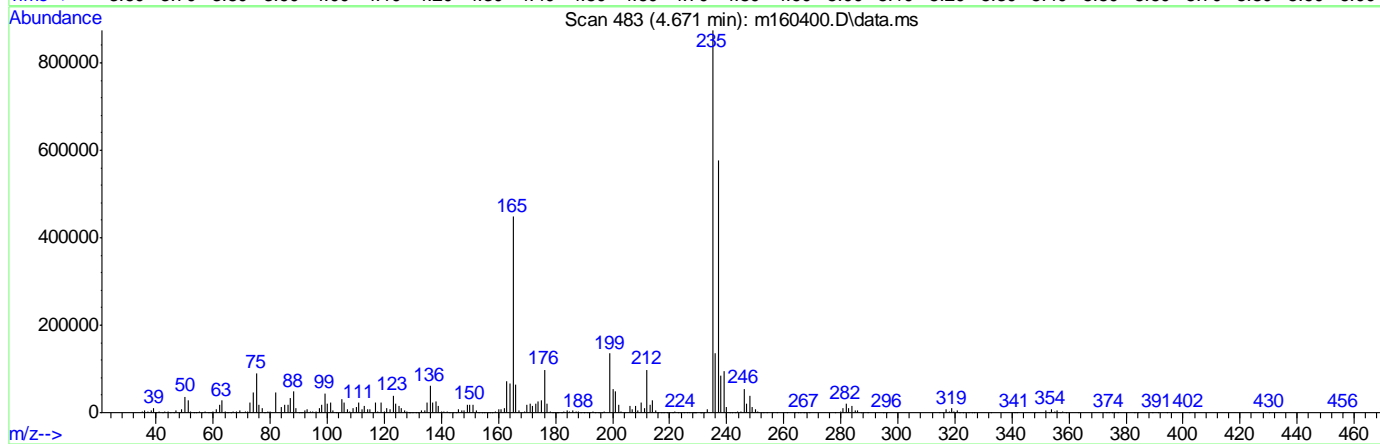
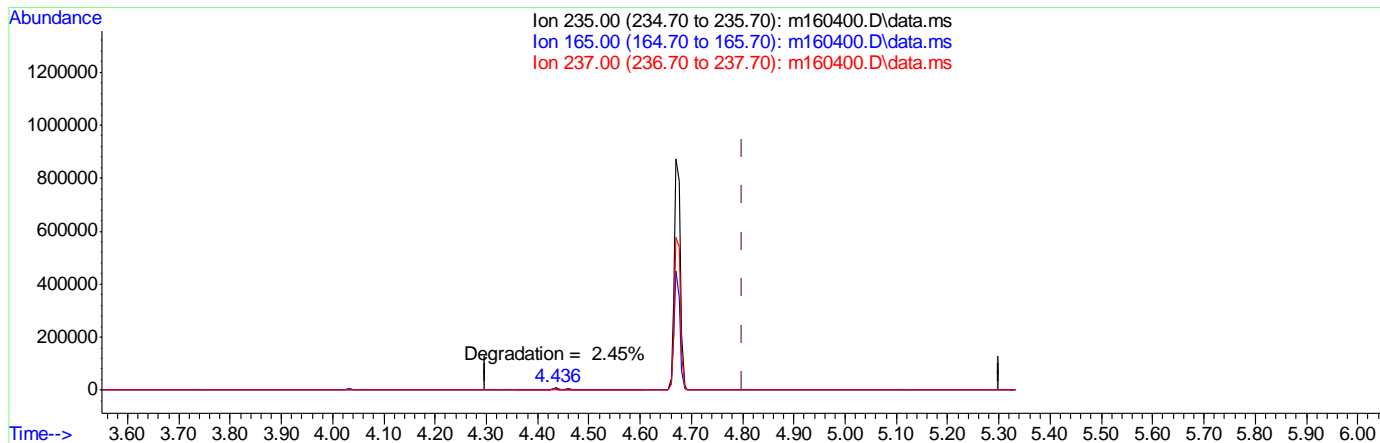
response 1385579

Ion	Exp%	Act%
184.05	100	100
92.05	7.70	8.73
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EM6787\
 Data File : m160400.D
 Acq On : 16 Oct 2019 10:42 am
 Operator : hennys
 Sample : dftpp
 Misc : op21044,em6787,1000,,,1,1
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Oct 16 10:47:32 2019
 Quant Method : C:\MSDCHEM\1\METHODS\DFTPPM.M
 Quant Title : Semi Volatile Extractables by GC/MS rxi-5silms 30mSun Oct 06 13:37:34 2019
 QLast Update : Sun Oct 06 13:37:34 2019
 Response via : Continuing Cal File:



TIC: m160400.D\data.ms

(3) PP-DDT (MC)

4.671min (-0.129) 0.00ppm

response 727240

Ion	Exp%	Act%
235.00	100	100
165.00	41.70	51.21
237.00	67.40	65.87
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF8050\
 Data File : F186996.D
 Acq On : 9 Sep 2019 3:07 pm
 Operator : angelar
 Sample : ic8050-100
 Misc : op21602,ef8050,1000,,,1,1
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 10 08:59:50 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MF8050.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Tue Sep 10 08:57:05 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
Internal Standards							
1) 1,4-Dichlorobenzene-d4	4.607	152	152751	40.00	ppm	0.00	
24) Naphthalene-d8	5.526	136	550231	40.00	ppm	0.00	
47) Acenaphthene-d10	6.915	164	316305	40.00	ppm	0.02	
69) Phenanthrene-d10	8.747	188	548434	40.00	ppm	0.04	
83) Chrysene-d12	13.961	240	480061	40.00	ppm	0.05	
91) Perylene-d12	16.980	264	509509	40.00	ppm	0.03	
101) 1,4-Dichlorobenzene-d4b	4.607	152	152751	40.00	ppm	0.00	
103) Phenanthrene-d10b	8.747	188	548434	40.00	ppm	0.04	
105) Chrysene-d12b	13.961	240	480061	40.00	ppm	0.05	
107) Naphthalene-d8b	5.526	136	550231	40.00	ppm	0.00	
109) Acenaphthene-d10b	6.915	164	316305	40.00	ppm	0.02	
System Monitoring Compounds							
5) 2-Fluorophenol	3.619	112	544646	98.58	ppm	-0.03	
Spiked Amount	50.000		Recovery	=	197.16%		
8) Phenol-d5	4.345	99	670766	96.33	ppm	-0.02	
Spiked Amount	50.000		Recovery	=	192.66%		
25) Nitrobenzene-d5	5.008	82	633706	108.30	ppm	0.00	
Spiked Amount	50.000		Recovery	=	216.60%		
51) 2-Fluorobiphenyl	6.316	172	1083772	101.09	ppm	0.01	
Spiked Amount	50.000		Recovery	=	202.18%		
73) 2,4,6-Tribromophenol	7.780	330	187713	111.84	ppm	0.02	
Spiked Amount	50.000		Recovery	=	223.68%		
85) Terphenyl-d14	11.760	244	1104180	102.55	ppm	0.05	
Spiked Amount	50.000		Recovery	=	205.10%		
Target Compounds							
							Qvalue
2) 1,4-Dioxane	2.133	88	263248	89.01	ppm		89
3) Pyridine	2.454	79	677767	98.52	ppm		88
4) N-Nitrosodimethylamine	2.427	42	283607	102.16	ppm		93
6) Indene	4.794	116	733574	83.35	ppm		93
7) Cumene	4.014	105	1298445	97.92	ppm		98
9) Phenol	4.356	94	729740	87.80	ppm		81
10) Aniline	4.361	93	824177	91.61	ppm		97
11) bis(2-Chloroethyl)ether	4.415	93	531613	89.87	ppm		87
12) 2-Chlorophenol	4.452	128	538032	99.13	ppm		94
13) Decane	4.495	43	449976	76.89	ppm		86
14) 1,3-Dichlorobenzene	4.564	146	589504	97.43	ppm		99
15) 1,4-Dichlorobenzene	4.618	146	590882	96.65	ppm		99
16) Benzyl alcohol	4.708	108	329355	91.58	ppm		88
17) 1,2-Dichlorobenzene	4.730	146	570984	98.65	ppm		95
18) Acetophenone	4.901	105	662872	88.03	ppm		96
19) 2-Methylphenol	4.794	108	446855	86.06	ppm		97
20) 2,2'-oxybis(1-Chloropr...	4.805	121	147148	94.17	ppm	#	78
21) 3&4-Methylphenol	4.906	108	434319	82.10	ppm		95
22) n-Nitroso-di-n-propyla...	4.906	70	337184	81.86	ppm		99
23) Hexachloroethane	4.981	201	234548	115.28	ppm		88
26) Nitrobenzene	5.024	77	622433	106.41	ppm		95
27) Quinoline	5.788	129	975401	95.43	ppm		98

9.6-1
9

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF8050\
 Data File : F186996.D
 Acq On : 9 Sep 2019 3:07 pm
 Operator : angelar
 Sample : ic8050-100
 Misc : op21602,ef8050,1000,,,1,1
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 10 08:59:50 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MF8050.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Tue Sep 10 08:57:05 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
28) Isophorone	5.195	82	1062504	94.23	ppm	98
29) 2-Nitrophenol	5.253	139	278239	118.59	ppm	93
30) 2,4-Dimethylphenol	5.285	107	558799	103.49	ppm	93
31) Benzoic acid	5.387	105	464730	155.31	ppm	96
32) bis(2-Chloroethoxy)met...	5.349	93	639302	91.63	ppm	100
33) 2,4-Dichlorophenol	5.430	162	442589	103.19	ppm	100
34) 2,6-Dichlorophenol	5.590	162	408938	95.95	ppm	99
35) 1,3,5-Trichlorobenzene	5.264	180	479690	94.44	ppm	97
36) 1,2,4-Trichlorobenzene	5.488	180	476667	99.37	ppm	96
37) 1,2,3-Trichlorobenzene	5.649	180	459818	94.73	ppm	95
38) Naphthalene	5.542	128	1362915	92.23	ppm	100
39) 4-Chloroaniline	5.579	127	606203	94.37	ppm	96
40) 2,3-Dichloroaniline	6.252	161	492401	92.06	ppm	97
41) Caprolactam	5.846	55	233182	75.61	ppm	85
42) Hexachlorobutadiene	5.638	225	308806	113.33	ppm	98
43) 4-Chloro-3-methylphenol	5.926	107	486273	103.63	ppm	95
44) 2-Methylnaphthalene	6.039	141	719753	95.12	ppm #	62
45) 1-Methylnaphthalene	6.113	142	931065	92.98	ppm	97
46) Dimethylnaphthalene	6.535	156	881527	97.79	ppm	99
48) Hexachlorocyclopentadiene	6.162	237	657804	283.51	ppm	98
49) 2,4,6-Trichlorophenol	6.252	196	315922m	111.22	ppm	
50) 2,4,5-Trichlorophenol	6.284	196	364176	113.42	ppm	98
52) 2-Chloronaphthalene	6.418	162	942261	98.85	ppm	99
53) Biphenyl	6.402	154	1150365	95.31	ppm	99
54) 2-Nitroaniline	6.503	65	352388	98.35	ppm	88
55) Dimethylphthalate	6.658	163	1066679	100.80	ppm	100
56) Acenaphthylene	6.781	152	1422014	97.24	ppm	99
57) 2,6-Dinitrotoluene	6.712	165	245432	134.94	ppm	92
58) 3-Nitroaniline	6.872	138	277416	113.85	ppm	94
59) Acenaphthene	6.947	153	900384	94.60	ppm	98
60) 2,4-Dinitrophenol	6.968	184	298499	450.28	ppm #	95
61) 4-Nitrophenol	7.032	109	199024	153.37	ppm #	53
62) Dibenzofuran	7.123	168	1206225	93.26	ppm	95
63) 2,4-Dinitrotoluene	7.102	165	340740	142.84	ppm	99
64) 2,3,4,6-Tetrachlorophenol	7.251	232	300576	131.05	ppm	96
65) Diethylphthalate	7.369	149	1105844	105.98	ppm	98
66) Fluorene	7.497	166	941134	94.76	ppm	98
67) 4-Chlorophenyl-phenyle...	7.492	204	480443	100.46	ppm	98
68) 4-Nitroaniline	7.529	138	288991	116.29	ppm	87
70) 4,6-Dinitro-2-methylph...	7.556	198	225276	176.51	ppm	86
71) n-Nitrosodiphenylamine	7.636	169	757770	99.54	ppm	98
72) 1,2-Diphenylhydrazine	7.684	77	1199451	96.18	ppm	96
74) 4-Bromophenyl-phenylether	8.111	248	321067	102.68	ppm	96
75) Hexachlorobenzene	8.202	284	342010	92.51	ppm	91
76) Pentachlorophenol	8.480	266	458642	237.20	ppm	99
77) Phenanthrene	8.785	178	1447463	91.68	ppm	99
78) Anthracene	8.865	178	1496334	94.22	ppm	99
79) Carbazole	9.132	167	1407147	96.65	ppm	99
80) Di-n-butylphthalate	9.832	149	1878211	108.46	ppm	99
81) Fluoranthene	10.895	202	1600753	106.79	ppm	92

9.6.1
9

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF8050\
 Data File : F186996.D
 Acq On : 9 Sep 2019 3:07 pm
 Operator : angelar
 Sample : ic8050-100
 Misc : op21602,ef8050,1000,,,1,1
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 10 08:59:50 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MF8050.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Tue Sep 10 08:57:05 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
82) Octadecane	8.662	57	637725	73.79	ppm	84
84) Pyrene	11.333	202	1726745	103.40	ppm	91
86) Butylbenzylphthalate	12.930	149	825628	110.82	ppm	99
87) Benzo[a]anthracene	13.940	228	1601933	108.33	ppm	98
88) 3,3'-Dichlorobenzidine	13.988	252	603186	101.02	ppm	99
89) Chrysene	14.025	228	1608366	98.12	ppm	99
90) bis(2-Ethylhexyl)phtha...	14.340	149	1136824	112.14	ppm	97
92) Di-n-octylphthalate	15.778	149	1927990	129.12	ppm	98
93) Benzo[b]fluoranthene	16.242	252	1608933	119.95	ppm	99
94) Benzo[k]fluoranthene	16.312	252	1549656	101.04	ppm	98
95) Benzo[a]pyrene	16.873	252	1460903	117.79	ppm	99
96) Indeno[1,2,3-cd]pyrene	18.929	276	1410069	129.55	ppm	93
97) Dibenz(a,h)acridine	18.561	279	1271757	116.96	ppm	98
98) Dibenz[a,h]anthracene	18.988	278	1503952	121.74	ppm	86
99) 7,12-Dimethylbenz(a)an...	16.274	256	747577	109.28	ppm	93
100) Benzo[g,h,i]perylene	19.357	276	1406817	111.10	ppm	99

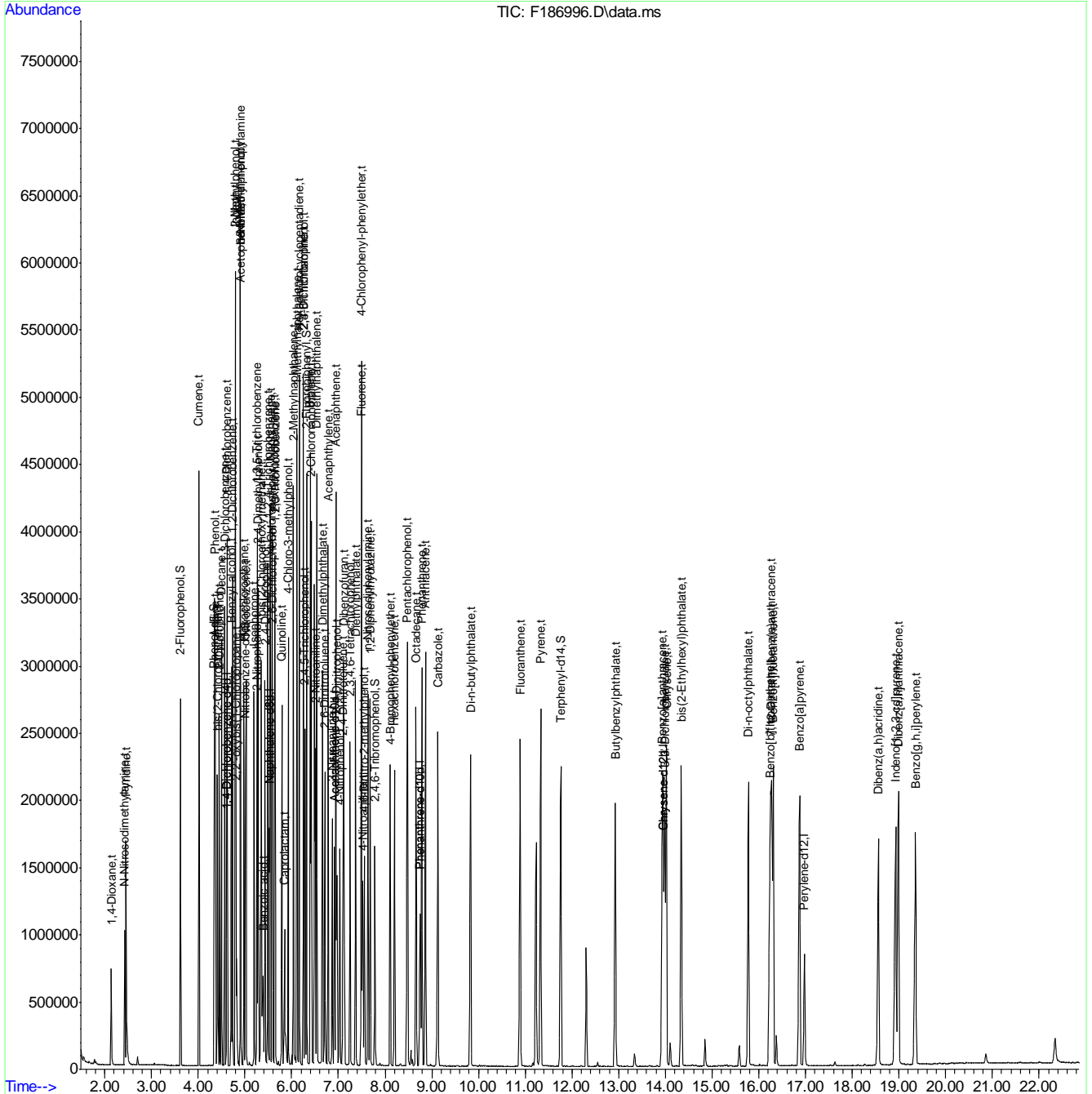
(#) = qualifier out of range (m) = manual integration (+) = signals summed

9.6.1
9

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF8050\
 Data File : F186996.D
 Acq On : 9 Sep 2019 3:07 pm
 Operator : angelar
 Sample : ic8050-100
 Misc : op21602,ef8050,1000,,,1,1
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 10 08:59:50 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MF8050.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Tue Sep 10 08:57:05 2019
 Response via : Initial Calibration



9.6-1
9

Manual Integration Approval Summary

Sample Number: EF8050-IC8050
Lab FileID: F186996.D
Injection Time: 09/09/19 15:07

Method: SW846 8270D
Analyst approved: 09/10/19 10:17 Kristi Schollenberger
Supervisor approved: 09/11/19 09:08 Nina Pandya

Parameter	CAS	Sig#	R.T. (min.)	Reason
2,4,6-Trichlorophenol	88-06-2		6.25	Poor instrument integration

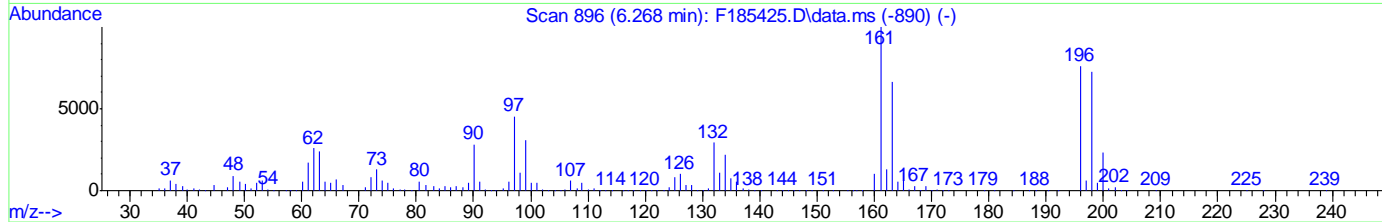
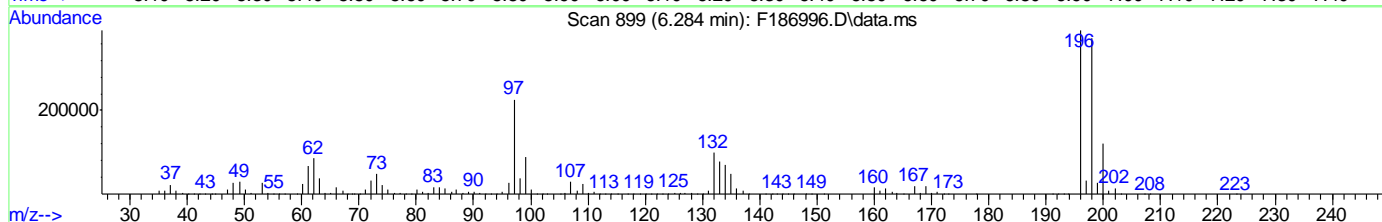
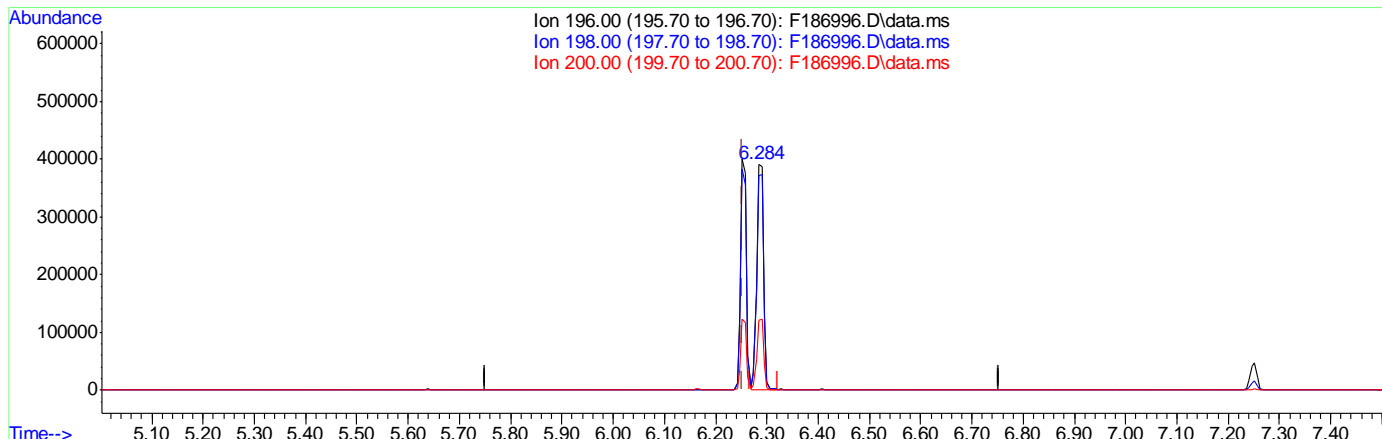
9.6.1.1

9

Quantitation Report (Qedit)

Data Path : C:\MSDCHEM\1\DATA\EF8050\
 Data File : F186996.D
 Acq On : 9 Sep 2019 3:07 pm
 Operator : angelar
 Sample : ic8050-100
 Misc : op21602,ef8050,1000,,,1,1
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 10 08:58:07 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MF8050.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Tue Sep 10 08:57:05 2019
 Response via : Initial Calibration



TIC: F186996.D\data.ms

(49) 2,4,6-Trichlorophenol (t)
 6.284min (+0.032) 128.21ppm
 response 364176

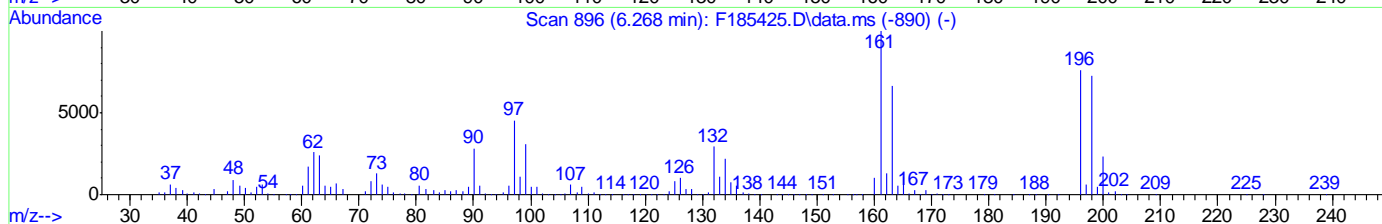
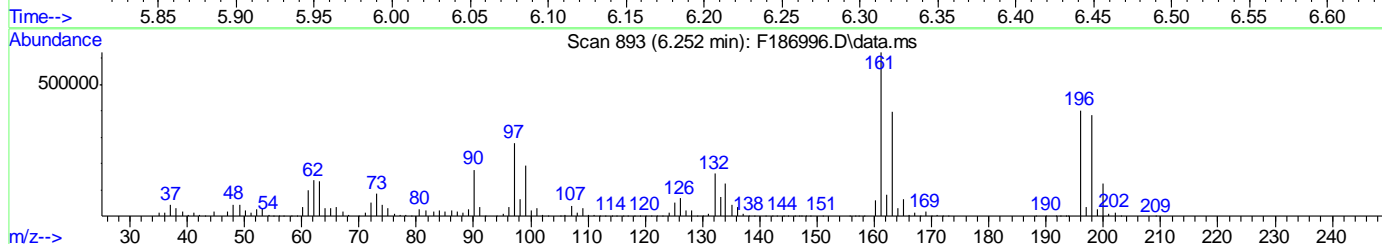
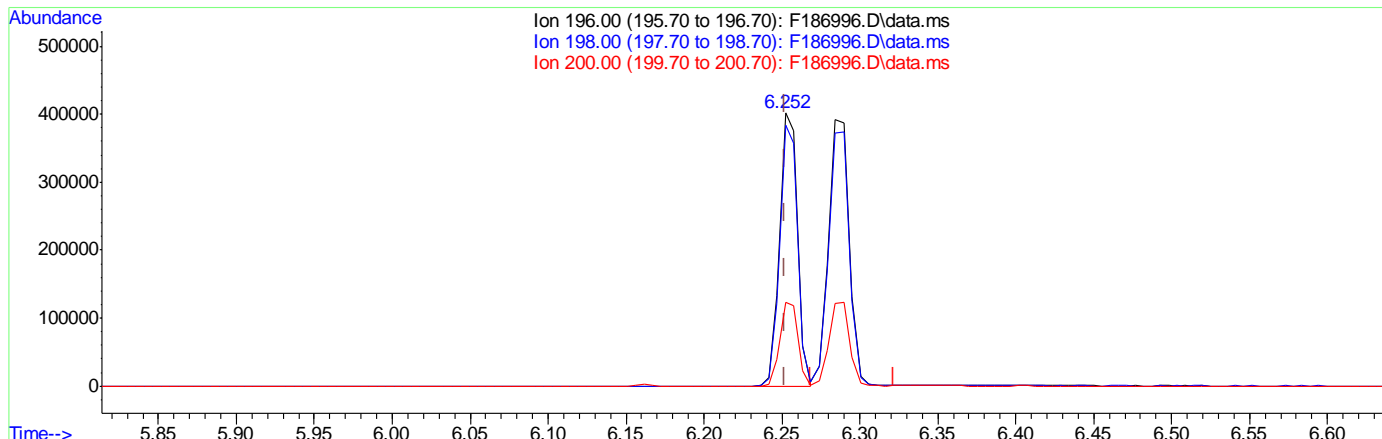
Ion	Exp%	Act%
196.00	100	100
198.00	94.90	94.89
200.00	30.80	30.84
0.00	0.00	0.00

9.6.1.2
9

Quantitation Report (Qedit)

Data Path : C:\MSDCHEM\1\DATA\EF8050\
 Data File : F186996.D
 Acq On : 9 Sep 2019 3:07 pm
 Operator : angelar
 Sample : ic8050-100
 Misc : op21602,ef8050,1000,,,1,1
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 10 08:58:07 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MF8050.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Tue Sep 10 08:57:05 2019
 Response via : Initial Calibration



TIC: F186996.D\data.ms

(49) 2,4,6-Trichlorophenol (t)

6.252min (-0.000) 111.22ppm m

response 315922

Ion	Exp%	Act%
196.00	100	100
198.00	94.90	95.68
200.00	30.80	30.51
0.00	0.00	0.00

9.6.1.3
9

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF8050\
 Data File : F186997.D
 Acq On : 9 Sep 2019 3:36 pm
 Operator : angelar
 Sample : ic8050-80
 Misc : op21602,ef8050,1000,,,1,1
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Sep 10 09:01:23 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MF8050.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Tue Sep 10 09:00:03 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
Internal Standards							
1) 1,4-Dichlorobenzene-d4	4.607	152	157820	40.00	ppm	0.00	
24) Naphthalene-d8	5.526	136	563852	40.00	ppm	0.00	
47) Acenaphthene-d10	6.909	164	322096	40.00	ppm	0.00	
69) Phenanthrene-d10	8.736	188	576073	40.00	ppm	-0.01	
83) Chrysene-d12	13.945	240	494577	40.00	ppm	-0.02	
91) Perylene-d12	16.969	264	532760	40.00	ppm	-0.01	
101) 1,4-Dichlorobenzene-d4b	4.607	152	157820	40.00	ppm	0.00	
103) Phenanthrene-d10b	8.736	188	576073	40.00	ppm	-0.01	
105) Chrysene-d12b	13.945	240	494577	40.00	ppm	-0.02	
107) Naphthalene-d8b	5.526	136	563852	40.00	ppm	0.00	
109) Acenaphthene-d10b	6.909	164	322096	40.00	ppm	0.00	
System Monitoring Compounds							
5) 2-Fluorophenol	3.619	112	440744	77.21	ppm	0.00	
Spiked Amount	50.000		Recovery	=	154.42%		
8) Phenol-d5	4.340	99	546648	75.98	ppm	0.00	
Spiked Amount	50.000		Recovery	=	151.96%		
25) Nitrobenzene-d5	5.008	82	514467	85.80	ppm	0.00	
Spiked Amount	50.000		Recovery	=	171.60%		
51) 2-Fluorobiphenyl	6.311	172	888596	81.39	ppm	0.00	
Spiked Amount	50.000		Recovery	=	162.78%		
73) 2,4,6-Tribromophenol	7.775	330	151154	85.73	ppm	0.00	
Spiked Amount	50.000		Recovery	=	171.46%		
85) Terphenyl-d14	11.744	244	919042	82.85	ppm	-0.02	
Spiked Amount	50.000		Recovery	=	165.70%		
Target Compounds							
2) 1,4-Dioxane	2.133	88	204400	66.89	ppm	99	Qvalue
3) Pyridine	2.449	79	527906	74.27	ppm	95	
4) N-Nitrosodimethylamine	2.422	42	222057	77.42	ppm	94	
6) Indene	4.794	116	609369	67.02	ppm	97	
7) Cumene	4.014	105	1060164	77.39	ppm	99	
9) Phenol	4.351	94	600527	69.93	ppm	89	
10) Aniline	4.361	93	684903	73.68	ppm	99	
11) bis(2-Chloroethyl)ether	4.409	93	419970	68.72	ppm	96	
12) 2-Chlorophenol	4.452	128	442892	78.98	ppm	97	
13) Decane	4.495	43	369655	61.14	ppm	96	
14) 1,3-Dichlorobenzene	4.564	146	475508	76.07	ppm	98	
15) 1,4-Dichlorobenzene	4.618	146	490862	77.71	ppm	99	
16) Benzyl alcohol	4.708	108	270640	72.84	ppm	92	
17) 1,2-Dichlorobenzene	4.730	146	468899	78.41	ppm	100	
18) Acetophenone	4.901	105	547410	70.36	ppm	97	
19) 2-Methylphenol	4.789	108	369198	68.82	ppm	99	
20) 2,2'-oxybis(1-Chloropr...	4.805	121	120936	74.91	ppm	92	
21) 3&4-Methylphenol	4.901	108	355143	64.98	ppm	96	
22) n-Nitroso-di-n-propyla...	4.901	70	282601	66.40	ppm	97	
23) Hexachloroethane	4.976	201	192722	91.68	ppm	84	
26) Nitrobenzene	5.024	77	514787	85.88	ppm	96	
27) Quinoline	5.782	129	796352	76.03	ppm	99	

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF8050\
 Data File : F186997.D
 Acq On : 9 Sep 2019 3:36 pm
 Operator : angelar
 Sample : ic8050-80
 Misc : op21602,ef8050,1000,,,1,1
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Sep 10 09:01:23 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MF8050.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Tue Sep 10 09:00:03 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
28) Isophorone	5.195	82	855826	74.07	ppm	97
29) 2-Nitrophenol	5.253	139	223163	92.82	ppm	91
30) 2,4-Dimethylphenol	5.280	107	454536	82.14	ppm	98
31) Benzoic acid	5.376	105	359072	117.10	ppm	96
32) bis(2-Chloroethoxy)met...	5.344	93	517031	72.31	ppm	100
33) 2,4-Dichlorophenol	5.424	162	359013	81.69	ppm	97
34) 2,6-Dichlorophenol	5.585	162	342105	78.33	ppm	98
35) 1,3,5-Trichlorobenzene	5.264	180	400147	76.88	ppm	97
36) 1,2,4-Trichlorobenzene	5.483	180	388384	79.01	ppm	98
37) 1,2,3-Trichlorobenzene	5.643	180	383132	77.03	ppm	97
38) Naphthalene	5.542	128	1120183	73.97	ppm	99
39) 4-Chloroaniline	5.579	127	507099	77.04	ppm	95
40) 2,3-Dichloroaniline	6.247	161	402471	73.43	ppm	97
41) Caprolactam	5.836	55	182185	57.65	ppm	99
42) Hexachlorobutadiene	5.633	225	250259	89.62	ppm	98
43) 4-Chloro-3-methylphenol	5.921	107	393679	81.87	ppm	99
44) 2-Methylnaphthalene	6.033	141	589521	76.03	ppm	98
45) 1-Methylnaphthalene	6.108	142	771842	75.22	ppm	97
46) Dimethylnaphthalene	6.530	156	730181	79.05	ppm	99
48) Hexachlorocyclopentadiene	6.162	237	532552	225.40	ppm	99
49) 2,4,6-Trichlorophenol	6.252	196	259435	89.69	ppm	99
50) 2,4,5-Trichlorophenol	6.279	196	297804	91.08	ppm	99
52) 2-Chloronaphthalene	6.413	162	782291	80.59	ppm	98
53) Biphenyl	6.397	154	937756	76.30	ppm	98
54) 2-Nitroaniline	6.498	65	287624	78.83	ppm	96
55) Dimethylphthalate	6.653	163	873516	81.06	ppm	100
56) Acenaphthylene	6.776	152	1177104	79.04	ppm	99
57) 2,6-Dinitrotoluene	6.701	165	203779	110.02	ppm	93
58) 3-Nitroaniline	6.861	138	221278	89.18	ppm	91
59) Acenaphthene	6.941	153	748249	77.21	ppm	99
60) 2,4-Dinitrophenol	6.963	184	233144	345.37	ppm	77
61) 4-Nitrophenol	7.022	109	153168	115.91	ppm	94
62) Dibenzofuran	7.112	168	999682	75.90	ppm	99
63) 2,4-Dinitrotoluene	7.091	165	279110	114.90	ppm	98
64) 2,3,4,6-Tetrachlorophenol	7.241	232	237604	101.73	ppm	94
65) Diethylphthalate	7.358	149	910293	85.67	ppm	100
66) Fluorene	7.486	166	775888	76.72	ppm	100
67) 4-Chlorophenyl-phenyle...	7.486	204	400304	82.20	ppm	99
68) 4-Nitroaniline	7.513	138	233039	92.09	ppm	96
70) 4,6-Dinitro-2-methylph...	7.545	198	180389	134.56	ppm	98
71) n-Nitrosodiphenylamine	7.625	169	633200	79.19	ppm	99
72) 1,2-Diphenylhydrazine	7.673	77	980020	74.81	ppm	97
74) 4-Bromophenyl-phenylether	8.101	248	261105	79.49	ppm	99
75) Hexachlorobenzene	8.192	284	279895	72.07	ppm	98
76) Pentachlorophenol	8.469	266	379093	186.65	ppm	99
77) Phenanthrene	8.774	178	1192177	71.89	ppm	99
78) Anthracene	8.854	178	1252692	75.09	ppm	100
79) Carbazole	9.121	167	1160031	75.85	ppm	99
80) Di-n-butylphthalate	9.816	149	1529611	84.10	ppm	99
81) Fluoranthene	10.879	202	1291921	82.05	ppm	99

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF8050\
 Data File : F186997.D
 Acq On : 9 Sep 2019 3:36 pm
 Operator : angelar
 Sample : ic8050-80
 Misc : op21602,ef8050,1000,,,1,1
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Sep 10 09:01:23 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MF8050.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Tue Sep 10 09:00:03 2019
 Response via : Initial Calibration

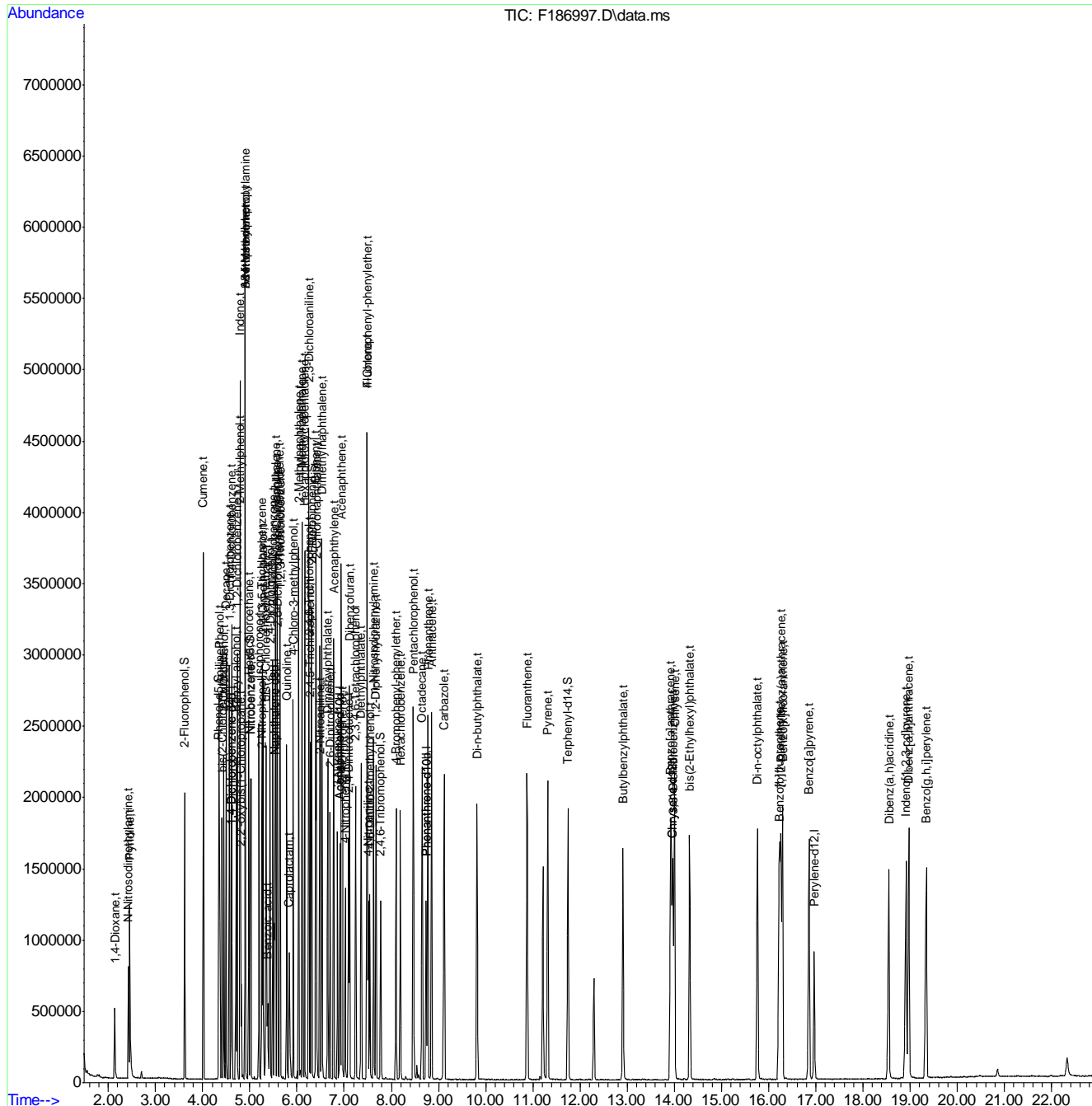
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
82) Octadecane	8.651	57	516395	56.89	ppm	98
84) Pyrene	11.317	202	1389394	80.76	ppm	97
86) Butylbenzylphthalate	12.914	149	665996	86.77	ppm	99
87) Benzo[a]anthracene	13.924	228	1299835	85.32	ppm	100
88) 3,3'-Dichlorobenzidine	13.972	252	497257	80.84	ppm	97
89) Chrysene	14.004	228	1332879	78.93	ppm	99
90) bis(2-Ethylhexyl)phtha...	14.324	149	933542	89.38	ppm	98
92) Di-n-octylphthalate	15.762	149	1560223	99.93	ppm	100
93) Benzo[b]fluoranthene	16.221	252	1314739	93.74	ppm	98
94) Benzo[k]fluoranthene	16.296	252	1292849	80.62	ppm	98
95) Benzo[a]pyrene	16.857	252	1200450	92.57	ppm	98
96) Indeno[1,2,3-cd]pyrene	18.913	276	1147238	100.81	ppm	99
97) Dibenz(a,h)acridine	18.550	279	1026032	90.24	ppm	98
98) Dibenz[a,h]anthracene	18.972	278	1199023	92.82	ppm	98
99) 7,12-Dimethylbenz(a)an...	16.258	256	613719	85.80	ppm	99
100) Benzo[g,h,i]perylene	19.341	276	1137175	85.89	ppm	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF8050\
Data File : F186997.D
Acq On : 9 Sep 2019 3:36 pm
Operator : angelar
Sample : ic8050-80
Misc : op21602,ef8050,1000,,1,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Sep 10 09:01:23 2019
Quant Method : C:\MSDCHEM\1\METHODS\MF8050.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Tue Sep 10 09:00:03 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF8050\
 Data File : F186998.D
 Acq On : 9 Sep 2019 4:05 pm
 Operator : angelar
 Sample : icc8050-50
 Misc : op21602,ef8050,1000,,,1,1
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Sep 10 09:03:01 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MF8050.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Tue Sep 10 09:00:03 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
Internal Standards							
1) 1,4-Dichlorobenzene-d4	4.602	152	161726	40.00	ppm	0.00	
24) Naphthalene-d8	5.526	136	577051	40.00	ppm	0.00	
47) Acenaphthene-d10	6.910	164	334346	40.00	ppm	0.00	
69) Phenanthrene-d10	8.731	188	582826	40.00	ppm	-0.02	
83) Chrysene-d12	13.940	240	500508	40.00	ppm	-0.02	
91) Perylene-d12	16.964	264	538817	40.00	ppm	-0.02	
101) 1,4-Dichlorobenzene-d4b	4.602	152	161726	40.00	ppm	0.00	
103) Phenanthrene-d10b	8.731	188	582826	40.00	ppm	-0.02	
105) Chrysene-d12b	13.940	240	500508	40.00	ppm	-0.02	
107) Naphthalene-d8b	5.526	136	577051	40.00	ppm	0.00	
109) Acenaphthene-d10b	6.910	164	334346	40.00	ppm	0.00	
System Monitoring Compounds							
5) 2-Fluorophenol	3.619	112	288892	49.39	ppm	0.00	
Spiked Amount	50.000		Recovery	=	98.78%		
8) Phenol-d5	4.335	99	361521	49.04	ppm	-0.01	
Spiked Amount	50.000		Recovery	=	98.08%		
25) Nitrobenzene-d5	5.002	82	333924	54.42	ppm	0.00	
Spiked Amount	50.000		Recovery	=	108.84%		
51) 2-Fluorobiphenyl	6.311	172	591680	52.21	ppm	0.00	
Spiked Amount	50.000		Recovery	=	104.42%		
73) 2,4,6-Tribromophenol	7.770	330	96759	54.25	ppm	-0.01	
Spiked Amount	50.000		Recovery	=	108.50%		
85) Terphenyl-d14	11.744	244	593307	52.85	ppm	-0.02	
Spiked Amount	50.000		Recovery	=	105.70%		
Target Compounds							
							Qvalue
2) 1,4-Dioxane	2.134	88	134781	43.04	ppm		99
3) Pyridine	2.449	79	344655	47.32	ppm		95
4) N-Nitrosodimethylamine	2.422	42	141871	48.27	ppm		96
6) Indene	4.794	116	416331	44.68	ppm		98
7) Cumene	4.014	105	706848	50.35	ppm		99
9) Phenol	4.345	94	411375	46.75	ppm		88
10) Aniline	4.361	93	458133	48.10	ppm		96
11) bis(2-Chloroethyl)ether	4.409	93	286729	45.78	ppm		99
12) 2-Chlorophenol	4.452	128	294060	51.17	ppm		94
13) Decane	4.495	43	252598	40.77	ppm		97
14) 1,3-Dichlorobenzene	4.564	146	330338	51.57	ppm		97
15) 1,4-Dichlorobenzene	4.618	146	329606	50.92	ppm		99
16) Benzyl alcohol	4.703	108	174043	45.71	ppm		98
17) 1,2-Dichlorobenzene	4.730	146	309911	50.57	ppm		99
18) Acetophenone	4.896	105	374683	47.00	ppm		94
19) 2-Methylphenol	4.789	108	250253	45.52	ppm		99
20) 2,2'-oxybis(1-Chloropr...	4.805	121	78953	47.72	ppm		94
21) 3&4-Methylphenol	4.896	108	244718	43.69	ppm		97
22) n-Nitroso-di-n-propyla...	4.896	70	196493	45.06	ppm		94
23) Hexachloroethane	4.976	201	126739	58.83	ppm		84
26) Nitrobenzene	5.018	77	339588	55.36	ppm		100
27) Quinoline	5.777	129	522969	48.79	ppm		99

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF8050\
 Data File : F186998.D
 Acq On : 9 Sep 2019 4:05 pm
 Operator : angelar
 Sample : icc8050-50
 Misc : op21602,ef8050,1000,,,1,1
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Sep 10 09:03:01 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MF8050.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Tue Sep 10 09:00:03 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
28) Isophorone	5.189	82	562098	47.53	ppm	99
29) 2-Nitrophenol	5.248	139	145006	58.93	ppm	97
30) 2,4-Dimethylphenol	5.280	107	303393	53.57	ppm	97
31) Benzoic acid	5.366	105	218539	69.64	ppm	97
32) bis(2-Chloroethoxy)met...	5.344	93	349876	47.81	ppm	98
33) 2,4-Dichlorophenol	5.419	162	238784	53.09	ppm	94
34) 2,6-Dichlorophenol	5.585	162	225719	50.50	ppm	100
35) 1,3,5-Trichlorobenzene	5.259	180	272534	51.16	ppm	99
36) 1,2,4-Trichlorobenzene	5.483	180	263276	52.34	ppm	99
37) 1,2,3-Trichlorobenzene	5.644	180	256525	50.39	ppm	98
38) Naphthalene	5.542	128	759464	49.01	ppm	99
39) 4-Chloroaniline	5.574	127	338631	50.27	ppm	99
40) 2,3-Dichloroaniline	6.247	161	277071	49.39	ppm	98
41) Caprolactam	5.825	55	115809	35.81	ppm	98
42) Hexachlorobutadiene	5.633	225	168528	58.97	ppm	98
43) 4-Chloro-3-methylphenol	5.921	107	254192	51.66	ppm	96
44) 2-Methylnaphthalene	6.033	141	401905	50.65	ppm	97
45) 1-Methylnaphthalene	6.108	142	510904	48.65	ppm	99
46) Dimethylnaphthalene	6.525	156	497575	52.63	ppm	98
48) Hexachlorocyclopentadiene	6.156	237	363328	148.14	ppm	99
49) 2,4,6-Trichlorophenol	6.247	196	178744	59.53	ppm	97
50) 2,4,5-Trichlorophenol	6.279	196	192663	56.77	ppm	98
52) 2-Chloronaphthalene	6.413	162	518591	51.47	ppm	97
53) Biphenyl	6.391	154	628528	49.27	ppm	98
54) 2-Nitroaniline	6.493	65	187132	49.41	ppm	96
55) Dimethylphthalate	6.648	163	576876	51.57	ppm	99
56) Acenaphthylene	6.776	152	777615	50.30	ppm	99
57) 2,6-Dinitrotoluene	6.701	165	131431	68.36	ppm	99
58) 3-Nitroaniline	6.856	138	144337	56.04	ppm	87
59) Acenaphthene	6.942	153	499498	49.65	ppm	98
60) 2,4-Dinitrophenol	6.958	184	138455	197.59	ppm #	64
61) 4-Nitrophenol	7.016	109	97318	70.95	ppm	93
62) Dibenzofuran	7.113	168	665843	48.70	ppm	99
63) 2,4-Dinitrotoluene	7.086	165	176436	69.97	ppm	98
64) 2,3,4,6-Tetrachlorophenol	7.241	232	157078	64.79	ppm	99
65) Diethylphthalate	7.358	149	593573	53.82	ppm	99
66) Fluorene	7.487	166	523016	49.82	ppm	99
67) 4-Chlorophenyl-phenyle...	7.481	204	270836	53.58	ppm	96
68) 4-Nitroaniline	7.503	138	149937	57.08	ppm	99
70) 4,6-Dinitro-2-methylph...	7.540	198	109833	80.98	ppm	96
71) n-Nitrosodiphenylamine	7.620	169	411848	50.91	ppm	99
72) 1,2-Diphenylhydrazine	7.674	77	656604	49.54	ppm	99
74) 4-Bromophenyl-phenylether	8.096	248	168701	50.77	ppm	94
75) Hexachlorobenzene	8.186	284	182680	46.50	ppm	96
76) Pentachlorophenol	8.464	266	243968	118.73	ppm	98
77) Phenanthrene	8.769	178	785021	46.79	ppm	99
78) Anthracene	8.849	178	824507	48.85	ppm	99
79) Carbazole	9.116	167	751251	48.55	ppm	99
80) Di-n-butylphthalate	9.816	149	980349	53.27	ppm	100
81) Fluoranthene	10.874	202	844814	53.03	ppm	98

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF8050\
 Data File : F186998.D
 Acq On : 9 Sep 2019 4:05 pm
 Operator : angelar
 Sample : icc8050-50
 Misc : op21602,ef8050,1000,,,1,1
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Sep 10 09:03:01 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MF8050.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Tue Sep 10 09:00:03 2019
 Response via : Initial Calibration

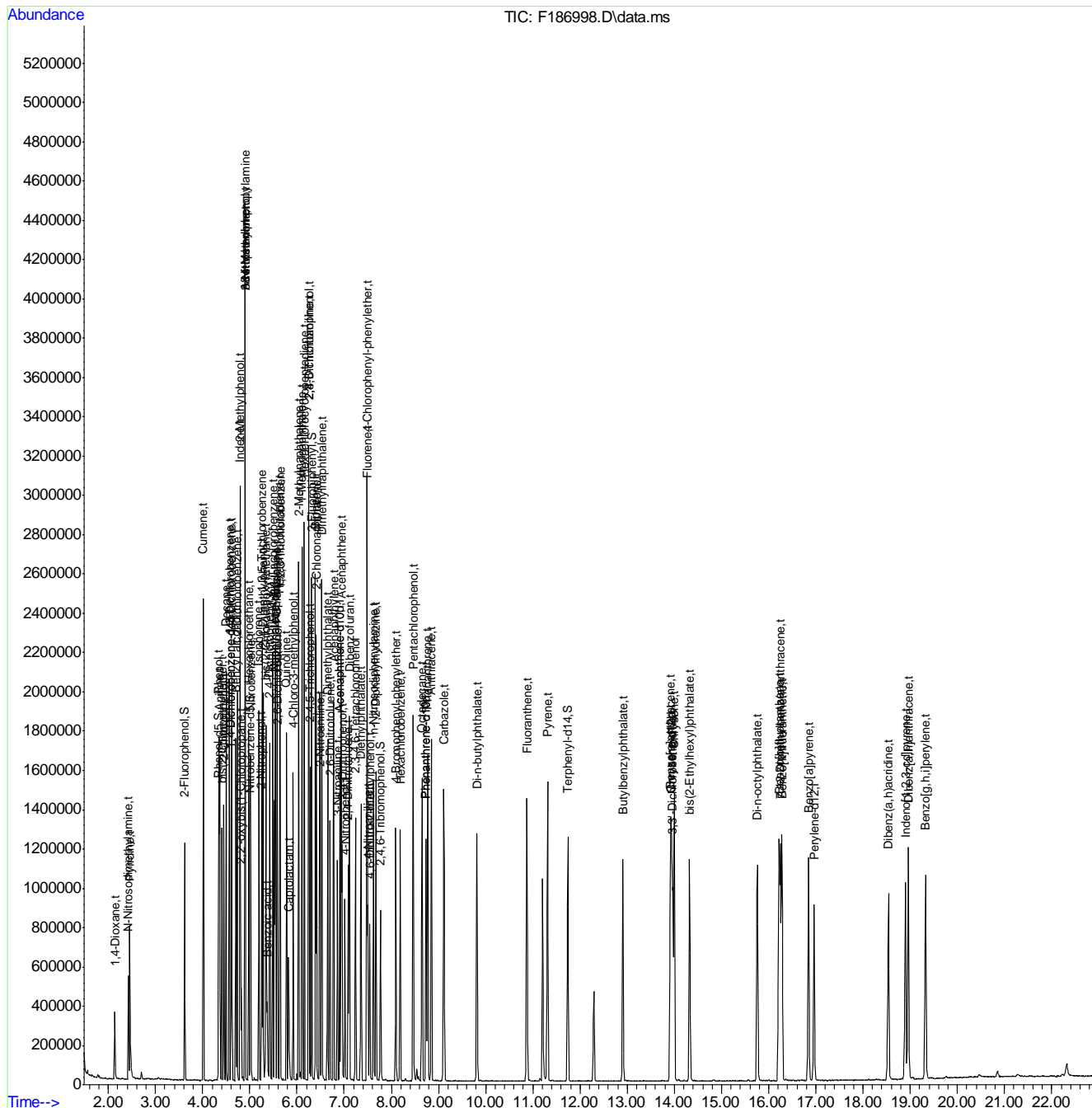
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
82) Octadecane	8.651	57	346206	37.70	ppm	99
84) Pyrene	11.312	202	923800	53.06	ppm	99
86) Butylbenzylphthalate	12.909	149	424933	54.71	ppm	98
87) Benzo[a]anthracene	13.919	228	825445	53.54	ppm	100
88) 3,3'-Dichlorobenzidine	13.961	252	312251	50.16	ppm	97
89) Chrysene	13.999	228	871555	51.00	ppm	99
90) bis(2-Ethylhexyl)phtha...	14.325	149	581514	55.02	ppm	99
92) Di-n-octylphthalate	15.756	149	983228	62.27	ppm	100
93) Benzo[b]fluoranthene	16.221	252	830629	58.56	ppm	99
94) Benzo[k]fluoranthene	16.285	252	848279	52.30	ppm	97
95) Benzo[a]pyrene	16.846	252	755252	57.58	ppm	98
96) Indeno[1,2,3-cd]pyrene	18.903	276	699896	60.81	ppm	97
97) Dibenz(a,h)acridine	18.540	279	640571	55.71	ppm	98
98) Dibenz[a,h]anthracene	18.962	278	737480	56.45	ppm	99
99) 7,12-Dimethylbenz(a)an...	16.248	256	404066	55.85	ppm	100
100) Benzo[g,h,i]perylene	19.330	276	722602	53.96	ppm	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF8050\
Data File : F186998.D
Acq On : 9 Sep 2019 4:05 pm
Operator : angelar
Sample : icc8050-50
Misc : op21602,ef8050,1000,,,1,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Sep 10 09:03:01 2019
Quant Method : C:\MSDCHEM\1\METHODS\MF8050.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Tue Sep 10 09:00:03 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF8050\
 Data File : F186999.D
 Acq On : 9 Sep 2019 4:34 pm
 Operator : angelar
 Sample : ic8050-25
 Misc : op21602,ef8050,1000,,,1,1
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Sep 10 09:05:02 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MF8050.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Tue Sep 10 09:00:03 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
Internal Standards							
1) 1,4-Dichlorobenzene-d4	4.602	152	160387	40.00	ppm	0.00	
24) Naphthalene-d8	5.526	136	569548	40.00	ppm	0.00	
47) Acenaphthene-d10	6.904	164	327788	40.00	ppm	-0.01	
69) Phenanthrene-d10	8.731	188	569214	40.00	ppm	-0.02	
83) Chrysene-d12	13.935	240	496461	40.00	ppm	-0.03	
91) Perylene-d12	16.958	264	523162	40.00	ppm	-0.02	
101) 1,4-Dichlorobenzene-d4b	4.602	152	160387	40.00	ppm	0.00	
103) Phenanthrene-d10b	8.731	188	569214	40.00	ppm	-0.02	
105) Chrysene-d12b	13.935	240	496461	40.00	ppm	-0.03	
107) Naphthalene-d8b	5.526	136	569548	40.00	ppm	0.00	
109) Acenaphthene-d10b	6.904	164	327788	40.00	ppm	-0.01	
System Monitoring Compounds							
5) 2-Fluorophenol	3.619	112	149376	25.75	ppm	0.00	
Spiked Amount	50.000		Recovery	=	51.50%		
8) Phenol-d5	4.335	99	184720	25.27	ppm	-0.01	
Spiked Amount	50.000		Recovery	=	50.54%		
25) Nitrobenzene-d5	5.002	82	170408	28.14	ppm	0.00	
Spiked Amount	50.000		Recovery	=	56.28%		
51) 2-Fluorobiphenyl	6.311	172	313573	28.22	ppm	0.00	
Spiked Amount	50.000		Recovery	=	56.44%		
73) 2,4,6-Tribromophenol	7.770	330	49964	28.68	ppm	-0.01	
Spiked Amount	50.000		Recovery	=	57.36%		
85) Terphenyl-d14	11.739	244	305660	27.45	ppm	-0.02	
Spiked Amount	50.000		Recovery	=	54.90%		
Target Compounds							
2) 1,4-Dioxane	2.139	88	70155	22.59	ppm	98	Qvalue
3) Pyridine	2.454	79	179020	24.78	ppm	97	
4) N-Nitrosodimethylamine	2.427	42	76962	26.40	ppm	99	
6) Indene	4.794	116	229965	24.89	ppm	96	
7) Cumene	4.014	105	381079	27.37	ppm	99	
9) Phenol	4.345	94	218569	25.05	ppm	84	
10) Aniline	4.361	93	241889	25.61	ppm	96	
11) bis(2-Chloroethyl)ether	4.409	93	153177	24.66	ppm	98	
12) 2-Chlorophenol	4.447	128	154716	27.15	ppm	95	
13) Decane	4.495	43	140354	22.84	ppm	96	
14) 1,3-Dichlorobenzene	4.564	146	175904	27.69	ppm	97	
15) 1,4-Dichlorobenzene	4.618	146	176894	27.56	ppm	99	
16) Benzyl alcohol	4.703	108	92423	24.48	ppm	96	
17) 1,2-Dichlorobenzene	4.730	146	166115	27.33	ppm	99	
18) Acetophenone	4.895	105	212342	26.86	ppm	94	
19) 2-Methylphenol	4.789	108	139035	25.50	ppm	98	
20) 2,2'-oxybis(1-Chloropr...	4.805	121	43206	26.33	ppm	97	
21) 3&4-Methylphenol	4.895	108	137191	24.70	ppm	97	
22) n-Nitroso-di-n-propyla...	4.895	70	112125	25.92	ppm	96	
23) Hexachloroethane	4.976	201	64963	30.41	ppm	82	
26) Nitrobenzene	5.018	77	175045	28.91	ppm	96	
27) Quinoline	5.772	129	274778	25.97	ppm	100	

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF8050\
 Data File : F186999.D
 Acq On : 9 Sep 2019 4:34 pm
 Operator : angelar
 Sample : ic8050-25
 Misc : op21602,ef8050,1000,,,1,1
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Sep 10 09:05:02 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MF8050.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Tue Sep 10 09:00:03 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
28) Isophorone	5.189	82	295943	25.36	ppm	97
29) 2-Nitrophenol	5.248	139	70770	29.14	ppm	98
30) 2,4-Dimethylphenol	5.275	107	160430	28.70	ppm	100
31) Benzoic acid	5.344	105	96089	31.02	ppm	98
32) bis(2-Chloroethoxy)met...	5.344	93	189921	26.30	ppm	97
33) 2,4-Dichlorophenol	5.419	162	126570	28.51	ppm	93
34) 2,6-Dichlorophenol	5.579	162	121978	27.65	ppm	98
35) 1,3,5-Trichlorobenzene	5.259	180	145608	27.69	ppm	99
36) 1,2,4-Trichlorobenzene	5.483	180	138736	27.94	ppm	98
37) 1,2,3-Trichlorobenzene	5.643	180	137079	27.28	ppm	99
38) Naphthalene	5.537	128	412385	26.96	ppm	98
39) 4-Chloroaniline	5.574	127	181636	27.32	ppm	98
40) 2,3-Dichloroaniline	6.242	161	148300	26.79	ppm	96
41) Caprolactam	5.809	55	60679	19.01	ppm	97
42) Hexachlorobutadiene	5.633	225	89014	31.56	ppm	98
43) 4-Chloro-3-methylphenol	5.916	107	136162	28.03	ppm	99
44) 2-Methylnaphthalene	6.033	141	217305	27.75	ppm	96
45) 1-Methylnaphthalene	6.108	142	280597	27.07	ppm	99
46) Dimethylnaphthalene	6.525	156	261513	28.03	ppm	100
48) Hexachlorocyclopentadiene	6.156	237	188768	78.51	ppm	99
49) 2,4,6-Trichlorophenol	6.247	196	91620	31.13	ppm	99
50) 2,4,5-Trichlorophenol	6.274	196	103121	30.99	ppm	99
52) 2-Chloronaphthalene	6.413	162	278523	28.19	ppm	99
53) Biphenyl	6.391	154	338422	27.06	ppm	99
54) 2-Nitroaniline	6.487	65	97674	26.31	ppm	89
55) Dimethylphthalate	6.648	163	305515	27.86	ppm	99
56) Acenaphthylene	6.771	152	411366	27.14	ppm	99
57) 2,6-Dinitrotoluene	6.696	165	63697	33.79	ppm	91
58) 3-Nitroaniline	6.856	138	71718	28.40	ppm	99
59) Acenaphthene	6.936	153	267135	27.08	ppm	99
60) 2,4-Dinitrophenol	6.952	184	60028	87.38	ppm	# 63
61) 4-Nitrophenol	7.011	109	47574	35.38	ppm	92
62) Dibenzofuran	7.107	168	356393	26.59	ppm	95
63) 2,4-Dinitrotoluene	7.086	165	88513	35.80	ppm	99
64) 2,3,4,6-Tetrachlorophenol	7.235	232	78881	33.19	ppm	95
65) Diethylphthalate	7.353	149	310049	28.67	ppm	99
66) Fluorene	7.481	166	281759	27.38	ppm	98
67) 4-Chlorophenyl-phenyle...	7.481	204	143236	28.90	ppm	96
68) 4-Nitroaniline	7.497	138	72822	28.28	ppm	95
70) 4,6-Dinitro-2-methylph...	7.535	198	48914	36.93	ppm	93
71) n-Nitrosodiphenylamine	7.620	169	217652	27.55	ppm	98
72) 1,2-Diphenylhydrazine	7.668	77	344047	26.58	ppm	96
74) 4-Bromophenyl-phenylether	8.095	248	86625	26.69	ppm	97
75) Hexachlorobenzene	8.186	284	96404	25.12	ppm	98
76) Pentachlorophenol	8.459	266	120521	60.06	ppm	97
77) Phenanthrene	8.769	178	424408	25.90	ppm	98
78) Anthracene	8.849	178	421899	25.59	ppm	99
79) Carbazole	9.111	167	394702	26.12	ppm	98
80) Di-n-butylphthalate	9.810	149	498561	27.74	ppm	99
81) Fluoranthene	10.873	202	437634	28.13	ppm	100

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF8050\
 Data File : F186999.D
 Acq On : 9 Sep 2019 4:34 pm
 Operator : angelar
 Sample : ic8050-25
 Misc : op21602,ef8050,1000,,,1,1
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Sep 10 09:05:02 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MF8050.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Tue Sep 10 09:00:03 2019
 Response via : Initial Calibration

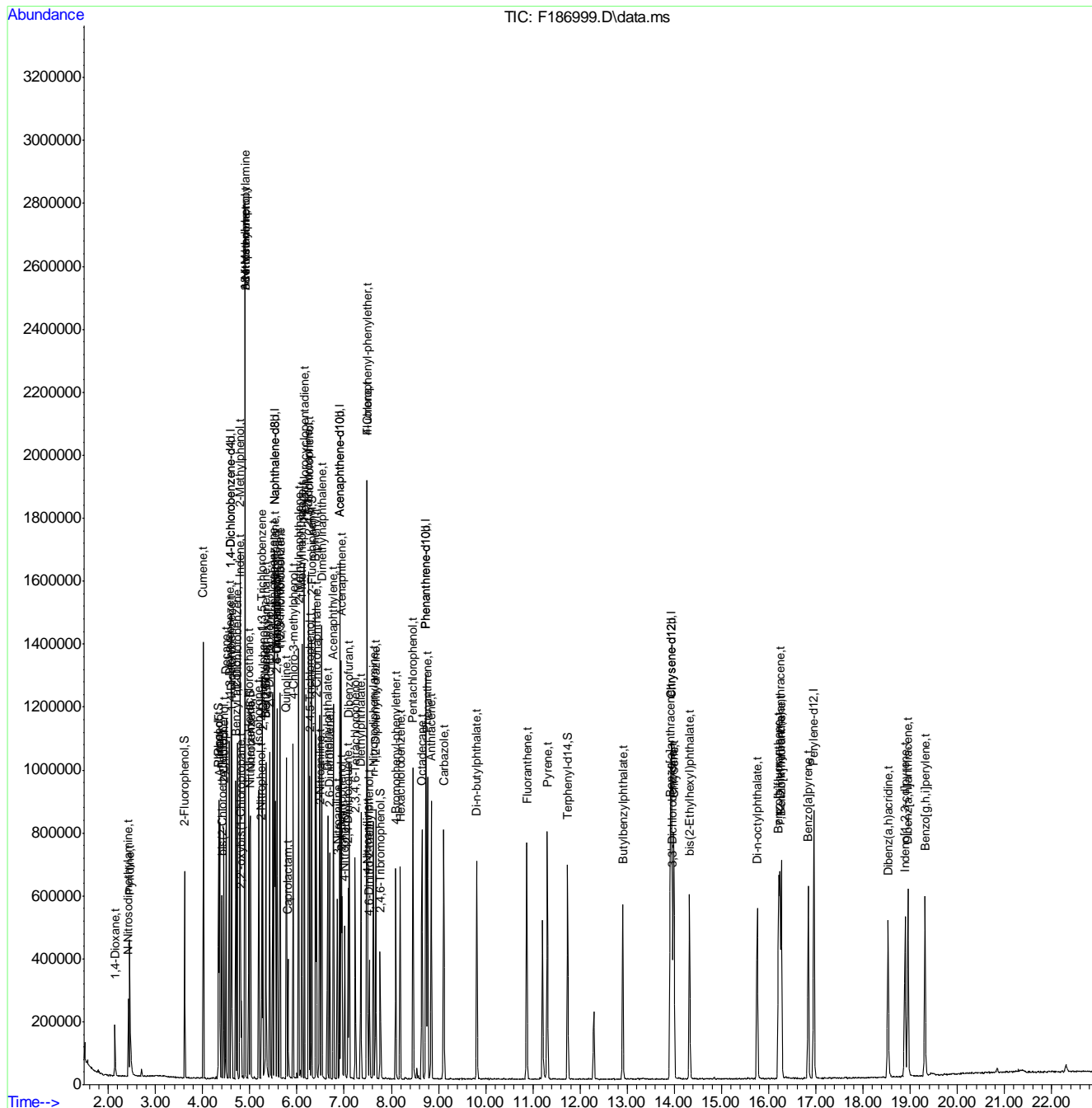
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
82) Octadecane	8.651	57	186895	20.84	ppm	96
84) Pyrene	11.306	202	465397	26.95	ppm	98
86) Butylbenzylphthalate	12.909	149	211039	27.39	ppm	100
87) Benzo[a]anthracene	13.913	228	422664	27.64	ppm	99
88) 3,3'-Dichlorobenzidine	13.961	252	155501	25.18	ppm	97
89) Chrysene	13.993	228	449888	26.54	ppm	100
90) bis(2-Ethylhexyl)phtha...	14.325	149	285776	27.26	ppm	99
92) Di-n-octylphthalate	15.756	149	459524	29.97	ppm	99
93) Benzo[b]fluoranthene	16.210	252	421109	30.58	ppm	99
94) Benzo[k]fluoranthene	16.269	252	435831	27.68	ppm	98
95) Benzo[a]pyrene	16.841	252	381846	29.98	ppm	99
96) Indeno[1,2,3-cd]pyrene	18.892	276	346908	31.04	ppm	97
97) Dibenz(a,h)acridine	18.529	279	318800	28.55	ppm	98
98) Dibenz[a,h]anthracene	18.951	278	371362	29.28	ppm	98
99) 7,12-Dimethylbenz(a)an...	16.237	256	202445	28.82	ppm	98
100) Benzo[g,h,i]perylene	19.314	276	352389	27.10	ppm	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF8050\
Data File : F186999.D
Acq On : 9 Sep 2019 4:34 pm
Operator : angelar
Sample : ic8050-25
Misc : op21602,ef8050,1000,,,1,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Sep 10 09:05:02 2019
Quant Method : C:\MSDCHEM\1\METHODS\MF8050.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Tue Sep 10 09:00:03 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF8050\
 Data File : F187000.D
 Acq On : 9 Sep 2019 5:04 pm
 Operator : angelar
 Sample : ic8050-10
 Misc : op21602,ef8050,1000,,,1,1
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Sep 10 09:06:46 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MF8050.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Tue Sep 10 09:00:03 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
Internal Standards							
1) 1,4-Dichlorobenzene-d4	4.602	152	163302	40.00	ppm	0.00	
24) Naphthalene-d8	5.521	136	577913	40.00	ppm	0.00	
47) Acenaphthene-d10	6.904	164	329145	40.00	ppm	-0.01	
69) Phenanthrene-d10	8.731	188	572835	40.00	ppm	-0.02	
83) Chrysene-d12	13.929	240	502126	40.00	ppm	-0.03	
91) Perylene-d12	16.958	264	531190	40.00	ppm	-0.02	
101) 1,4-Dichlorobenzene-d4b	4.602	152	163302	40.00	ppm	0.00	
103) Phenanthrene-d10b	8.731	188	572835	40.00	ppm	-0.02	
105) Chrysene-d12b	13.929	240	502126	40.00	ppm	-0.03	
107) Naphthalene-d8b	5.521	136	577913	40.00	ppm	0.00	
109) Acenaphthene-d10b	6.904	164	329145	40.00	ppm	-0.01	
System Monitoring Compounds							
5) 2-Fluorophenol	3.619	112	62980	10.66	ppm	0.00	
Spiked Amount	50.000		Recovery	=	21.32%		
8) Phenol-d5	4.335	99	80271	10.78	ppm	-0.01	
Spiked Amount	50.000		Recovery	=	21.56%		
25) Nitrobenzene-d5	5.002	82	70725	11.51	ppm	0.00	
Spiked Amount	50.000		Recovery	=	23.02%		
51) 2-Fluorobiphenyl	6.311	172	131425	11.78	ppm	0.00	
Spiked Amount	50.000		Recovery	=	23.56%		
73) 2,4,6-Tribromophenol	7.764	330	18064	10.30	ppm	-0.02	
Spiked Amount	50.000		Recovery	=	20.60%		
85) Terphenyl-d14	11.734	244	123627	10.98	ppm	-0.03	
Spiked Amount	50.000		Recovery	=	21.96%		
Target Compounds							
							Qvalue
2) 1,4-Dioxane	2.139	88	29240	9.25	ppm		98
3) Pyridine	2.459	79	72000	9.79	ppm		96
4) N-Nitrosodimethylamine	2.427	42	29205	9.84	ppm		99
6) Indene	4.794	116	99186	10.54	ppm		96
7) Cumene	4.014	105	159487	11.25	ppm		99
9) Phenol	4.340	94	91430	10.29	ppm		90
10) Aniline	4.356	93	101930	10.60	ppm		98
11) bis(2-Chloroethyl)ether	4.404	93	66214	10.47	ppm		97
12) 2-Chlorophenol	4.447	128	62399	10.75	ppm		99
13) Decane	4.495	43	60466	9.66	ppm		98
14) 1,3-Dichlorobenzene	4.564	146	74291	11.49	ppm		99
15) 1,4-Dichlorobenzene	4.618	146	75871	11.61	ppm		98
16) Benzyl alcohol	4.703	108	37608	9.78	ppm		91
17) 1,2-Dichlorobenzene	4.730	146	70666	11.42	ppm		98
18) Acetophenone	4.890	105	92062	11.44	ppm		96
19) 2-Methylphenol	4.783	108	58541	10.55	ppm		98
20) 2,2'-oxybis(1-Chloropr...	4.805	121	17773	10.64	ppm	#	90
21) 3&4-Methylphenol	4.896	108	58822	10.40	ppm		98
22) n-Nitroso-di-n-propyla...	4.896	70	49396	11.22	ppm		97
23) Hexachloroethane	4.976	201	26234	12.06	ppm		85
26) Nitrobenzene	5.018	77	74289	12.09	ppm		97
27) Quinoline	5.772	129	115816	10.79	ppm		98

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF8050\
 Data File : F187000.D
 Acq On : 9 Sep 2019 5:04 pm
 Operator : angelar
 Sample : ic8050-10
 Misc : op21602,ef8050,1000,,,1,1
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Sep 10 09:06:46 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MF8050.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Tue Sep 10 09:00:03 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
28) Isophorone	5.184	82	121923	10.30	ppm	99
29) 2-Nitrophenol	5.248	139	27247	11.06	ppm	90
30) 2,4-Dimethylphenol	5.275	107	67336	11.87	ppm	97
31) Benzoic acid	5.323	105	28545	9.08	ppm	83
32) bis(2-Chloroethoxy)met...	5.339	93	76760	10.47	ppm	98
33) 2,4-Dichlorophenol	5.419	162	51494	11.43	ppm	95
34) 2,6-Dichlorophenol	5.579	162	51502	11.51	ppm	95
35) 1,3,5-Trichlorobenzene	5.259	180	61899	11.60	ppm	99
36) 1,2,4-Trichlorobenzene	5.483	180	58976	11.71	ppm	98
37) 1,2,3-Trichlorobenzene	5.643	180	57618	11.30	ppm	97
38) Naphthalene	5.537	128	180160	11.61	ppm	98
39) 4-Chloroaniline	5.574	127	76231	11.30	ppm	95
40) 2,3-Dichloroaniline	6.242	161	62208	11.07	ppm	95
41) Caprolactam	5.798	55	24221	7.48	ppm	94
42) Hexachlorobutadiene	5.633	225	37055	12.95	ppm	94
43) 4-Chloro-3-methylphenol	5.911	107	55952	11.35	ppm	93
44) 2-Methylnaphthalene	6.033	141	89702	11.29	ppm	99
45) 1-Methylnaphthalene	6.103	142	116998	11.12	ppm	97
46) Dimethylnaphthalene	6.525	156	108233	11.43	ppm	97
48) Hexachlorocyclopentadiene	6.156	237	74787	30.98	ppm	98
49) 2,4,6-Trichlorophenol	6.242	196	38417	13.00	ppm	96
50) 2,4,5-Trichlorophenol	6.274	196	41008	12.27	ppm	98
52) 2-Chloronaphthalene	6.407	162	116243	11.72	ppm	95
53) Biphenyl	6.391	154	139905	11.14	ppm	97
54) 2-Nitroaniline	6.487	65	36913	9.90	ppm	96
55) Dimethylphthalate	6.642	163	123134	11.18	ppm	98
56) Acenaphthylene	6.771	152	167420	11.00	ppm	99
57) 2,6-Dinitrotoluene	6.696	165	23890	12.62	ppm	92
58) 3-Nitroaniline	6.851	138	27589	10.88	ppm	91
59) Acenaphthene	6.936	153	113888	11.50	ppm	95
60) 2,4-Dinitrophenol	6.952	184	15754	22.84	ppm #	50
61) 4-Nitrophenol	7.006	109	17145	12.70	ppm	93
62) Dibenzofuran	7.107	168	150535	11.19	ppm	96
63) 2,4-Dinitrotoluene	7.080	165	33417	13.46	ppm	91
64) 2,3,4,6-Tetrachlorophenol	7.235	232	31230	13.08	ppm	94
65) Diethylphthalate	7.348	149	126436	11.64	ppm	97
66) Fluorene	7.481	166	119262	11.54	ppm	98
67) 4-Chlorophenyl-phenyle...	7.481	204	61129	12.28	ppm	98
68) 4-Nitroaniline	7.492	138	27906	10.79	ppm	97
70) 4,6-Dinitro-2-methylph...	7.529	198	14491	10.87	ppm	92
71) n-Nitrosodiphenylamine	7.615	169	86695	10.90	ppm	97
72) 1,2-Diphenylhydrazine	7.668	77	140190	10.76	ppm	97
74) 4-Bromophenyl-phenylether	8.095	248	34919	10.69	ppm	95
75) Hexachlorobenzene	8.186	284	38207	9.89	ppm	99
76) Pentachlorophenol	8.459	266	46406	22.98	ppm	98
77) Phenanthrene	8.763	178	175086	10.62	ppm	99
78) Anthracene	8.843	178	180043	10.85	ppm	99
79) Carbazole	9.111	167	162350	10.68	ppm	99
80) Di-n-butylphthalate	9.810	149	193217	10.68	ppm	99
81) Fluoranthene	10.868	202	179725	11.48	ppm	99

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF8050\
 Data File : F187000.D
 Acq On : 9 Sep 2019 5:04 pm
 Operator : angelar
 Sample : ic8050-10
 Misc : op21602,ef8050,1000,,,1,1
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Sep 10 09:06:46 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MF8050.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Tue Sep 10 09:00:03 2019
 Response via : Initial Calibration

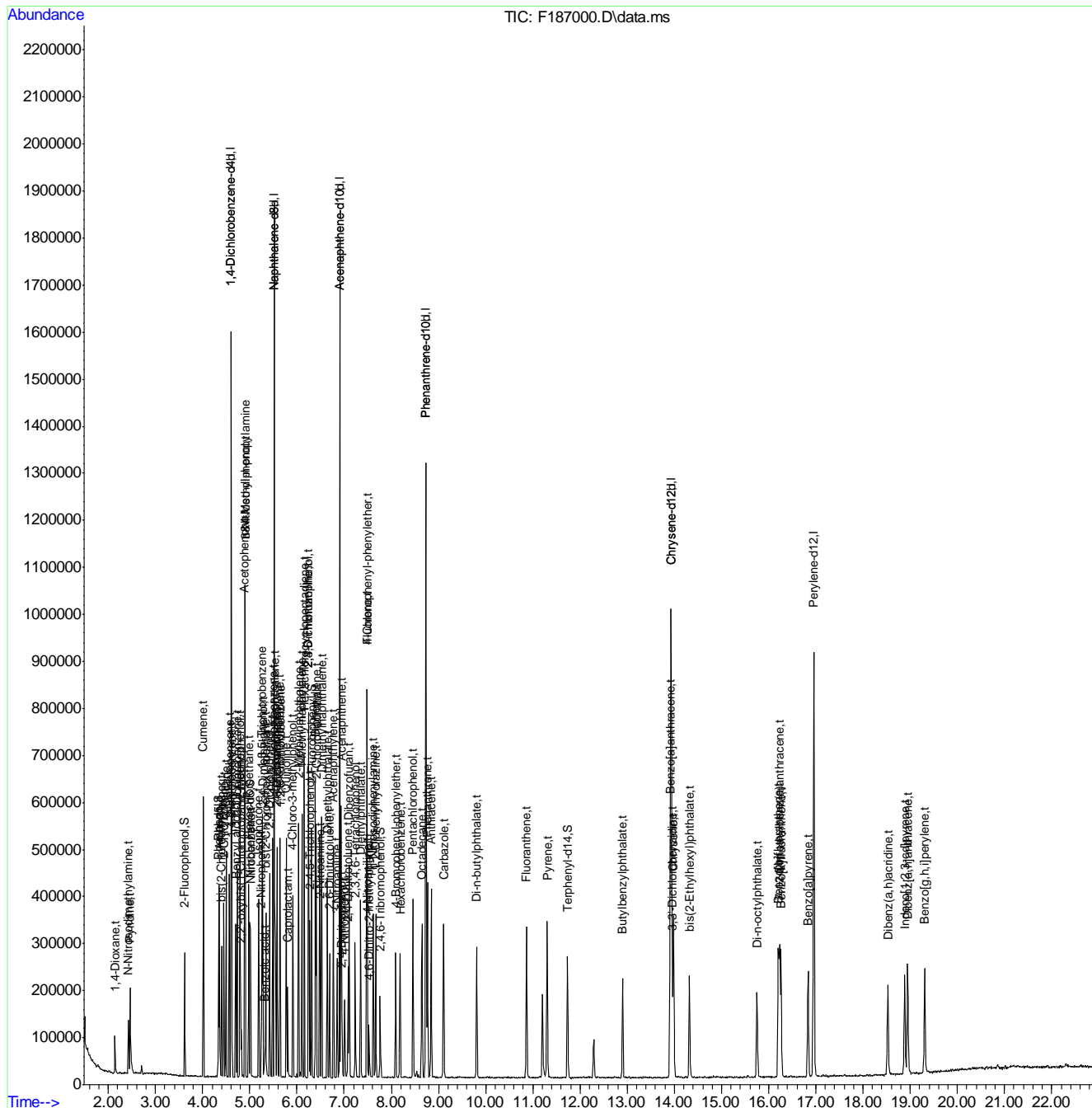
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
82) Octadecane	8.646	57	74427	8.25	ppm	98
84) Pyrene	11.306	202	197600	11.31	ppm	99
86) Butylbenzylphthalate	12.904	149	73518	9.43	ppm	96
87) Benzo[a]anthracene	13.913	228	164838	10.66	ppm	99
88) 3,3'-Dichlorobenzidine	13.956	252	52257	8.37	ppm	97
89) Chrysene	13.983	228	186259	10.86	ppm	99
90) bis(2-Ethylhexyl)phtha...	14.319	149	99829	9.41	ppm	99
92) Di-n-octylphthalate	15.751	149	151510	9.73	ppm	98
93) Benzo[b]fluoranthene	16.205	252	166064	11.88	ppm	98
94) Benzo[k]fluoranthene	16.264	252	174183	10.89	ppm	98
95) Benzo[a]pyrene	16.835	252	147819	11.43	ppm	99
96) Indeno[1,2,3-cd]pyrene	18.881	276	133051	11.73	ppm	94
97) Dibenz(a,h)acridine	18.529	279	118328	10.44	ppm	95
98) Dibenz[a,h]anthracene	18.946	278	138332	10.74	ppm	92
99) 7,12-Dimethylbenz(a)an...	16.232	256	76795	10.77	ppm	97
100) Benzo[g,h,i]perylene	19.309	276	138841	10.52	ppm	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF8050\
 Data File : F187000.D
 Acq On : 9 Sep 2019 5:04 pm
 Operator : angelar
 Sample : ic8050-10
 Misc : op21602,ef8050,1000,,,1,1
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Sep 10 09:06:46 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MF8050.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Tue Sep 10 09:00:03 2019
 Response via : Initial Calibration



9.6.5
9

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF8050\
 Data File : F187001.D
 Acq On : 9 Sep 2019 5:33 pm
 Operator : angelar
 Sample : ic8050-5
 Misc : op21602,ef8050,1000,,,1,1
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Sep 10 09:08:07 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MF8050.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Tue Sep 10 09:00:03 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
Internal Standards							
1) 1,4-Dichlorobenzene-d4	4.601	152	163072	40.00	ppm	0.00	
24) Naphthalene-d8	5.520	136	582799	40.00	ppm	0.00	
47) Acenaphthene-d10	6.904	164	328410	40.00	ppm	-0.01	
69) Phenanthrene-d10	8.731	188	575395	40.00	ppm	-0.02	
83) Chrysene-d12	13.929	240	506220	40.00	ppm	-0.03	
91) Perylene-d12	16.958	264	513659	40.00	ppm	-0.02	
101) 1,4-Dichlorobenzene-d4b	4.601	152	163072	40.00	ppm	0.00	
103) Phenanthrene-d10b	8.731	188	575395	40.00	ppm	-0.02	
105) Chrysene-d12b	13.929	240	506220	40.00	ppm	-0.03	
107) Naphthalene-d8b	5.520	136	582799	40.00	ppm	0.00	
109) Acenaphthene-d10b	6.904	164	328410	40.00	ppm	-0.01	
System Monitoring Compounds							
5) 2-Fluorophenol	3.618	112	32940	5.58	ppm	0.00	
Spiked Amount	50.000		Recovery	=	11.16%		
8) Phenol-d5	4.334	99	41371	5.57	ppm	-0.01	
Spiked Amount	50.000		Recovery	=	11.14%		
25) Nitrobenzene-d5	5.002	82	36077	5.82	ppm	0.00	
Spiked Amount	50.000		Recovery	=	11.64%		
51) 2-Fluorobiphenyl	6.311	172	69711	6.26	ppm	0.00	
Spiked Amount	50.000		Recovery	=	12.52%		
73) 2,4,6-Tribromophenol	7.764	330	8937	5.08	ppm	-0.02	
Spiked Amount	50.000		Recovery	=	10.16%		
85) Terphenyl-d14	11.733	244	63299	5.58	ppm	-0.03	
Spiked Amount	50.000		Recovery	=	11.16%		
Target Compounds							
							Qvalue
2) 1,4-Dioxane	2.139	88	16091	5.10	ppm		95
3) Pyridine	2.465	79	38315	5.22	ppm		96
4) N-Nitrosodimethylamine	2.433	42	17024	5.74	ppm		97
6) Indene	4.794	116	51672	5.50	ppm		95
7) Cumene	4.014	105	89152	6.30	ppm		99
9) Phenol	4.340	94	48991	5.52	ppm		87
10) Aniline	4.356	93	53925	5.61	ppm		98
11) bis(2-Chloroethyl)ether	4.404	93	34377	5.44	ppm		95
12) 2-Chlorophenol	4.447	128	33448	5.77	ppm		98
13) Decane	4.495	43	31543	5.05	ppm		98
14) 1,3-Dichlorobenzene	4.564	146	39824	6.17	ppm		94
15) 1,4-Dichlorobenzene	4.617	146	40280	6.17	ppm		97
16) Benzyl alcohol	4.703	108	19309	5.03	ppm		88
17) 1,2-Dichlorobenzene	4.730	146	39372	6.37	ppm		99
18) Acetophenone	4.890	105	50602	6.29	ppm		97
19) 2-Methylphenol	4.783	108	30630	5.53	ppm		98
20) 2,2'-oxybis(1-Chloropr...	4.804	121	8372	5.02	ppm	#	67
21) 3&4-Methylphenol	4.895	108	31522	5.58	ppm		100
22) n-Nitroso-di-n-propyla...	4.895	70	26450	6.01	ppm		99
23) Hexachloroethane	4.975	201	14769	6.80	ppm		84
26) Nitrobenzene	5.018	77	38533	6.22	ppm		97
27) Quinoline	5.771	129	61395	5.67	ppm		98

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF8050\
 Data File : F187001.D
 Acq On : 9 Sep 2019 5:33 pm
 Operator : angelar
 Sample : ic8050-5
 Misc : op21602,ef8050,1000,,,1,1
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Sep 10 09:08:07 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MF8050.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Tue Sep 10 09:00:03 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
28) Isophorone	5.184	82	66573	5.57	ppm	98
29) 2-Nitrophenol	5.248	139	13603	5.47	ppm	85
30) 2,4-Dimethylphenol	5.275	107	33395	5.84	ppm	95
31) Benzoic acid	5.312	105	12347	3.90	ppm	92
32) bis(2-Chloroethoxy)met...	5.339	93	42971	5.81	ppm	96
33) 2,4-Dichlorophenol	5.419	162	26695	5.88	ppm	93
34) 2,6-Dichlorophenol	5.579	162	27108	6.01	ppm	98
35) 1,3,5-Trichlorobenzene	5.259	180	34482	6.41	ppm	98
36) 1,2,4-Trichlorobenzene	5.483	180	31482	6.20	ppm	100
37) 1,2,3-Trichlorobenzene	5.643	180	31832	6.19	ppm	96
38) Naphthalene	5.536	128	99084	6.33	ppm	99
39) 4-Chloroaniline	5.574	127	40596	5.97	ppm	96
40) 2,3-Dichloroaniline	6.242	161	33935	5.99	ppm	93
41) Caprolactam	5.793	55	11866	3.63	ppm	88
42) Hexachlorobutadiene	5.633	225	21275	7.37	ppm	97
43) 4-Chloro-3-methylphenol	5.910	107	27959	5.63	ppm	95
44) 2-Methylnaphthalene	6.033	141	48987	6.11	ppm	94
45) 1-Methylnaphthalene	6.108	142	62653	5.91	ppm	97
46) Dimethylnaphthalene	6.519	156	58265	6.10	ppm	93
48) Hexachlorocyclopentadiene	6.156	237	37732	15.66	ppm	97
49) 2,4,6-Trichlorophenol	6.242	196	19960	6.77	ppm	98
50) 2,4,5-Trichlorophenol	6.268	196	21167	6.35	ppm	98
52) 2-Chloronaphthalene	6.407	162	62643	6.33	ppm	98
53) Biphenyl	6.391	154	76746	6.12	ppm	99
54) 2-Nitroaniline	6.487	65	17429	4.69	ppm	96
55) Dimethylphthalate	6.642	163	66551	6.06	ppm	98
56) Acenaphthylene	6.770	152	88320	5.82	ppm	99
57) 2,6-Dinitrotoluene	6.696	165	11238	5.95	ppm	99
58) 3-Nitroaniline	6.851	138	12527	4.95	ppm	93
59) Acenaphthene	6.936	153	59888	6.06	ppm	97
60) 2,4-Dinitrophenol	6.952	184	5602	8.14	ppm	# 33
61) 4-Nitrophenol	7.005	109	7783	5.78	ppm	94
62) Dibenzofuran	7.107	168	80103	5.97	ppm	99
63) 2,4-Dinitrotoluene	7.080	165	14760	5.96	ppm	98
64) 2,3,4,6-Tetrachlorophenol	7.235	232	16131	6.77	ppm	90
65) Diethylphthalate	7.347	149	67081	6.19	ppm	99
66) Fluorene	7.481	166	63534	6.16	ppm	98
67) 4-Chlorophenyl-phenyle...	7.481	204	32867	6.62	ppm	98
68) 4-Nitroaniline	7.486	138	13100	5.08	ppm	92
70) 4,6-Dinitro-2-methylph...	7.529	198	5337	3.99	ppm	94
71) n-Nitrosodiphenylamine	7.614	169	46639	5.84	ppm	99
72) 1,2-Diphenylhydrazine	7.668	77	74792	5.72	ppm	99
74) 4-Bromophenyl-phenylether	8.095	248	18812	5.73	ppm	96
75) Hexachlorobenzene	8.181	284	20342	5.24	ppm	95
76) Pentachlorophenol	8.459	266	21420	10.56	ppm	94
77) Phenanthrene	8.763	178	95102	5.74	ppm	98
78) Anthracene	8.843	178	91870	5.51	ppm	99
79) Carbazole	9.110	167	85053	5.57	ppm	98
80) Di-n-butylphthalate	9.810	149	92997	5.12	ppm	97
81) Fluoranthene	10.868	202	90671	5.77	ppm	97

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF8050\
 Data File : F187001.D
 Acq On : 9 Sep 2019 5:33 pm
 Operator : angelar
 Sample : ic8050-5
 Misc : op21602,ef8050,1000,,,1,1
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Sep 10 09:08:07 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MF8050.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Tue Sep 10 09:00:03 2019
 Response via : Initial Calibration

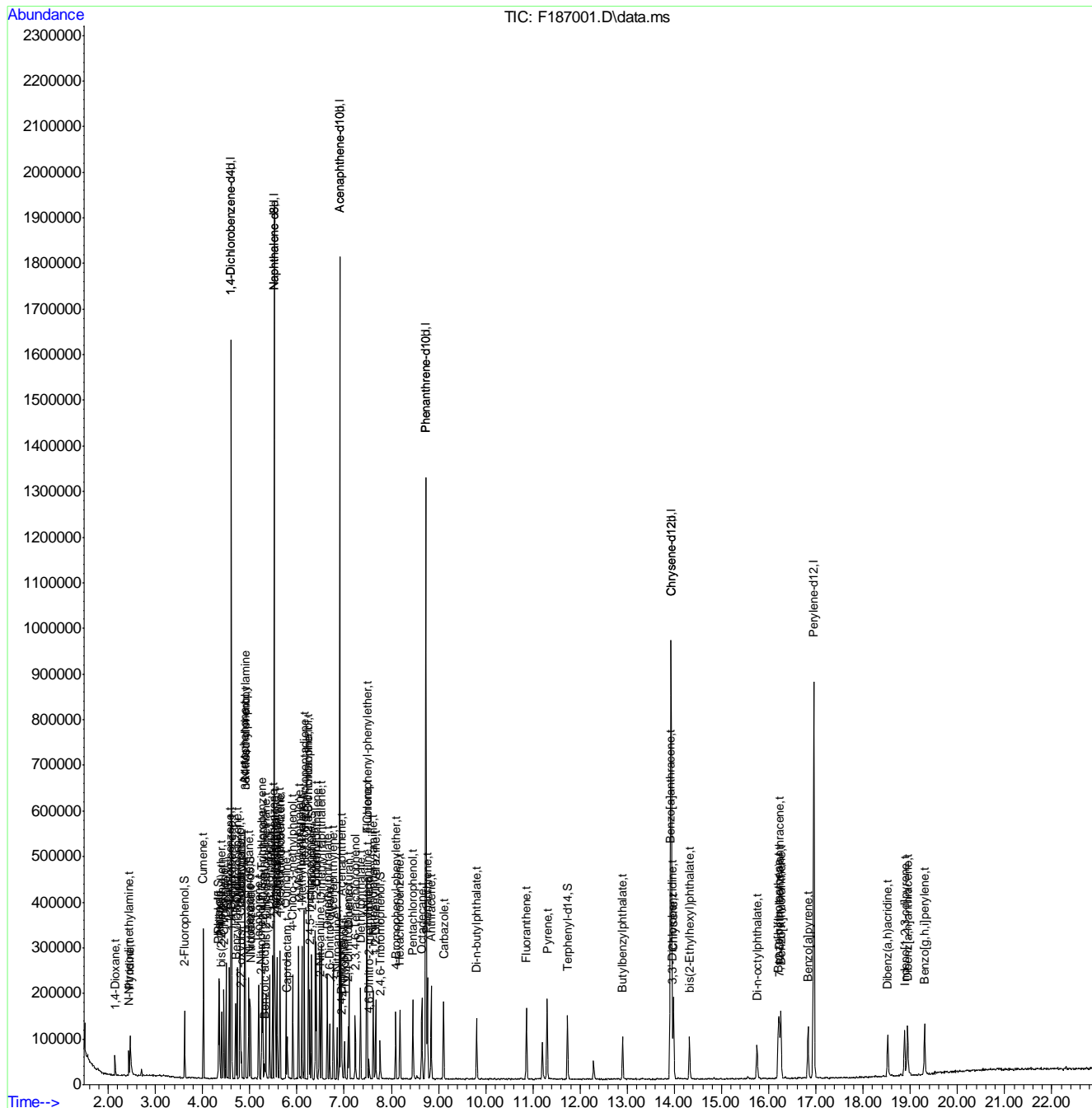
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
82) Octadecane	8.646	57	38354	4.23	ppm	97
84) Pyrene	11.301	202	104233	5.92	ppm	96
86) Butylbenzylphthalate	12.903	149	32530	4.14	ppm	93
87) Benzo[a]anthracene	13.913	228	85383	5.48	ppm	95
88) 3,3'-Dichlorobenzidine	13.956	252	24378	3.87	ppm	96
89) Chrysene	13.982	228	99332	5.75	ppm	98
90) bis(2-Ethylhexyl)phtha...	14.319	149	43039	4.03	ppm	99
92) Di-n-octylphthalate	15.751	149	63572	4.22	ppm	99
93) Benzo[b]fluoranthene	16.205	252	83460	6.17	ppm	98
94) Benzo[k]fluoranthene	16.258	252	86642	5.60	ppm	99
95) Benzo[a]pyrene	16.835	252	71168	5.69	ppm	94
96) Indeno[1,2,3-cd]pyrene	18.881	276	63596	5.80	ppm	98
97) Dibenz(a,h)acridine	18.523	279	53422	4.87	ppm	97
98) Dibenz[a,h]anthracene	18.945	278	67919	5.45	ppm	93
99) 7,12-Dimethylbenz(a)an...	16.226	256	36708	5.32	ppm	94
100) Benzo[g,h,i]perylene	19.309	276	68523	5.37	ppm	94

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF8050\
Data File : F187001.D
Acq On : 9 Sep 2019 5:33 pm
Operator : angelar
Sample : ic8050-5
Misc : op21602,ef8050,1000,,,1,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Sep 10 09:08:07 2019
Quant Method : C:\MSDCHEM\1\METHODS\MF8050.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Tue Sep 10 09:00:03 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF8050\
 Data File : F187002.D
 Acq On : 9 Sep 2019 6:02 pm
 Operator : angelar
 Sample : ic8050-2
 Misc : op21602,ef8050,1000,,,1,1
 ALS Vial : 9 Sample Multiplier: 1

Quant Time: Sep 10 09:09:24 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MF8050.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Tue Sep 10 09:00:03 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
Internal Standards							
1) 1,4-Dichlorobenzene-d4	4.602	152	162266	40.00	ppm	0.00	
24) Naphthalene-d8	5.521	136	574413	40.00	ppm	0.00	
47) Acenaphthene-d10	6.904	164	327249	40.00	ppm	-0.01	
69) Phenanthrene-d10	8.731	188	571038	40.00	ppm	-0.02	
83) Chrysene-d12	13.929	240	478776	40.00	ppm	-0.03	
91) Perylene-d12	16.958	264	494141	40.00	ppm	-0.02	
101) 1,4-Dichlorobenzene-d4b	4.602	152	162266	40.00	ppm	0.00	
103) Phenanthrene-d10b	8.731	188	571038	40.00	ppm	-0.02	
105) Chrysene-d12b	13.929	240	478776	40.00	ppm	-0.03	
107) Naphthalene-d8b	5.521	136	574413	40.00	ppm	0.00	
109) Acenaphthene-d10b	6.904	164	327249	40.00	ppm	-0.01	
System Monitoring Compounds							
5) 2-Fluorophenol	3.619	112	12858	2.19	ppm	0.00	
Spiked Amount	50.000		Recovery	=	4.38%		
8) Phenol-d5	4.329	99	15063	2.04	ppm	-0.02	
Spiked Amount	50.000		Recovery	=	4.08%		
25) Nitrobenzene-d5	5.002	82	13217	2.16	ppm	0.00	
Spiked Amount	50.000		Recovery	=	4.32%		
51) 2-Fluorobiphenyl	6.311	172	27614	2.49	ppm	0.00	
Spiked Amount	50.000		Recovery	=	4.98%		
73) 2,4,6-Tribromophenol	7.764	330	2705	1.55	ppm	-0.02	
Spiked Amount	50.000		Recovery	=	3.10%		
85) Terphenyl-d14	11.734	244	20906	1.95	ppm	-0.03	
Spiked Amount	50.000		Recovery	=	3.90%		
Target Compounds							
							Qvalue
2) 1,4-Dioxane	2.144	88	6722	2.14	ppm		91
3) Pyridine	2.476	79	14879	2.04	ppm		96
4) N-Nitrosodimethylamine	2.438	42	6967	2.36	ppm		91
6) Indene	4.794	116	20067	2.15	ppm		89
7) Cumene	4.014	105	33838	2.40	ppm		98
9) Phenol	4.340	94	18510	2.10	ppm		88
10) Aniline	4.356	93	21580	2.26	ppm		98
11) bis(2-Chloroethyl)ether	4.404	93	13786	2.19	ppm		92
12) 2-Chlorophenol	4.447	128	12204	2.12	ppm		95
13) Decane	4.495	43	12543	2.02	ppm		93
14) 1,3-Dichlorobenzene	4.564	146	15601	2.43	ppm		99
15) 1,4-Dichlorobenzene	4.612	146	15902	2.45	ppm		96
16) Benzyl alcohol	4.703	108	6994	1.83	ppm		96
17) 1,2-Dichlorobenzene	4.730	146	15482	2.52	ppm		92
18) Acetophenone	4.890	105	20279	2.54	ppm		90
19) 2-Methylphenol	4.783	108	12215	2.21	ppm		93
20) 2,2'-oxybis(1-Chloropr...	4.805	121	3746	2.26	ppm	#	90
21) 3&4-Methylphenol	4.896	108	11998	2.13	ppm		90
22) n-Nitroso-di-n-propyla...	4.896	70	10313	2.36	ppm		92
23) Hexachloroethane	4.976	201	5428	2.51	ppm		83
26) Nitrobenzene	5.019	77	13404	2.19	ppm		89
27) Quinoline	5.772	129	24241	2.27	ppm		94

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF8050\
 Data File : F187002.D
 Acq On : 9 Sep 2019 6:02 pm
 Operator : angelar
 Sample : ic8050-2
 Misc : op21602,ef8050,1000,,,1,1
 ALS Vial : 9 Sample Multiplier: 1

Quant Time: Sep 10 09:09:24 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MF8050.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Tue Sep 10 09:00:03 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
28) Isophorone	5.184	82	23402	1.99	ppm	99
29) 2-Nitrophenol	5.248	139	3572	1.46	ppm	84
30) 2,4-Dimethylphenol	5.275	107	12077	2.14	ppm	96
31) Benzoic acid	5.307	105	3202	1.03	ppm	87
32) bis(2-Chloroethoxy)met...	5.339	93	15615	2.14	ppm	96
33) 2,4-Dichlorophenol	5.419	162	9167	2.05	ppm	95
34) 2,6-Dichlorophenol	5.579	162	10489	2.36	ppm	95
35) 1,3,5-Trichlorobenzene	5.259	180	13332	2.51	ppm	94
36) 1,2,4-Trichlorobenzene	5.483	180	13082	2.61	ppm	95
37) 1,2,3-Trichlorobenzene	5.644	180	12239	2.42	ppm	99
38) Naphthalene	5.537	128	37772	2.45	ppm	98
39) 4-Chloroaniline	5.574	127	15325	2.29	ppm	95
40) 2,3-Dichloroaniline	6.242	161	12712	2.28	ppm	91
41) Caprolactam	5.793	55	3177	0.99	ppm	85
42) Hexachlorobutadiene	5.633	225	7731	2.72	ppm	97
43) 4-Chloro-3-methylphenol	5.911	107	9899	2.02	ppm	96
44) 2-Methylnaphthalene	6.034	141	18102	2.29	ppm	98
45) 1-Methylnaphthalene	6.103	142	23736	2.27	ppm	95
46) Dimethylnaphthalene	6.520	156	22030	2.34	ppm	99
48) Hexachlorocyclopentadiene	6.156	237	12891	5.37	ppm	88
49) 2,4,6-Trichlorophenol	6.242	196	7435	2.53	ppm	93
50) 2,4,5-Trichlorophenol	6.269	196	7785	2.34	ppm	97
52) 2-Chloronaphthalene	6.407	162	25108	2.55	ppm	95
53) Biphenyl	6.391	154	29884	2.39	ppm	98
54) 2-Nitroaniline	6.488	65	6117	1.65	ppm	89
55) Dimethylphthalate	6.643	163	24948	2.28	ppm	99
56) Acenaphthylene	6.771	152	32039	2.12	ppm	98
57) 2,6-Dinitrotoluene	6.696	165	3386	1.80	ppm	83
58) 3-Nitroaniline	6.851	138	3970	1.57	ppm	95
59) Acenaphthene	6.936	153	23926	2.43	ppm	97
60) 2,4-Dinitrophenol	6.952	184	1209	1.76	ppm	# 23
61) 4-Nitrophenol	7.006	109	1923	1.43	ppm	89
62) Dibenzofuran	7.107	168	30969	2.31	ppm	97
63) 2,4-Dinitrotoluene	7.081	165	3676	1.49	ppm	89
64) 2,3,4,6-Tetrachlorophenol	7.236	232	4538	1.91	ppm	87
65) Diethylphthalate	7.348	149	24639	2.28	ppm	92
66) Fluorene	7.481	166	24755	2.41	ppm	98
67) 4-Chlorophenyl-phenyle...	7.481	204	13036	2.63	ppm	95
68) 4-Nitroaniline	7.487	138	3893	1.51	ppm	84
70) 4,6-Dinitro-2-methylph...	7.529	198	1413	1.06	ppm	81
71) n-Nitrosodiphenylamine	7.615	169	17727	2.24	ppm	97
72) 1,2-Diphenylhydrazine	7.668	77	26812	2.06	ppm	97
74) 4-Bromophenyl-phenylether	8.096	248	7158	2.20	ppm	98
75) Hexachlorobenzene	8.181	284	8081	2.10	ppm	92
76) Pentachlorophenol	8.459	266	6031	3.00	ppm	91
77) Phenanthrene	8.763	178	37607	2.29	ppm	97
78) Anthracene	8.844	178	34037	2.06	ppm	99
79) Carbazole	9.111	167	31445	2.07	ppm	97
80) Di-n-butylphthalate	9.810	149	29920	1.66	ppm	98
81) Fluoranthene	10.868	202	31673	2.03	ppm	96

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF8050\
 Data File : F187002.D
 Acq On : 9 Sep 2019 6:02 pm
 Operator : angelar
 Sample : ic8050-2
 Misc : op21602,ef8050,1000,,,1,1
 ALS Vial : 9 Sample Multiplier: 1

Quant Time: Sep 10 09:09:24 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MF8050.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Tue Sep 10 09:00:03 2019
 Response via : Initial Calibration

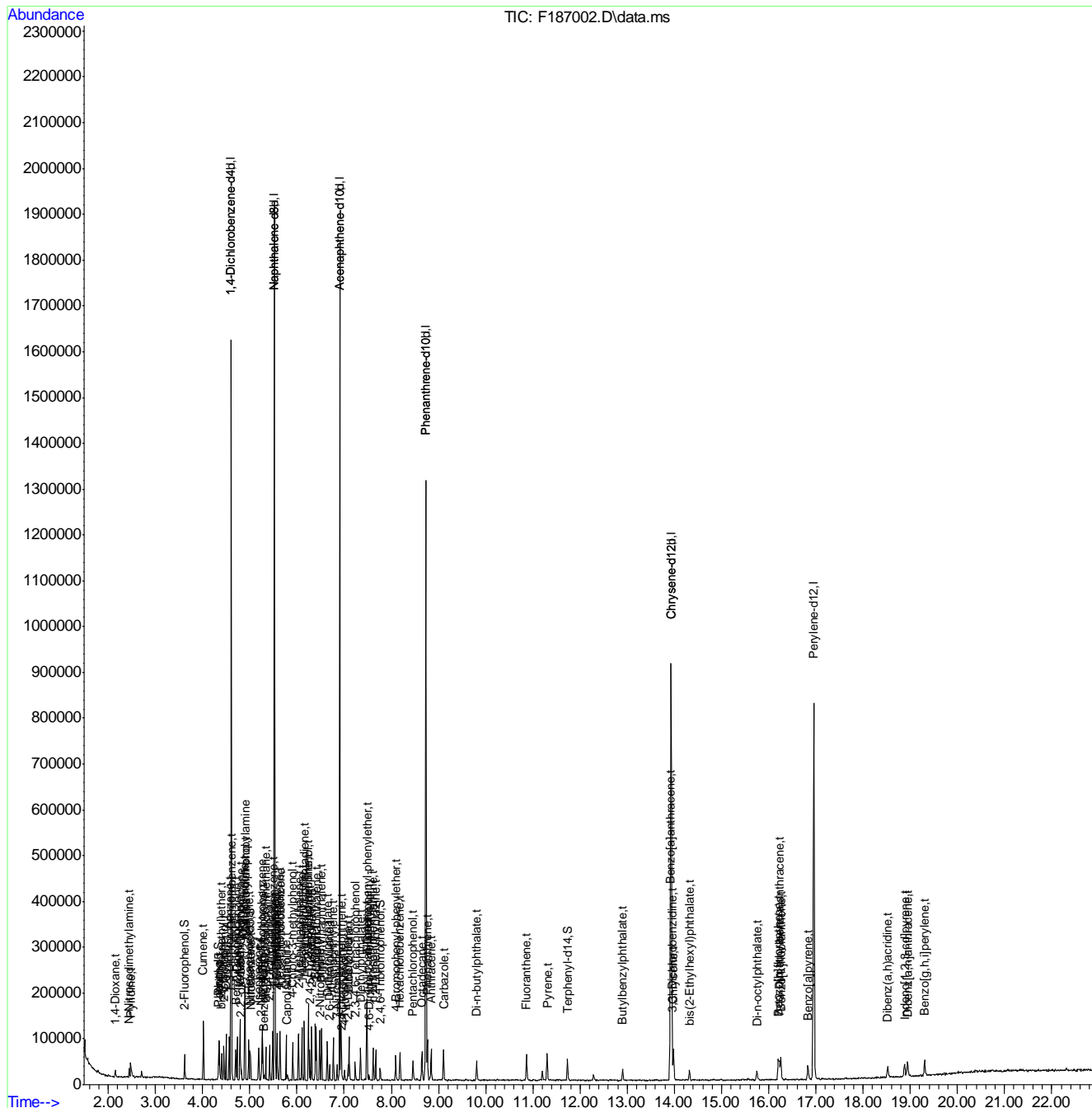
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
82) Octadecane	8.646	57	12927	1.44	ppm	94
84) Pyrene	11.301	202	34693	2.08	ppm	100
86) Butylbenzylphthalate	12.904	149	8839	1.19	ppm	88
87) Benzo[a]anthracene	13.913	228	30667	2.08	ppm	95
88) 3,3'-Dichlorobenzidine	13.956	252	6460	1.08	ppm	96
89) Chrysene	13.983	228	35362	2.16	ppm	95
90) bis(2-Ethylhexyl)phtha...	14.319	149	11156	1.10	ppm	92
92) Di-n-octylphthalate	15.751	149	16930	1.17	ppm	95
93) Benzo[b]fluoranthene	16.200	252	27643	2.12	ppm	97
94) Benzo[k]fluoranthene	16.259	252	30574	2.06	ppm	95
95) Benzo[a]pyrene	16.830	252	20596	1.71	ppm	97
96) Indeno[1,2,3-cd]pyrene	18.882	276	19055	1.81	ppm	91
97) Dibenz(a,h)acridine	18.524	279	16154	1.53	ppm	91
98) Dibenz[a,h]anthracene	18.946	278	22744	1.90	ppm	98
99) 7,12-Dimethylbenz(a)an...	16.227	256	10748	1.62	ppm	94
100) Benzo[g,h,i]perylene	19.304	276	22070	1.80	ppm	90

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF8050\
Data File : F187002.D
Acq On : 9 Sep 2019 6:02 pm
Operator : angelar
Sample : ic8050-2
Misc : op21602,ef8050,1000,,,1,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Sep 10 09:09:24 2019
Quant Method : C:\MSDCHEM\1\METHODS\MF8050.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Tue Sep 10 09:00:03 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF8050\
 Data File : F187009.D
 Acq On : 9 Sep 2019 6:31 pm
 Operator : angelar
 Sample : ic8050-1
 Misc : op21602,ef8050,1000,,,1,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 10 09:16:03 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MF8050.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Tue Sep 10 09:00:03 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.602	152	159710	40.00	ppm	0.00
24) Naphthalene-d8	5.521	136	564627	40.00	ppm	0.00
47) Acenaphthene-d10	6.904	164	314823	40.00	ppm	-0.01
69) Phenanthrene-d10	8.731	188	552615	40.00	ppm	-0.02
83) Chrysene-d12	13.929	240	467182	40.00	ppm	-0.03
91) Perylene-d12	16.958	264	477670	40.00	ppm	-0.02
101) 1,4-Dichlorobenzene-d4b	4.602	152	159710	40.00	ppm	0.00
103) Phenanthrene-d10b	8.731	188	552615	40.00	ppm	-0.02
105) Chrysene-d12b	13.929	240	467182	40.00	ppm	-0.03
107) Naphthalene-d8b	5.521	136	564627	40.00	ppm	0.00
109) Acenaphthene-d10b	6.904	164	314823	40.00	ppm	-0.01
System Monitoring Compounds						
5) 2-Fluorophenol	3.619	112	5476	0.95	ppm	0.00
Spiked Amount	50.000		Recovery	=	1.90%	
8) Phenol-d5	4.329	99	6756	0.93	ppm	-0.02
Spiked Amount	50.000		Recovery	=	1.86%	
25) Nitrobenzene-d5	5.003	82	5652	0.94	ppm	0.00
Spiked Amount	50.000		Recovery	=	1.88%	
51) 2-Fluorobiphenyl	6.306	172	13088	1.23	ppm	-0.01
Spiked Amount	50.000		Recovery	=	2.46%	
73) 2,4,6-Tribromophenol	7.764	330	1010	0.60	ppm	-0.02
Spiked Amount	50.000		Recovery	=	1.20%	
85) Terphenyl-d14	11.739	244	10054	0.96	ppm	-0.02
Spiked Amount	50.000		Recovery	=	1.92%	
Target Compounds						
						Qvalue
2) 1,4-Dioxane	2.144	88	2921m	0.94	ppm	
3) Pyridine	2.486	79	7339	1.02	ppm	91
4) N-Nitrosodimethylamine	2.444	42	3120	1.07	ppm	82
6) Indene	4.794	116	10139	1.10	ppm	93
7) Cumene	4.014	105	16076	1.16	ppm	96
9) Phenol	4.340	94	8663	1.00	ppm	87
10) Aniline	4.356	93	9308	0.99	ppm	97
11) bis(2-Chloroethyl)ether	4.410	93	6672	1.08	ppm	91
12) 2-Chlorophenol	4.447	128	5908	1.04	ppm	95
13) Decane	4.495	43	5964	0.97	ppm	88
14) 1,3-Dichlorobenzene	4.564	146	7323	1.16	ppm	99
15) 1,4-Dichlorobenzene	4.613	146	8049	1.26	ppm	94
16) Benzyl alcohol	4.703	108	3207	0.85	ppm	95
17) 1,2-Dichlorobenzene	4.730	146	7490	1.24	ppm	97
18) Acetophenone	4.896	105	9254	1.18	ppm	95
19) 2-Methylphenol	4.783	108	5575	1.03	ppm	92
20) 2,2'-oxybis(1-Chloropr...	4.805	121	1541	0.94	ppm	# 82
21) 3&4-Methylphenol	4.896	108	5164	0.93	ppm	97
22) n-Nitroso-di-n-propyla...	4.896	70	4857	1.13	ppm	98
23) Hexachloroethane	4.976	201	2860	1.34	ppm	97
26) Nitrobenzene	5.019	77	6100	1.02	ppm	97
27) Quinoline	5.772	129	10002	0.95	ppm	98

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF8050\
 Data File : F187009.D
 Acq On : 9 Sep 2019 6:31 pm
 Operator : angelar
 Sample : ic8050-1
 Misc : op21602,ef8050,1000,,,1,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 10 09:16:03 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MF8050.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Tue Sep 10 09:00:03 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
28) Isophorone	5.184	82	10528	0.91	ppm	97
29) 2-Nitrophenol	5.248	139	1716	0.71	ppm	94
30) 2,4-Dimethylphenol	5.275	107	6231	1.12	ppm	87
31) Benzoic acid	5.302	105	1088	0.35	ppm	90
32) bis(2-Chloroethoxy)met...	5.339	93	7449	1.04	ppm	95
33) 2,4-Dichlorophenol	5.419	162	4480	1.02	ppm	97
34) 2,6-Dichlorophenol	5.579	162	4204	0.96	ppm	95
35) 1,3,5-Trichlorobenzene	5.259	180	6497	1.25	ppm	96
36) 1,2,4-Trichlorobenzene	5.483	180	5559	1.13	ppm	89
37) 1,2,3-Trichlorobenzene	5.644	180	5759	1.16	ppm	96
38) Naphthalene	5.537	128	18136	1.20	ppm	97
39) 4-Chloroaniline	5.574	127	6844	1.04	ppm	94
40) 2,3-Dichloroaniline	6.242	161	5965	1.09	ppm	91
41) Caprolactam	5.793	55	1359	0.43	ppm	84
42) Hexachlorobutadiene	5.633	225	3774	1.35	ppm	97
43) 4-Chloro-3-methylphenol	5.911	107	4363	0.91	ppm	98
44) 2-Methylnaphthalene	6.034	141	8387	1.08	ppm	89
45) 1-Methylnaphthalene	6.103	142	11867	1.15	ppm	97
46) Dimethylnaphthalene	6.520	156	10708	1.16	ppm	97
48) Hexachlorocyclopentadiene	6.156	237	5675	2.46	ppm	99
49) 2,4,6-Trichlorophenol	6.242	196	2773	0.98	ppm	94
50) 2,4,5-Trichlorophenol	6.269	196	2775	0.87	ppm	77
52) 2-Chloronaphthalene	6.408	162	11302	1.19	ppm	96
53) Biphenyl	6.391	154	13940	1.16	ppm	98
54) 2-Nitroaniline	6.488	65	2446	0.69	ppm	87
55) Dimethylphthalate	6.643	163	11645	1.11	ppm	91
56) Acenaphthylene	6.771	152	14170	0.97	ppm	95
57) 2,6-Dinitrotoluene	6.691	165	917m	0.51	ppm	
58) 3-Nitroaniline	6.851	138	1416	0.58	ppm	86
59) Acenaphthene	6.936	153	10750	1.13	ppm	93
62) Dibenzofuran	7.107	168	14703	1.14	ppm	98
63) 2,4-Dinitrotoluene	7.081	165	1348	0.57	ppm	67
64) 2,3,4,6-Tetrachlorophenol	7.236	232	1817	0.80	ppm	92
65) Diethylphthalate	7.348	149	10934	1.05	ppm	96
66) Fluorene	7.476	166	11744	1.19	ppm	89
67) 4-Chlorophenyl-phenyle...	7.481	204	5566	1.17	ppm	97
68) 4-Nitroaniline	7.487	138	1373	0.56	ppm	81
71) n-Nitrosodiphenylamine	7.615	169	7613	0.99	ppm	99
72) 1,2-Diphenylhydrazine	7.663	77	12271	0.98	ppm	97
74) 4-Bromophenyl-phenylether	8.096	248	2807	0.89	ppm	95
75) Hexachlorobenzene	8.181	284	3775	1.01	ppm	84
76) Pentachlorophenol	8.459	266	2127	1.09	ppm	# 63
77) Phenanthrene	8.763	178	18926	1.19	ppm	93
78) Anthracene	8.844	178	15158	0.95	ppm	96
79) Carbazole	9.105	167	12569	0.86	ppm	96
80) Di-n-butylphthalate	9.805	149	11378	0.65	ppm	98
81) Fluoranthene	10.863	202	13779	0.91	ppm	91
82) Octadecane	8.646	57	5433	0.62	ppm	93
84) Pyrene	11.301	202	15312	0.94	ppm	92
86) Butylbenzylphthalate	12.904	149	3295	0.45	ppm	78

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF8050\
 Data File : F187009.D
 Acq On : 9 Sep 2019 6:31 pm
 Operator : angelar
 Sample : ic8050-1
 Misc : op21602,ef8050,1000,,,1,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 10 09:16:03 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MF8050.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Tue Sep 10 09:00:03 2019
 Response via : Initial Calibration

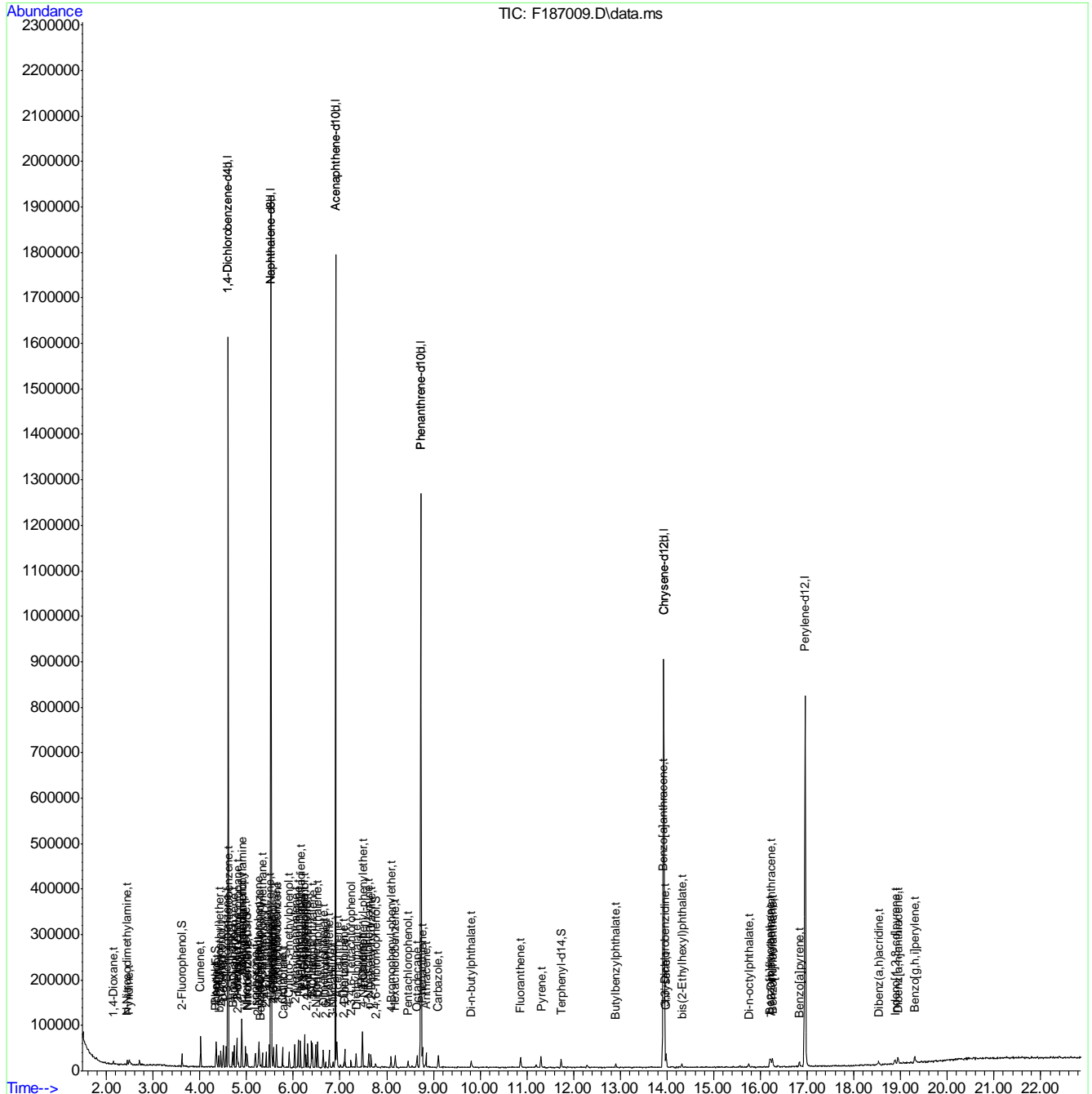
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
87) Benzo[a]anthracene	13.913	228	14289	0.99	ppm	96
88) 3,3'-Dichlorobenzidine	13.956	252	2116	0.36	ppm	70
89) Chrysene	13.983	228	15392	0.96	ppm	97
90) bis(2-Ethylhexyl)phtha...	14.319	149	4440	0.45	ppm	75
92) Di-n-octylphthalate	15.751	149	6272	0.45	ppm	92
93) Benzo[b]fluoranthene	16.205	252	10953	0.87	ppm	96
94) Benzo[k]fluoranthene	16.259	252	13339	0.93	ppm	95
95) Benzo[a]pyrene	16.836	252	7417	0.64	ppm	92
96) Indeno[1,2,3-cd]pyrene	18.887	276	6935	0.68	ppm	99
97) Dibenz(a,h)acridine	18.529	279	4878	0.48	ppm	56
98) Dibenz[a,h]anthracene	18.946	278	8898	0.77	ppm	84
99) 7,12-Dimethylbenz(a)an...	16.227	256	4197	0.65	ppm	84
100) Benzo[g,h,i]perylene	19.304	276	8407	0.71	ppm	90

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF8050\
 Data File : F187009.D
 Acq On : 9 Sep 2019 6:31 pm
 Operator : angelar
 Sample : ic8050-1
 Misc : op21602,ef8050,1000,,,1,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 10 09:16:03 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MF8050.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Tue Sep 10 09:00:03 2019
 Response via : Initial Calibration



6 896

Manual Integration Approval Summary

Sample Number: EF8050-IC8050 Method: SW846 8270D
Lab FileID: F187009.D Analyst approved: 09/10/19 10:17 Kristi Schollenberger
Injection Time: 09/09/19 18:31 Supervisor approved: 09/11/19 09:08 Nina Pandya

Parameter	CAS	Sig#	R.T. (min.)	Reason
1,4-Dioxane	123-91-1		2.14	Poor instrument integration
2,6-Dinitrotoluene	606-20-2		6.69	Poor instrument integration

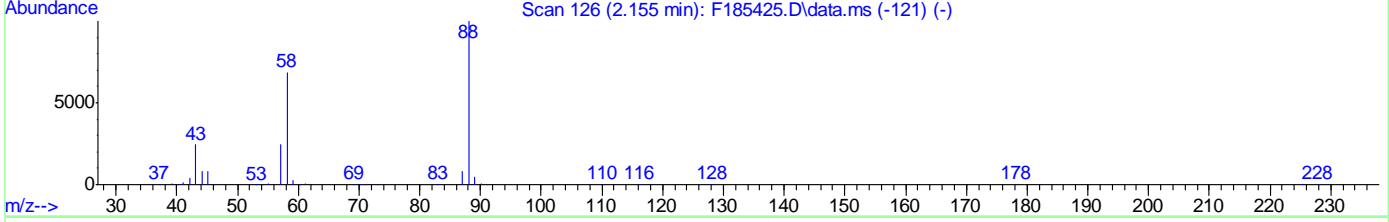
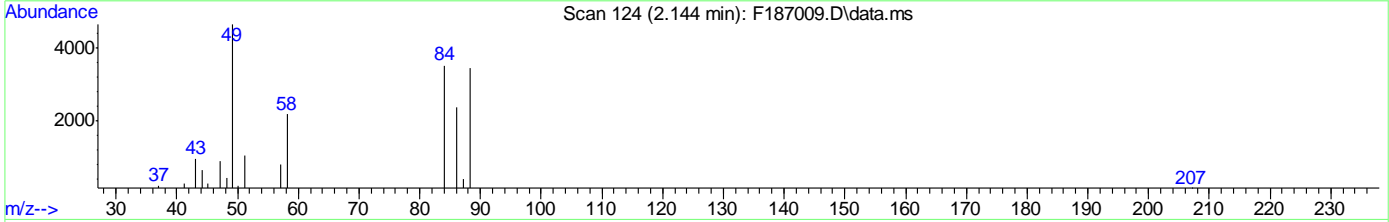
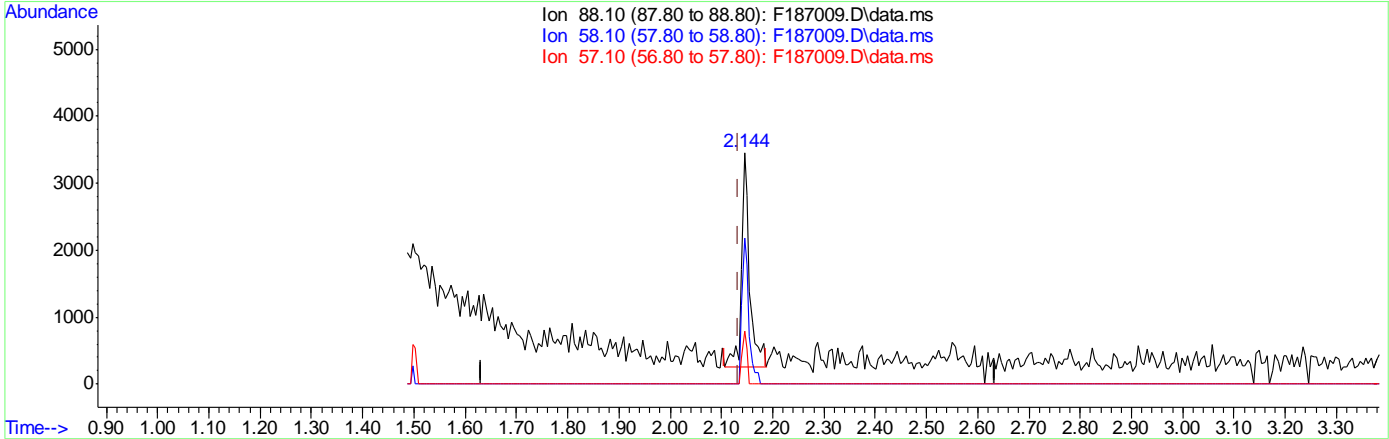
9.6.8.1

9

Quantitation Report (Qedit)

Data Path : C:\MSDCHEM\1\DATA\EF8050\
 Data File : F187009.D
 Acq On : 9 Sep 2019 6:31 pm
 Operator : angelar
 Sample : ic8050-1
 Misc : op21602,ef8050,1000,,,1,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 10 09:09:48 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MF8050.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Tue Sep 10 09:00:03 2019
 Response via : Initial Calibration



TIC: F187009.D\data.ms

(2) 1,4-Dioxane (t)
 2.144min (+0.011) 1.17ppm
 response 3612

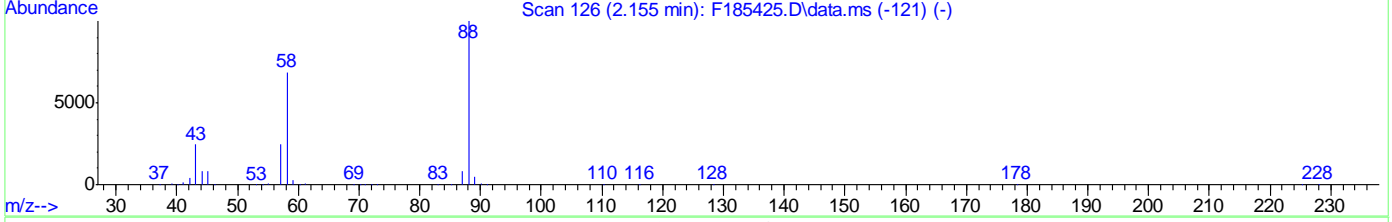
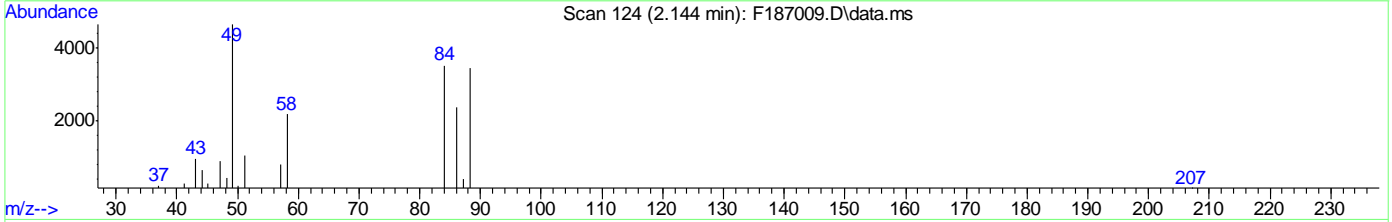
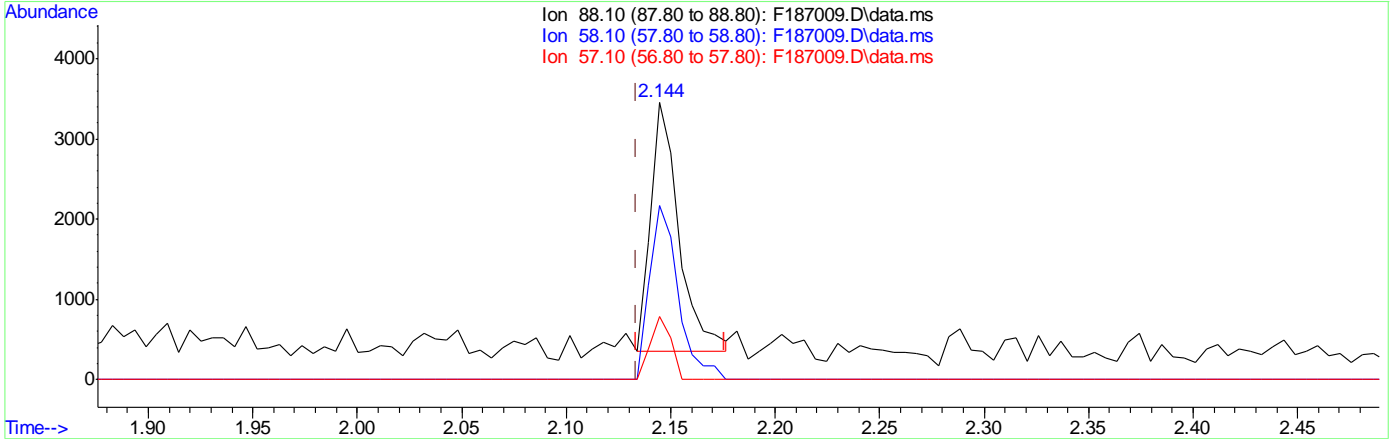
Ion	Exp%	Act%
88.10	100	100
58.10	58.40	67.88
57.10	22.10	24.57
0.00	0.00	0.00

9.6.8.2
 9

Quantitation Report (Qedit)

Data Path : C:\MSDCHEM\1\DATA\EF8050\
 Data File : F187009.D
 Acq On : 9 Sep 2019 6:31 pm
 Operator : angelar
 Sample : ic8050-1
 Misc : op21602,ef8050,1000,,,1,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 10 09:09:48 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MF8050.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Tue Sep 10 09:00:03 2019
 Response via : Initial Calibration



TIC: F187009.D\data.ms

(2) 1,4-Dioxane (t)
 2.144min (+0.011) 0.94ppm m
 response 2921

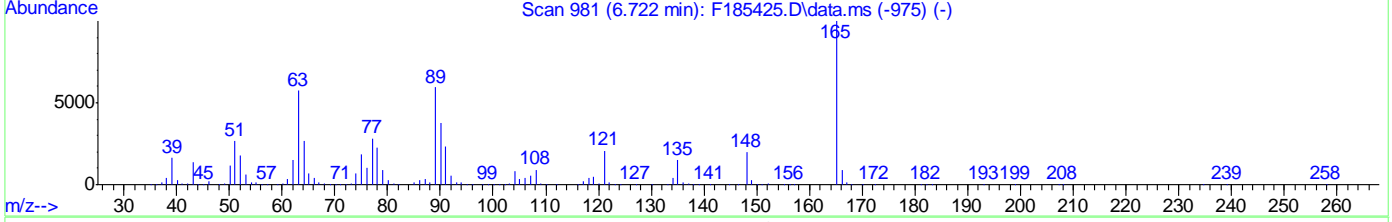
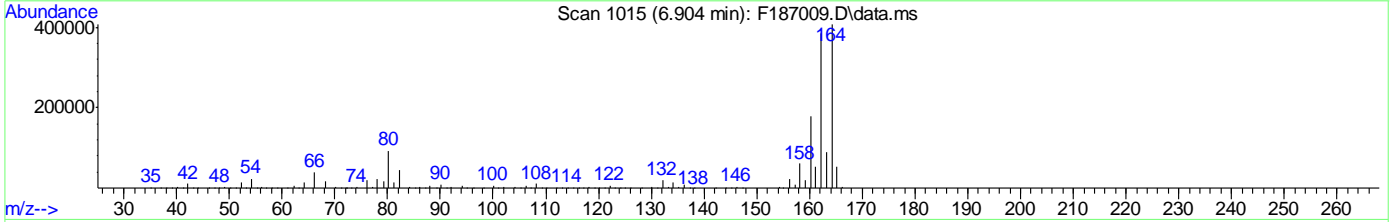
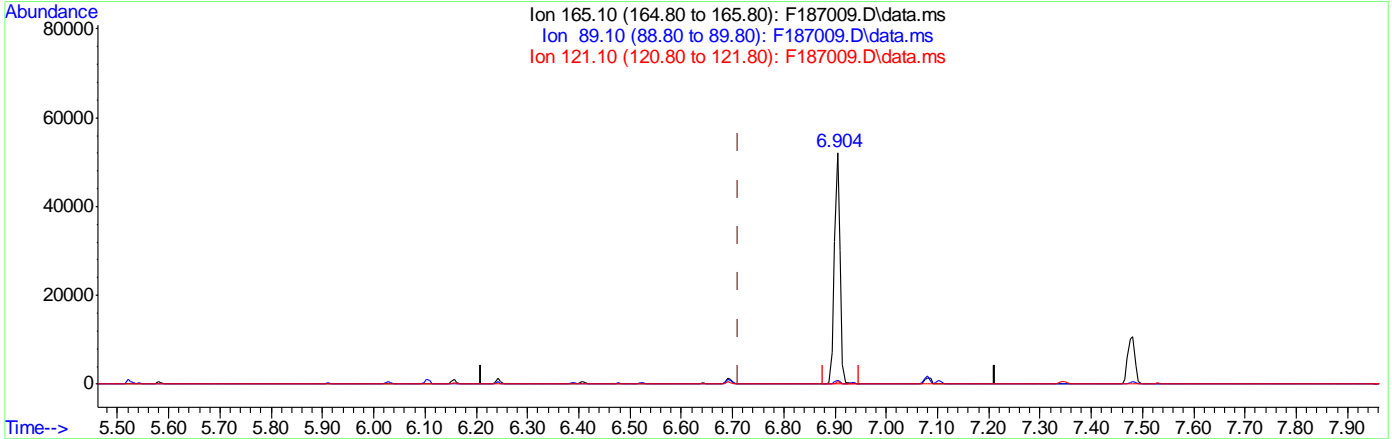
Ion	Exp%	Act%
88.10	100	100
58.10	58.40	62.85
57.10	22.10	22.75
0.00	0.00	0.00

9.683
6

Quantitation Report (Qedit)

Data Path : C:\MSDCHEM\1\DATA\EF8050\
 Data File : F187009.D
 Acq On : 9 Sep 2019 6:31 pm
 Operator : angelar
 Sample : ic8050-1
 Misc : op21602,ef8050,1000,,,1,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 10 09:11:23 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MF8050.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Tue Sep 10 09:00:03 2019
 Response via : Initial Calibration



TIC: F187009.D\data.ms

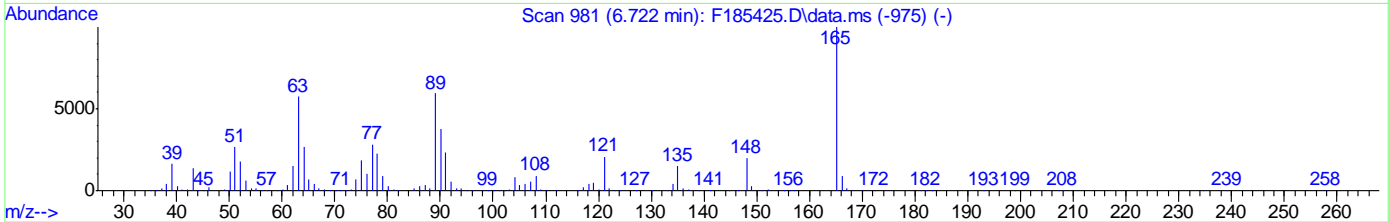
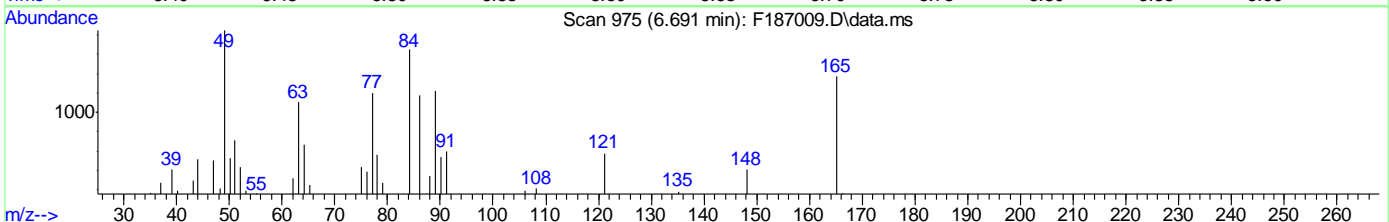
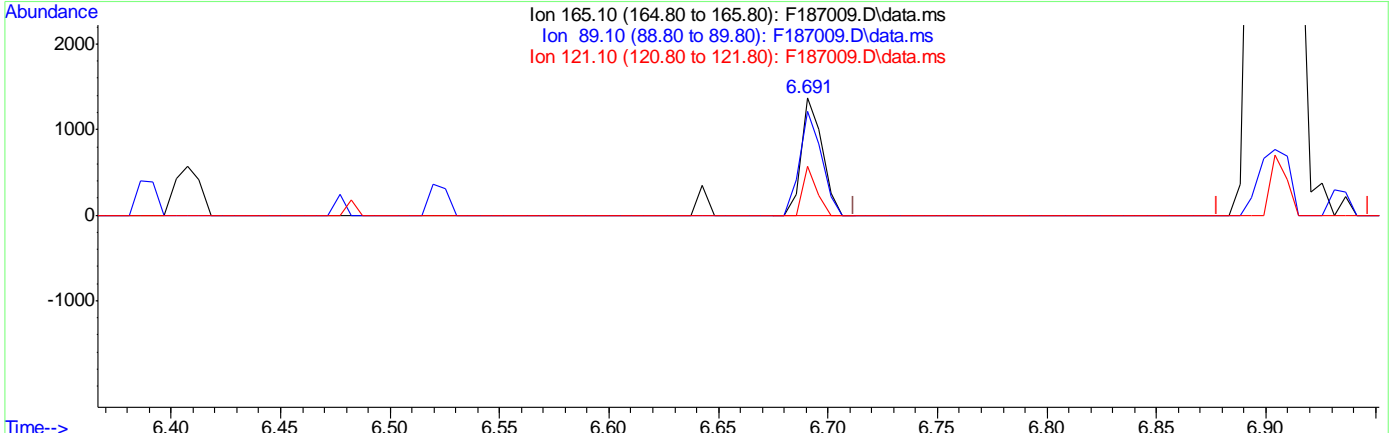
(57) 2,6-Dinitrotoluene (t)		
6.904min (+0.193)	22.53ppm	
response	40780	
Ion	Exp%	Act%
165.10	100	100
89.10	62.00	1.47#
121.10	20.80	1.35
0.00	0.00	0.00

9.6.8.4
9

Quantitation Report (Qedit)

Data Path : C:\MSDCHEM\1\DATA\EF8050\
 Data File : F187009.D
 Acq On : 9 Sep 2019 6:31 pm
 Operator : angelar
 Sample : ic8050-1
 Misc : op21602,ef8050,1000,,,1,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 10 09:11:23 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MF8050.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Tue Sep 10 09:00:03 2019
 Response via : Initial Calibration



TIC: F187009.D\data.ms

(57) 2,6-Dinitrotoluene (t)
 6.691min (-0.021) 0.51ppm m
 response 917

Ion	Exp%	Act%
165.10	100	100
89.10	62.00	89.17
121.10	20.80	41.99
0.00	0.00	0.00

9.685
9

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF8050\
 Data File : F187003.D
 Acq On : 9 Sep 2019 7:00 pm
 Operator : angelar
 Sample : icv8050-50
 Misc : op21602,ef8050,1000,,,1,1
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Sep 10 09:24:24 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MF8050.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Tue Sep 10 09:21:05 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.607	152	167877	40.00	ppm	0.00
24) Naphthalene-d8	5.526	136	583837	40.00	ppm	0.00
47) Acenaphthene-d10	6.904	164	334254	40.00	ppm	0.00
69) Phenanthrene-d10	8.731	188	563695	40.00	ppm	0.00
83) Chrysene-d12	13.940	240	466177	40.00	ppm	0.01
91) Perylene-d12	16.963	264	477026	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4b	4.607	152	167877	40.00	ppm	0.00
103) Phenanthrene-d10b	8.731	188	563695	40.00	ppm	0.00
105) Chrysene-d12b	13.940	240	466177	40.00	ppm	0.01
107) Naphthalene-d8b	5.526	136	583837	40.00	ppm	0.00
109) Acenaphthene-d10b	6.904	164	334254	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
25) Nitrobenzene-d5	0.000	82	0d	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
Target Compounds						
4) N-Nitrosodimethylamine	2.443	42	160380	50.06	ppm	98
11) bis(2-Chloroethyl)ether	4.409	93	310021	47.86	ppm	98
14) 1,3-Dichlorobenzene	4.564	146	332216	45.33	ppm	97
15) 1,4-Dichlorobenzene	4.617	146	343187	45.72	ppm	99
17) 1,2-Dichlorobenzene	4.730	146	321477	45.00	ppm	100
20) 2,2'-oxybis(1-Chloropr...	4.804	121	99177	57.57	ppm	98
22) n-Nitroso-di-n-propyla...	4.895	70	237359	51.04	ppm	97
23) Hexachloroethane	4.975	201	123490	44.82	ppm	96
26) Nitrobenzene	5.018	77	323582	46.51	ppm	98
28) Isophorone	5.189	82	600065	50.91	ppm	95
32) bis(2-Chloroethoxy)met...	5.344	93	373474	49.51	ppm	99
36) 1,2,4-Trichlorobenzene	5.483	180	265523	46.42	ppm	99
38) Naphthalene	5.542	128	813061	47.40	ppm	98
42) Hexachlorobutadiene	5.633	225	171596	46.67	ppm	98
48) Hexachlorocyclopentadiene	6.156	237	163342	46.09	ppm	99
52) 2-Chloronaphthalene	6.407	162	503267	44.14	ppm	97
55) Dimethylphthalate	6.648	163	558779	45.73	ppm	99
56) Acenaphthylene	6.770	152	790282	49.01	ppm	99
57) 2,6-Dinitrotoluene	6.701	165	110924	42.03	ppm	98
59) Acenaphthene	6.936	153	498968	45.62	ppm	96
63) 2,4-Dinitrotoluene	7.086	165	133538	37.49	ppm	98
65) Diethylphthalate	7.353	149	579164	46.95	ppm	99

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF8050\
 Data File : F187003.D
 Acq On : 9 Sep 2019 7:00 pm
 Operator : angelar
 Sample : icv8050-50
 Misc : op21602,ef8050,1000,,,1,1
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Sep 10 09:24:24 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MF8050.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Tue Sep 10 09:21:05 2019
 Response via : Initial Calibration

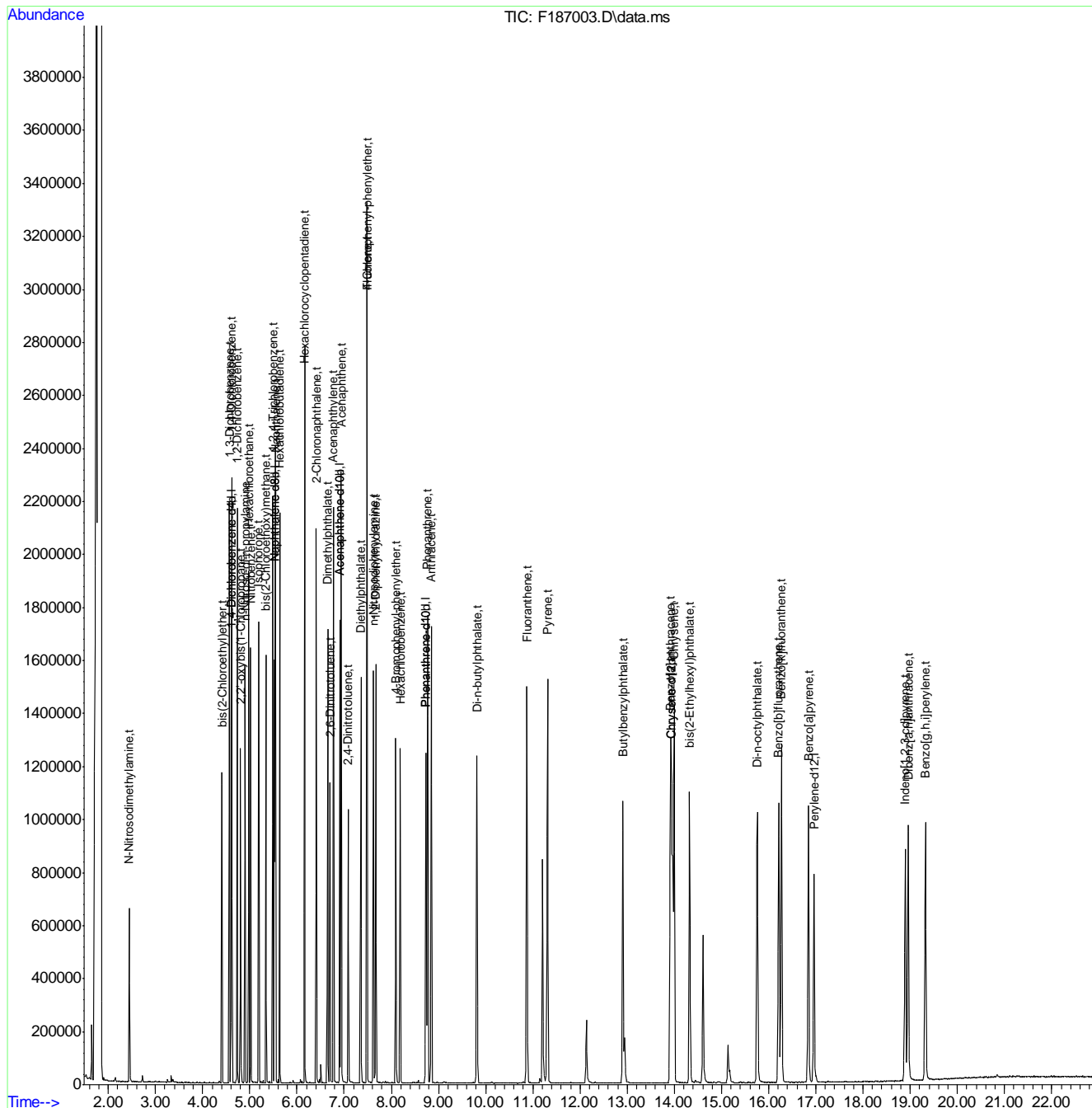
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
66) Fluorene	7.481	166	531345	46.15	ppm	100
67) 4-Chlorophenyl-phenyle...	7.481	204	264448	45.02	ppm	100
71) n-Nitrosodiphenylamine	7.620	169	394073	47.55	ppm	99
72) 1,2-Diphenylhydrazine	7.668	77	678030	51.74	ppm	97
74) 4-Bromophenyl-phenylether	8.095	248	164135	49.17	ppm	99
75) Hexachlorobenzene	8.186	284	181651	48.64	ppm	98
77) Phenanthrene	8.768	178	792740	46.91	ppm	100
78) Anthracene	8.849	178	809967	49.33	ppm	99
80) Di-n-butylphthalate	9.816	149	944236	53.83	ppm	99
81) Fluoranthene	10.873	202	843463	51.48	ppm	99
84) Pyrene	11.311	202	896455	52.14	ppm	99
86) Butylbenzylphthalate	12.909	149	398691	50.64	ppm	100
87) Benzo[a]anthracene	13.918	228	774581	50.65	ppm	99
89) Chrysene	13.993	228	815970	49.22	ppm	98
90) bis(2-Ethylhexyl)phtha...	14.324	149	546838	50.30	ppm	99
92) Di-n-octylphthalate	15.756	149	900999	52.25	ppm	100
93) Benzo[b]fluoranthene	16.216	252	737289	51.50	ppm	98
94) Benzo[k]fluoranthene	16.274	252	766723	51.24	ppm	98
95) Benzo[a]pyrene	16.846	252	680974	55.45	ppm	99
96) Indeno[1,2,3-cd]pyrene	18.897	276	615324	54.11	ppm	99
98) Dibenz[a,h]anthracene	18.961	278	627523	50.71	ppm	99
100) Benzo[g,h,i]perylene	19.325	276	653150	54.55	ppm	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF8050\
 Data File : F187003.D
 Acq On : 9 Sep 2019 7:00 pm
 Operator : angelar
 Sample : icv8050-50
 Misc : op21602,ef8050,1000,,,1,1
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Sep 10 09:24:24 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MF8050.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Tue Sep 10 09:21:05 2019
 Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF8050\
 Data File : F187004.D
 Acq On : 9 Sep 2019 7:29 pm
 Operator : angelar
 Sample : icv8050-50
 Misc : op21602,ef8050,1000,,,1,1
 ALS Vial : 11 Sample Multiplier: 1

Quant Time: Sep 10 09:25:54 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MF8050.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Tue Sep 10 09:21:05 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.602	152	186087	40.00	ppm	0.00
24) Naphthalene-d8	5.521	136	728113	40.00	ppm	0.00
47) Acenaphthene-d10	6.904	164	361363	40.00	ppm	0.00
69) Phenanthrene-d10	8.731	188	630256	40.00	ppm	0.00
83) Chrysene-d12	13.929	240	475525	40.00	ppm	0.00
91) Perylene-d12	16.958	264	468470	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4b	4.602	152	186087	40.00	ppm	0.00
103) Phenanthrene-d10b	8.731	188	630256	40.00	ppm	0.00
105) Chrysene-d12b	13.929	240	475525	40.00	ppm	0.00
107) Naphthalene-d8b	5.521	136	728113	40.00	ppm	0.00
109) Acenaphthene-d10b	6.904	164	361363	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
25) Nitrobenzene-d5	0.000	82	0d	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
Target Compounds						
2) 1,4-Dioxane	2.160	88	153979	45.90	ppm	98
6) Indene	4.794	116	552108	52.22	ppm	99
7) Cumene	4.014	105	802130	45.17	ppm	98
13) Decane	4.495	43	291021	45.22	ppm	100
18) Acetophenone	4.890	105	480177	48.58	ppm	82
27) Quinoline	5.772	129	577009	41.51	ppm	99
40) 2,3-Dichloroaniline	6.242	161	286681	38.45	ppm	96
41) Caprolactam	5.804	55	125051	45.82	ppm	96
45) 1-Methylnaphthalene	6.108	142	542603	38.50	ppm	100
53) Biphenyl	6.391	154	689240	46.12	ppm	100
82) Octadecane	8.651	57	379254	50.50	ppm	99
99) 7,12-Dimethylbenz(a)an...	16.237	256	332940	52.66	ppm	99

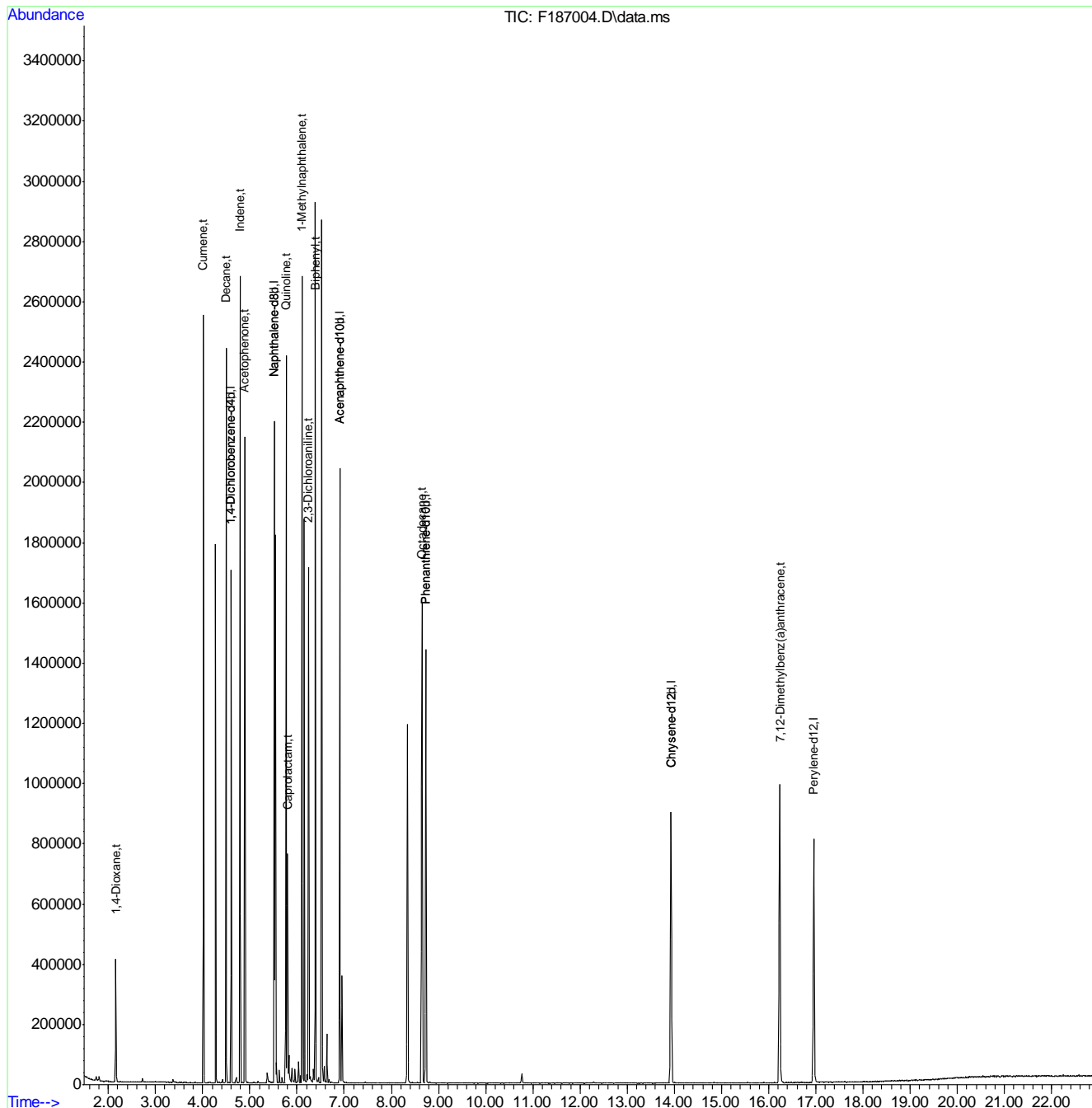
(#) = qualifier out of range (m) = manual integration (+) = signals summed

9.6-10
9

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF8050\
 Data File : F187004.D
 Acq On : 9 Sep 2019 7:29 pm
 Operator : angelar
 Sample : icv8050-50
 Misc : op21602,ef8050,1000,,,1,1
 ALS Vial : 11 Sample Multiplier: 1

Quant Time: Sep 10 09:25:54 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MF8050.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Tue Sep 10 09:21:05 2019
 Response via : Initial Calibration



9.6-10
9

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF8050\
 Data File : F187005.D
 Acq On : 9 Sep 2019 9:02 pm
 Operator : angelar
 Sample : icv8050-50
 Misc : op21602,ef8050,1000,,,1,1
 ALS Vial : 12 Sample Multiplier: 1

Quant Time: Sep 10 09:27:08 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MF8050.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Tue Sep 10 09:21:05 2019
 Response via : Initial Calibration

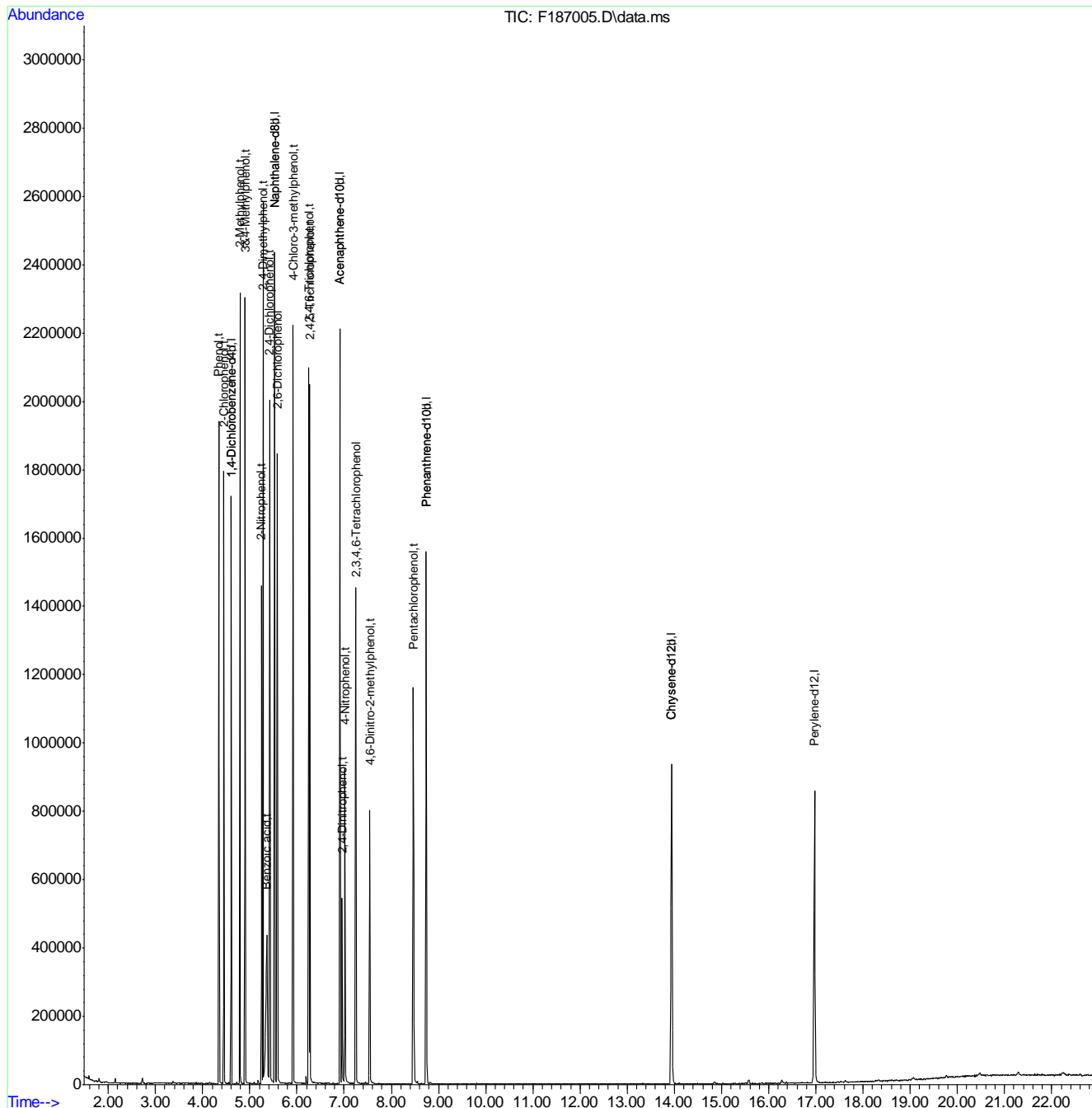
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.607	152	202884	40.00	ppm	0.00
24) Naphthalene-d8	5.526	136	725394	40.00	ppm	0.00
47) Acenaphthene-d10	6.910	164	396709	40.00	ppm	0.00
69) Phenanthrene-d10	8.742	188	675932	40.00	ppm	0.01
83) Chrysene-d12	13.940	240	514573	40.00	ppm	0.01
91) Perylene-d12	16.974	264	510551	40.00	ppm	0.02
101) 1,4-Dichlorobenzene-d4b	4.607	152	202884	40.00	ppm	0.00
103) Phenanthrene-d10b	8.742	188	675932	40.00	ppm	0.01
105) Chrysene-d12b	13.940	240	514573	40.00	ppm	0.01
107) Naphthalene-d8b	5.526	136	725394	40.00	ppm	0.00
109) Acenaphthene-d10b	6.910	164	396709	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
25) Nitrobenzene-d5	0.000	82	0d	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
Target Compounds						
9) Phenol	4.345	94	449160	41.37	ppm	97
12) 2-Chlorophenol	4.452	128	342782	45.19	ppm	97
19) 2-Methylphenol	4.789	108	310354	45.31	ppm	97
21) 3&4-Methylphenol	4.896	108	335742	49.95	ppm	96
29) 2-Nitrophenol	5.248	139	163203	50.66	ppm	95
30) 2,4-Dimethylphenol	5.280	107	351732	44.75	ppm	97
31) Benzoic acid	5.360	105	225296	43.54	ppm	98
33) 2,4-Dichlorophenol	5.419	162	271651	44.61	ppm	99
34) 2,6-Dichlorophenol	5.585	162	274680	45.76	ppm	98
43) 4-Chloro-3-methylphenol	5.916	107	300499	46.31	ppm	99
49) 2,4,6-Trichlorophenol	6.247	196	209685	49.21	ppm	99
50) 2,4,5-Trichlorophenol	6.274	196	210415	45.51	ppm	99
60) 2,4-Dinitrophenol	6.958	184	56806	40.60	ppm	# 74
61) 4-Nitrophenol	7.017	109	102472	45.84	ppm	95
64) 2,3,4,6-Tetrachlorophenol	7.246	232	174262	50.37	ppm	99
70) 4,6-Dinitro-2-methylph...	7.540	198	101471	41.35	ppm	98
76) Pentachlorophenol	8.470	266	149289	56.99	ppm	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF8050\
 Data File : F187005.D
 Acq On : 9 Sep 2019 9:02 pm
 Operator : angelar
 Sample : icv8050-50
 Misc : op21602,ef8050,1000,,,1,1
 ALS Vial : 12 Sample Multiplier: 1

Quant Time: Sep 10 09:27:08 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MF8050.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Tue Sep 10 09:21:05 2019
 Response via : Initial Calibration



9.6.11
9

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF8050\
 Data File : F187006.D
 Acq On : 9 Sep 2019 9:31 pm
 Operator : angelar
 Sample : icv8050-50
 Misc : op21602,ef8050,1000,,,1,1
 ALS Vial : 13 Sample Multiplier: 1

Quant Time: Sep 10 10:00:48 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MF8050.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Tue Sep 10 09:21:05 2019
 Response via : Initial Calibration

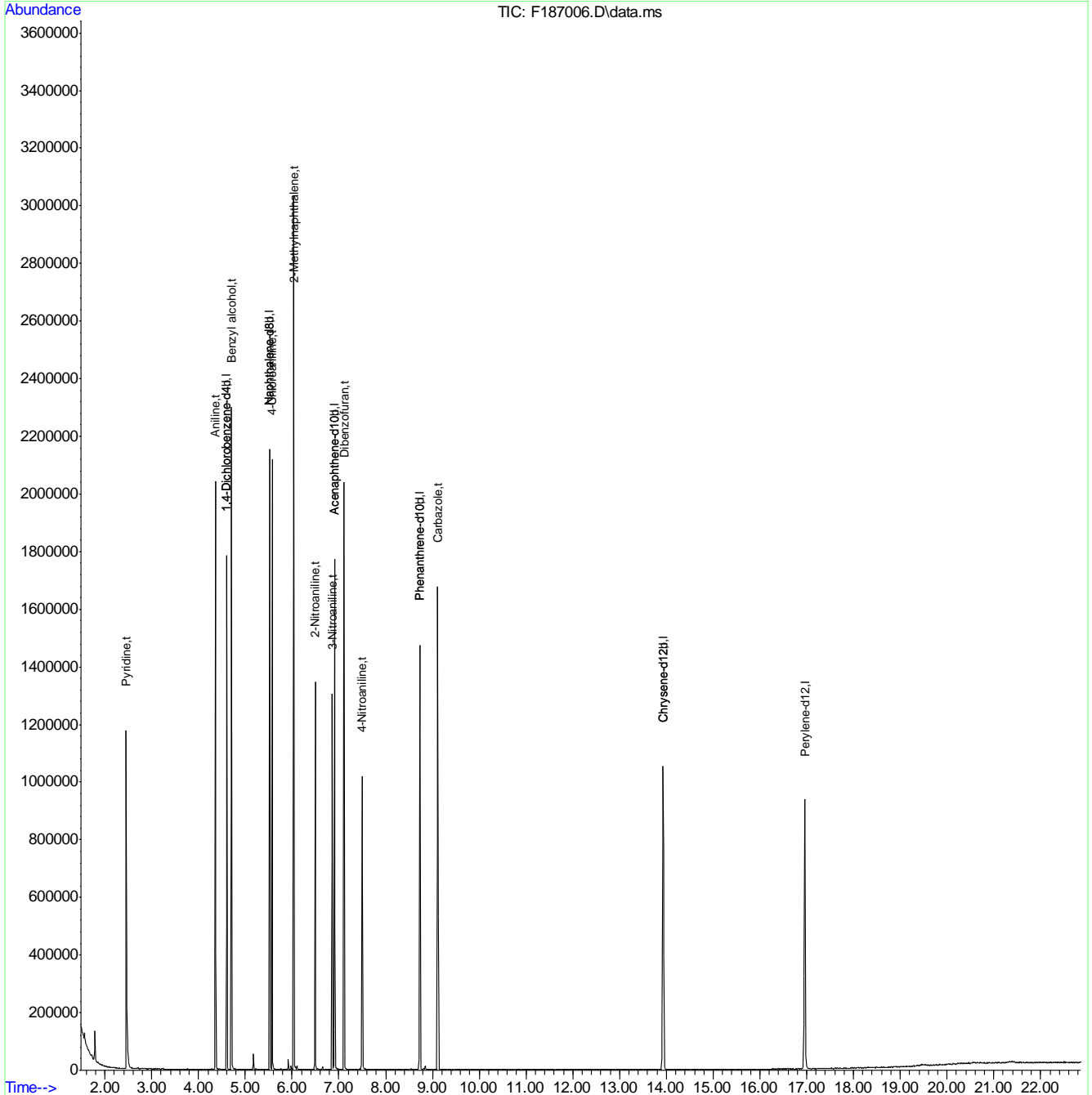
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.601	152	187675	40.00	ppm	0.00
24) Naphthalene-d8	5.520	136	654973	40.00	ppm	0.00
47) Acenaphthene-d10	6.904	164	341343	40.00	ppm	0.00
69) Phenanthrene-d10	8.731	188	644202	40.00	ppm	0.00
83) Chrysene-d12	13.929	240	586371	40.00	ppm	0.00
91) Perylene-d12	16.963	264	560466	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4b	4.601	152	187675	40.00	ppm	0.00
103) Phenanthrene-d10b	8.731	188	644202	40.00	ppm	0.00
105) Chrysene-d12b	13.929	240	586371	40.00	ppm	0.00
107) Naphthalene-d8b	5.520	136	654973	40.00	ppm	0.00
109) Acenaphthene-d10b	6.904	164	341343	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
8) Phenol-d5	0.000	99	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
Target Compounds						
3) Pyridine	2.454	79	433891	51.90	ppm	97
10) Aniline	4.361	93	566607	50.47	ppm	99
16) Benzyl alcohol	4.703	108	224241	54.34	ppm	99
39) 4-Chloroaniline	5.574	127	395710	48.66	ppm	98
44) 2-Methylnaphthalene	6.033	141	479189	49.48	ppm	97
54) 2-Nitroaniline	6.493	65	170727	47.43	ppm	94
58) 3-Nitroaniline	6.856	138	157576	56.87	ppm	99
62) Dibenzofuran	7.112	168	778326	52.30	ppm	99
68) 4-Nitroaniline	7.497	138	154678	54.28	ppm	94
79) Carbazole	9.116	167	856903	50.07	ppm	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF8050\
 Data File : F187006.D
 Acq On : 9 Sep 2019 9:31 pm
 Operator : angelar
 Sample : icv8050-50
 Misc : op21602,ef8050,1000,,,1,1
 ALS Vial : 13 Sample Multiplier: 1

Quant Time: Sep 10 10:00:48 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MF8050.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Tue Sep 10 09:21:05 2019
 Response via : Initial Calibration



9.6.12
9

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF8050\
 Data File : F187007.D
 Acq On : 9 Sep 2019 10:00 pm
 Operator : angelar
 Sample : icv8050-50
 Misc : op21602,ef8050,1000,,,1,1
 ALS Vial : 14 Sample Multiplier: 1

Quant Time: Sep 10 10:01:43 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MF8050.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Tue Sep 10 09:21:05 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.607	152	190387	40.00	ppm	0.00
24) Naphthalene-d8	5.520	136	659029	40.00	ppm	0.00
47) Acenaphthene-d10	6.904	164	361404	40.00	ppm	0.00
69) Phenanthrene-d10	8.731	188	605455	40.00	ppm	0.00
83) Chrysene-d12	13.929	240	468472	40.00	ppm	0.00
91) Perylene-d12	16.958	264	449591	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4b	4.607	152	190387	40.00	ppm	0.00
103) Phenanthrene-d10b	8.731	188	605455	40.00	ppm	0.00
105) Chrysene-d12b	13.929	240	468472	40.00	ppm	0.00
107) Naphthalene-d8b	5.520	136	659029	40.00	ppm	0.00
109) Acenaphthene-d10b	6.904	164	361404	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	3.624	112	317571	45.02	ppm	0.00
Spiked Amount	50.000		Recovery	=	90.04%	
8) Phenol-d5	4.334	99	385926	44.24	ppm	0.00
Spiked Amount	50.000		Recovery	=	88.48%	
25) Nitrobenzene-d5	5.002	82	354371	46.46	ppm	0.00
Spiked Amount	50.000		Recovery	=	92.92%	
51) 2-Fluorobiphenyl	6.311	172	586329	42.06	ppm	0.00
Spiked Amount	50.000		Recovery	=	84.12%	
73) 2,4,6-Tribromophenol	7.769	330	80149	44.14	ppm	0.00
Spiked Amount	50.000		Recovery	=	88.28%	
85) Terphenyl-d14	11.739	244	586113	53.37	ppm	0.00
Spiked Amount	50.000		Recovery	=	106.74%	

Target Compounds Qvalue

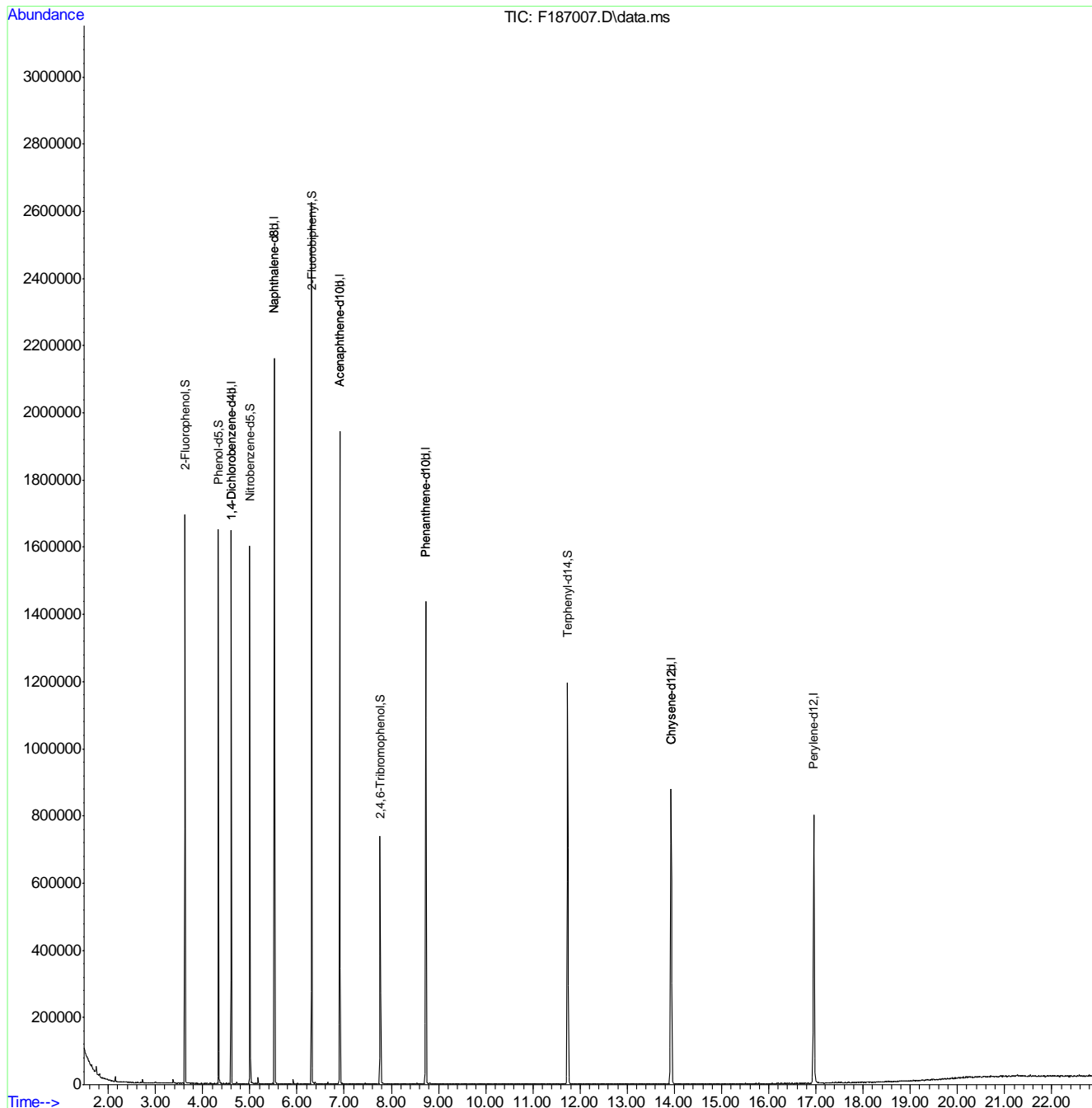
(#) = qualifier out of range (m) = manual integration (+) = signals summed

9.6.13
9

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF8050\
 Data File : F187007.D
 Acq On : 9 Sep 2019 10:00 pm
 Operator : angelar
 Sample : icv8050-50
 Misc : op21602,ef8050,1000,,,1,1
 ALS Vial : 14 Sample Multiplier: 1

Quant Time: Sep 10 10:01:43 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MF8050.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Tue Sep 10 09:21:05 2019
 Response via : Initial Calibration



9.6.13
 9

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF8050\
 Data File : F187008.D
 Acq On : 9 Sep 2019 10:29 pm
 Operator : angelar
 Sample : icv8050-50
 Misc : op21602,ef8050,1000,,,1,1
 ALS Vial : 15 Sample Multiplier: 1

Quant Time: Sep 10 10:02:30 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MF8050.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Tue Sep 10 09:21:05 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.602	152	162022	40.00	ppm	0.00
24) Naphthalene-d8	5.521	136	575659	40.00	ppm	0.00
47) Acenaphthene-d10	6.904	164	319421	40.00	ppm	0.00
69) Phenanthrene-d10	8.731	188	574615	40.00	ppm	0.00
83) Chrysene-d12	13.929	240	482695	40.00	ppm	0.00
91) Perylene-d12	16.964	264	514881	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4b	4.602	152	162022	40.00	ppm	0.00
103) Phenanthrene-d10b	8.731	188	574615	40.00	ppm	0.00
105) Chrysene-d12b	13.929	240	482695	40.00	ppm	0.00
107) Naphthalene-d8b	5.521	136	575659	40.00	ppm	0.00
109) Acenaphthene-d10b	6.904	164	319421	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
8) Phenol-d5	0.000	99	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
Target Compounds						
88) 3,3'-Dichlorobenzidine	13.961	252	274656	45.52	ppm	Qvalue 95

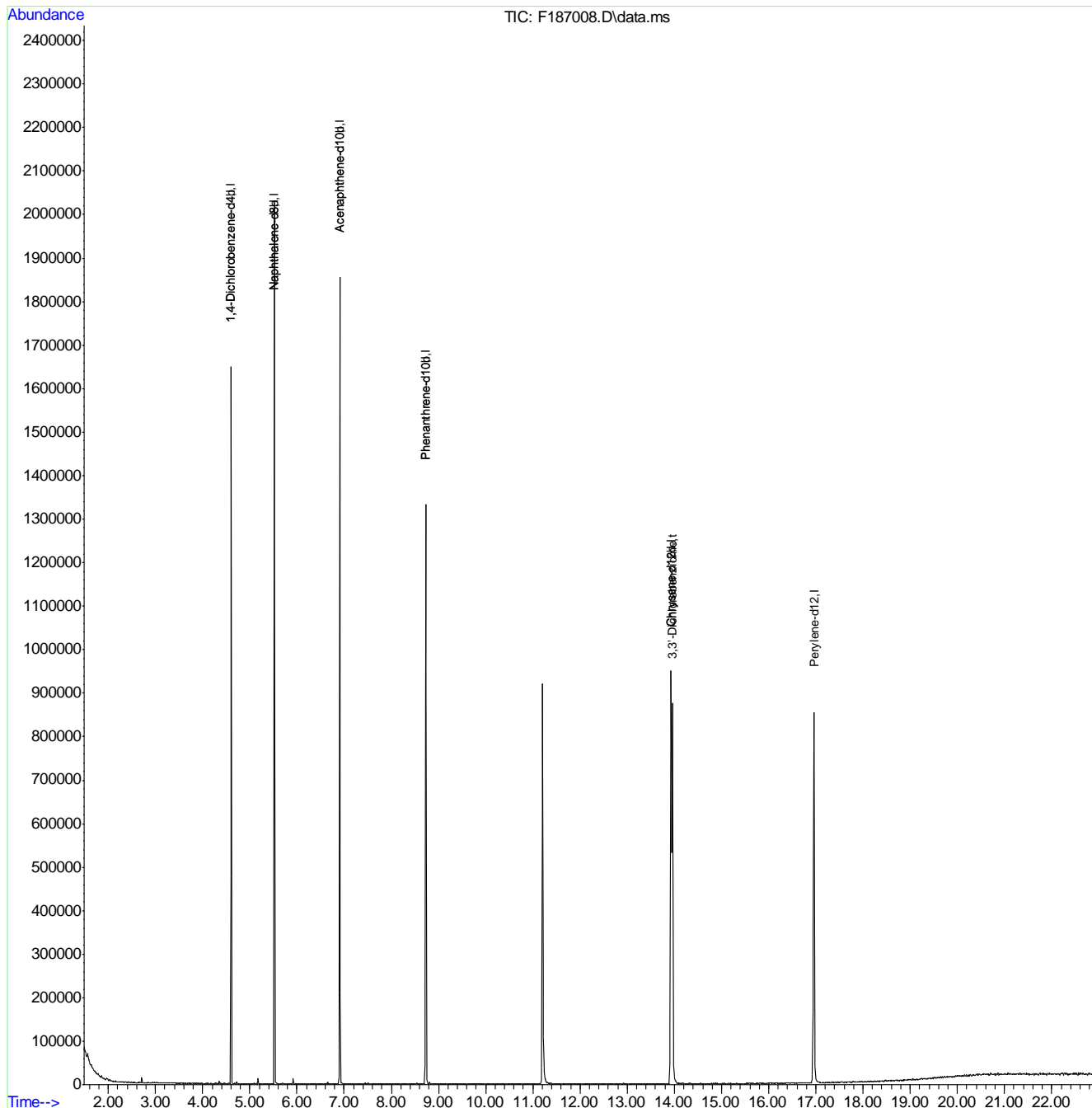
(#) = qualifier out of range (m) = manual integration (+) = signals summed

9.6.14
9

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF8050\
 Data File : F187008.D
 Acq On : 9 Sep 2019 10:29 pm
 Operator : angelar
 Sample : icv8050-50
 Misc : op21602,ef8050,1000,,,1,1
 ALS Vial : 15 Sample Multiplier: 1

Quant Time: Sep 10 10:02:30 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MF8050.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Tue Sep 10 09:21:05 2019
 Response via : Initial Calibration



9.6.14
9

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF8050\
 Data File : F187011.D
 Acq On : 9 Sep 2019 11:06 pm
 Operator : angelar
 Sample : ic8051-100
 Misc : op21602,ef8051,1000,,,1,1
 ALS Vial : 16 Sample Multiplier: 1

Quant Time: Sep 10 10:23:11 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MF8050.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Tue Sep 10 10:22:43 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.602	152	168921	40.00	ppm	0.00
24) Naphthalene-d8	5.521	136	599213	40.00	ppm	0.00
47) Acenaphthene-d10	6.904	164	323364	40.00	ppm	0.00
69) Phenanthrene-d10	8.731	188	589410	40.00	ppm	0.00
83) Chrysene-d12	13.929	240	469204	40.00	ppm	0.00
91) Perylene-d12	16.959	264	496559	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4b	4.602	152	168921	40.00	ppm	0.00
103) Phenanthrene-d10b	8.731	188	589410	40.00	ppm	0.00
105) Chrysene-d12b	13.929	240	469204	40.00	ppm	0.00
107) Naphthalene-d8b	5.521	136	599213	40.00	ppm	0.00
109) Acenaphthene-d10b	6.904	164	323364	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
8) Phenol-d5	0.000	99	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
Target Compounds						
102) Benzaldehyde	4.276	105	465945	100.00	ppm	Qvalue 91
104) Atrazine	8.352	200	261824	100.00	ppm	77

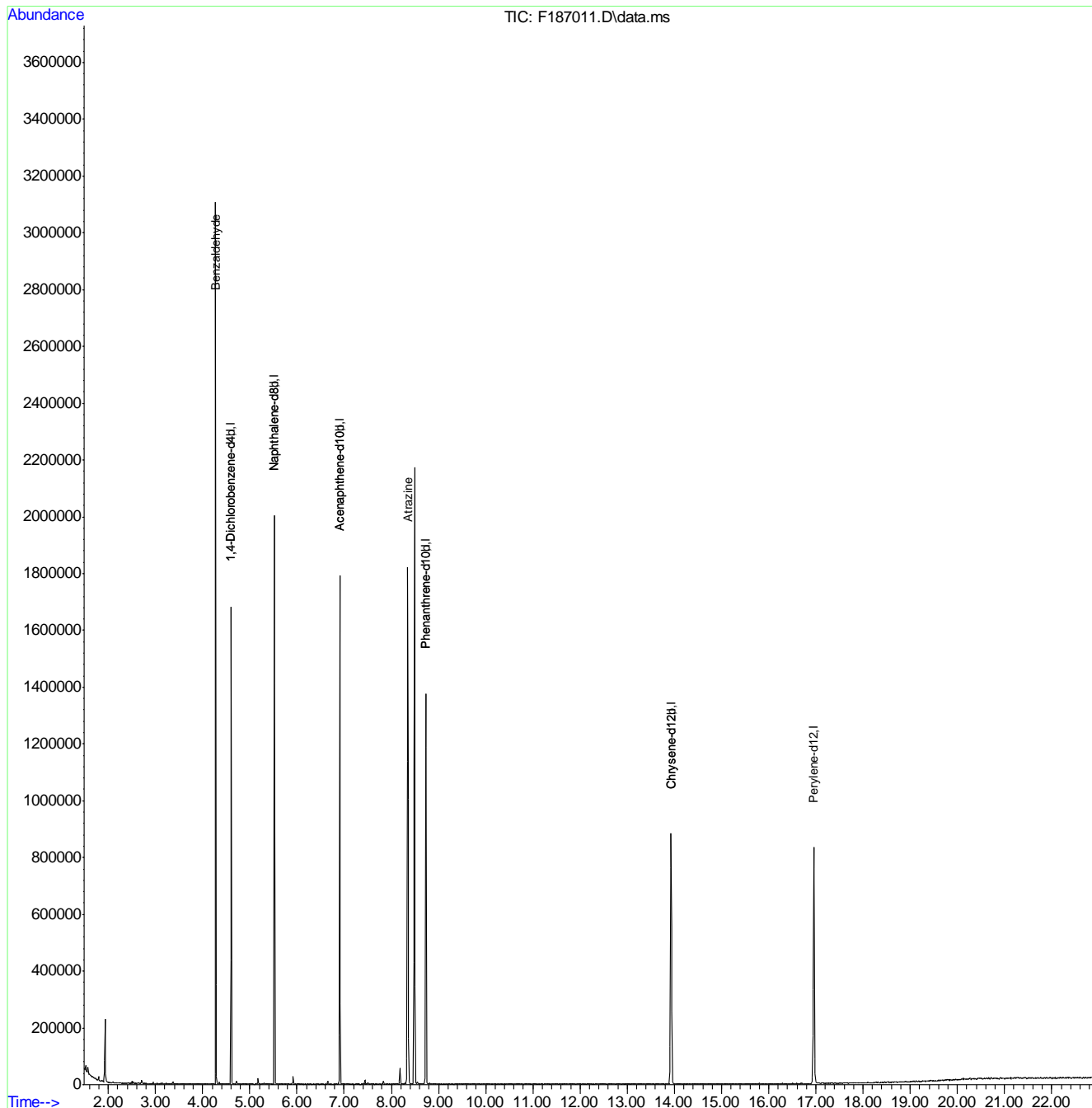
(#) = qualifier out of range (m) = manual integration (+) = signals summed

9.6.15
9

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF8050\
 Data File : F187011.D
 Acq On : 9 Sep 2019 11:06 pm
 Operator : angelar
 Sample : ic8051-100
 Misc : op21602,ef8051,1000,,,1,1
 ALS Vial : 16 Sample Multiplier: 1

Quant Time: Sep 10 10:23:11 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MF8050.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Tue Sep 10 10:22:43 2019
 Response via : Initial Calibration



9.6.15
 9

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF8050\
 Data File : F187012.D
 Acq On : 9 Sep 2019 11:35 pm
 Operator : angelar
 Sample : ic8051-80
 Misc : op21602,ef8051,1000,,,1,1
 ALS Vial : 17 Sample Multiplier: 1

Quant Time: Sep 11 10:41:26 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MF8050.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Tue Sep 10 10:22:43 2019
 Response via : Initial Calibration

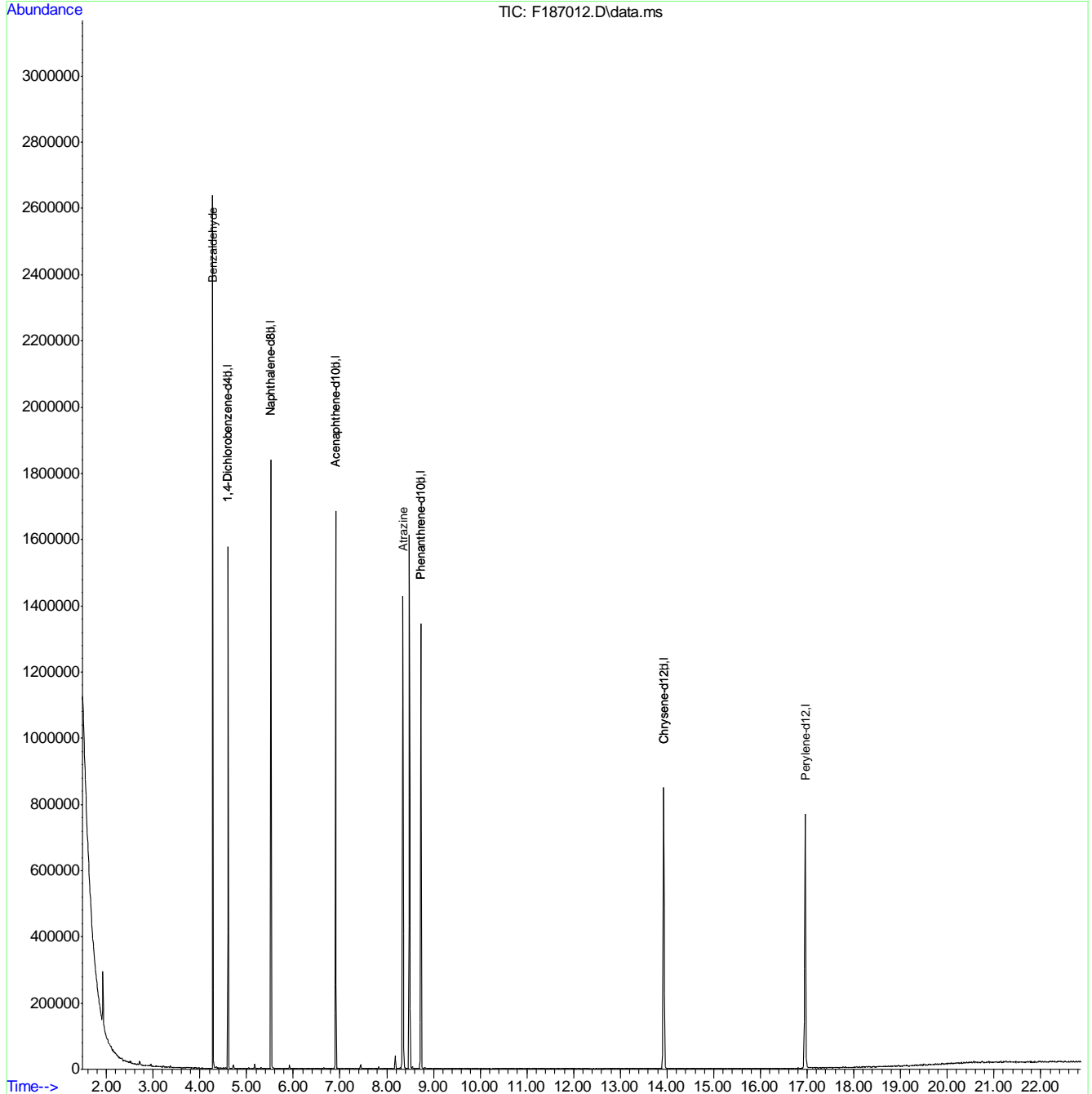
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.602	152	161260	40.00	ppm	0.00
24) Naphthalene-d8	5.521	136	558191	40.00	ppm	0.00
47) Acenaphthene-d10	6.904	164	302319	40.00	ppm	0.00
69) Phenanthrene-d10	8.731	188	552362	40.00	ppm	0.00
83) Chrysene-d12	13.929	240	441906	40.00	ppm	0.00
91) Perylene-d12	16.964	264	453719	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4b	4.602	152	161260	40.00	ppm	0.00
103) Phenanthrene-d10b	8.731	188	552362	40.00	ppm	0.00
105) Chrysene-d12b	13.929	240	441906	40.00	ppm	0.00
107) Naphthalene-d8b	5.521	136	558191	40.00	ppm	0.00
109) Acenaphthene-d10b	6.904	164	302319	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
8) Phenol-d5	0.000	99	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
Target Compounds						
102) Benzaldehyde	4.276	105	366485	82.39	ppm	90
104) Atrazine	8.347	200	204319	83.27	ppm	84

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF8050\
Data File : F187012.D
Acq On : 9 Sep 2019 11:35 pm
Operator : angelar
Sample : ic8051-80
Misc : op21602,ef8051,1000,,,1,1
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Sep 11 10:41:26 2019
Quant Method : C:\MSDCHEM\1\METHODS\MF8050.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Tue Sep 10 10:22:43 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF8050\
 Data File : F187013.D
 Acq On : 10 Sep 2019 12:04 am
 Operator : angelar
 Sample : icc8051-50
 Misc : op21602,ef8051,1000,,,1,1
 ALS Vial : 18 Sample Multiplier: 1

Quant Time: Sep 10 10:24:09 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MF8050.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Tue Sep 10 10:22:43 2019
 Response via : Initial Calibration

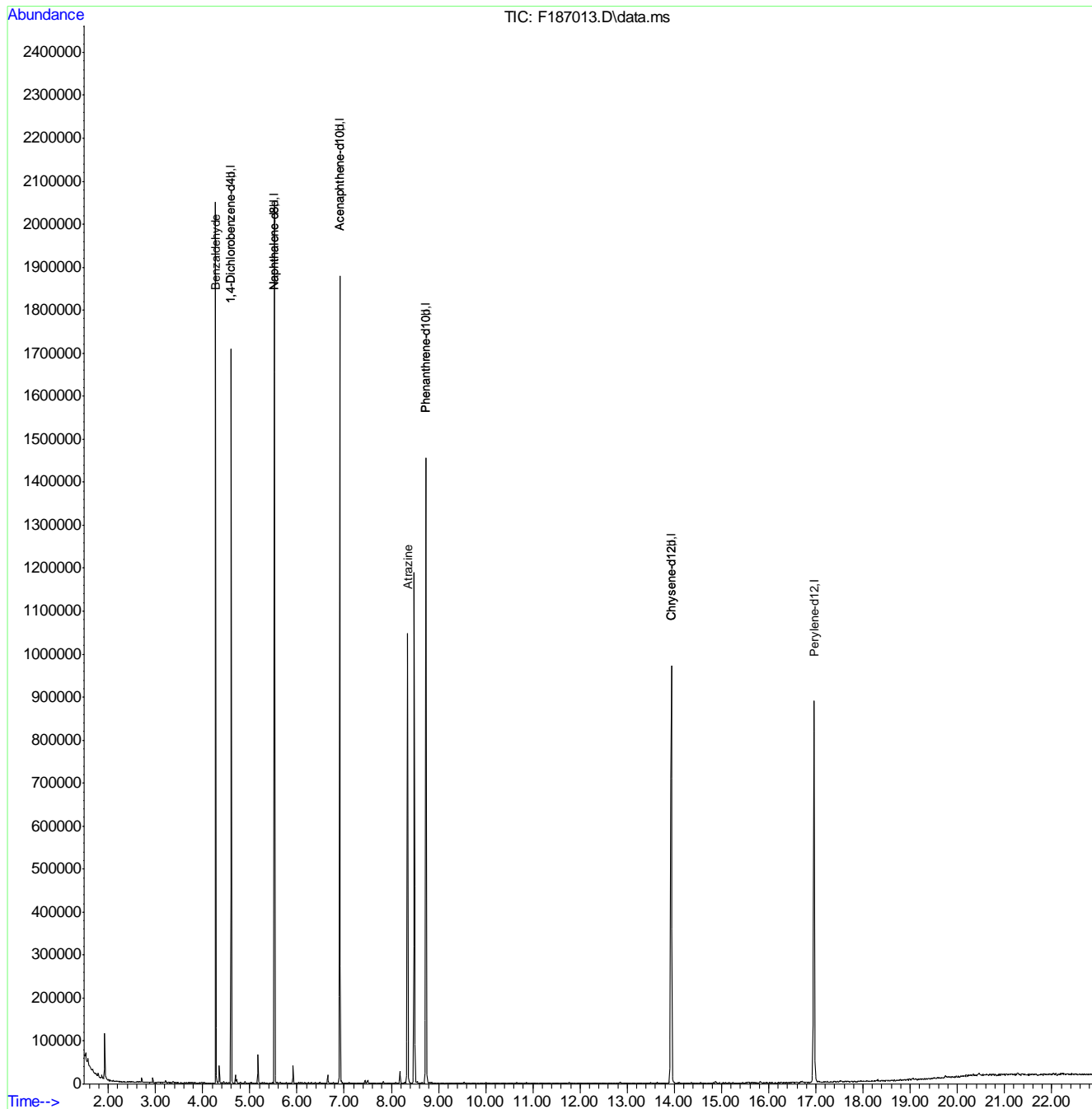
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.602	152	174091	40.00	ppm	0.00
24) Naphthalene-d8	5.521	136	616369	40.00	ppm	0.00
47) Acenaphthene-d10	6.904	164	339032	40.00	ppm	0.00
69) Phenanthrene-d10	8.731	188	612373	40.00	ppm	0.00
83) Chrysene-d12	13.935	240	488790	40.00	ppm	0.00
91) Perylene-d12	16.964	264	516214	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4b	4.602	152	174091	40.00	ppm	0.00
103) Phenanthrene-d10b	8.731	188	612373	40.00	ppm	0.00
105) Chrysene-d12b	13.935	240	488790	40.00	ppm	0.00
107) Naphthalene-d8b	5.521	136	616369	40.00	ppm	0.00
109) Acenaphthene-d10b	6.904	164	339032	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
8) Phenol-d5	0.000	99	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
Target Compounds						
102) Benzaldehyde	4.276	105	254568	53.01	ppm	91
104) Atrazine	8.347	200	139442	51.26	ppm	79

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF8050\
Data File : F187013.D
Acq On : 10 Sep 2019 12:04 am
Operator : angelar
Sample : icc8051-50
Misc : op21602,ef8051,1000,,,1,1
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Sep 10 10:24:09 2019
Quant Method : C:\MSDCHEM\1\METHODS\MF8050.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Tue Sep 10 10:22:43 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF8050\
 Data File : F187014.D
 Acq On : 10 Sep 2019 12:33 am
 Operator : angelar
 Sample : ic8051-25
 Misc : op21602,ef8051,1000,,,1,1
 ALS Vial : 19 Sample Multiplier: 1

Quant Time: Sep 10 10:25:00 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MF8050.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Tue Sep 10 10:22:43 2019
 Response via : Initial Calibration

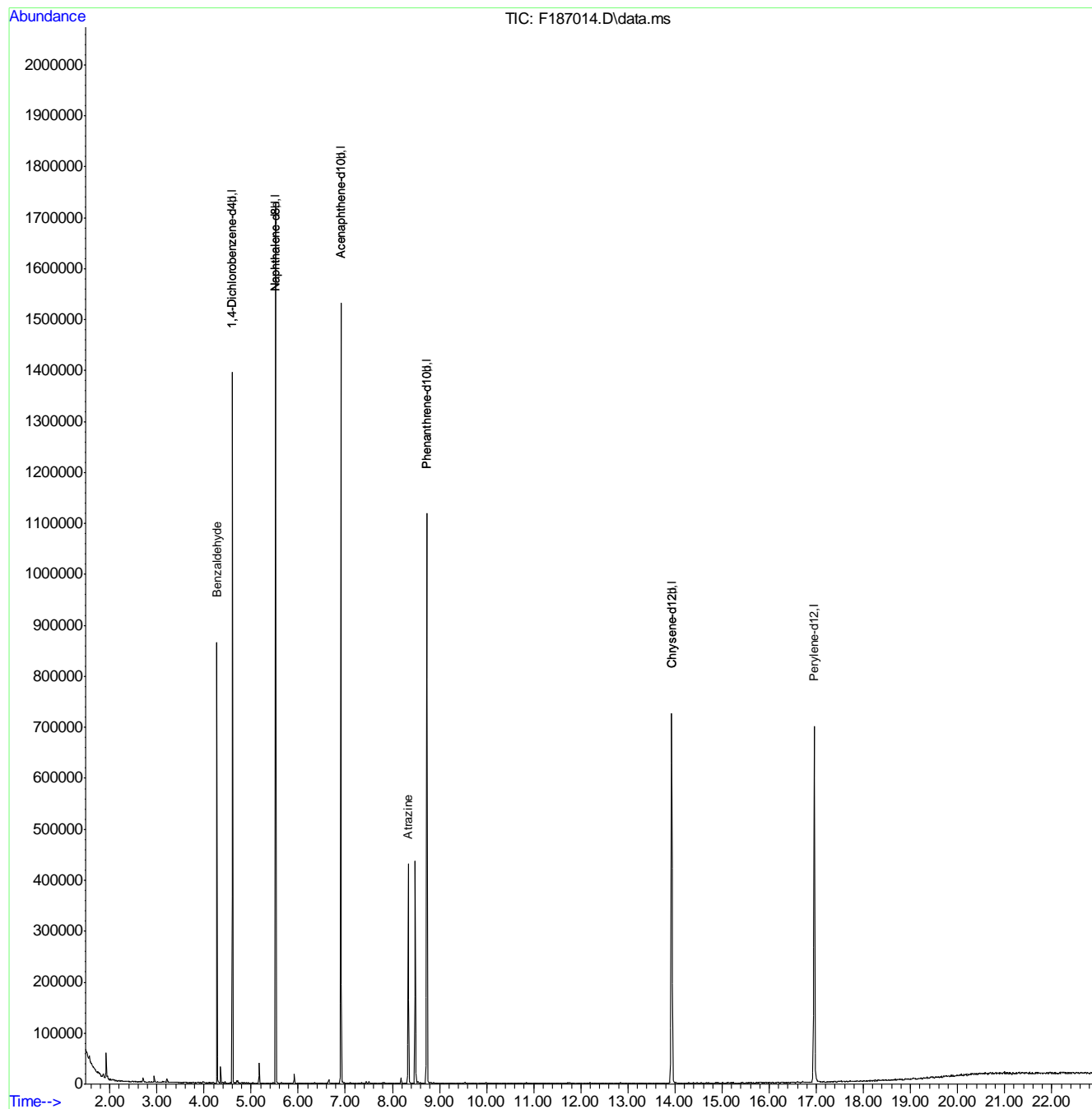
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.602	152	132620	40.00	ppm	0.00
24) Naphthalene-d8	5.521	136	485708	40.00	ppm	0.00
47) Acenaphthene-d10	6.904	164	265205	40.00	ppm	0.00
69) Phenanthrene-d10	8.731	188	470013	40.00	ppm	0.00
83) Chrysene-d12	13.929	240	370477	40.00	ppm	0.00
91) Perylene-d12	16.958	264	389216	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4b	4.602	152	132620	40.00	ppm	0.00
103) Phenanthrene-d10b	8.731	188	470013	40.00	ppm	0.00
105) Chrysene-d12b	13.929	240	370477	40.00	ppm	0.00
107) Naphthalene-d8b	5.521	136	485708	40.00	ppm	0.00
109) Acenaphthene-d10b	6.904	164	265205	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
8) Phenol-d5	0.000	99	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
Target Compounds						
102) Benzaldehyde	4.276	105	104002	28.43	ppm	92
104) Atrazine	8.341	200	48910	23.43	ppm	78

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF8050\
Data File : F187014.D
Acq On : 10 Sep 2019 12:33 am
Operator : angelar
Sample : ic8051-25
Misc : op21602,ef8051,1000,,,1,1
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Sep 10 10:25:00 2019
Quant Method : C:\MSDCHEM\1\METHODS\MF8050.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Tue Sep 10 10:22:43 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF8050\
 Data File : F187015.D
 Acq On : 10 Sep 2019 1:02 am
 Operator : angelar
 Sample : ic8051-10
 Misc : op21602,ef8051,1000,,,1,1
 ALS Vial : 20 Sample Multiplier: 1

Quant Time: Sep 10 10:25:30 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MF8050.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Tue Sep 10 10:22:43 2019
 Response via : Initial Calibration

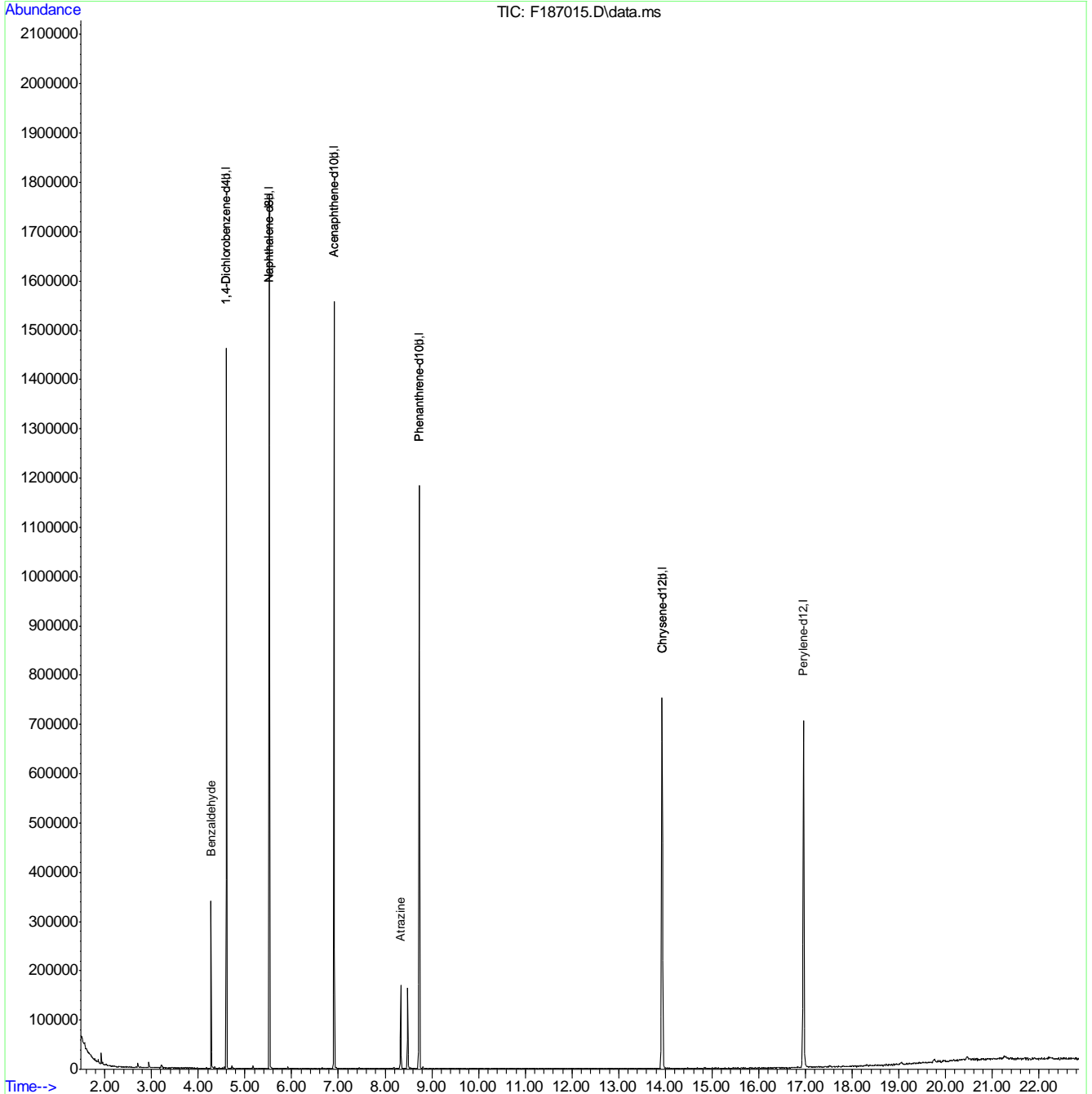
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.601	152	139018	40.00	ppm	0.00
24) Naphthalene-d8	5.520	136	504676	40.00	ppm	0.00
47) Acenaphthene-d10	6.904	164	272512	40.00	ppm	0.00
69) Phenanthrene-d10	8.731	188	488265	40.00	ppm	0.00
83) Chrysene-d12	13.929	240	395097	40.00	ppm	0.00
91) Perylene-d12	16.958	264	405438	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4b	4.601	152	139018	40.00	ppm	0.00
103) Phenanthrene-d10b	8.731	188	488265	40.00	ppm	0.00
105) Chrysene-d12b	13.929	240	395097	40.00	ppm	0.00
107) Naphthalene-d8b	5.520	136	504676	40.00	ppm	0.00
109) Acenaphthene-d10b	6.904	164	272512	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
8) Phenol-d5	0.000	99	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
Target Compounds						
102) Benzaldehyde	4.276	105	42610	11.11	ppm	92
104) Atrazine	8.336	200	18119	8.35	ppm	83

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF8050\
 Data File : F187015.D
 Acq On : 10 Sep 2019 1:02 am
 Operator : angelar
 Sample : ic8051-10
 Misc : op21602,ef8051,1000,,,1,1
 ALS Vial : 20 Sample Multiplier: 1

Quant Time: Sep 10 10:25:30 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MF8050.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Tue Sep 10 10:22:43 2019
 Response via : Initial Calibration



9.6.19
 9

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF8050\
 Data File : F187016.D
 Acq On : 10 Sep 2019 1:32 am
 Operator : angelar
 Sample : ic8051-5
 Misc : op21602,ef8051,1000,,,1,1
 ALS Vial : 21 Sample Multiplier: 1

Quant Time: Sep 10 10:25:56 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MF8050.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Tue Sep 10 10:22:43 2019
 Response via : Initial Calibration

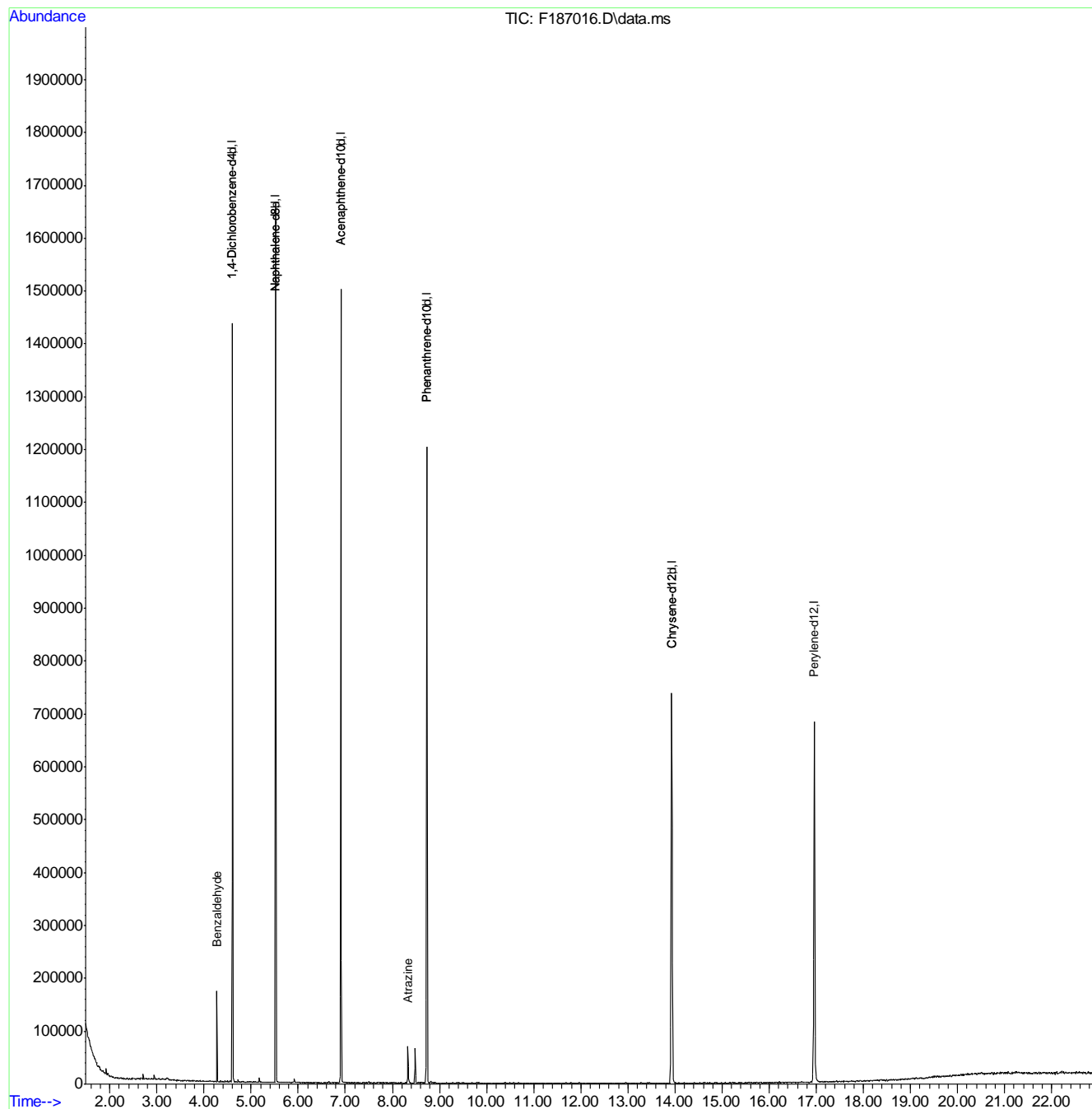
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.602	152	136901	40.00	ppm	0.00
24) Naphthalene-d8	5.520	136	477409	40.00	ppm	0.00
47) Acenaphthene-d10	6.904	164	269577	40.00	ppm	0.00
69) Phenanthrene-d10	8.731	188	488684	40.00	ppm	0.00
83) Chrysene-d12	13.929	240	387857	40.00	ppm	0.00
91) Perylene-d12	16.958	264	399017	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4b	4.602	152	136901	40.00	ppm	0.00
103) Phenanthrene-d10b	8.731	188	488684	40.00	ppm	0.00
105) Chrysene-d12b	13.929	240	387857	40.00	ppm	0.00
107) Naphthalene-d8b	5.520	136	477409	40.00	ppm	0.00
109) Acenaphthene-d10b	6.904	164	269577	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
8) Phenol-d5	0.000	99	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
Target Compounds						
102) Benzaldehyde	4.276	105	21745	5.76	ppm	90
104) Atrazine	8.336	200	8215	3.78	ppm	86

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF8050\
Data File : F187016.D
Acq On : 10 Sep 2019 1:32 am
Operator : angelar
Sample : ic8051-5
Misc : op21602,ef8051,1000,,,1,1
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Sep 10 10:25:56 2019
Quant Method : C:\MSDCHEM\1\METHODS\MF8050.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Tue Sep 10 10:22:43 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF8050\
 Data File : F187017.D
 Acq On : 10 Sep 2019 2:01 am
 Operator : angelar
 Sample : ic8051-2
 Misc : op21602,ef8051,1000,,,1,1
 ALS Vial : 22 Sample Multiplier: 1

Quant Time: Sep 10 10:26:21 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MF8050.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Tue Sep 10 10:22:43 2019
 Response via : Initial Calibration

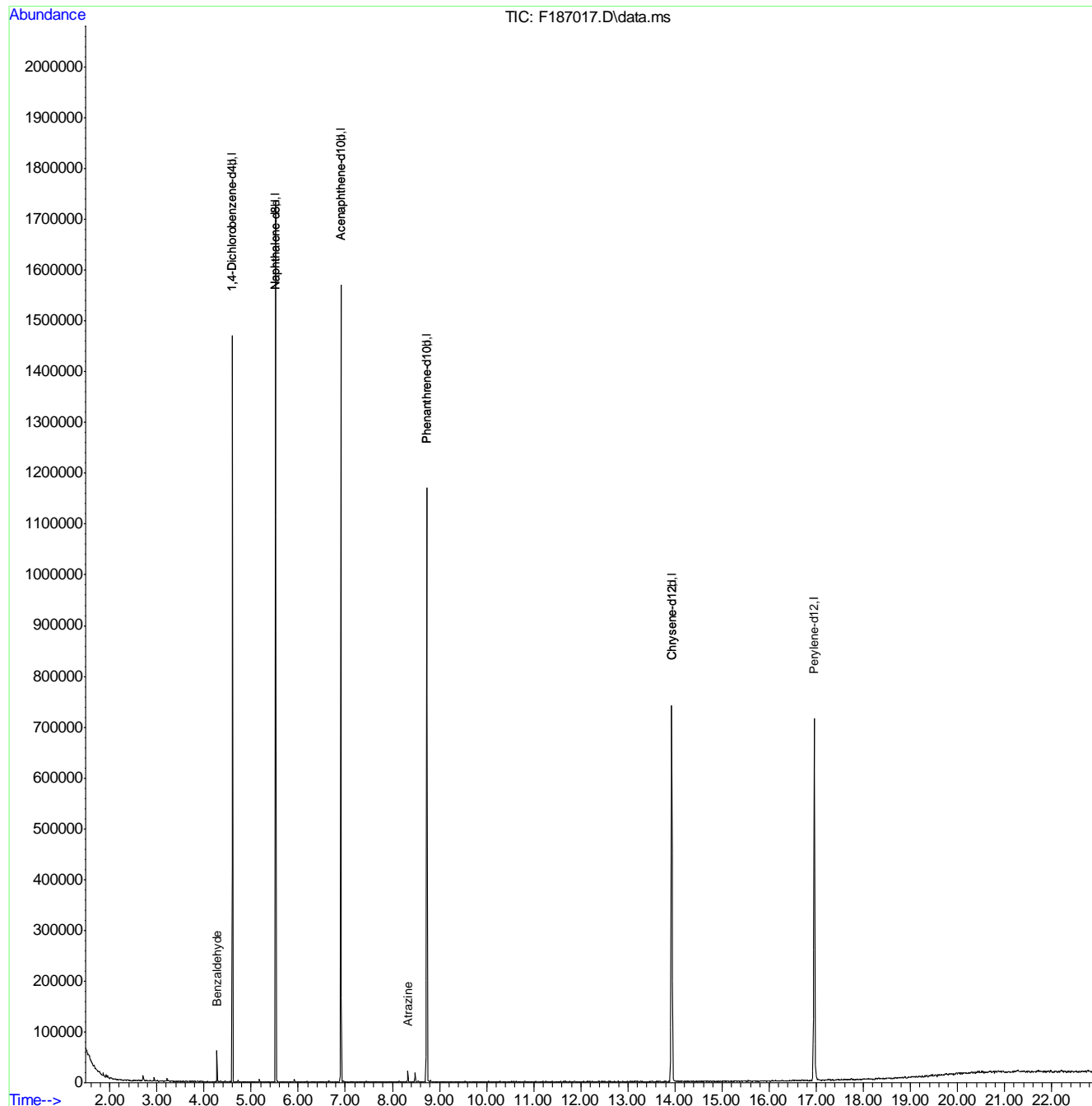
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.602	152	133459	40.00	ppm	0.00
24) Naphthalene-d8	5.521	136	478413	40.00	ppm	0.00
47) Acenaphthene-d10	6.904	164	270406	40.00	ppm	0.00
69) Phenanthrene-d10	8.732	188	481219	40.00	ppm	0.00
83) Chrysene-d12	13.930	240	376963	40.00	ppm	0.00
91) Perylene-d12	16.959	264	397514	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4b	4.602	152	133459	40.00	ppm	0.00
103) Phenanthrene-d10b	8.732	188	481219	40.00	ppm	0.00
105) Chrysene-d12b	13.930	240	376963	40.00	ppm	0.00
107) Naphthalene-d8b	5.521	136	478413	40.00	ppm	0.00
109) Acenaphthene-d10b	6.904	164	270406	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
8) Phenol-d5	0.000	99	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
Target Compounds						
102) Benzaldehyde	4.276	105	8314	2.26	ppm	91
104) Atrazine	8.331	200	2730	1.28	ppm	92

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF8050\
 Data File : F187017.D
 Acq On : 10 Sep 2019 2:01 am
 Operator : angelar
 Sample : ic8051-2
 Misc : op21602,ef8051,1000,,,1,1
 ALS Vial : 22 Sample Multiplier: 1

Quant Time: Sep 10 10:26:21 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MF8050.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Tue Sep 10 10:22:43 2019
 Response via : Initial Calibration



9.6.21
 9

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF8050\
 Data File : F187018.D
 Acq On : 10 Sep 2019 2:30 am
 Operator : angelar
 Sample : ic8051-1
 Misc : op21602,ef8051,1000,,,1,1
 ALS Vial : 23 Sample Multiplier: 1

Quant Time: Sep 10 10:26:46 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MF8050.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Tue Sep 10 10:22:43 2019
 Response via : Initial Calibration

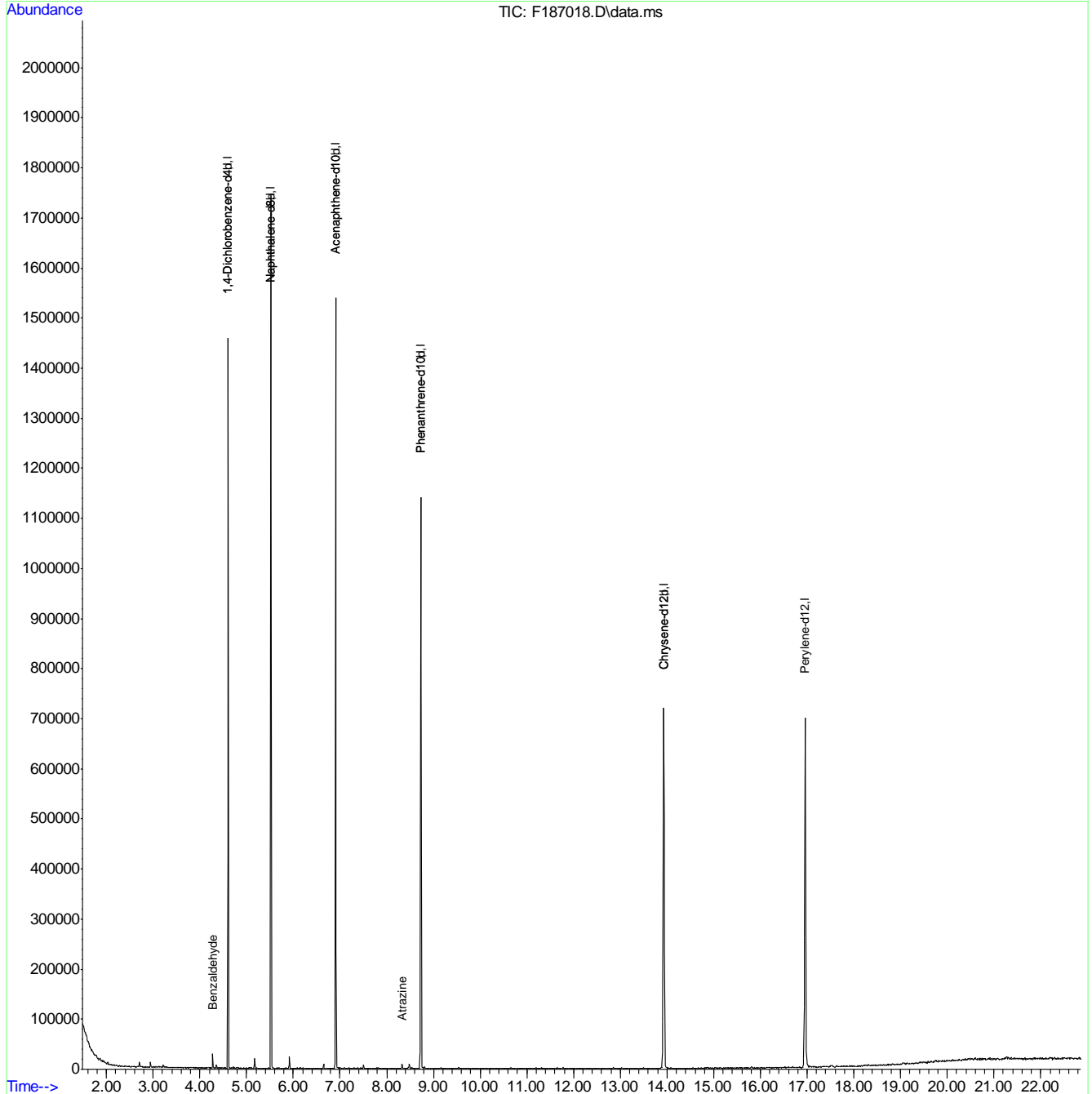
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.602	152	138973	40.00	ppm	0.00
24) Naphthalene-d8	5.521	136	490783	40.00	ppm	0.00
47) Acenaphthene-d10	6.904	164	273962	40.00	ppm	0.00
69) Phenanthrene-d10	8.731	188	474031	40.00	ppm	0.00
83) Chrysene-d12	13.935	240	379339	40.00	ppm	0.00
91) Perylene-d12	16.958	264	404498	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4b	4.602	152	138973	40.00	ppm	0.00
103) Phenanthrene-d10b	8.731	188	474031	40.00	ppm	0.00
105) Chrysene-d12b	13.935	240	379339	40.00	ppm	0.00
107) Naphthalene-d8b	5.521	136	490783	40.00	ppm	0.00
109) Acenaphthene-d10b	6.904	164	273962	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
8) Phenol-d5	0.000	99	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
Target Compounds						
102) Benzaldehyde	4.276	105	4444	1.16	ppm	Qvalue 85
104) Atrazine	8.336	200	1509	0.72	ppm	# 61

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF8050\
 Data File : F187018.D
 Acq On : 10 Sep 2019 2:30 am
 Operator : angelar
 Sample : ic8051-1
 Misc : op21602,ef8051,1000,,,1,1
 ALS Vial : 23 Sample Multiplier: 1

Quant Time: Sep 10 10:26:46 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MF8050.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Tue Sep 10 10:22:43 2019
 Response via : Initial Calibration



9.6.22
 9

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF8050\
 Data File : F187019.D
 Acq On : 10 Sep 2019 2:59 am
 Operator : angelar
 Sample : icv8051-50
 Misc : op21602,ef8051,1000,,,1,1
 ALS Vial : 24 Sample Multiplier: 1

Quant Time: Sep 10 10:33:03 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MF8050.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Tue Sep 10 10:32:05 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.602	152	146287	40.00	ppm	0.00
24) Naphthalene-d8	5.521	136	520372	40.00	ppm	0.00
47) Acenaphthene-d10	6.904	164	297835	40.00	ppm	0.00
69) Phenanthrene-d10	8.737	188	590684	40.00	ppm	0.00
83) Chrysene-d12	13.935	240	538350	40.00	ppm	0.00
91) Perylene-d12	16.958	264	510597	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4b	4.602	152	146287	40.00	ppm	0.00
103) Phenanthrene-d10b	8.737	188	590684	40.00	ppm	0.00
105) Chrysene-d12b	13.935	240	538350	40.00	ppm	0.00
107) Naphthalene-d8b	5.521	136	520372	40.00	ppm	0.00
109) Acenaphthene-d10b	6.904	164	297835	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
51) 2-Fluorobiphenyl	0.000	172	0d	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
Target Compounds						
102) Benzaldehyde	4.276	105	214609	48.47	ppm	99
104) Atrazine	8.347	200	143676	63.02	ppm	97

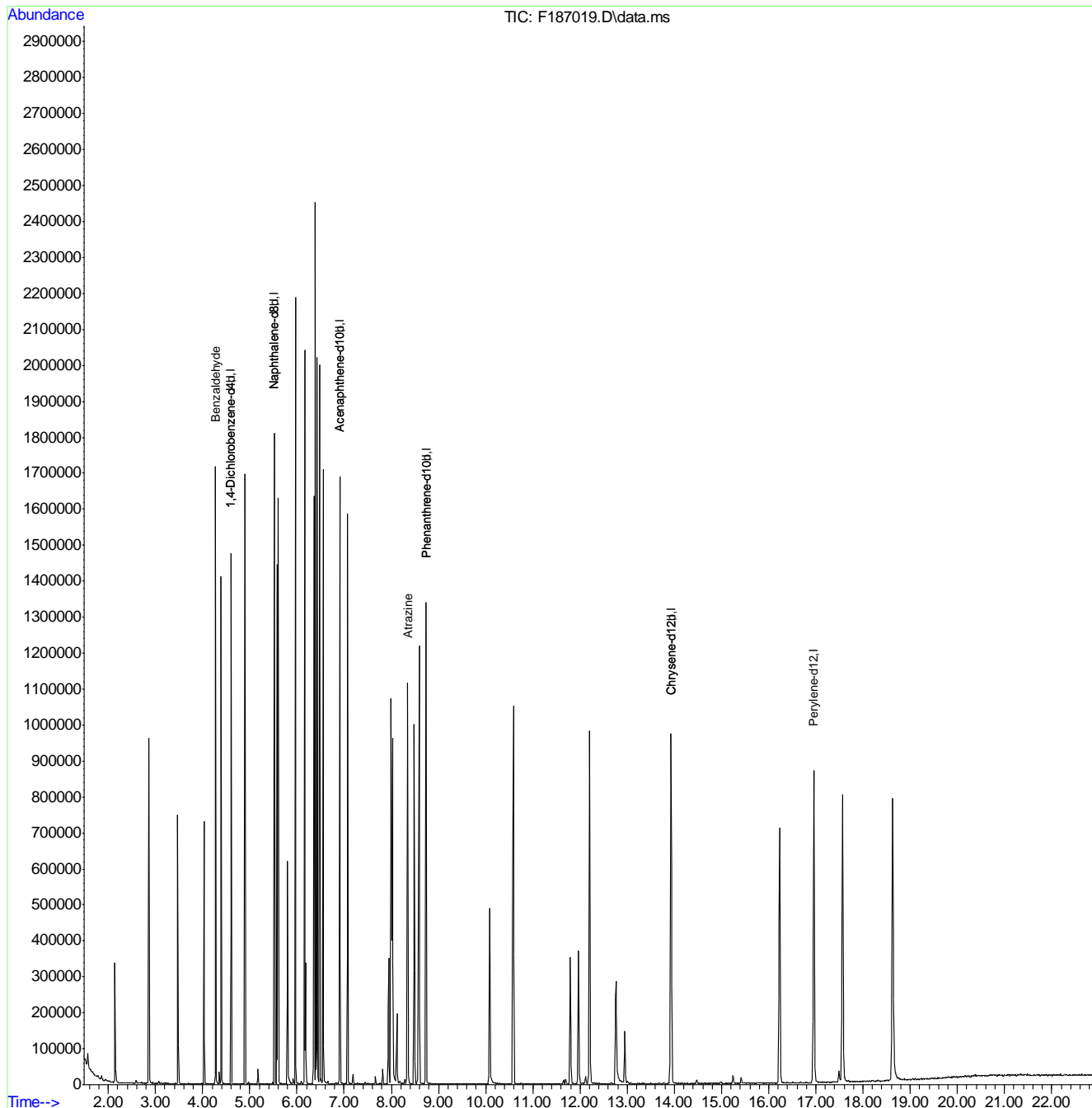
(#) = qualifier out of range (m) = manual integration (+) = signals summed

9.6.23
9

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF8050\
 Data File : F187019.D
 Acq On : 10 Sep 2019 2:59 am
 Operator : angelar
 Sample : icv8051-50
 Misc : op21602,ef8051,1000,,,1,1
 ALS Vial : 24 Sample Multiplier: 1

Quant Time: Sep 10 10:33:03 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MF8050.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Tue Sep 10 10:32:05 2019
 Response via : Initial Calibration



9.6.23
 9

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF8050\
 Data File : F187021.D
 Acq On : 10 Sep 2019 3:36 am
 Operator : angelar
 Sample : ic8052-100
 Misc : op21602,ef8052,1000,,,1,1
 ALS Vial : 25 Sample Multiplier: 1

Quant Time: Sep 10 10:39:46 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MF8050.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Tue Sep 10 10:39:29 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.607	152	171308	40.00	ppm	0.00
24) Naphthalene-d8	5.521	136	606666	40.00	ppm	0.00
47) Acenaphthene-d10	6.904	164	346737	40.00	ppm	0.00
69) Phenanthrene-d10	8.731	188	602908	40.00	ppm	0.00
83) Chrysene-d12	13.929	240	517955	40.00	ppm	0.00
91) Perylene-d12	16.958	264	549094	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4b	4.607	152	171308	40.00	ppm	0.00
103) Phenanthrene-d10b	8.731	188	602908	40.00	ppm	0.00
105) Chrysene-d12b	13.929	240	517955	40.00	ppm	0.00
107) Naphthalene-d8b	5.521	136	606666	40.00	ppm	0.00
109) Acenaphthene-d10b	6.904	164	346737	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
8) Phenol-d5	0.000	99	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
Target Compounds						
106) Benzidine	11.215	184	741836	100.00	ppm	99
108) Hydroquinone	5.814	110	505536	100.00	ppm	94
110) 1,2,4,5-Tetrachloroben...	6.162	216	474266	100.00	ppm	97

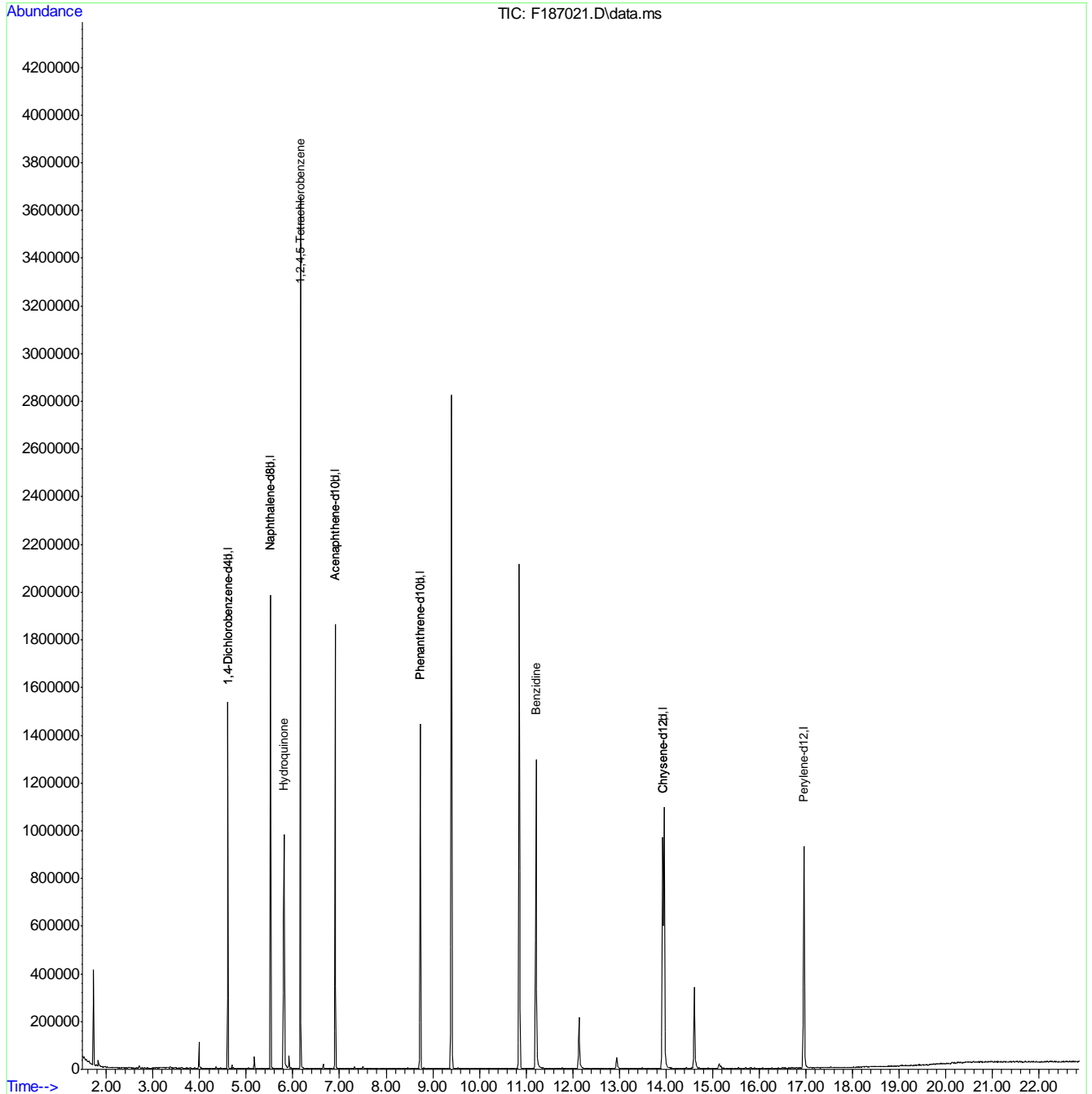
(#) = qualifier out of range (m) = manual integration (+) = signals summed

9.6.24
9

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF8050\
 Data File : F187021.D
 Acq On : 10 Sep 2019 3:36 am
 Operator : angelar
 Sample : ic8052-100
 Misc : op21602,ef8052,1000,,,1,1
 ALS Vial : 25 Sample Multiplier: 1

Quant Time: Sep 10 10:39:46 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MF8050.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Tue Sep 10 10:39:29 2019
 Response via : Initial Calibration



9.6.24
9

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF8050\
 Data File : F187022.D
 Acq On : 10 Sep 2019 4:05 am
 Operator : angelar
 Sample : ic8052-80
 Misc : op21602,ef8052,1000,,,1,1
 ALS Vial : 26 Sample Multiplier: 1

Quant Time: Sep 10 10:40:12 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MF8050.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Tue Sep 10 10:39:29 2019
 Response via : Initial Calibration

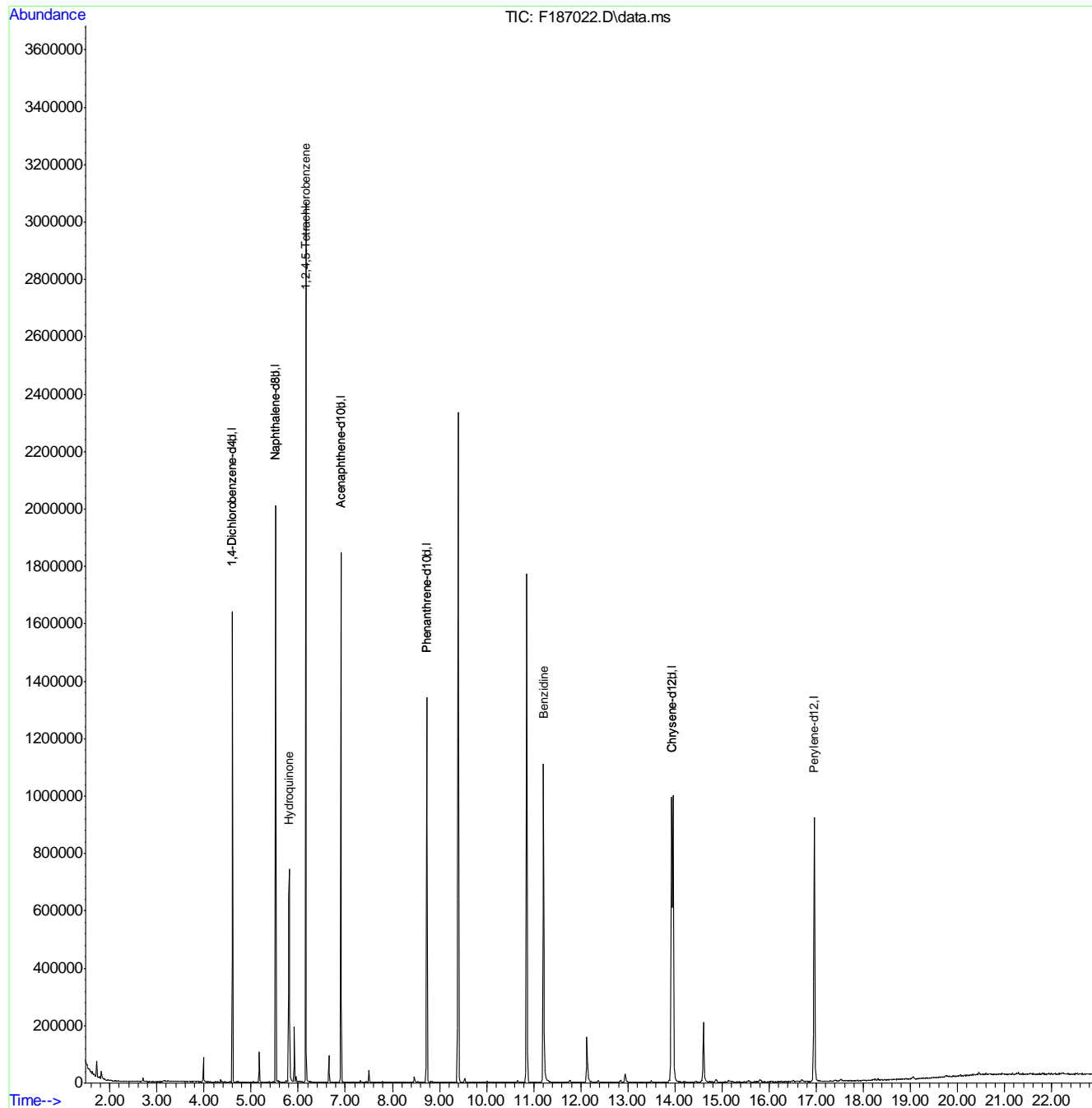
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.602	152	166752	40.00	ppm	0.00
24) Naphthalene-d8	5.521	136	597783	40.00	ppm	0.00
47) Acenaphthene-d10	6.904	164	327970	40.00	ppm	0.00
69) Phenanthrene-d10	8.731	188	576465	40.00	ppm	0.00
83) Chrysene-d12	13.929	240	517105	40.00	ppm	0.00
91) Perylene-d12	16.958	264	551675	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4b	4.602	152	166752	40.00	ppm	0.00
103) Phenanthrene-d10b	8.731	188	576465	40.00	ppm	0.00
105) Chrysene-d12b	13.929	240	517105	40.00	ppm	0.00
107) Naphthalene-d8b	5.521	136	597783	40.00	ppm	0.00
109) Acenaphthene-d10b	6.904	164	327970	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
8) Phenol-d5	0.000	99	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
Target Compounds						
106) Benzidine	11.210	184	597598	80.69	ppm	Qvalue 100
108) Hydroquinone	5.809	110	393521	79.00	ppm	93
110) 1,2,4,5-Tetrachloroben...	6.162	216	373252	83.20	ppm	96

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF8050\
Data File : F187022.D
Acq On : 10 Sep 2019 4:05 am
Operator : angelar
Sample : ic8052-80
Misc : op21602,ef8052,1000,,,1,1
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Sep 10 10:40:12 2019
Quant Method : C:\MSDCHEM\1\METHODS\MF8050.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Tue Sep 10 10:39:29 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF8050\
 Data File : F187023.D
 Acq On : 10 Sep 2019 4:34 am
 Operator : angelar
 Sample : icc8052-50
 Misc : op21602,ef8052,1000,,,1,1
 ALS Vial : 27 Sample Multiplier: 1

Quant Time: Sep 10 10:40:40 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MF8050.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Tue Sep 10 10:39:29 2019
 Response via : Initial Calibration

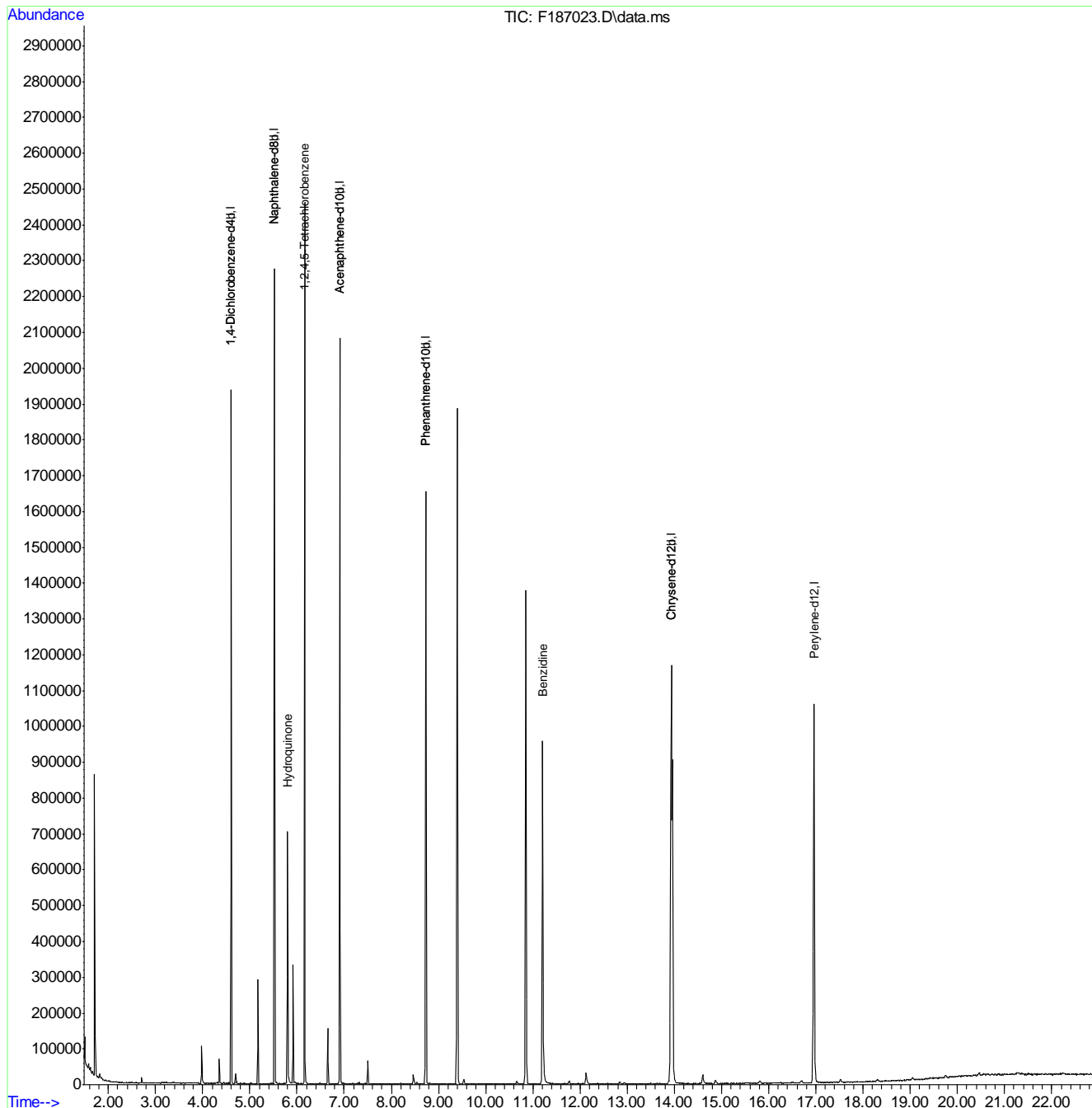
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.602	152	199090	40.00	ppm	0.00
24) Naphthalene-d8	5.520	136	687008	40.00	ppm	0.00
47) Acenaphthene-d10	6.904	164	388075	40.00	ppm	0.00
69) Phenanthrene-d10	8.731	188	702294	40.00	ppm	0.00
83) Chrysene-d12	13.935	240	607529	40.00	ppm	0.00
91) Perylene-d12	16.964	264	637150	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4b	4.602	152	199090	40.00	ppm	0.00
103) Phenanthrene-d10b	8.731	188	702294	40.00	ppm	0.00
105) Chrysene-d12b	13.935	240	607529	40.00	ppm	0.00
107) Naphthalene-d8b	5.520	136	687008	40.00	ppm	0.00
109) Acenaphthene-d10b	6.904	164	388075	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
8) Phenol-d5	0.000	99	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
Target Compounds						
106) Benzidine	11.210	184	518119	59.55	ppm	99
108) Hydroquinone	5.804	110	276074	48.22	ppm	95
110) 1,2,4,5-Tetrachloroben...	6.162	216	285332	53.75	ppm	96

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF8050\
 Data File : F187023.D
 Acq On : 10 Sep 2019 4:34 am
 Operator : angelar
 Sample : icc8052-50
 Misc : op21602,ef8052,1000,,,1,1
 ALS Vial : 27 Sample Multiplier: 1

Quant Time: Sep 10 10:40:40 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MF8050.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Tue Sep 10 10:39:29 2019
 Response via : Initial Calibration



9.6.26
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Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF8050\
 Data File : F187024.D
 Acq On : 10 Sep 2019 5:04 am
 Operator : angelar
 Sample : ic8052-25
 Misc : op21602,ef8052,1000,,,1,1
 ALS Vial : 28 Sample Multiplier: 1

Quant Time: Sep 10 10:41:05 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MF8050.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Tue Sep 10 10:39:29 2019
 Response via : Initial Calibration

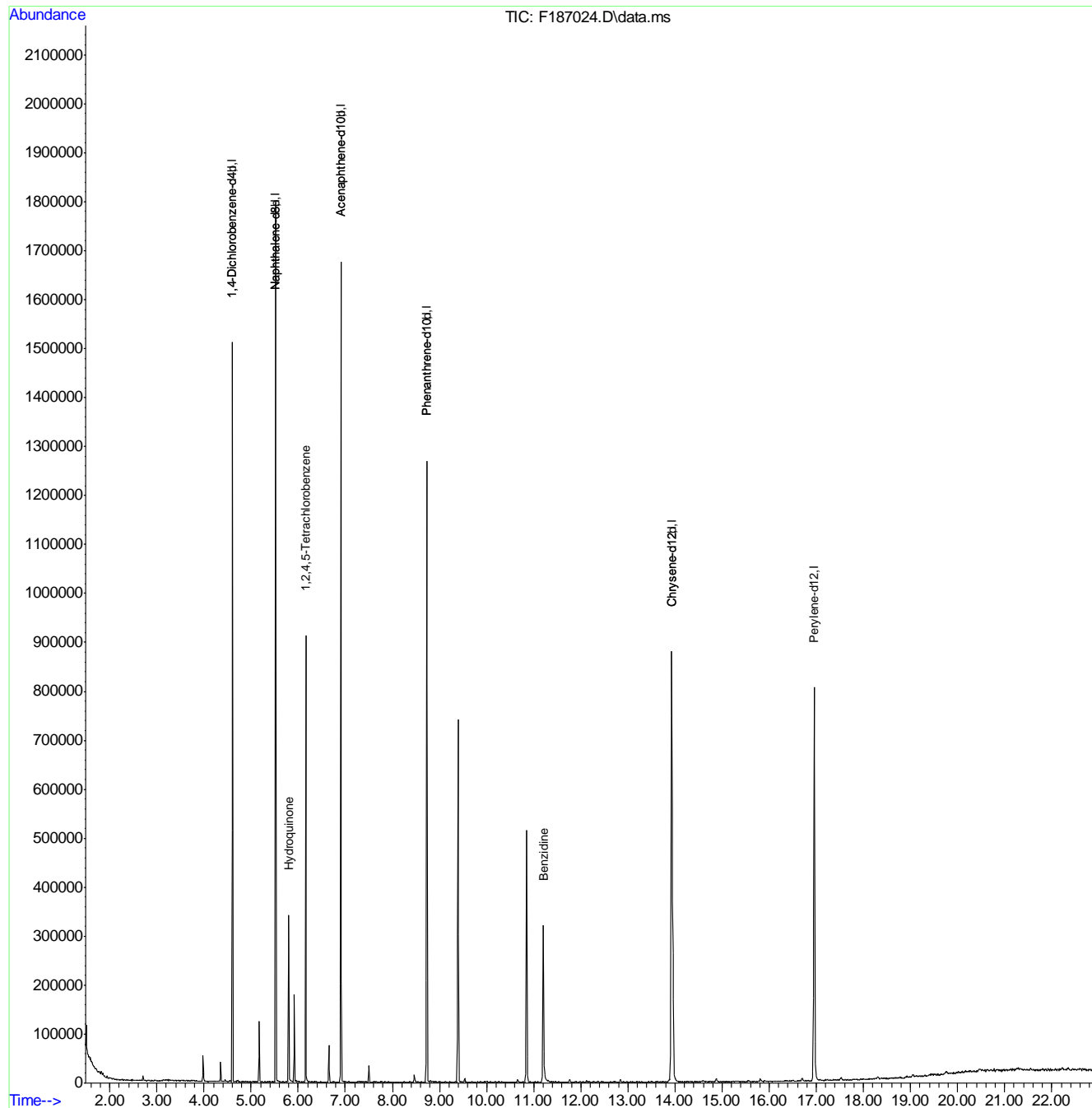
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.602	152	148086	40.00	ppm	0.00
24) Naphthalene-d8	5.521	136	528048	40.00	ppm	0.00
47) Acenaphthene-d10	6.904	164	298778	40.00	ppm	0.00
69) Phenanthrene-d10	8.731	188	525277	40.00	ppm	0.00
83) Chrysene-d12	13.929	240	444499	40.00	ppm	0.00
91) Perylene-d12	16.959	264	458292	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4b	4.602	152	148086	40.00	ppm	0.00
103) Phenanthrene-d10b	8.731	188	525277	40.00	ppm	0.00
105) Chrysene-d12b	13.929	240	444499	40.00	ppm	0.00
107) Naphthalene-d8b	5.521	136	528048	40.00	ppm	0.00
109) Acenaphthene-d10b	6.904	164	298778	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
8) Phenol-d5	0.000	99	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
Target Compounds						
106) Benzidine	11.205	184	181183	28.46	ppm	99
108) Hydroquinone	5.799	110	88181	20.04	ppm	91
110) 1,2,4,5-Tetrachloroben...	6.162	216	112063	27.42	ppm	96

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF8050\
Data File : F187024.D
Acq On : 10 Sep 2019 5:04 am
Operator : angelar
Sample : ic8052-25
Misc : op21602,ef8052,1000,,,1,1
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Sep 10 10:41:05 2019
Quant Method : C:\MSDCHEM\1\METHODS\MF8050.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Tue Sep 10 10:39:29 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF8050\
 Data File : F187025.D
 Acq On : 10 Sep 2019 5:33 am
 Operator : angelar
 Sample : ic8052-10
 Misc : op21602,ef8052,1000,,,1,1
 ALS Vial : 29 Sample Multiplier: 1

Quant Time: Sep 10 10:41:31 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MF8050.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Tue Sep 10 10:39:29 2019
 Response via : Initial Calibration

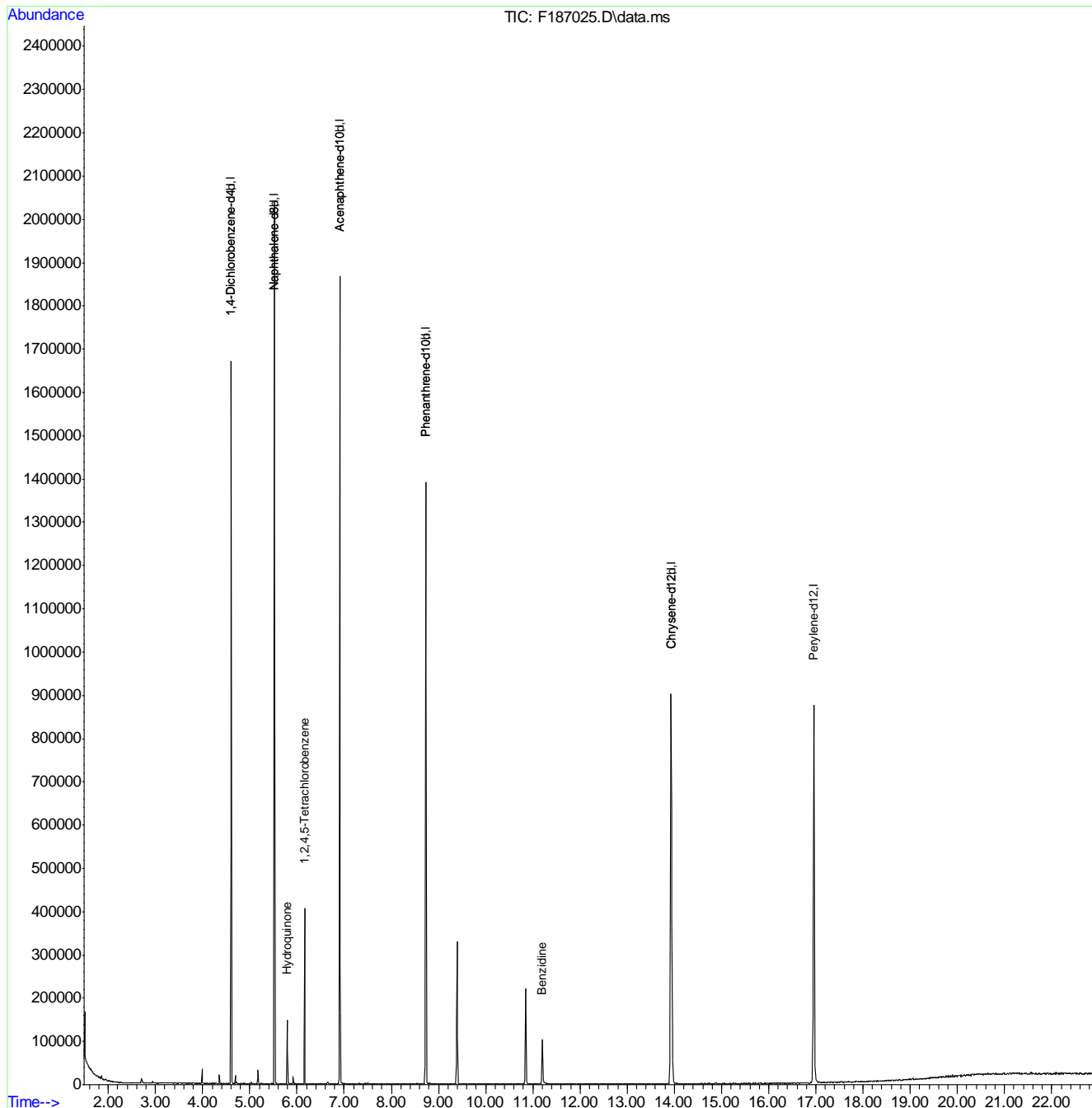
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.602	152	161790	40.00	ppm	0.00
24) Naphthalene-d8	5.521	136	580975	40.00	ppm	0.00
47) Acenaphthene-d10	6.904	164	329147	40.00	ppm	0.00
69) Phenanthrene-d10	8.732	188	568467	40.00	ppm	0.00
83) Chrysene-d12	13.930	240	487557	40.00	ppm	0.00
91) Perylene-d12	16.959	264	498502	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4b	4.602	152	161790	40.00	ppm	0.00
103) Phenanthrene-d10b	8.732	188	568467	40.00	ppm	0.00
105) Chrysene-d12b	13.930	240	487557	40.00	ppm	0.00
107) Naphthalene-d8b	5.521	136	580975	40.00	ppm	0.00
109) Acenaphthene-d10b	6.904	164	329147	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
8) Phenol-d5	0.000	99	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
Target Compounds						
106) Benzidine	11.200	184	60821	8.71	ppm	100
108) Hydroquinone	5.793	110	31136	6.43	ppm	88
110) 1,2,4,5-Tetrachloroben...	6.162	216	50621	11.24	ppm	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF8050\
 Data File : F187025.D
 Acq On : 10 Sep 2019 5:33 am
 Operator : angelar
 Sample : ic8052-10
 Misc : op21602,ef8052,1000,,,1,1
 ALS Vial : 29 Sample Multiplier: 1

Quant Time: Sep 10 10:41:31 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MF8050.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Tue Sep 10 10:39:29 2019
 Response via : Initial Calibration



9.6.28
9

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF8050\
 Data File : F187026.D
 Acq On : 10 Sep 2019 6:02 am
 Operator : angelar
 Sample : ic8052-5
 Misc : op21602,ef8052,1000,,,1,1
 ALS Vial : 30 Sample Multiplier: 1

Quant Time: Sep 10 10:41:58 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MF8050.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Tue Sep 10 10:39:29 2019
 Response via : Initial Calibration

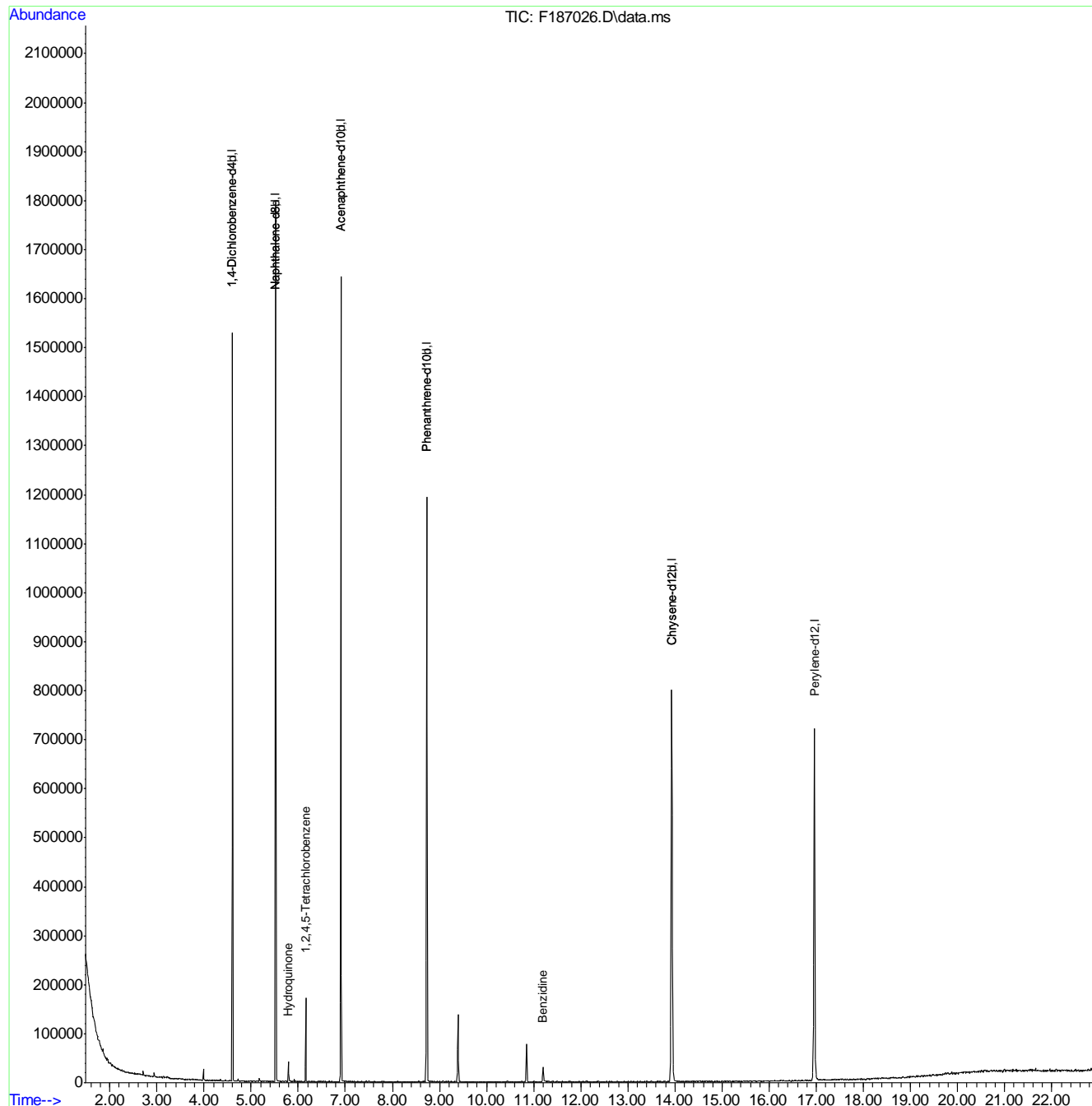
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.602	152	144460	40.00	ppm	0.00
24) Naphthalene-d8	5.521	136	508093	40.00	ppm	0.00
47) Acenaphthene-d10	6.904	164	285557	40.00	ppm	0.00
69) Phenanthrene-d10	8.731	188	504222	40.00	ppm	0.00
83) Chrysene-d12	13.929	240	415115	40.00	ppm	0.00
91) Perylene-d12	16.964	264	421842	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4b	4.602	152	144460	40.00	ppm	0.00
103) Phenanthrene-d10b	8.731	188	504222	40.00	ppm	0.00
105) Chrysene-d12b	13.929	240	415115	40.00	ppm	0.00
107) Naphthalene-d8b	5.521	136	508093	40.00	ppm	0.00
109) Acenaphthene-d10b	6.904	164	285557	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
8) Phenol-d5	0.000	99	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
Target Compounds						
106) Benzidine	11.200	184	19350	3.25	ppm	97
108) Hydroquinone	5.793	110	8406	1.99	ppm	92
110) 1,2,4,5-Tetrachloroben...	6.162	216	21684	5.55	ppm	92

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF8050\
Data File : F187026.D
Acq On : 10 Sep 2019 6:02 am
Operator : angelar
Sample : ic8052-5
Misc : op21602,ef8052,1000,,,1,1
ALS Vial : 30 Sample Multiplier: 1

Quant Time: Sep 10 10:41:58 2019
Quant Method : C:\MSDCHEM\1\METHODS\MF8050.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Tue Sep 10 10:39:29 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF8050\
 Data File : F187027.D
 Acq On : 10 Sep 2019 6:31 am
 Operator : angelar
 Sample : ic8052-2
 Misc : op21602,ef8052,1000,,,1,1
 ALS Vial : 31 Sample Multiplier: 1

Quant Time: Sep 10 10:42:20 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MF8050.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Tue Sep 10 10:39:29 2019
 Response via : Initial Calibration

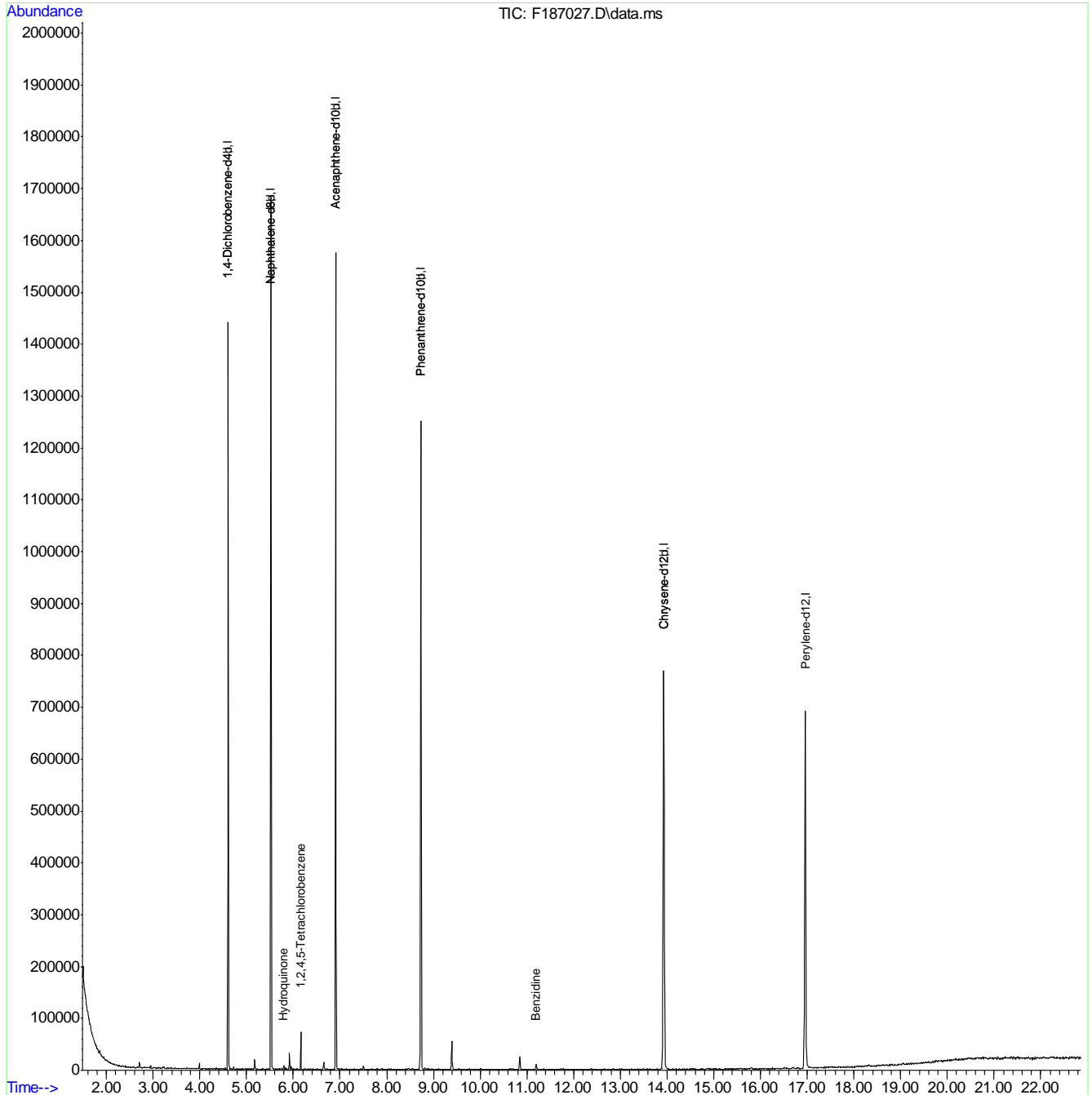
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.601	152	139693	40.00	ppm	0.00
24) Naphthalene-d8	5.520	136	506574	40.00	ppm	0.00
47) Acenaphthene-d10	6.904	164	284526	40.00	ppm	0.00
69) Phenanthrene-d10	8.731	188	500226	40.00	ppm	0.00
83) Chrysene-d12	13.934	240	403854	40.00	ppm	0.00
91) Perylene-d12	16.963	264	413849	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4b	4.601	152	139693	40.00	ppm	0.00
103) Phenanthrene-d10b	8.731	188	500226	40.00	ppm	0.00
105) Chrysene-d12b	13.934	240	403854	40.00	ppm	0.00
107) Naphthalene-d8b	5.520	136	506574	40.00	ppm	0.00
109) Acenaphthene-d10b	6.904	164	284526	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
8) Phenol-d5	0.000	99	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
Target Compounds						
106) Benzidine	11.194	184	6148	1.06	ppm	Qvalue # 67
108) Hydroquinone	5.793	110	1611	0.38	ppm	88
110) 1,2,4,5-Tetrachloroben...	6.161	216	9389	2.41	ppm	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF8050\
Data File : F187027.D
Acq On : 10 Sep 2019 6:31 am
Operator : angelar
Sample : ic8052-2
Misc : op21602,ef8052,1000,,,1,1
ALS Vial : 31 Sample Multiplier: 1

Quant Time: Sep 10 10:42:20 2019
Quant Method : C:\MSDCHEM\1\METHODS\MF8050.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Tue Sep 10 10:39:29 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF8050\
 Data File : F187028.D
 Acq On : 10 Sep 2019 7:00 am
 Operator : angelar
 Sample : ic8052-1
 Misc : op21602,ef8052,1000,,,1,1
 ALS Vial : 32 Sample Multiplier: 1

Quant Time: Sep 10 10:42:47 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MF8050.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Tue Sep 10 10:39:29 2019
 Response via : Initial Calibration

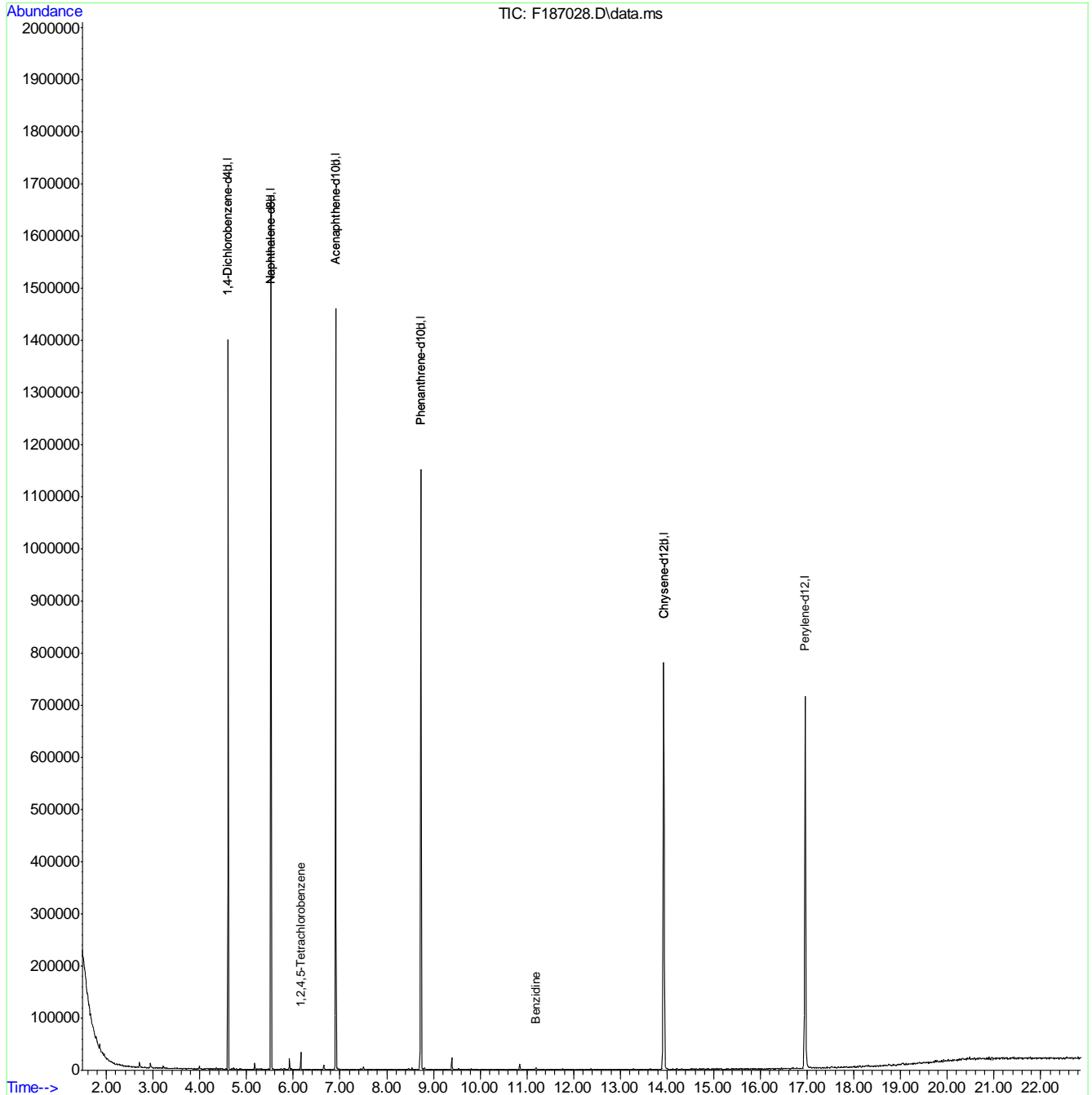
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.602	152	131624	40.00	ppm	0.00
24) Naphthalene-d8	5.521	136	490417	40.00	ppm	0.00
47) Acenaphthene-d10	6.904	164	262556	40.00	ppm	0.00
69) Phenanthrene-d10	8.731	188	478789	40.00	ppm	0.00
83) Chrysene-d12	13.929	240	385136	40.00	ppm	0.00
91) Perylene-d12	16.958	264	408251	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4b	4.602	152	131624	40.00	ppm	0.00
103) Phenanthrene-d10b	8.731	188	478789	40.00	ppm	0.00
105) Chrysene-d12b	13.929	240	385136	40.00	ppm	0.00
107) Naphthalene-d8b	5.521	136	490417	40.00	ppm	0.00
109) Acenaphthene-d10b	6.904	164	262556	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
8) Phenol-d5	0.000	99	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
Target Compounds						
106) Benzidine	11.194	184	2794	0.51	ppm	Qvalue # 67
110) 1,2,4,5-Tetrachloroben...	6.162	216	4348	1.21	ppm	91

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF8050\
 Data File : F187028.D
 Acq On : 10 Sep 2019 7:00 am
 Operator : angelar
 Sample : ic8052-1
 Misc : op21602,ef8052,1000,,,1,1
 ALS Vial : 32 Sample Multiplier: 1

Quant Time: Sep 10 10:42:47 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MF8050.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Tue Sep 10 10:39:29 2019
 Response via : Initial Calibration



9.6.31
 9

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF8050\
 Data File : F187029.D
 Acq On : 10 Sep 2019 7:28 am
 Operator : angelar
 Sample : icv8052-50
 Misc : op21602,ef8052,1000,,,1,1
 ALS Vial : 33 Sample Multiplier: 1

Quant Time: Sep 10 10:50:41 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MF8050.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Tue Sep 10 10:49:57 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.602	152	147489	40.00	ppm	0.00
24) Naphthalene-d8	5.521	136	533134	40.00	ppm	0.00
47) Acenaphthene-d10	6.904	164	339958	40.00	ppm	0.00
69) Phenanthrene-d10	8.737	188	634577	40.00	ppm	0.00
83) Chrysene-d12	13.930	240	537101	40.00	ppm	0.00
91) Perylene-d12	16.964	264	549631	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4b	4.602	152	147489	40.00	ppm	0.00
103) Phenanthrene-d10b	8.737	188	634577	40.00	ppm	0.00
105) Chrysene-d12b	13.930	240	537101	40.00	ppm	0.00
107) Naphthalene-d8b	5.521	136	533134	40.00	ppm	0.00
109) Acenaphthene-d10b	6.904	164	339958	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
51) 2-Fluorobiphenyl	0.000	172	0d	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
Target Compounds						
110) 1,2,4,5-Tetrachloroben...	6.162	216	230854	44.81	ppm	98

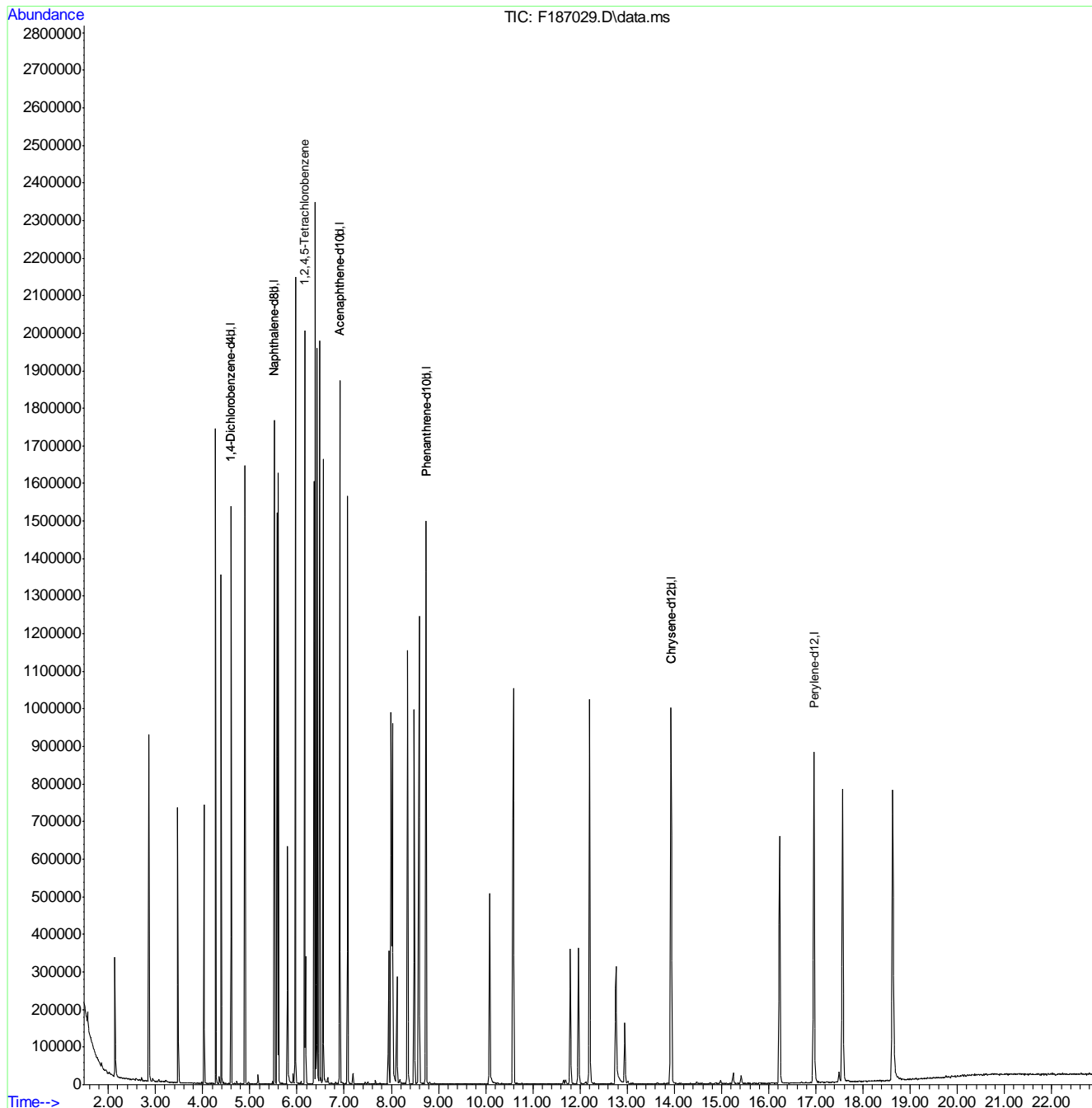
(#) = qualifier out of range (m) = manual integration (+) = signals summed

9.6.32
9

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF8050\
 Data File : F187029.D
 Acq On : 10 Sep 2019 7:28 am
 Operator : angelar
 Sample : icv8052-50
 Misc : op21602,ef8052,1000,,,1,1
 ALS Vial : 33 Sample Multiplier: 1

Quant Time: Sep 10 10:50:41 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MF8050.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Tue Sep 10 10:49:57 2019
 Response via : Initial Calibration



9.6.32
9

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF8050\
 Data File : F187030.D
 Acq On : 10 Sep 2019 7:58 am
 Operator : angelar
 Sample : icv8052-50
 Misc : op21602,ef8052,1000,,,1,1
 ALS Vial : 34 Sample Multiplier: 1

Quant Time: Sep 10 10:51:03 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MF8050.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Tue Sep 10 10:49:57 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.602	152	192519	40.00	ppm	0.00
24) Naphthalene-d8	5.520	136	682503	40.00	ppm	0.00
47) Acenaphthene-d10	6.904	164	361316	40.00	ppm	0.00
69) Phenanthrene-d10	8.731	188	693826	40.00	ppm	0.00
83) Chrysene-d12	13.934	240	629104	40.00	ppm	0.00
91) Perylene-d12	16.964	264	597225	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4b	4.602	152	192519	40.00	ppm	0.00
103) Phenanthrene-d10b	8.731	188	693826	40.00	ppm	0.00
105) Chrysene-d12b	13.934	240	629104	40.00	ppm	0.00
107) Naphthalene-d8b	5.520	136	682503	40.00	ppm	0.00
109) Acenaphthene-d10b	6.904	164	361316	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
8) Phenol-d5	0.000	99	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
Target Compounds						
106) Benzidine	11.210	184	545930	58.16	ppm	Qvalue 99

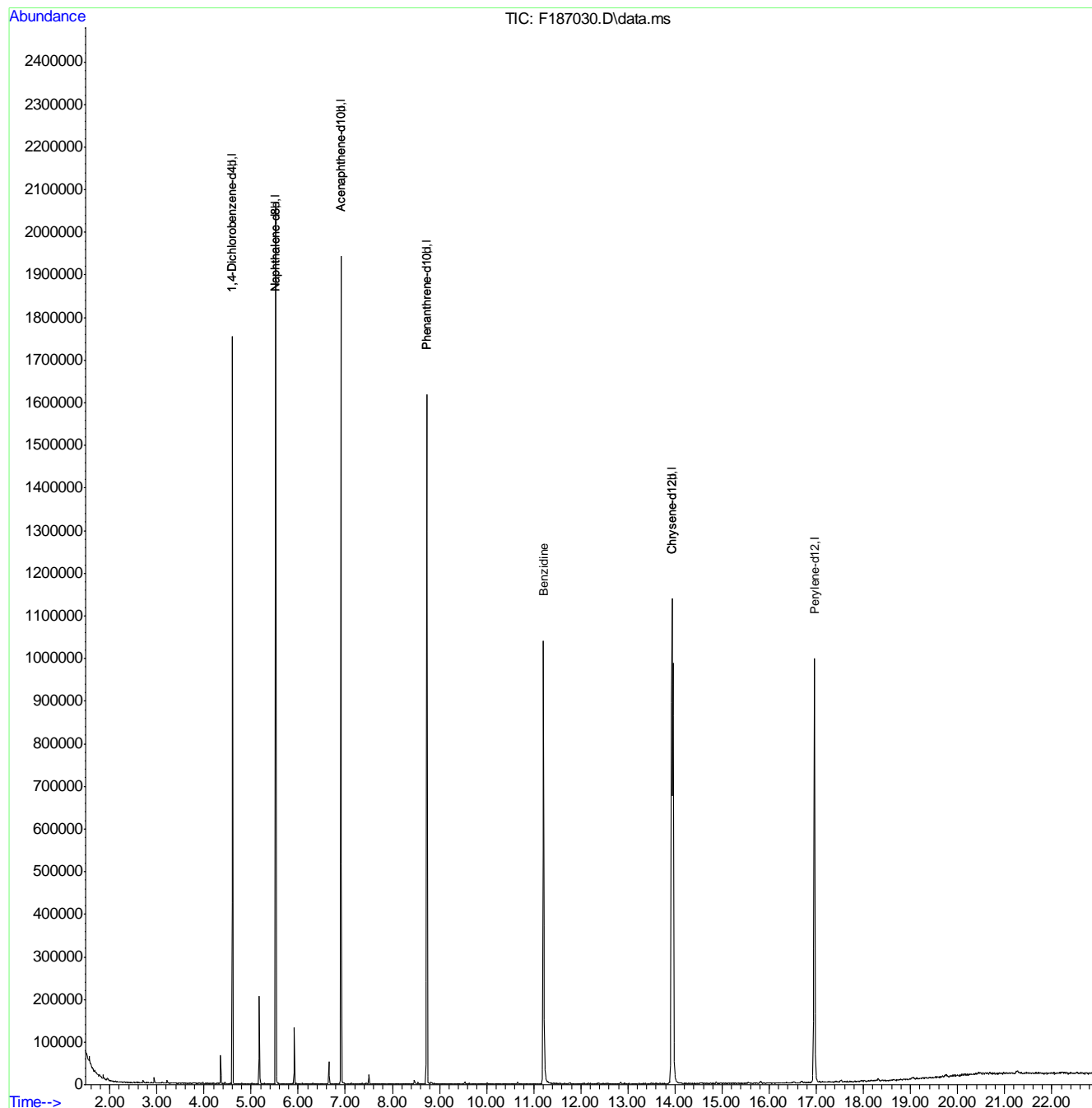
(#) = qualifier out of range (m) = manual integration (+) = signals summed

9.6.33
9

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF8050\
 Data File : F187030.D
 Acq On : 10 Sep 2019 7:58 am
 Operator : angelar
 Sample : icv8052-50
 Misc : op21602,ef8052,1000,,,1,1
 ALS Vial : 34 Sample Multiplier: 1

Quant Time: Sep 10 10:51:03 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MF8050.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Tue Sep 10 10:49:57 2019
 Response via : Initial Calibration



9.6.33
 9

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF8050\
 Data File : F187031.D
 Acq On : 10 Sep 2019 8:26 am
 Operator : angelar
 Sample : icv8052-50
 Misc : op21602,ef8052,1000,,,1,1
 ALS Vial : 35 Sample Multiplier: 1

Quant Time: Sep 10 10:55:41 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MF8050.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Tue Sep 10 10:49:57 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.602	152	279895	40.00	ppm	0.00
24) Naphthalene-d8	5.526	136	962033	40.00	ppm	0.00
47) Acenaphthene-d10	6.910	164	489623	40.00	ppm	0.00
69) Phenanthrene-d10	8.731	188	917395	40.00	ppm	0.00
83) Chrysene-d12	13.935	240	810220	40.00	ppm	0.00
91) Perylene-d12	16.969	264	783467	40.00	ppm	0.01
101) 1,4-Dichlorobenzene-d4b	4.602	152	279895	40.00	ppm	0.00
103) Phenanthrene-d10b	8.731	188	917395	40.00	ppm	0.00
105) Chrysene-d12b	13.935	240	810220	40.00	ppm	0.00
107) Naphthalene-d8b	5.526	136	962033	40.00	ppm	0.00
109) Acenaphthene-d10b	6.910	164	489623	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
8) Phenol-d5	0.000	99	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
Target Compounds						
108) Hydroquinone	5.809	110	381027	54.05	ppm	Qvalue 97

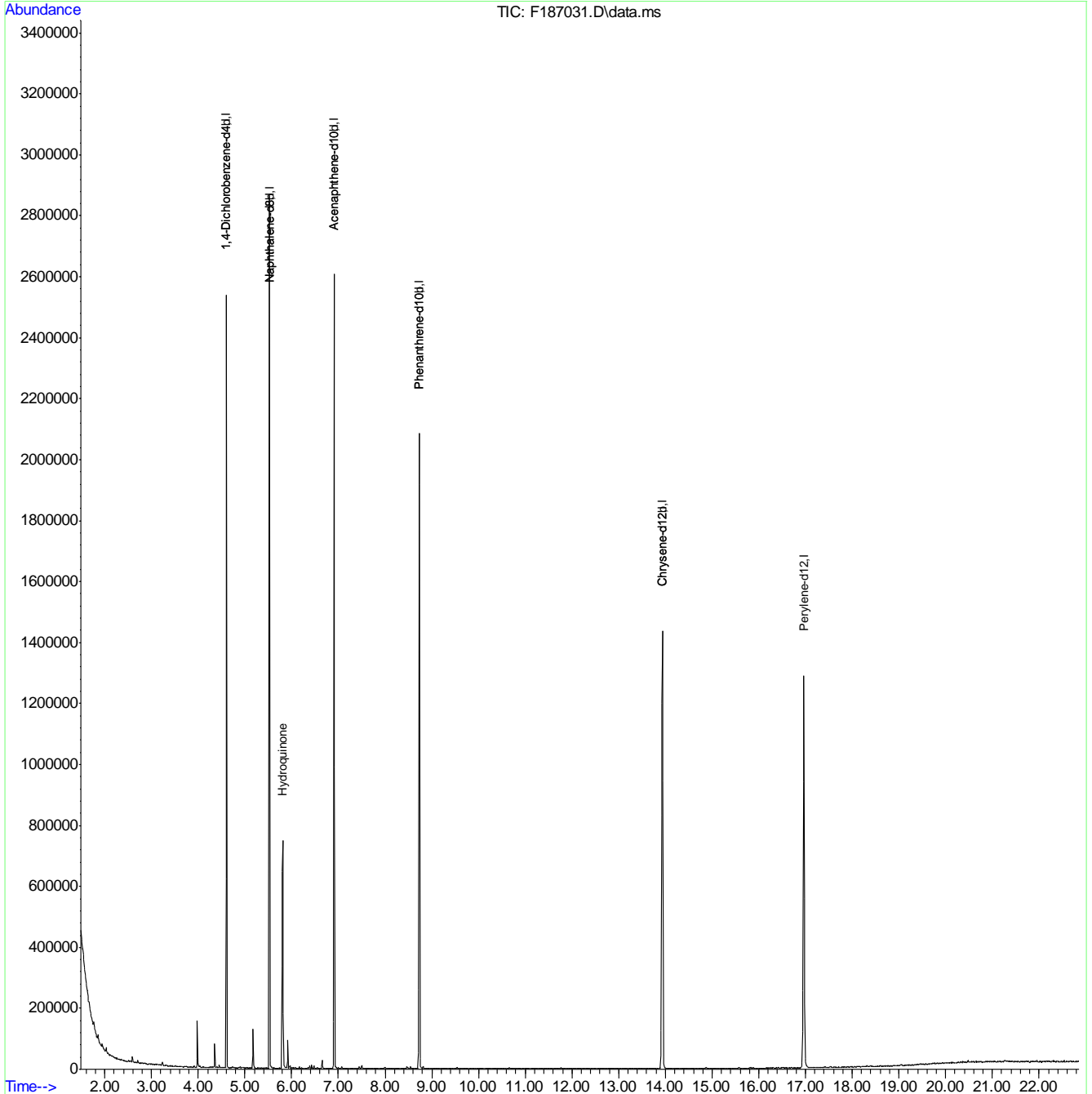
(#) = qualifier out of range (m) = manual integration (+) = signals summed

9.6.34
9

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF8050\
 Data File : F187031.D
 Acq On : 10 Sep 2019 8:26 am
 Operator : angelar
 Sample : icv8052-50
 Misc : op21602,ef8052,1000,,,1,1
 ALS Vial : 35 Sample Multiplier: 1

Quant Time: Sep 10 10:55:41 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MF8050.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Tue Sep 10 10:49:57 2019
 Response via : Initial Calibration



9.6.34
9

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF8054\
 Data File : F187054.D
 Acq On : 11 Sep 2019 3:51 am
 Operator : chriss2
 Sample : ic8054-100
 Misc : op21602,ef8054,1000,,,1,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 11 09:19:28 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MF8050AP9.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Wed Sep 11 09:14:42 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.591	152	193129	40.00	ppm	-0.01
24) Naphthalene-d8	5.510	136	704752	40.00	ppm	-0.01
47) Acenaphthene-d10	6.888	164	412676	40.00	ppm	-0.02
69) Phenanthrene-d10	8.710	188	764416	40.00	ppm	-0.02
83) Chrysene-d12	13.898	240	716980	40.00	ppm	-0.03
91) Perylene-d12	16.932	264	754685	40.00	ppm	-0.03
101) 1,4-Dichlorobenzene-d4A	4.591	152	193129	40.00	ppm	0.00
111) Naphthalene-d8A	5.510	136	704752	40.00	ppm	0.00
120) Acenaphthene-d10A	6.888	164	412676	40.00	ppm	0.00
131) Phenanthrene-d10A	8.710	188	764416	40.00	ppm	0.00
146) Chrysene-d12A	13.898	240	716980	40.00	ppm	0.00
153) Perylene-d12A	16.932	264	754685	40.00	ppm	0.00
156) 1,4-Dichlorobenzene-d4b	4.591	152	193129	40.00	ppm	-0.01
158) Phenanthrene-d10b	8.710	188	764416	40.00	ppm	-0.02
160) Chrysene-d12b	13.898	240	716980	40.00	ppm	-0.03
162) Naphthalene-d8b	5.510	136	704752	40.00	ppm	-0.01
164) Acenaphthene-d10b	6.888	164	412676	40.00	ppm	-0.02
166) Naphthalene-d8c	5.510	136	704752	40.00	ppm	-0.03
171) 1,4-Dichlorobenzene-d4c	4.591	152	193129	40.00	ppm	-0.03
173) Chrysene-d12c	13.898	240	717028	40.00	ppm	-0.09
175) Chrysene-d12d	13.898	240	716980	40.00	ppm	-0.09
177) Naphthalene-d8d	5.510	136	704752	40.00	ppm	-0.03
179) Chrysene-d12e	13.898	240	716980	40.00	ppm	-0.10
181) Perylene-d12b	16.932	264	754685	40.00	ppm	-0.06
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
25) Nitrobenzene-d5	0.000	82	0d	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
Target Compounds						
102) 2-Picoline	3.101	93	713041	100.00	ppm	Qvalue 100
103) Pentachloroethane	4.383	167	239223	100.00	ppm	100
104) Methyl methanesulfonate	3.464	80	415078	100.00	ppm	100
105) N-Nitrosodiethylamine	3.779	102	306669	100.00	ppm	100
106) N-Nitrosomethylethylamine	3.202	42	316645	100.00	ppm	100
107) Ethyl methanesulfonate	4.014	79	476238	100.00	ppm	100
108) N-Nitrosopyrrolidine	4.869	41	142015m	99.90	ppm	
109) N-Nitrosomorpholine	4.896	56	277288	100.00	ppm	100
110) o-Toluidine	4.917	106	811849	100.00	ppm	100

9.6.35
9

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF8054\
 Data File : F187054.D
 Acq On : 11 Sep 2019 3:51 am
 Operator : chriss2
 Sample : ic8054-100
 Misc : op21602,ef8054,1000,,,1,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 11 09:19:28 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MF8050AP9.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Wed Sep 11 09:14:42 2019
 Response via : Initial Calibration

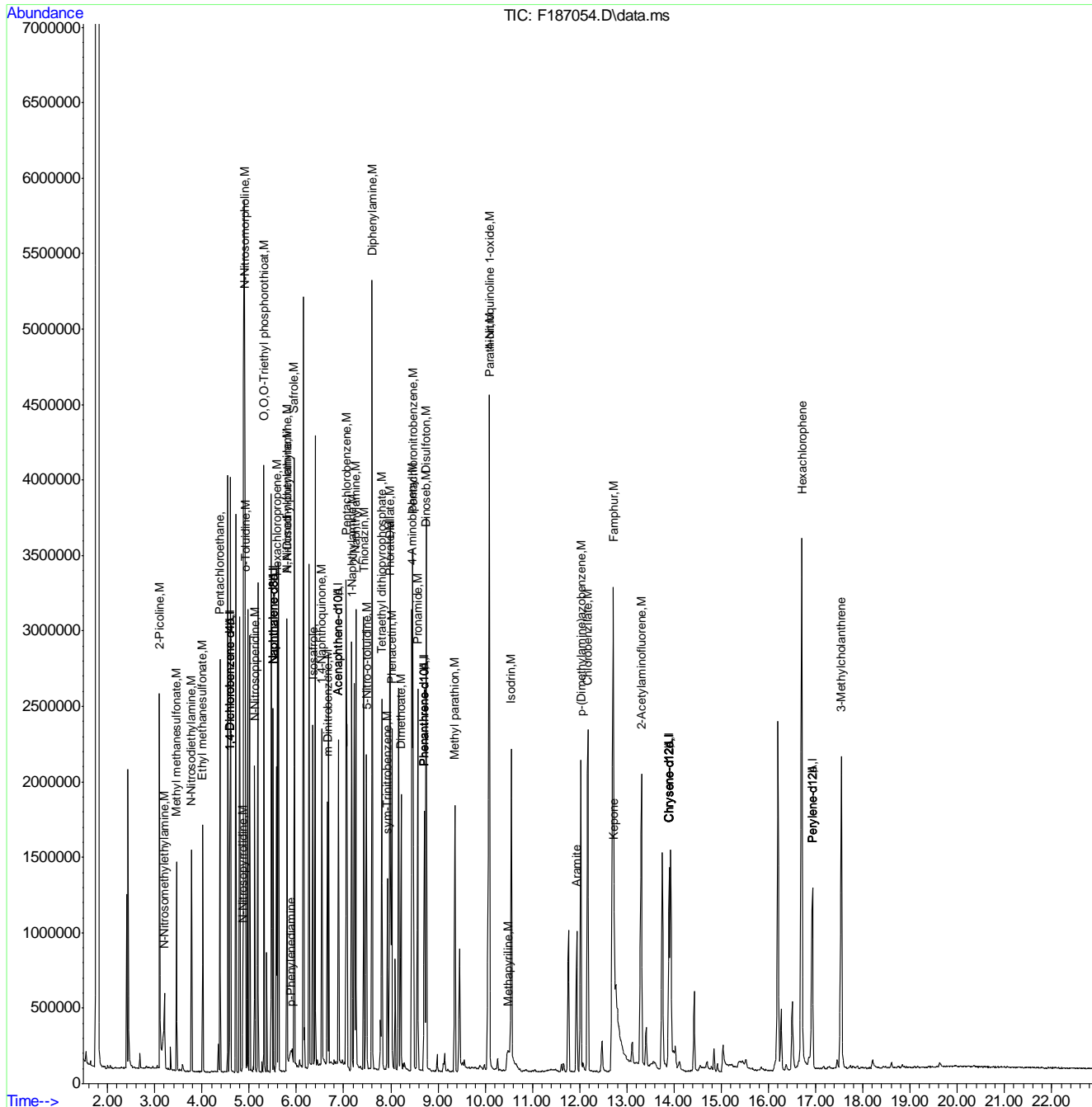
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
112) O,O,O-Triethyl phospho...	5.313	198	268394	100.00	ppm	100
113) N-Nitrosopiperidine	5.120	42	382762	100.00	ppm	100
114) A,A-Dimethylphenethyla...	5.799	58	1535012m	98.10	ppm	
115) Hexachloropropene	5.596	213	417718	100.00	ppm	100
116) N-Nitrosodi-n-butylamine	5.799	84	435051	100.26	ppm	100
117) p-Phenylenediamine	5.884	108	239854m	101.10	ppm	
118) Safrole	5.954	162	412449	100.00	ppm	100
119) Isosafrole	6.349	162	304361	100.00	ppm	100
121) Thionazin	7.428	143	155583	100.00	ppm	100
122) Tetraethyl dithiopyrop...	7.813	322	196483	100.00	ppm	100
123) Phorate	7.989	75	755780	100.00	ppm	100
124) Phenacetin	8.021	108	706538	100.00	ppm	100
125) 1,4-Naphthoquinone	6.536	158	340868	100.00	ppm	100
126) m-Dinitrobenzene	6.659	168	202734	100.00	ppm	100
127) Pentachlorobenzene	7.059	250	469477	100.00	ppm	100
128) 2-Naphthylamine	7.257	143	994642	100.00	ppm	100
129) 1-Naphthylamine	7.172	143	660610	100.00	ppm	100
130) 5-Nitro-o-toluidine	7.481	152	358953	100.00	ppm	100
132) Disulfoton	8.753	88	610111	100.00	ppm	100
133) Dinoseb	8.748	211	332895	100.00	ppm	100
134) Dimethoate	8.219	87	511812	100.00	ppm	100
135) 4-Aminobiphenyl	8.448	169	1238864	100.00	ppm	100
136) Methyl parathion	9.357	125	323548	100.00	ppm	100
137) Parathion	10.088	109	244439	100.00	ppm	100
138) Diphenylamine	7.610	169	1763095	200.00	ppm	100
139) Isodrin	10.553	193	209666	100.00	ppm	100
140) Diallate	7.978	86	409350	100.00	ppm	100
141) Pentachloronitrobenzene	8.475	295	136263	200.00	ppm	100
142) Pronamide	8.571	173	579902	100.00	ppm	100
143) 4-Nitroquinoline 1-oxide	10.094	190	848140	400.00	ppm	100
144) Methapyriline	10.484	58	328785m	99.77	ppm	
145) sym-Trinitrobenzene	7.930	213	147173	100.00	ppm	100
147) Aramite	11.937	185	137301	100.00	ppm	100
148) p-(Dimethylamine)azobe...	12.028	120	599643	100.00	ppm	100
149) Kepone	12.728	272	322058	600.00	ppm	100
150) Famphur	12.712	218	1795012	600.00	ppm	100
151) 2-Acetylaminofluorene	13.310	181	900296	100.00	ppm	100
152) Chlorobenzilate	12.172	251	590025	100.00	ppm	100
154) Hexachlorophene	16.708	196	596696	500.00	ppm	100
155) 3-Methylcholanthrene	17.546	252	389868	100.00	ppm	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF8054\
Data File : F187054.D
Acq On : 11 Sep 2019 3:51 am
Operator : chriss2
Sample : ic8054-100
Misc : op21602,ef8054,1000,,1,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 11 09:19:28 2019
Quant Method : C:\MSDCHEM\1\METHODS\MF8050AP9.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Wed Sep 11 09:14:42 2019
Response via : Initial Calibration



Manual Integration Approval Summary

Sample Number: EF8054-IC8054 Method: SW846 8270D
Lab FileID: F187054.D Analyst approved: 09/11/19 11:58 Kristi Schollenberger
Injection Time: 09/11/19 03:51 Supervisor approved: 09/13/19 14:06 Nina Pandya

Parameter	CAS	Sig#	R.T. (min.)	Reason
N-Nitrosopyrrolidine	930-55-2		4.87	Overlapping peak
A,A-Dimethylphenethylamine	122-09-8		5.80	Split peak
p-Phenylenediamine	106-50-3		5.88	Split peak
Methapyrilene	91-80-5		10.48	Split peak

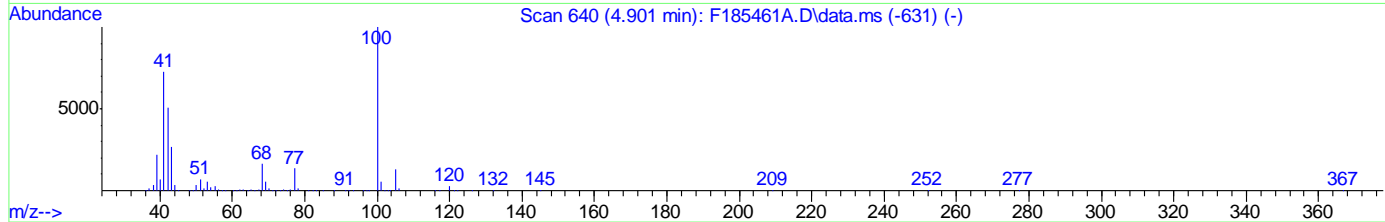
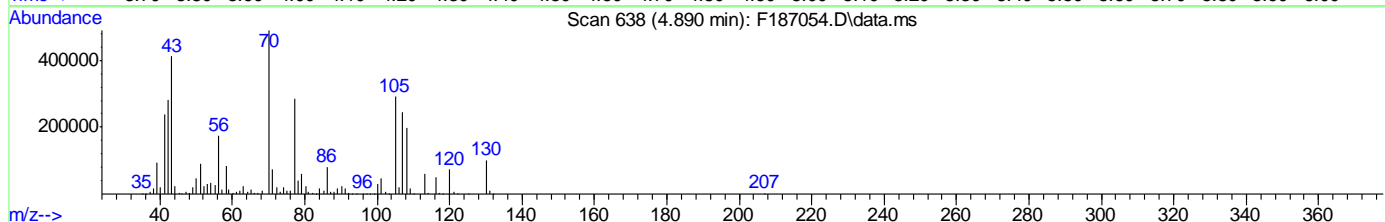
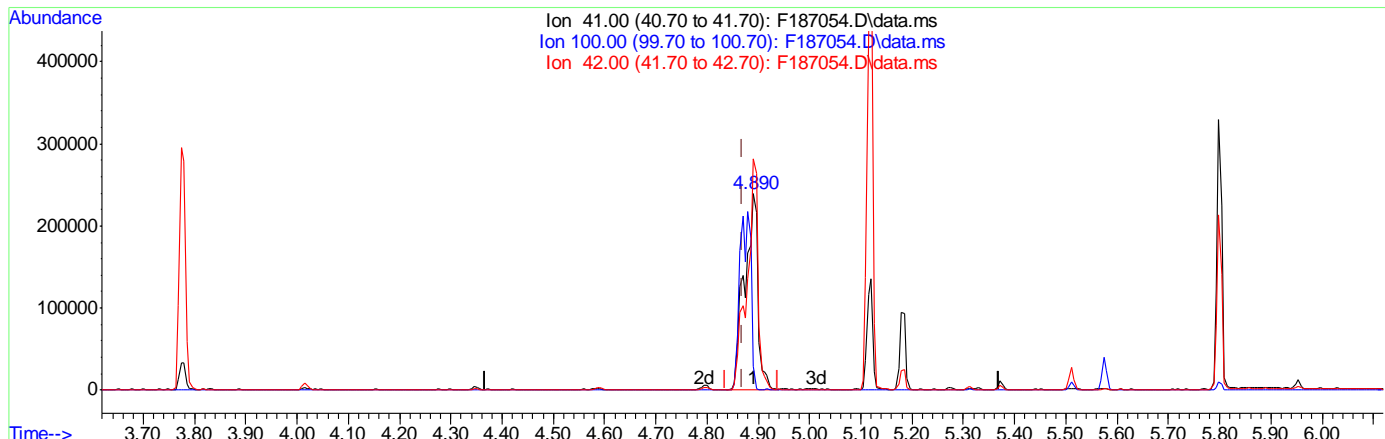
9.6.35.1

9

Quantitation Report (Qedit)

Data Path : C:\MSDCHEM\1\DATA\EF8054\
 Data File : F187054.D
 Acq On : 11 Sep 2019 3:51 am
 Operator : chriss2
 Sample : ic8054-100
 Misc : op21602,ef8054,1000,,,1,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 11 09:14:46 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MF8050AP9.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Wed Sep 11 09:14:42 2019
 Response via : Initial Calibration



(108) N-Nitrosopyrrolidine (M)

4.890min (+0.021) 307.44ppm

response 437047

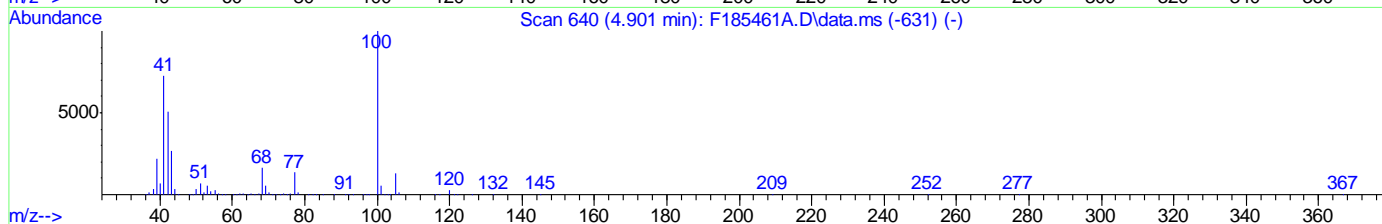
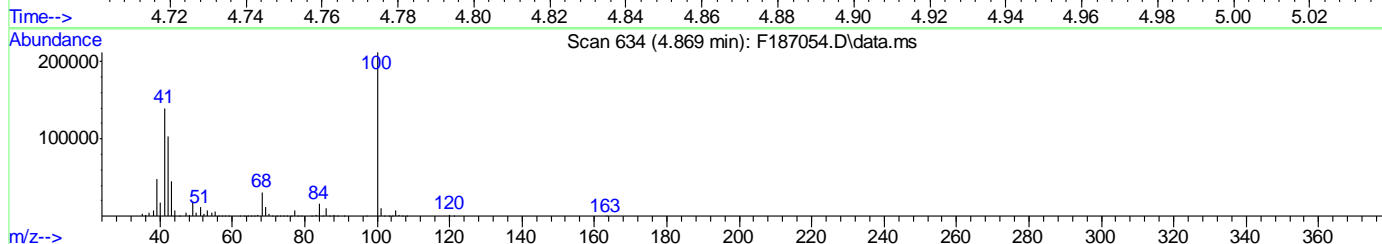
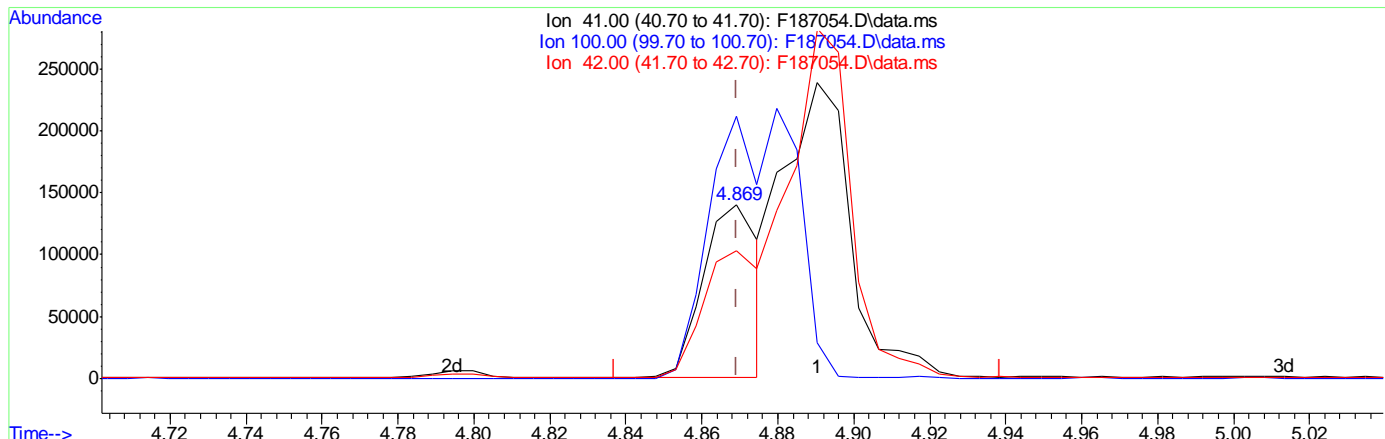
Ion	Exp%	Act%
41.00	100	100
100.00	151.20	12.26#
42.00	73.60	117.81#
0.00	0.00	0.00

9.6.35.2
9

Quantitation Report (Qedit)

Data Path : C:\MSDCHEM\1\DATA\EF8054\
 Data File : F187054.D
 Acq On : 11 Sep 2019 3:51 am
 Operator : chriss2
 Sample : ic8054-100
 Misc : op21602,ef8054,1000,,,1,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 11 09:14:46 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MF8050AP9.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Wed Sep 11 09:14:42 2019
 Response via : Initial Calibration



TIC: F187054.D\data.ms

(108) N-Nitrosopyrrolidine (M)

4.869min (0.000) 99.90ppm m

response 142015

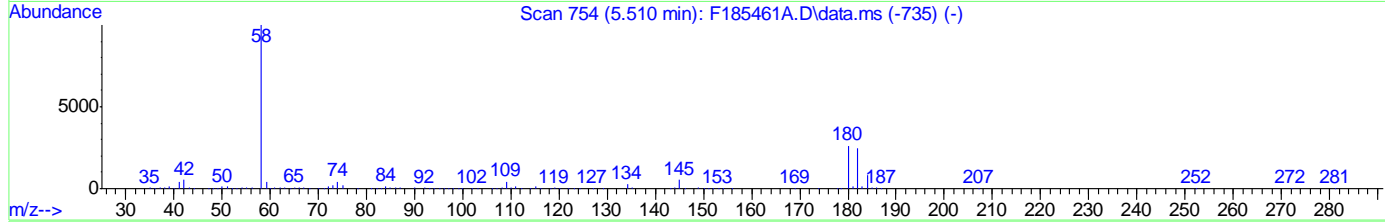
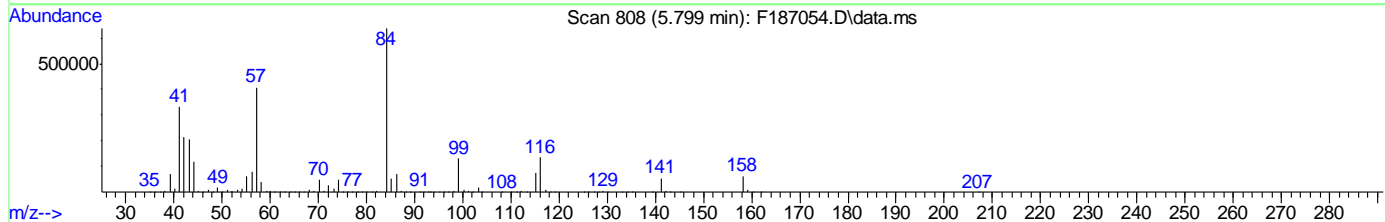
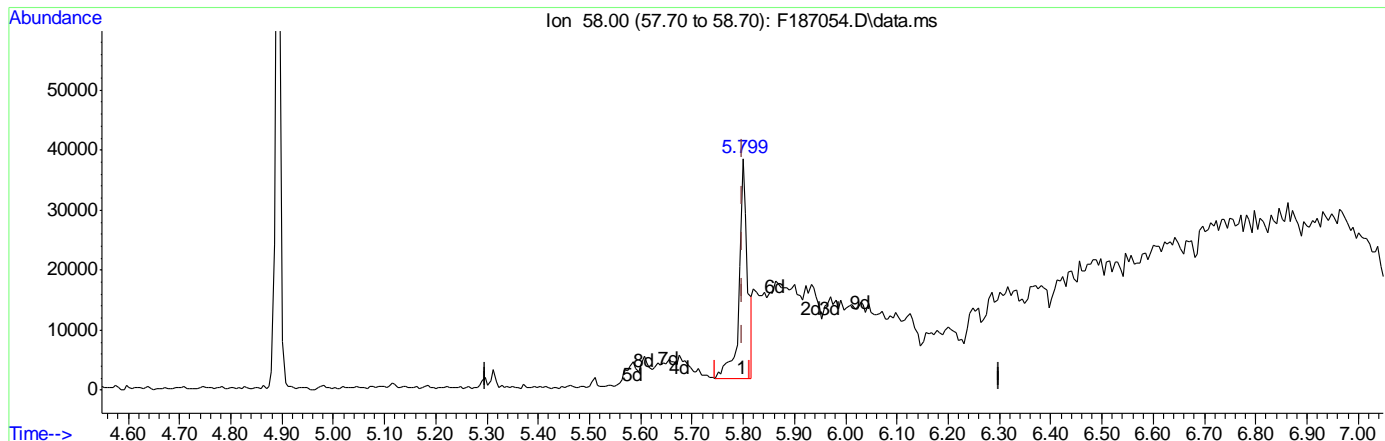
Ion	Exp%	Act%
41.00	100	100
100.00	151.20	151.21
42.00	73.60	73.64
0.00	0.00	0.00

9.6.35.3
9

Quantitation Report (Qedit)

Data Path : C:\MSDCHEM\1\DATA\EF8054\
 Data File : F187054.D
 Acq On : 11 Sep 2019 3:51 am
 Operator : chriss2
 Sample : ic8054-100
 Misc : op21602,ef8054,1000,,,1,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 11 09:14:46 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MF8050AP9.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Wed Sep 11 09:14:42 2019
 Response via : Initial Calibration



TIC: F187054.D\data.ms

(114) A,A-Dimethylphenethylamine (M)

5.799min (0.000) 2.71ppm

response 42458

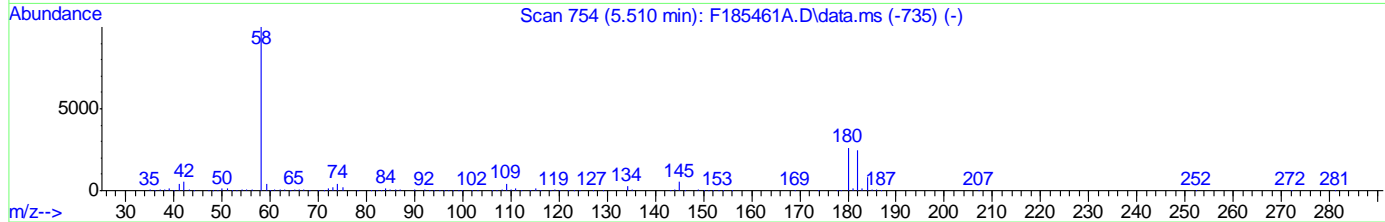
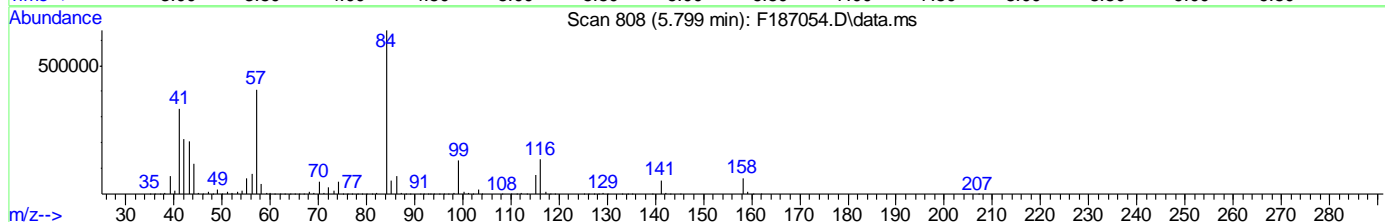
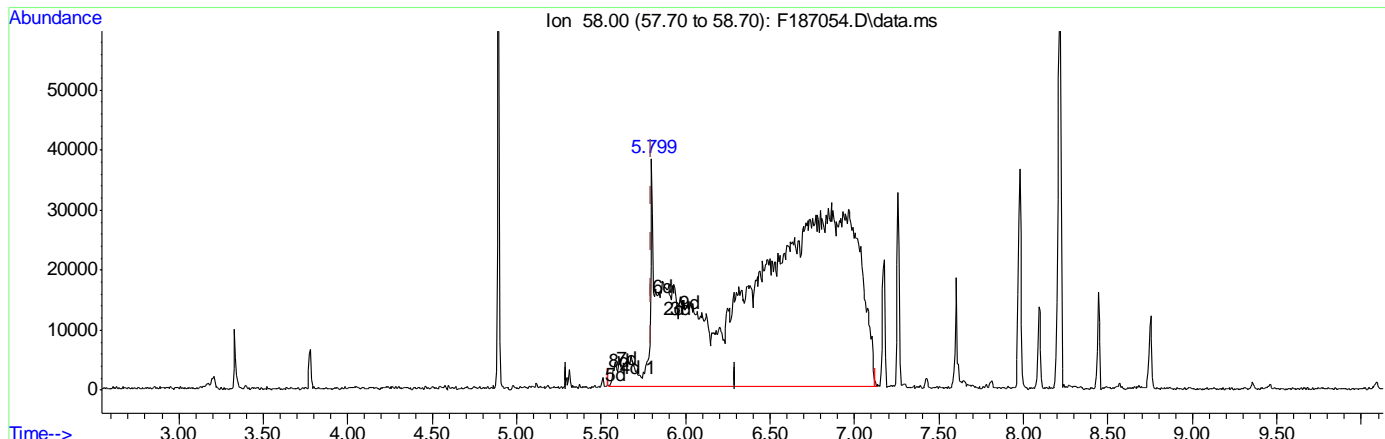
Ion	Exp%	Act%
58.00	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

9.6.35.4
9

Quantitation Report (Qedit)

Data Path : C:\MSDCHEM\1\DATA\EF8054\
 Data File : F187054.D
 Acq On : 11 Sep 2019 3:51 am
 Operator : chriss2
 Sample : ic8054-100
 Misc : op21602,ef8054,1000,,,1,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 11 09:14:46 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MF8050AP9.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Wed Sep 11 09:14:42 2019
 Response via : Initial Calibration



(114) A,A-Dimethylphenethylamine (M)

5.799min (0.000) 98.10ppm m

response 1535012

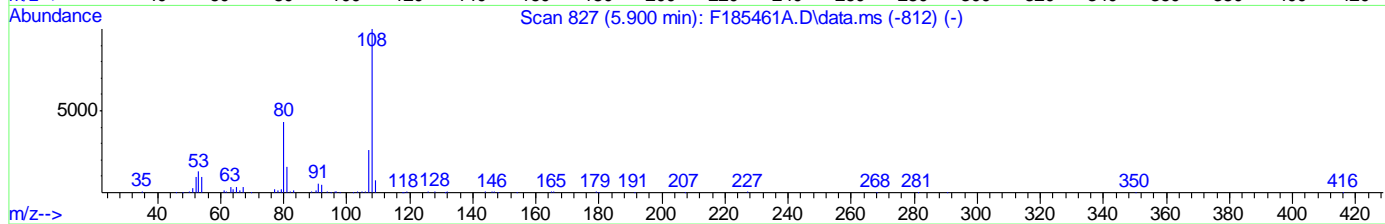
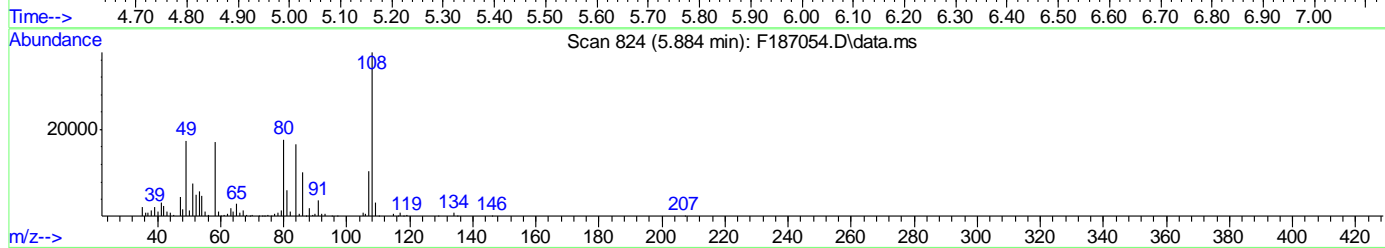
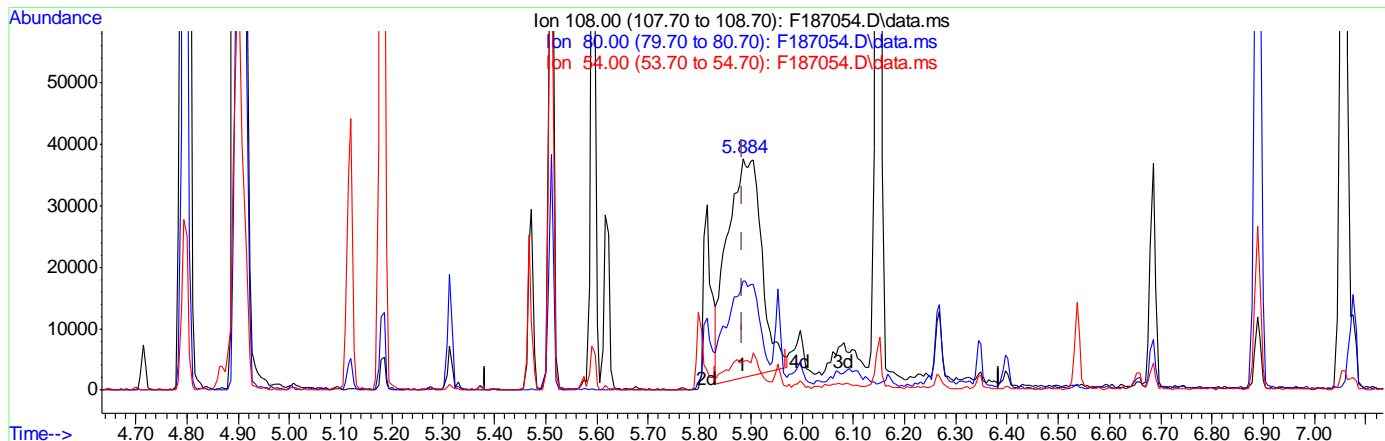
Ion	Exp%	Act%
58.00	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

9.6.35.5
9

Quantitation Report (Qedit)

Data Path : C:\MSDCHEM\1\DATA\EF8054\
 Data File : F187054.D
 Acq On : 11 Sep 2019 3:51 am
 Operator : chriss2
 Sample : ic8054-100
 Misc : op21602,ef8054,1000,,,1,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 11 09:14:46 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MF8050AP9.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Wed Sep 11 09:14:42 2019
 Response via : Initial Calibration



(117) p-Phenylenediamine

5.884min (0.000) 70.13ppm

response 166376

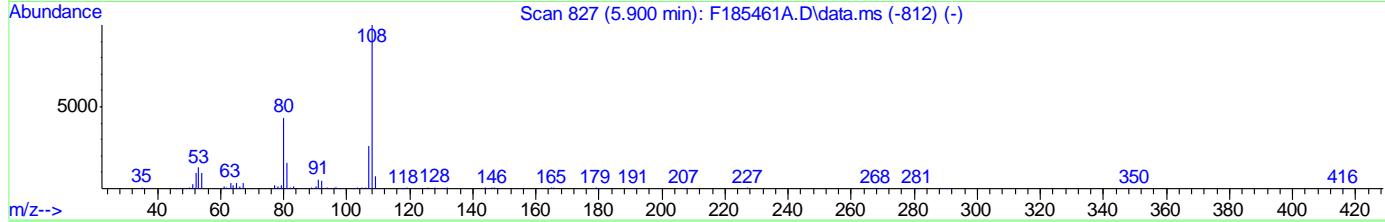
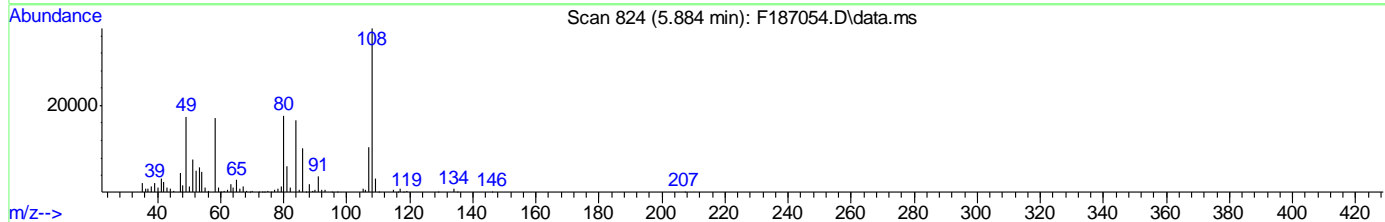
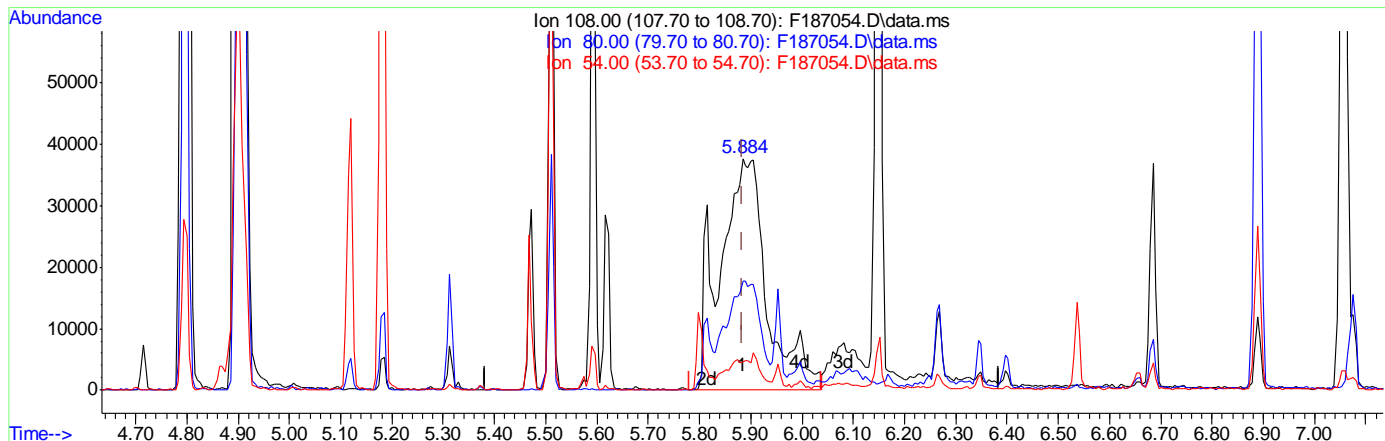
Ion	Exp%	Act%
108.00	100	100
80.00	47.00	48.39
54.00	12.40	12.34
0.00	0.00	0.00

9.6.35.6
9

Quantitation Report (Qedit)

Data Path : C:\MSDCHEM\1\DATA\EF8054\
 Data File : F187054.D
 Acq On : 11 Sep 2019 3:51 am
 Operator : chriss2
 Sample : ic8054-100
 Misc : op21602,ef8054,1000,,,1,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 11 09:14:46 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MF8050AP9.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Wed Sep 11 09:14:42 2019
 Response via : Initial Calibration



(117) p-Phenylenediamine

5.884min (0.000) 101.10ppm m

response 239854

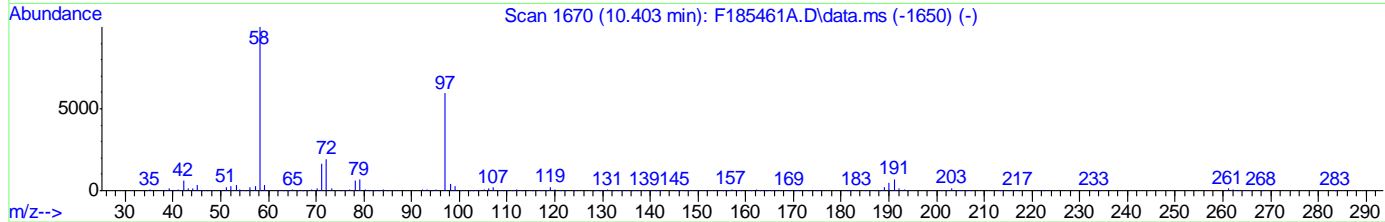
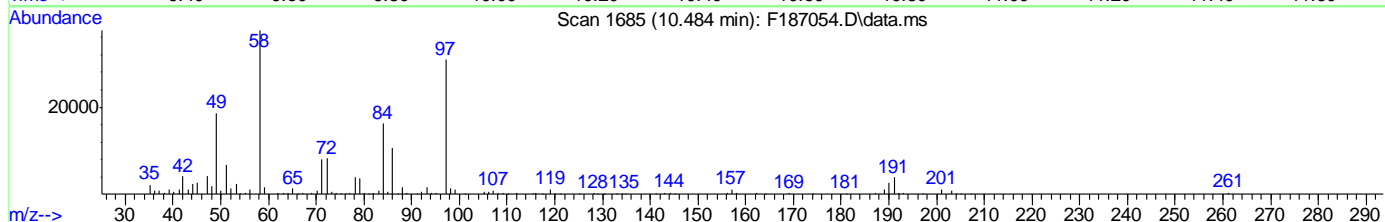
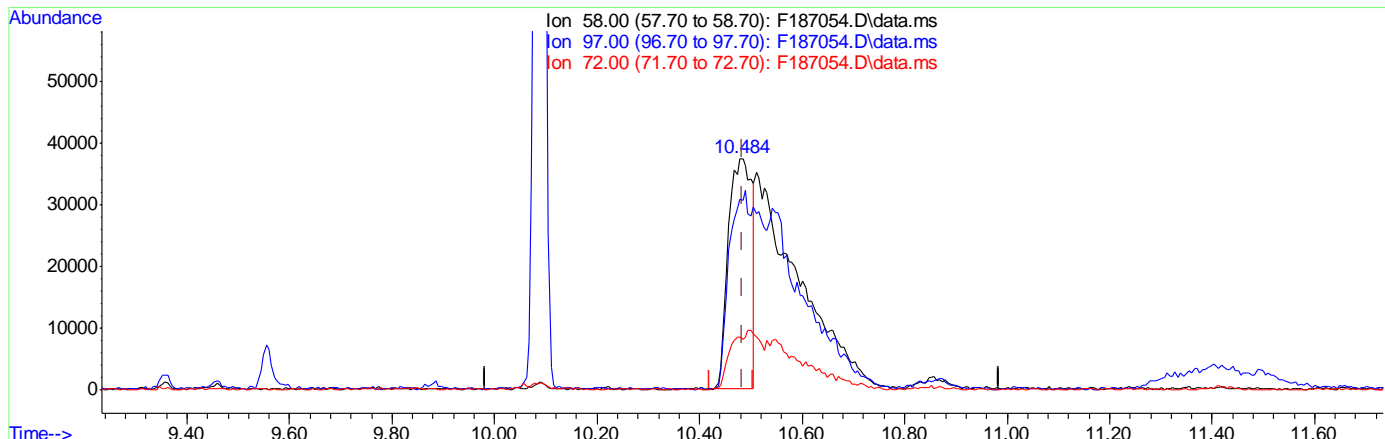
Ion	Exp%	Act%
108.00	100	100
80.00	47.00	47.04
54.00	12.40	12.40
0.00	0.00	0.00

9.6.35.7
9

Quantitation Report (Qedit)

Data Path : C:\MSDCHEM\1\DATA\EF8054\
 Data File : F187054.D
 Acq On : 11 Sep 2019 3:51 am
 Operator : chriss2
 Sample : ic8054-100
 Misc : op21602,ef8054,1000,,,1,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 11 09:14:46 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MF8050AP9.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Wed Sep 11 09:14:42 2019
 Response via : Initial Calibration



(144) Methapyriline (M)
 10.484min (0.000) 36.36ppm
 response 119814

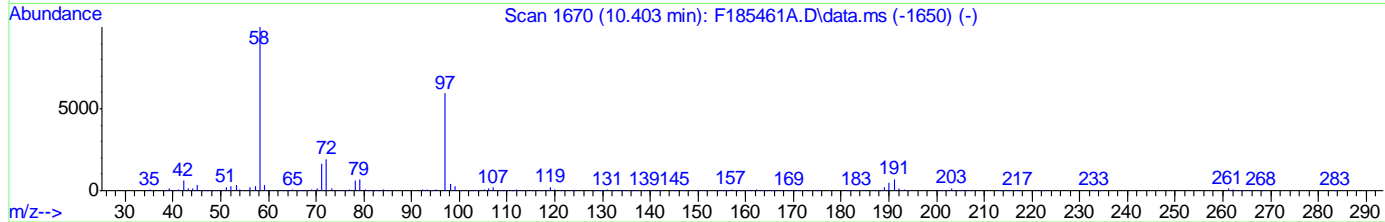
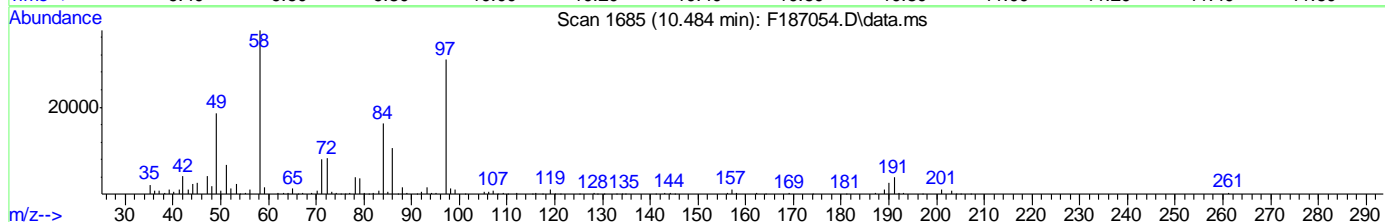
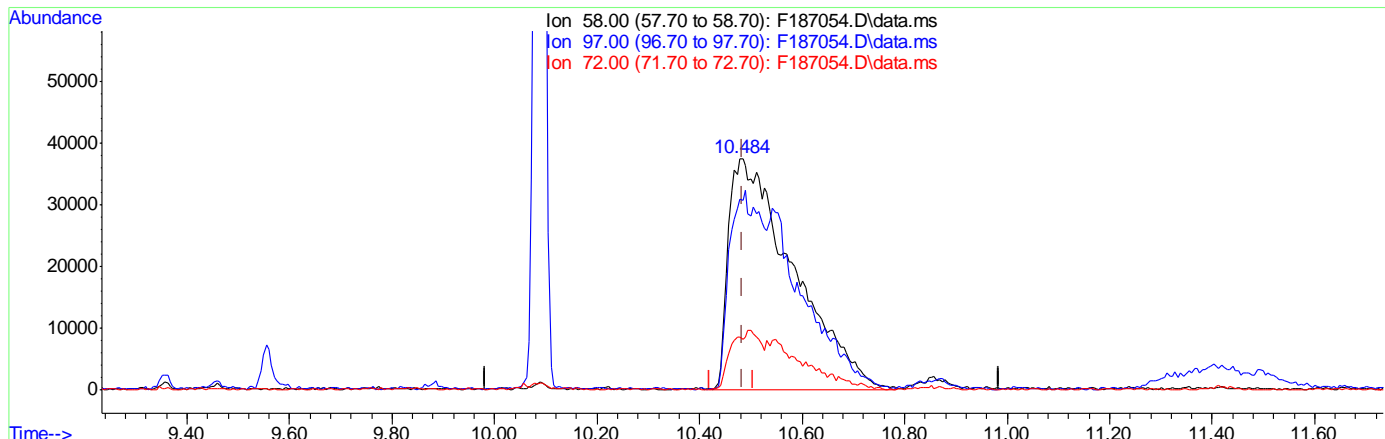
Ion	Exp%	Act%
58.00	100	100
97.00	82.00	76.67
72.00	22.00	17.73
0.00	0.00	0.00

9.6.35.8
9

Quantitation Report (Qedit)

Data Path : C:\MSDCHEM\1\DATA\EF8054\
 Data File : F187054.D
 Acq On : 11 Sep 2019 3:51 am
 Operator : chriss2
 Sample : ic8054-100
 Misc : op21602,ef8054,1000,,,1,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 11 09:14:46 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MF8050AP9.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Wed Sep 11 09:14:42 2019
 Response via : Initial Calibration



TIC: F187054.D\data.ms

(144) Methapyriline (M)	
10.484min (0.000)	99.77ppm m
response	328785
Ion	Exp% Act%
58.00	100 100
97.00	82.00 81.96
72.00	22.00 21.97
0.00	0.00 0.00

9.6.35.9
9

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF8054\
 Data File : F187055.D
 Acq On : 11 Sep 2019 4:21 am
 Operator : chriss2
 Sample : ic8054-80
 Misc : op21602,ef8054,1000,,,1,1
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 11 09:22:37 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MF8050AP9.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Wed Sep 11 09:15:22 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.591	152	166860	40.00	ppm	-0.01
24) Naphthalene-d8	5.510	136	622639	40.00	ppm	-0.01
47) Acenaphthene-d10	6.888	164	370485	40.00	ppm	-0.02
69) Phenanthrene-d10	8.710	188	695518	40.00	ppm	-0.02
83) Chrysene-d12	13.892	240	670437	40.00	ppm	-0.04
91) Perylene-d12	16.926	264	711194	40.00	ppm	-0.03
101) 1,4-Dichlorobenzene-d4A	4.591	152	166860	40.00	ppm	0.00
111) Naphthalene-d8A	5.510	136	622639	40.00	ppm	0.00
120) Acenaphthene-d10A	6.888	164	370485	40.00	ppm	0.00
131) Phenanthrene-d10A	8.710	188	695518	40.00	ppm	0.00
146) Chrysene-d12A	13.892	240	670437	40.00	ppm	0.00
153) Perylene-d12A	16.926	264	711194	40.00	ppm	0.00
156) 1,4-Dichlorobenzene-d4b	4.591	152	166860	40.00	ppm	-0.01
158) Phenanthrene-d10b	8.710	188	695518	40.00	ppm	-0.02
160) Chrysene-d12b	13.892	240	670437	40.00	ppm	-0.04
162) Naphthalene-d8b	5.510	136	622639	40.00	ppm	-0.01
164) Acenaphthene-d10b	6.888	164	370485	40.00	ppm	-0.02
166) Naphthalene-d8c	5.510	136	622639	40.00	ppm	-0.03
171) 1,4-Dichlorobenzene-d4c	4.591	152	166860	40.00	ppm	-0.03
173) Chrysene-d12c	13.892	240	670259	40.00	ppm	-0.10
175) Chrysene-d12d	13.892	240	670437	40.00	ppm	-0.10
177) Naphthalene-d8d	5.510	136	622639	40.00	ppm	-0.03
179) Chrysene-d12e	13.892	240	670437	40.00	ppm	-0.10
181) Perylene-d12b	16.926	264	711194	40.00	ppm	-0.07
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
25) Nitrobenzene-d5	0.000	82	0d	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
Target Compounds						
102) 2-Picoline	3.100	93	491410	79.77	ppm	Qvalue 97
103) Pentachloroethane	4.383	167	173157	83.78	ppm	98
104) Methyl methanesulfonate	3.458	80	287707	80.23	ppm	99
105) N-Nitrosodiethylamine	3.779	102	220382	83.18	ppm	97
106) N-Nitrosomethylethylamine	3.207	42	220081	80.45	ppm	97
107) Ethyl methanesulfonate	4.014	79	339843	82.59	ppm	99
108) N-Nitrosopyrrolidine	4.863	41	173775	141.49	ppm	88
109) N-Nitrosomorpholine	4.895	56	215959	90.14	ppm	96
110) o-Toluidine	4.911	106	630267	89.86	ppm	95

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF8054\
 Data File : F187055.D
 Acq On : 11 Sep 2019 4:21 am
 Operator : chriss2
 Sample : ic8054-80
 Misc : op21602,ef8054,1000,,,1,1
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 11 09:22:37 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MF8050AP9.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Wed Sep 11 09:15:22 2019
 Response via : Initial Calibration

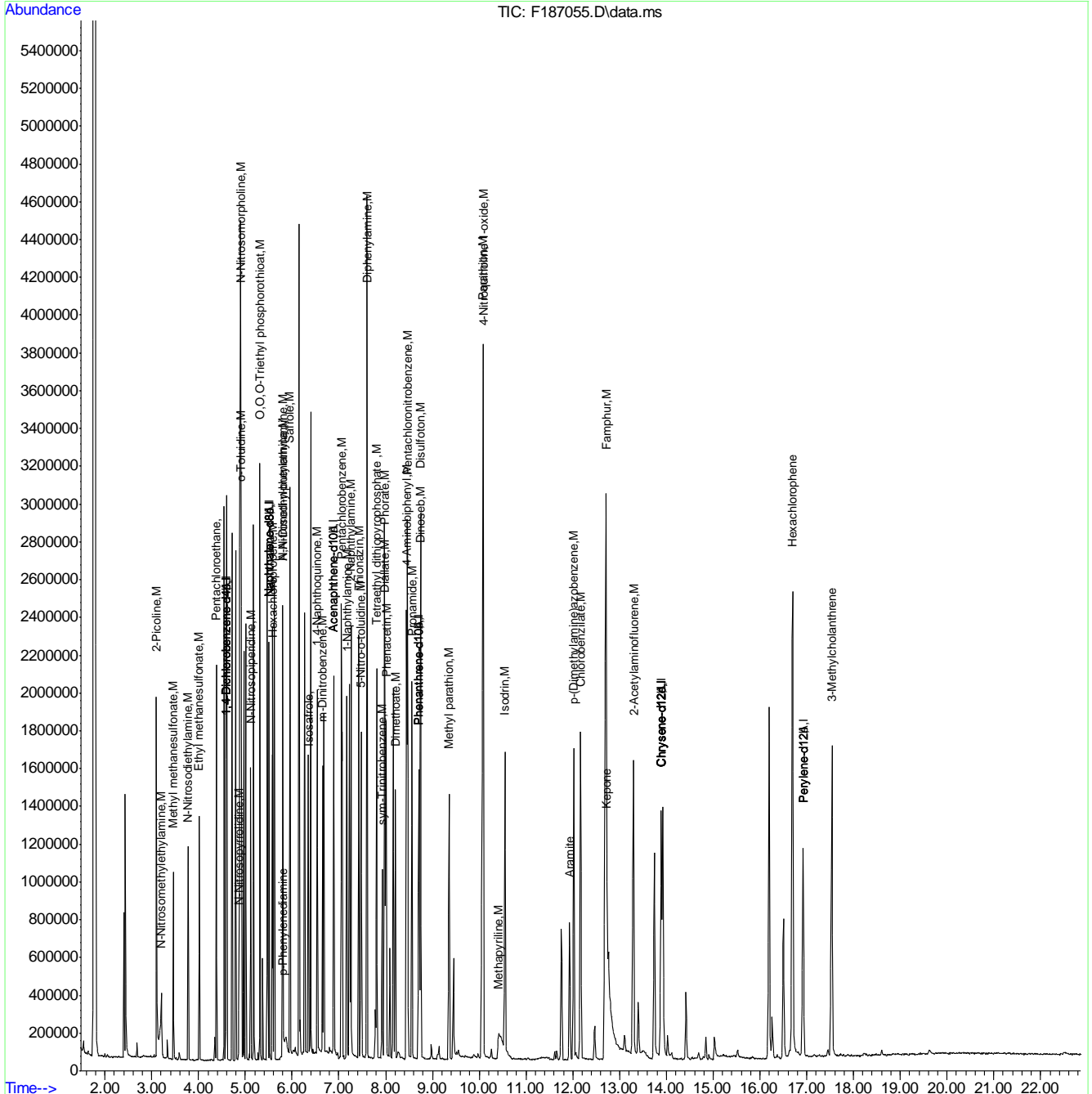
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
112) O,O,O-Triethyl phospho...	5.312	198	200811	84.69	ppm	97
113) N-Nitrosopiperidine	5.114	42	276386	81.73	ppm	92
114) A,A-Dimethylphenethyla...	5.798	58	1126612m	81.50	ppm	
115) Hexachloropropene	5.595	213	303895	82.35	ppm	99
116) N-Nitrosodi-n-butylamine	5.798	84	317534	82.83	ppm	98
117) p-Phenylenediamine	5.809	108	180960m	86.33	ppm	
118) Safrole	5.953	162	302465	83.01	ppm	99
119) Isosafrole	6.349	162	221761	82.47	ppm	99
121) Thionazin	7.422	143	117867	84.39	ppm	95
122) Tetraethyl dithiopyrop...	7.807	322	147021	83.35	ppm	100
123) Phorate	7.983	75	575482	84.82	ppm	100
124) Phenacetin	8.010	108	524937	82.76	ppm	99
125) 1,4-Naphthoquinone	6.536	158	268605	87.77	ppm	95
126) m-Dinitrobenzene	6.653	168	145122	79.73	ppm #	74
127) Pentachlorobenzene	7.059	250	349685	82.97	ppm	99
128) 2-Naphthylamine	7.257	143	774724	86.76	ppm	99
129) 1-Naphthylamine	7.171	143	496021	83.64	ppm	95
130) 5-Nitro-o-toluidine	7.476	152	263726	81.84	ppm	97
132) Disulfoton	8.747	88	475671	85.69	ppm	99
133) Dinoseb	8.742	211	247755	81.80	ppm	98
134) Dimethoate	8.213	87	392264	84.23	ppm	99
135) 4-Aminobiphenyl	8.443	169	977743	86.74	ppm	99
136) Methyl parathion	9.356	125	243694	82.78	ppm	97
137) Parathion	10.083	109	194363	87.39	ppm	97
138) Diphenylamine	7.604	169	1358351	169.35	ppm	98
139) Isodrin	10.553	193	165552	86.78	ppm	95
140) Diallate	7.973	86	304605	81.78	ppm	96
141) Pentachloronitrobenzene	8.469	295	105792	170.66	ppm	98
142) Pronamide	8.566	173	438445	83.10	ppm	99
143) 4-Nitroquinoline 1-oxide	10.088	190	651353	337.62	ppm	97
144) Methapyriline	10.414	58	303620m	101.26	ppm	
145) sym-Trinitrobenzene	7.925	213	104951	78.38	ppm	88
147) Aramite	11.931	185	103380	80.52	ppm	98
148) p-(Dimethylamine)azobe...	12.022	120	461377	82.28	ppm	96
149) Kepone	12.727	272	264904	527.78	ppm	99
150) Famphur	12.711	218	1635827	584.75	ppm	96
151) 2-Acetylaminofluorene	13.299	181	682931	81.12	ppm	97
152) Chlorobenzilate	12.166	251	455869	82.63	ppm	98
154) Hexachlorophene	16.696	196	397582	353.53	ppm	98
155) 3-Methylcholanthrene	17.541	252	296689	80.75	ppm	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF8054\
Data File : F187055.D
Acq On : 11 Sep 2019 4:21 am
Operator : chriss2
Sample : ic8054-80
Misc : op21602,ef8054,1000,,,1,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 11 09:22:37 2019
Quant Method : C:\MSDCHEM\1\METHODS\MF8050AP9.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Wed Sep 11 09:15:22 2019
Response via : Initial Calibration



Manual Integration Approval Summary

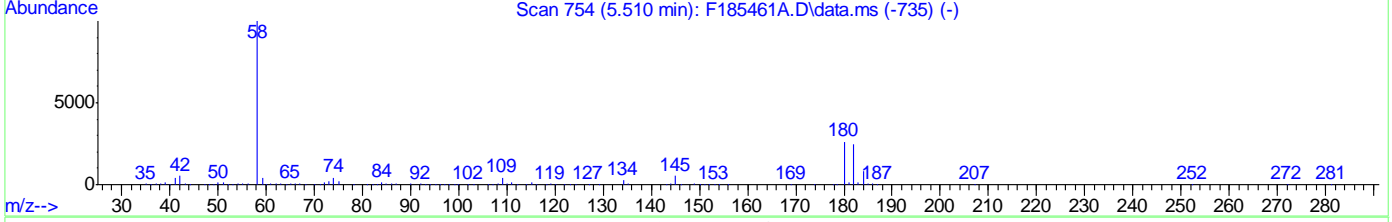
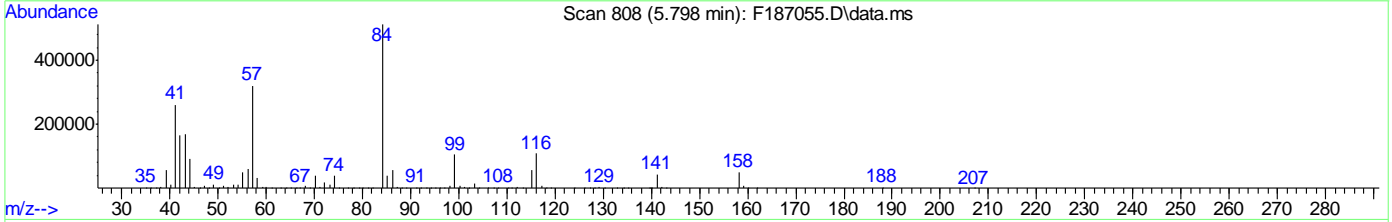
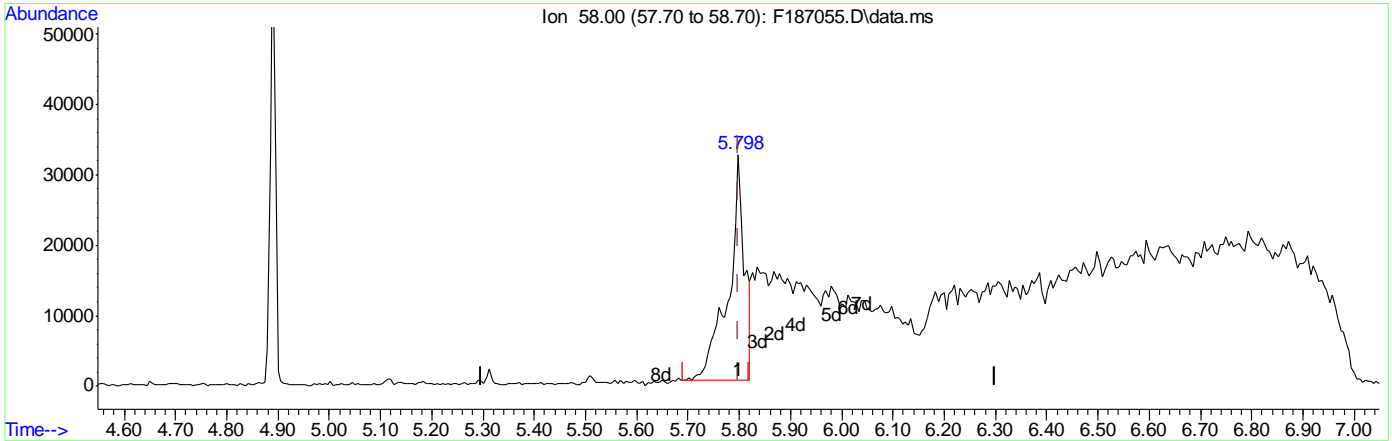
Sample Number: EF8054-IC8054 Method: SW846 8270D
Lab FileID: F187055.D Analyst approved: 09/11/19 11:58 Kristi Schollenberger
Injection Time: 09/11/19 04:21 Supervisor approved: 09/13/19 14:06 Nina Pandya

Parameter	CAS	Sig#	R.T. (min.)	Reason
A,A-Dimethylphenethylamine	122-09-8		5.80	Split peak
p-Phenylenediamine	106-50-3		5.81	Split peak
Methapyrilene	91-80-5		10.41	Split peak

Quantitation Report (Qedit)

Data Path : C:\MSDCHEM\1\DATA\EF8054\
 Data File : F187055.D
 Acq On : 11 Sep 2019 4:21 am
 Operator : chriss2
 Sample : ic8054-80
 Misc : op21602,ef8054,1000,,,1,1
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 11 09:19:51 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MF8050AP9.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Wed Sep 11 09:15:22 2019
 Response via : Initial Calibration



TIC: F187055.D\data.ms

(114) A,A-Dimethylphenethylamine (M)

5.798min (-0.000) 5.03ppm

response 69505

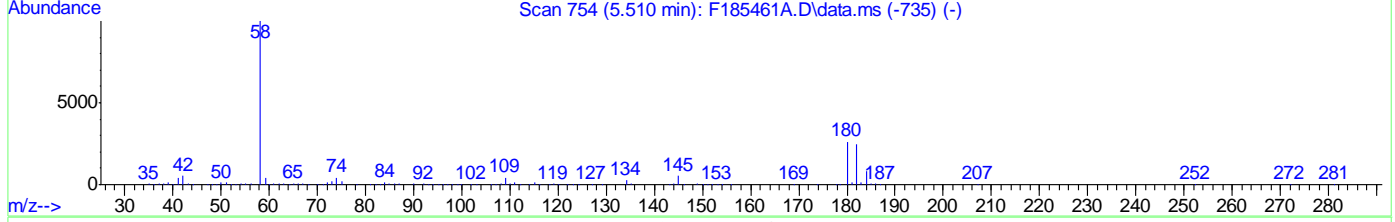
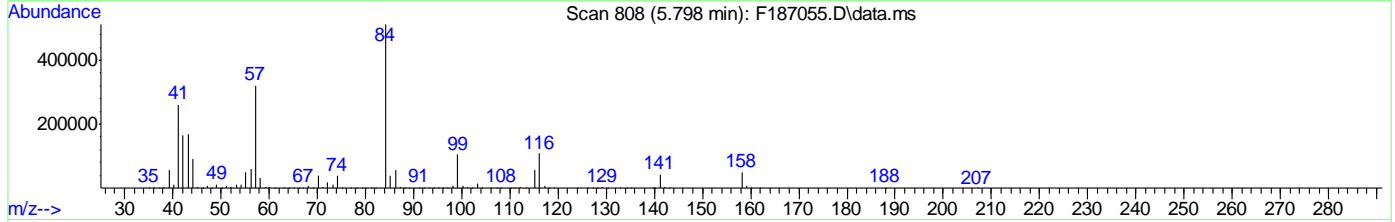
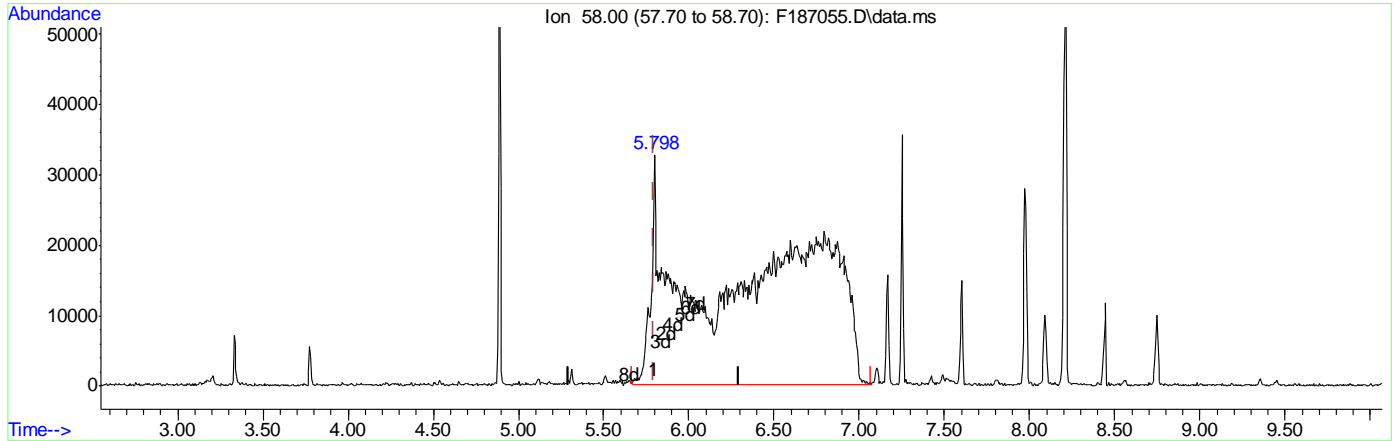
Ion	Exp%	Act%
58.00	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

9.6.36.2
9

Quantitation Report (Qedit)

Data Path : C:\MSDCHEM\1\DATA\EF8054\
 Data File : F187055.D
 Acq On : 11 Sep 2019 4:21 am
 Operator : chriss2
 Sample : ic8054-80
 Misc : op21602,ef8054,1000,,,1,1
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 11 09:19:51 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MF8050AP9.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Wed Sep 11 09:15:22 2019
 Response via : Initial Calibration



TIC: F187055.D\data.ms

(114) A,A-Dimethylphenethylamine (M)
 5.798min (-0.000) 81.50ppm m
 response 1126612

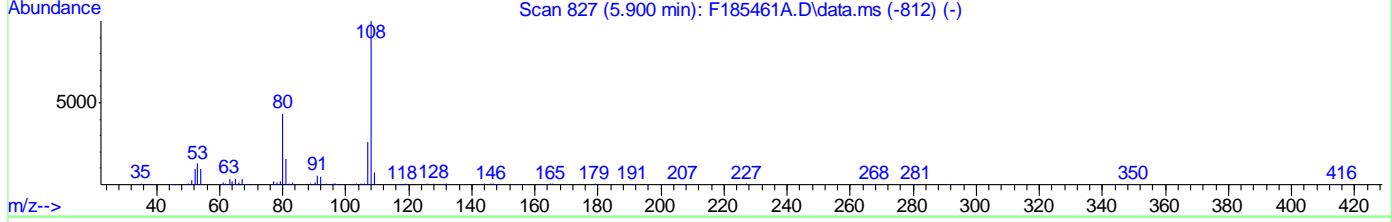
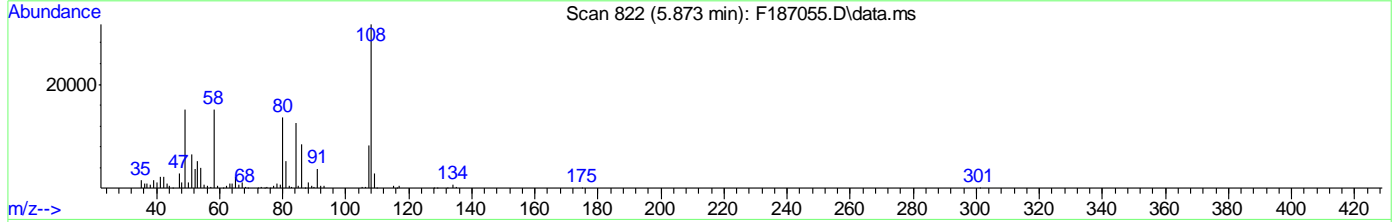
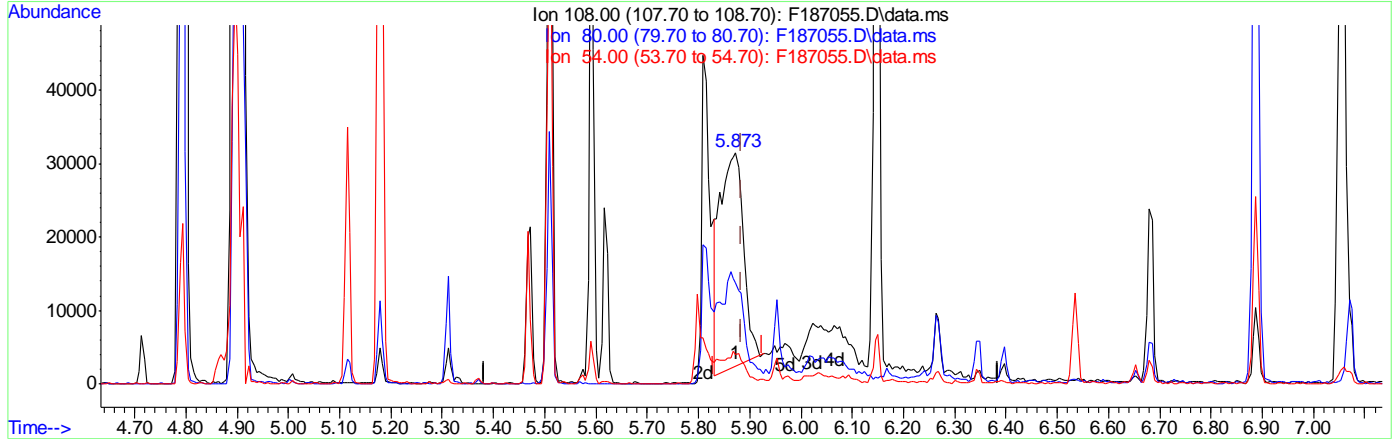
Ion	Exp%	Act%
58.00	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

9.6.36.3
9

Quantitation Report (Qedit)

Data Path : C:\MSDCHEM\1\DATA\EF8054\
 Data File : F187055.D
 Acq On : 11 Sep 2019 4:21 am
 Operator : chriss2
 Sample : ic8054-80
 Misc : op21602,ef8054,1000,,,1,1
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 11 09:19:51 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MF8050AP9.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Wed Sep 11 09:15:22 2019
 Response via : Initial Calibration



TIC: F187055.D\data.ms

(117) p-Phenylenediamine
 5.873min (-0.011) 44.74ppm
 response 93779

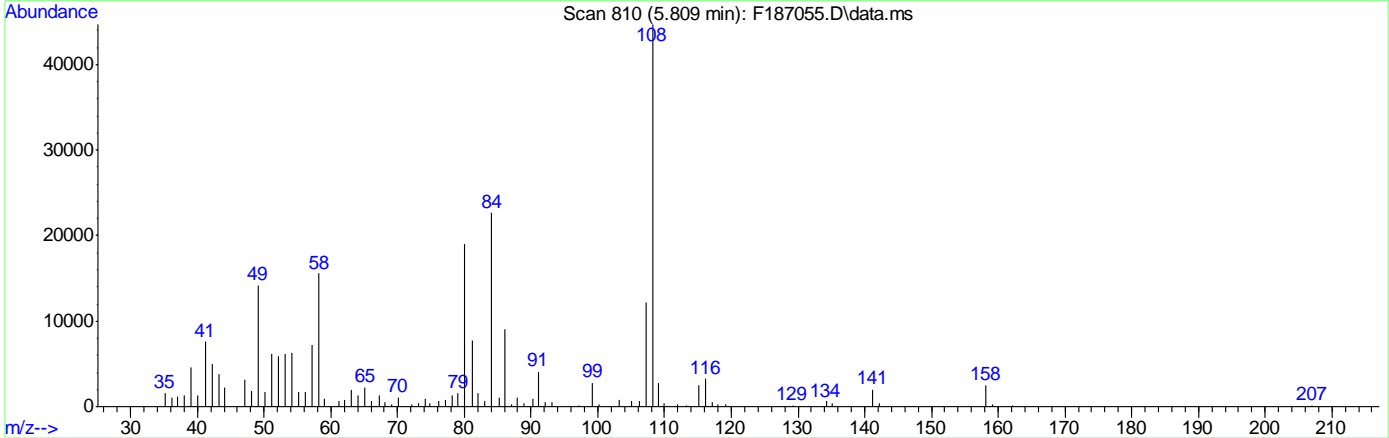
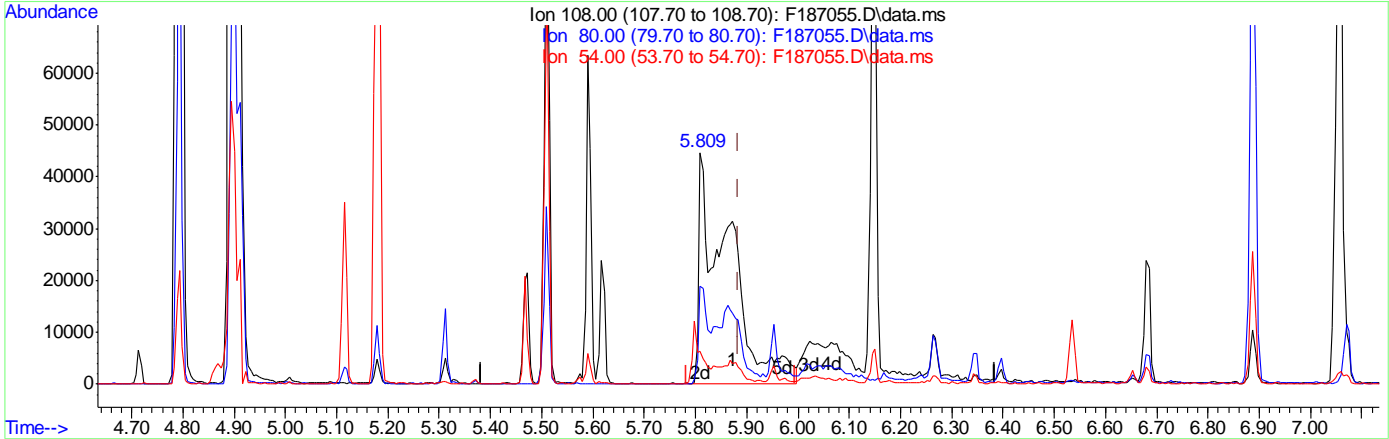
Ion	Exp%	Act%
108.00	100	100
80.00	47.00	44.70
54.00	12.40	11.91
0.00	0.00	0.00

9.6.36.4
 9

Quantitation Report (Qedit)

Data Path : C:\MSDCHEM\1\DATA\EF8054\
 Data File : F187055.D
 Acq On : 11 Sep 2019 4:21 am
 Operator : chriss2
 Sample : ic8054-80
 Misc : op21602,ef8054,1000,,,1,1
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 11 09:21:20 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MF8050AP9.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Wed Sep 11 09:15:22 2019
 Response via : Initial Calibration



TIC: F187055.D\data.ms

(117) p-Phenylenediamine
 5.809min (-0.075) 86.33ppm m
 response 180960

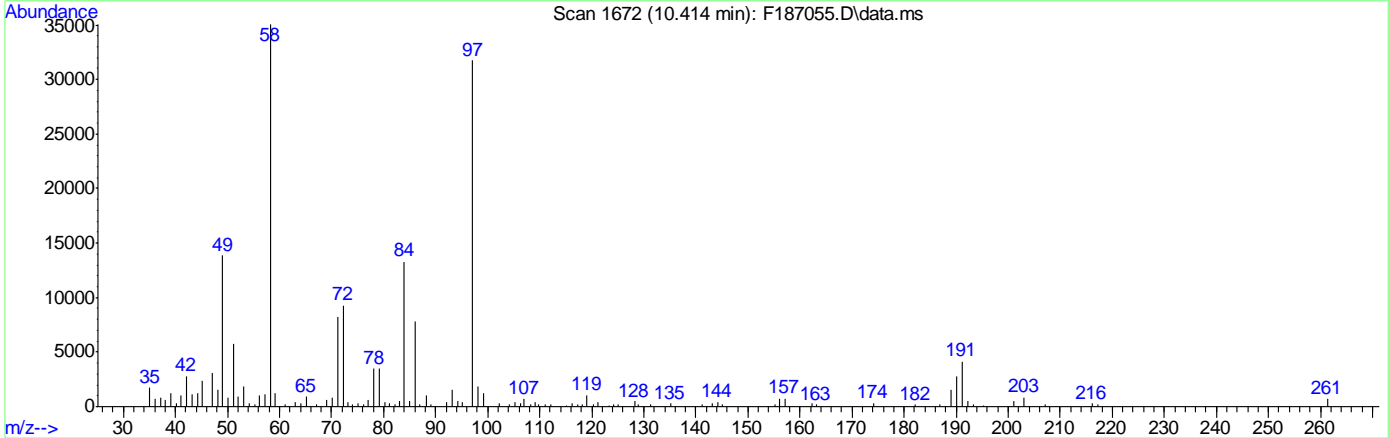
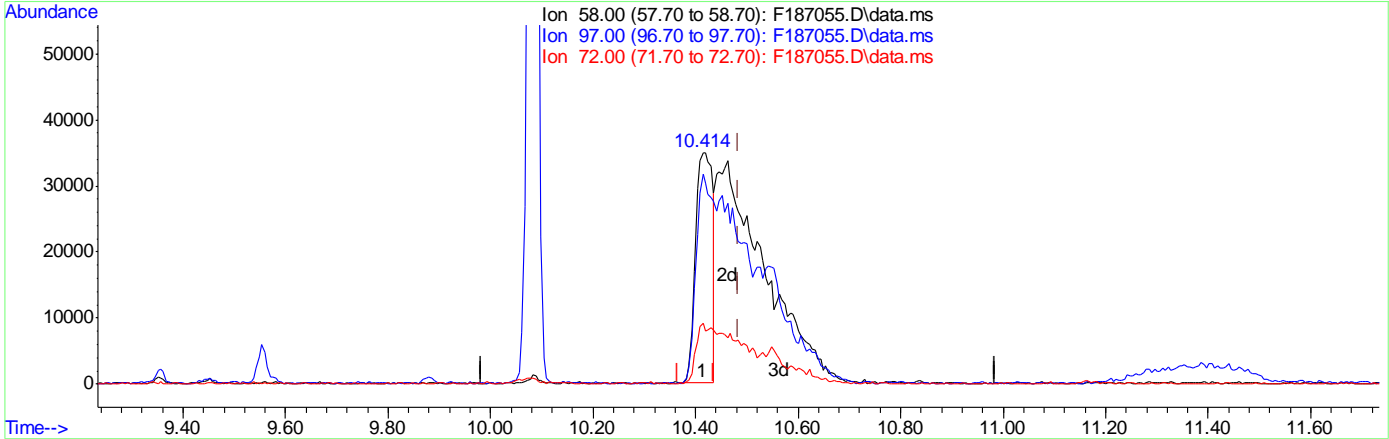
Ion	Exp%	Act%
108.00	100	100
80.00	47.00	42.42
54.00	12.40	14.11
0.00	0.00	0.00

9.6.36.5
 9

Quantitation Report (Qedit)

Data Path : C:\MSDCHEM\1\DATA\EF8054\
 Data File : F187055.D
 Acq On : 11 Sep 2019 4:21 am
 Operator : chriss2
 Sample : ic8054-80
 Misc : op21602,ef8054,1000,,,1,1
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 11 09:21:20 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MF8050AP9.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Wed Sep 11 09:15:22 2019
 Response via : Initial Calibration



(144) Methapyriline (M)
 10.414min (-0.070) 27.28ppm
 response 81808

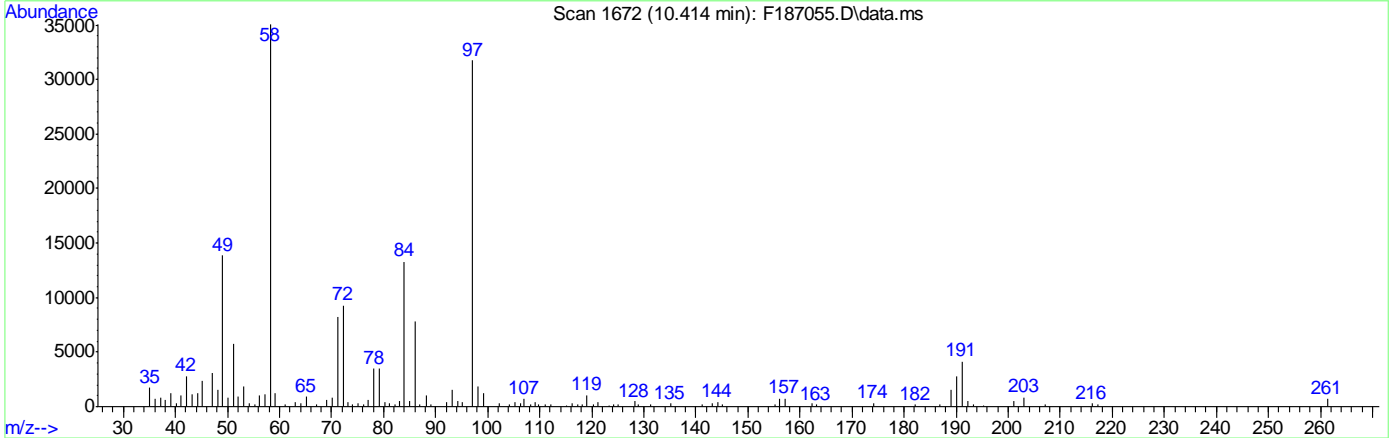
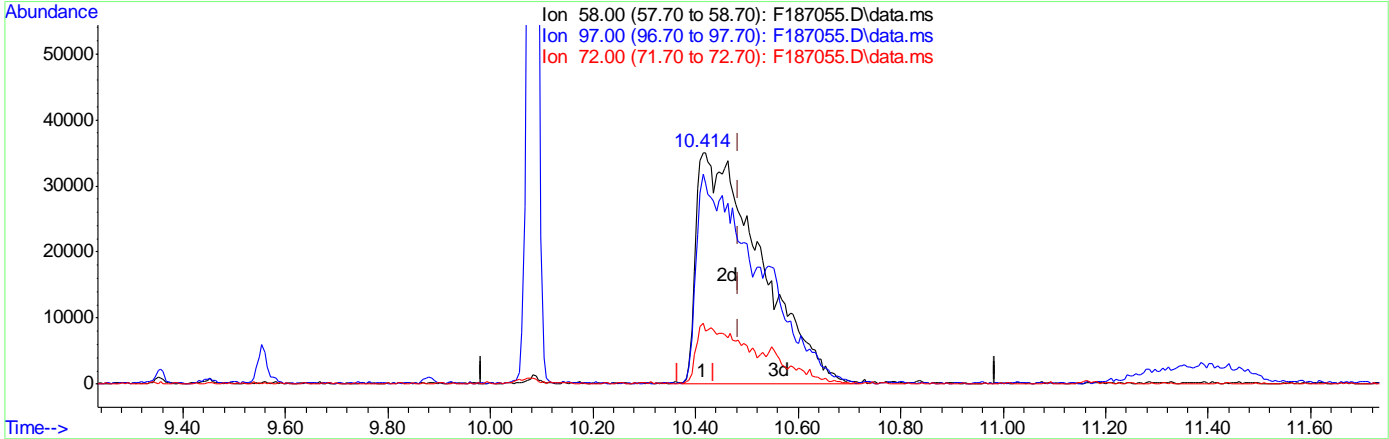
Ion	Exp%	Act%
58.00	100	100
97.00	82.00	86.63
72.00	22.00	25.27
0.00	0.00	0.00

9.6.36.6
 9

Quantitation Report (Qedit)

Data Path : C:\MSDCHEM\1\DATA\EF8054\
 Data File : F187055.D
 Acq On : 11 Sep 2019 4:21 am
 Operator : chriss2
 Sample : ic8054-80
 Misc : op21602,ef8054,1000,,,1,1
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 11 09:21:20 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MF8050AP9.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Wed Sep 11 09:15:22 2019
 Response via : Initial Calibration



(144) Methapyriline (M)

10.414min (-0.070) 101.26ppm m

response 303620

Ion	Exp%	Act%
58.00	100	100
97.00	82.00	90.51
72.00	22.00	26.41
0.00	0.00	0.00

9.6.367
9

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF8054\
 Data File : F187056.D
 Acq On : 11 Sep 2019 4:50 am
 Operator : chriss2
 Sample : icc8054-50
 Misc : op21602,ef8054,1000,,,1,1
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Sep 11 09:25:12 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MF8050AP9.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Wed Sep 11 09:15:22 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.591	152	219613	40.00	ppm	-0.01
24) Naphthalene-d8	5.510	136	813073	40.00	ppm	-0.01
47) Acenaphthene-d10	6.888	164	487649	40.00	ppm	-0.02
69) Phenanthrene-d10	8.710	188	921039	40.00	ppm	-0.02
83) Chrysene-d12	13.892	240	870033	40.00	ppm	-0.04
91) Perylene-d12	16.926	264	921803	40.00	ppm	-0.03
101) 1,4-Dichlorobenzene-d4A	4.591	152	219613	40.00	ppm	0.00
111) Naphthalene-d8A	5.510	136	813073	40.00	ppm	0.00
120) Acenaphthene-d10A	6.888	164	487649	40.00	ppm	0.00
131) Phenanthrene-d10A	8.710	188	921039	40.00	ppm	0.00
146) Chrysene-d12A	13.892	240	870033	40.00	ppm	0.00
153) Perylene-d12A	16.926	264	921803	40.00	ppm	0.00
156) 1,4-Dichlorobenzene-d4b	4.591	152	219613	40.00	ppm	-0.01
158) Phenanthrene-d10b	8.710	188	921039	40.00	ppm	-0.02
160) Chrysene-d12b	13.892	240	870033	40.00	ppm	-0.04
162) Naphthalene-d8b	5.510	136	813073	40.00	ppm	-0.01
164) Acenaphthene-d10b	6.888	164	487649	40.00	ppm	-0.02
166) Naphthalene-d8c	5.510	136	813073	40.00	ppm	-0.03
171) 1,4-Dichlorobenzene-d4c	4.591	152	219613	40.00	ppm	-0.03
173) Chrysene-d12c	13.892	240	870033	40.00	ppm	-0.10
175) Chrysene-d12d	13.892	240	870033	40.00	ppm	-0.10
177) Naphthalene-d8d	5.510	136	813073	40.00	ppm	-0.03
179) Chrysene-d12e	13.892	240	870033	40.00	ppm	-0.10
181) Perylene-d12b	16.926	264	921803	40.00	ppm	-0.07
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
25) Nitrobenzene-d5	0.000	82	0d	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
Target Compounds						
102) 2-Picoline	3.101	93	400956	49.45	ppm	99
103) Pentachloroethane	4.383	167	146122	53.72	ppm	97
104) Methyl methanesulfonate	3.459	80	242314	51.34	ppm	100
105) N-Nitrosodiethylamine	3.774	102	183665	52.67	ppm	94
106) N-Nitrosomethylethylamine	3.202	42	180783	50.21	ppm	98
107) Ethyl methanesulfonate	4.014	79	279500	51.61	ppm	97
108) N-Nitrosopyrrolidine	4.864	41	151484	93.71	ppm	97
109) N-Nitrosomorpholine	4.896	56	183199	58.10	ppm	93
110) o-Toluidine	4.912	106	533294	57.77	ppm	81

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF8054\
 Data File : F187056.D
 Acq On : 11 Sep 2019 4:50 am
 Operator : chriss2
 Sample : icc8054-50
 Misc : op21602,ef8054,1000,,,1,1
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Sep 11 09:25:12 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MF8050AP9.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Wed Sep 11 09:15:22 2019
 Response via : Initial Calibration

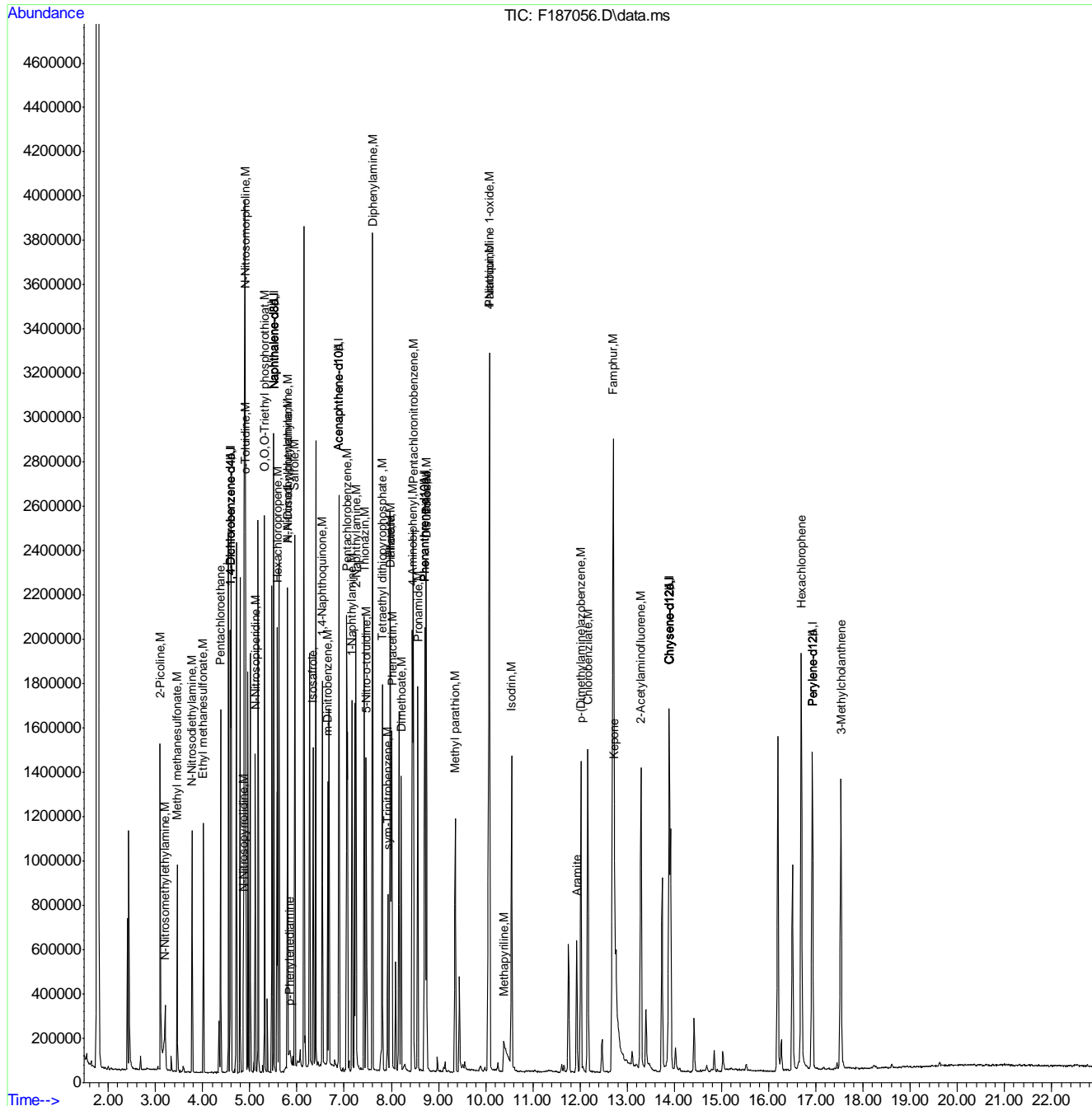
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
112) O,O,O-Triethyl phospho...	5.312	198	165554	53.47	ppm	93
113) N-Nitrosopiperidine	5.115	42	233329	52.84	ppm	97
114) A,A-Dimethylphenethyla...	5.798	58	894924m	49.58	ppm	
115) Hexachloropropene	5.590	213	252615	52.42	ppm	99
116) N-Nitrosodi-n-butylamine	5.798	84	270299	53.99	ppm	97
117) p-Phenylenediamine	5.852	108	92449m	33.78	ppm	
118) Safrole	5.953	162	254478	53.48	ppm	98
119) Isosafrole	6.343	162	182147	51.87	ppm	91
121) Thionazin	7.423	143	97871	53.23	ppm	99
122) Tetraethyl dithiopyrop...	7.807	322	120021	51.69	ppm	100
123) Phorate	7.983	75	482841	54.06	ppm	100
124) Phenacetin	8.010	108	434964	52.10	ppm	99
125) 1,4-Naphthoquinone	6.536	158	235200	58.39	ppm	96
126) m-Dinitrobenzene	6.653	168	122979	51.33	ppm	81
127) Pentachlorobenzene	7.054	250	295722	53.31	ppm	99
128) 2-Naphthylamine	7.252	143	647061	55.05	ppm	99
129) 1-Naphthylamine	7.166	143	403115	51.64	ppm	96
130) 5-Nitro-o-toluidine	7.471	152	222750	52.51	ppm	93
132) Disulfoton	8.747	88	372624	50.69	ppm	97
133) Dinoseb	8.742	211	209322	52.19	ppm	98
134) Dimethoate	8.208	87	333440	54.07	ppm	100
135) 4-Aminobiphenyl	8.443	169	804640	53.91	ppm	100
136) Methyl parathion	9.356	125	208901	53.59	ppm	99
137) Parathion	10.083	109	165933	56.34	ppm	98
138) Diphenylamine	7.604	169	1147298	108.01	ppm	98
139) Isodrin	10.548	193	136014	53.84	ppm	97
140) Diallate	7.973	86	266056	53.94	ppm	84
141) Pentachloronitrobenzene	8.464	295	86766	105.69	ppm	94
142) Pronamide	8.560	173	369313	52.86	ppm	99
143) 4-Nitroquinoline 1-oxide	10.078	190	538571	210.81	ppm	98
144) Methapyriline	10.387	58	249722	62.89	ppm	100
145) sym-Trinitrobenzene	7.925	213	88499	49.91	ppm	98
147) Aramite	11.931	185	81593	48.97	ppm	99
148) p-(Dimethylamine)azobe...	12.022	120	378791	52.06	ppm	99
149) Kepone	12.727	272	386798	593.84	ppm	97
150) Famphur	12.706	218	1468321	404.46	ppm	99
151) 2-Acetylaminofluorene	13.294	181	550292	50.37	ppm	97
152) Chlorobenzilate	12.166	251	377231	52.69	ppm	99
154) Hexachlorophene	16.691	196	282243	193.63	ppm	97
155) 3-Methylcholanthrene	17.535	252	239146	50.22	ppm	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF8054\
 Data File : F187056.D
 Acq On : 11 Sep 2019 4:50 am
 Operator : chriss2
 Sample : icc8054-50
 Misc : op21602,ef8054,1000,,,1,1
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Sep 11 09:25:12 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MF8050AP9.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Wed Sep 11 09:15:22 2019
 Response via : Initial Calibration



Manual Integration Approval Summary

Sample Number: EF8054-ICC8054 Method: SW846 8270D
Lab FileID: F187056.D Analyst approved: 09/11/19 11:58 Kristi Schollenberger
Injection Time: 09/11/19 04:50 Supervisor approved: 09/13/19 14:06 Nina Pandya

Parameter	CAS	Sig#	R.T. (min.)	Reason
A,A-Dimethylphenethylamine	122-09-8		5.80	Split peak
p-Phenylenediamine	106-50-3		5.85	Split peak

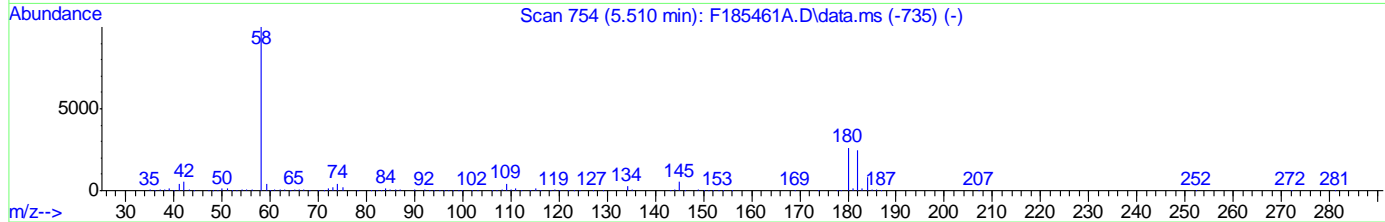
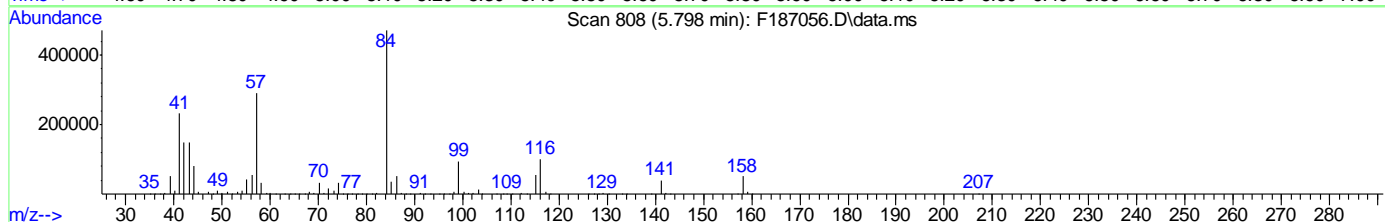
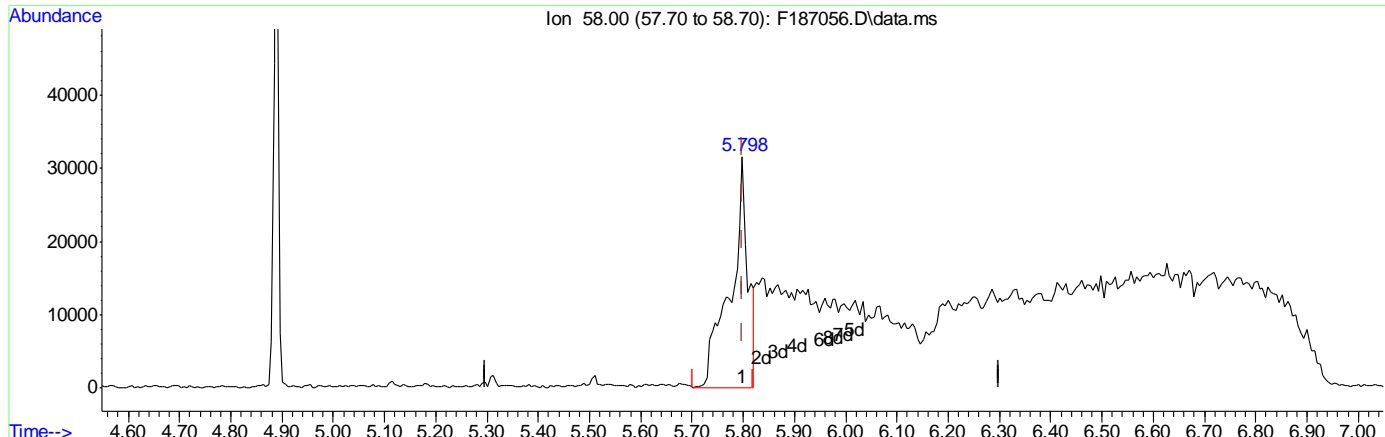
9.6.37.1

9

Quantitation Report (Qedit)

Data Path : C:\MSDCHEM\1\DATA\EF8054\
 Data File : F187056.D
 Acq On : 11 Sep 2019 4:50 am
 Operator : chriss2
 Sample : icc8054-50
 Misc : op21602,ef8054,1000,,,1,1
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Sep 11 09:22:56 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MF8050AP9.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Wed Sep 11 09:15:22 2019
 Response via : Initial Calibration



(114) A,A-Dimethylphenethylamine (M)

5.798min (-0.000) 4.20ppm

response 75729

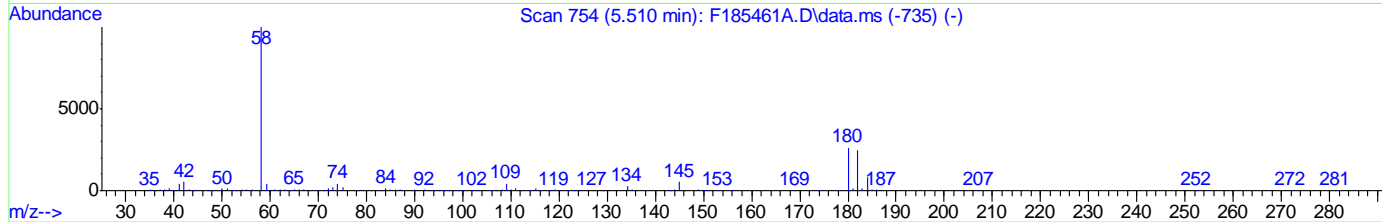
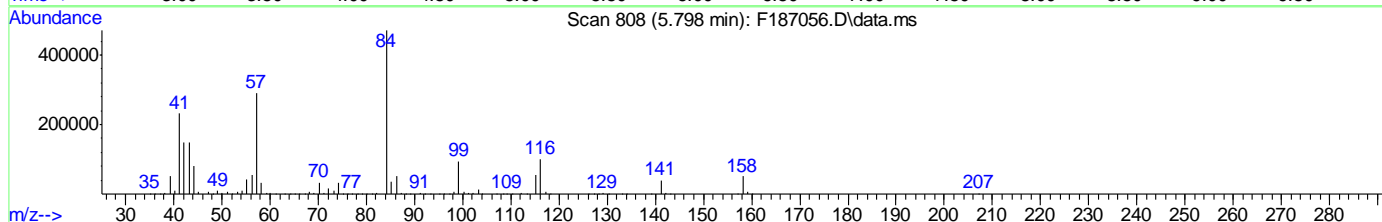
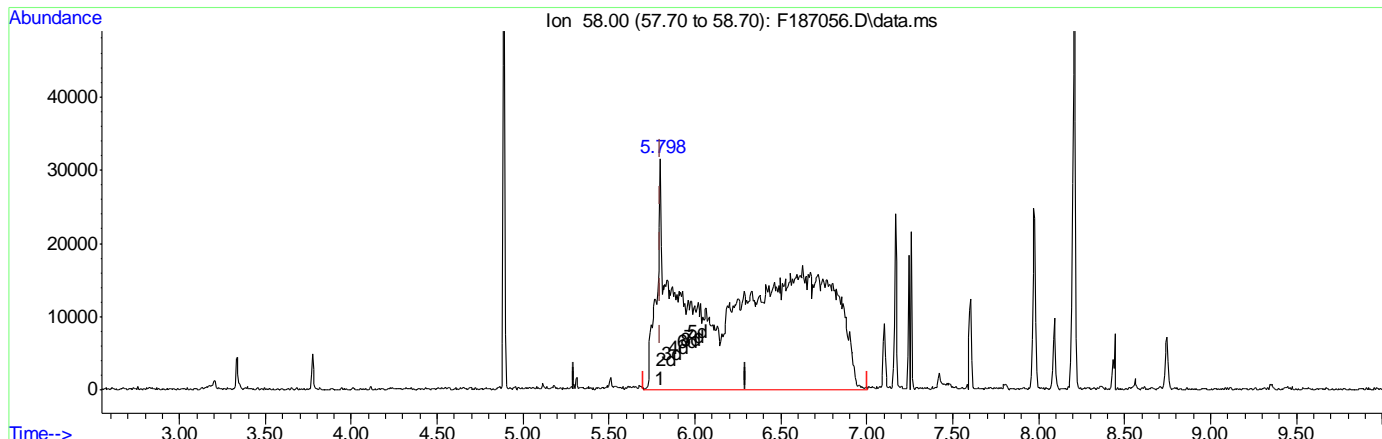
Ion	Exp%	Act%
58.00	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

9.6.37.2
9

Quantitation Report (Qedit)

Data Path : C:\MSDCHEM\1\DATA\EF8054\
 Data File : F187056.D
 Acq On : 11 Sep 2019 4:50 am
 Operator : chriss2
 Sample : icc8054-50
 Misc : op21602,ef8054,1000,,,1,1
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Sep 11 09:22:56 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MF8050AP9.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Wed Sep 11 09:15:22 2019
 Response via : Initial Calibration



(114) A,A-Dimethylphenethylamine (M)

5.798min (-0.000) 49.58ppm m

response 894924

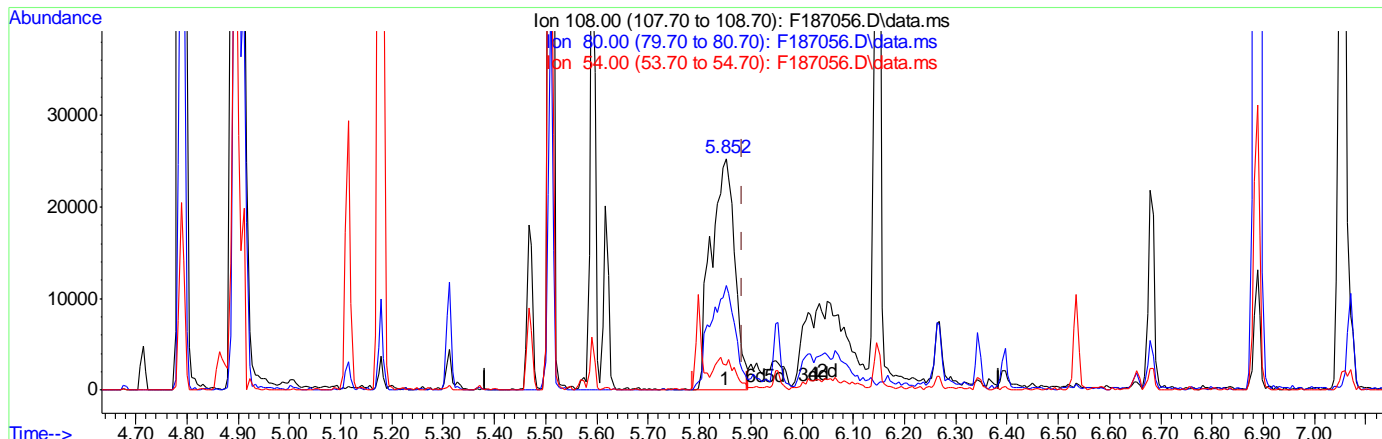
Ion	Exp%	Act%
58.00	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

9.6.37.3
9

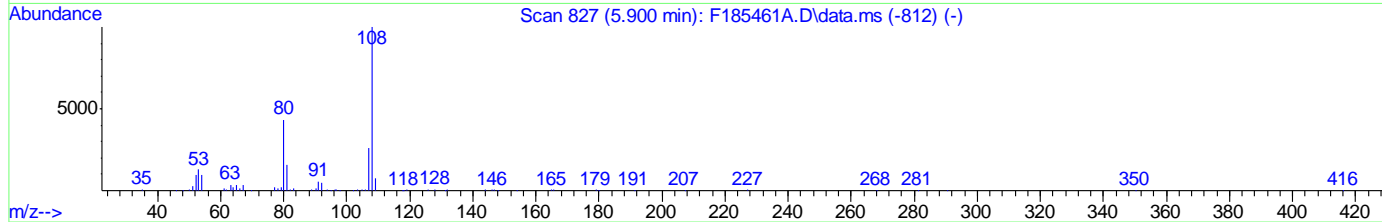
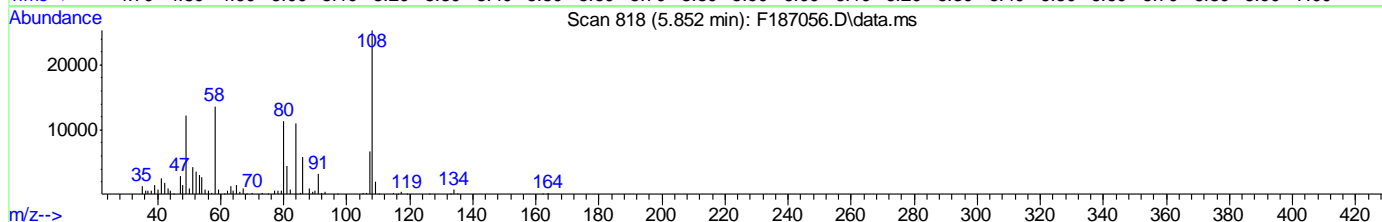
Quantitation Report (Qedit)

Data Path : C:\MSDCHEM\1\DATA\EF8054\
 Data File : F187056.D
 Acq On : 11 Sep 2019 4:50 am
 Operator : chriss2
 Sample : icc8054-50
 Misc : op21602,ef8054,1000,,,1,1
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Sep 11 09:22:56 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MF8050AP9.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Wed Sep 11 09:15:22 2019
 Response via : Initial Calibration



9.6.37.4
 9



(117) p-Phenylenediamine

5.852min (-0.032) 29.57ppm

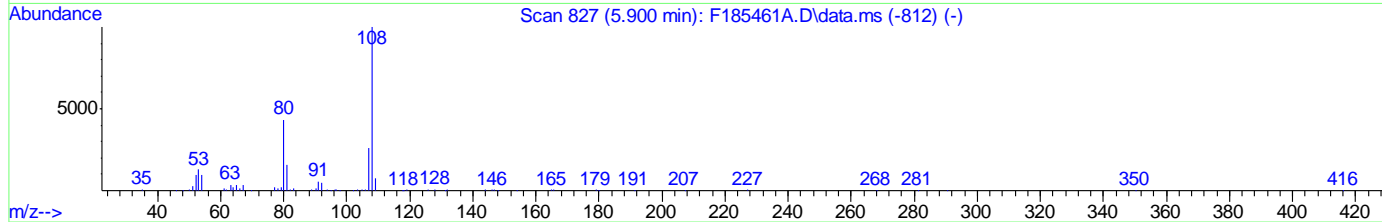
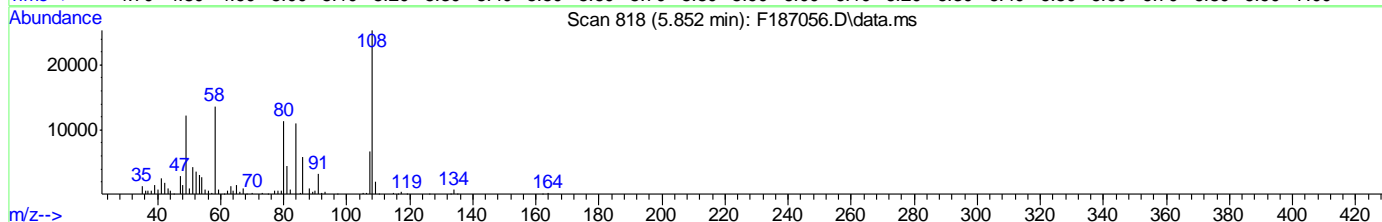
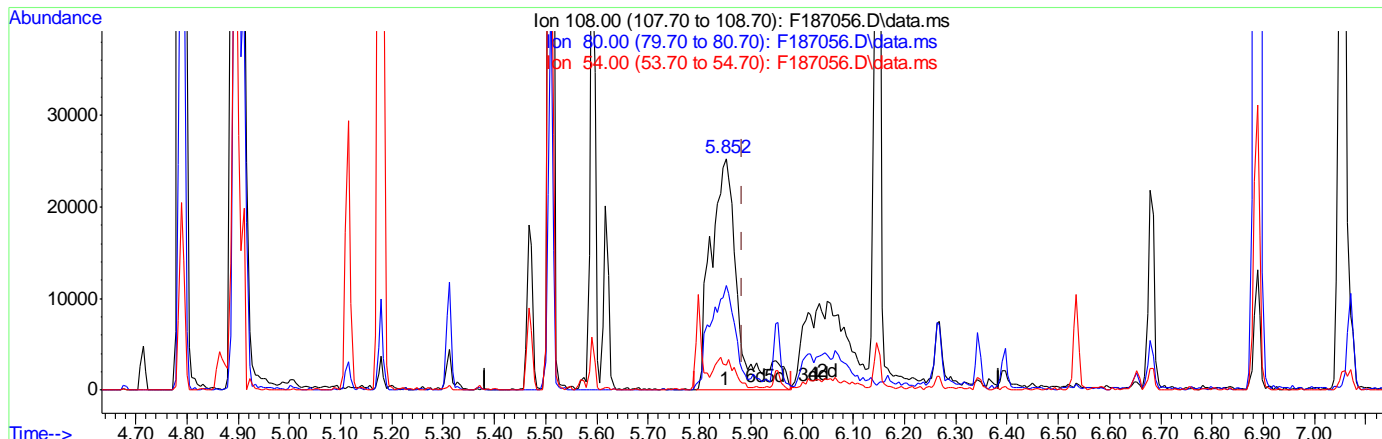
response 80927

Ion	Exp%	Act%
108.00	100	100
80.00	47.00	44.80
54.00	12.40	10.02
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\MSDCHEM\1\DATA\EF8054\
 Data File : F187056.D
 Acq On : 11 Sep 2019 4:50 am
 Operator : chriss2
 Sample : icc8054-50
 Misc : op21602,ef8054,1000,,,1,1
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Sep 11 09:22:56 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MF8050AP9.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Wed Sep 11 09:15:22 2019
 Response via : Initial Calibration



(117) p-Phenylenediamine
 5.852min (-0.032) 33.78ppm m
 response 92449

Ion	Exp%	Act%
108.00	100	100
80.00	47.00	45.16
54.00	12.40	11.03
0.00	0.00	0.00

9.6.37.5
 9

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF8054\
 Data File : F187057.D
 Acq On : 11 Sep 2019 5:20 am
 Operator : chriss2
 Sample : ic8054-25
 Misc : op21602,ef8054,1000,,,1,1
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Sep 11 09:29:33 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MF8050AP9.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Wed Sep 11 09:15:22 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.591	152	171535	40.00	ppm	-0.01
24) Naphthalene-d8	5.510	136	620046	40.00	ppm	-0.01
47) Acenaphthene-d10	6.888	164	369015	40.00	ppm	-0.02
69) Phenanthrene-d10	8.704	188	695187	40.00	ppm	-0.03
83) Chrysene-d12	13.886	240	619052	40.00	ppm	-0.04
91) Perylene-d12	16.921	264	685875	40.00	ppm	-0.04
101) 1,4-Dichlorobenzene-d4A	4.591	152	171535	40.00	ppm	0.00
111) Naphthalene-d8A	5.510	136	620046	40.00	ppm	0.00
120) Acenaphthene-d10A	6.888	164	369015	40.00	ppm	0.00
131) Phenanthrene-d10A	8.704	188	695187	40.00	ppm	0.00
146) Chrysene-d12A	13.886	240	619052	40.00	ppm	-0.01
153) Perylene-d12A	16.921	264	685875	40.00	ppm	-0.01
156) 1,4-Dichlorobenzene-d4b	4.591	152	171535	40.00	ppm	-0.01
158) Phenanthrene-d10b	8.704	188	695187	40.00	ppm	-0.03
160) Chrysene-d12b	13.886	240	619052	40.00	ppm	-0.04
162) Naphthalene-d8b	5.510	136	620046	40.00	ppm	-0.01
164) Acenaphthene-d10b	6.888	164	369015	40.00	ppm	-0.02
166) Naphthalene-d8c	5.510	136	620046	40.00	ppm	-0.03
171) 1,4-Dichlorobenzene-d4c	4.591	152	171535	40.00	ppm	-0.03
173) Chrysene-d12c	13.886	240	619052	40.00	ppm	-0.10
175) Chrysene-d12d	13.886	240	619052	40.00	ppm	-0.10
177) Naphthalene-d8d	5.510	136	620046	40.00	ppm	-0.03
179) Chrysene-d12e	13.886	240	619052	40.00	ppm	-0.10
181) Perylene-d12b	16.921	264	685875	40.00	ppm	-0.07
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
25) Nitrobenzene-d5	0.000	82	0d	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
Target Compounds						
102) 2-Picoline	3.106	93	157294	24.84	ppm	Qvalue 99
103) Pentachloroethane	4.382	167	56872	26.77	ppm	98
104) Methyl methanesulfonate	3.458	80	93980	25.49	ppm	97
105) N-Nitrosodiethylamine	3.773	102	72888	26.76	ppm	97
106) N-Nitrosomethylethylamine	3.207	42	69570	24.74	ppm	91
107) Ethyl methanesulfonate	4.014	79	110184	26.05	ppm	97
108) N-Nitrosopyrrolidine	4.858	41	58122	46.03	ppm	97
109) N-Nitrosomorpholine	4.890	56	82995	33.70	ppm	90
110) o-Toluidine	4.906	106	224920	31.19	ppm	69

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF8054\
 Data File : F187057.D
 Acq On : 11 Sep 2019 5:20 am
 Operator : chriss2
 Sample : ic8054-25
 Misc : op21602,ef8054,1000,,,1,1
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Sep 11 09:29:33 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MF8050AP9.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Wed Sep 11 09:15:22 2019
 Response via : Initial Calibration

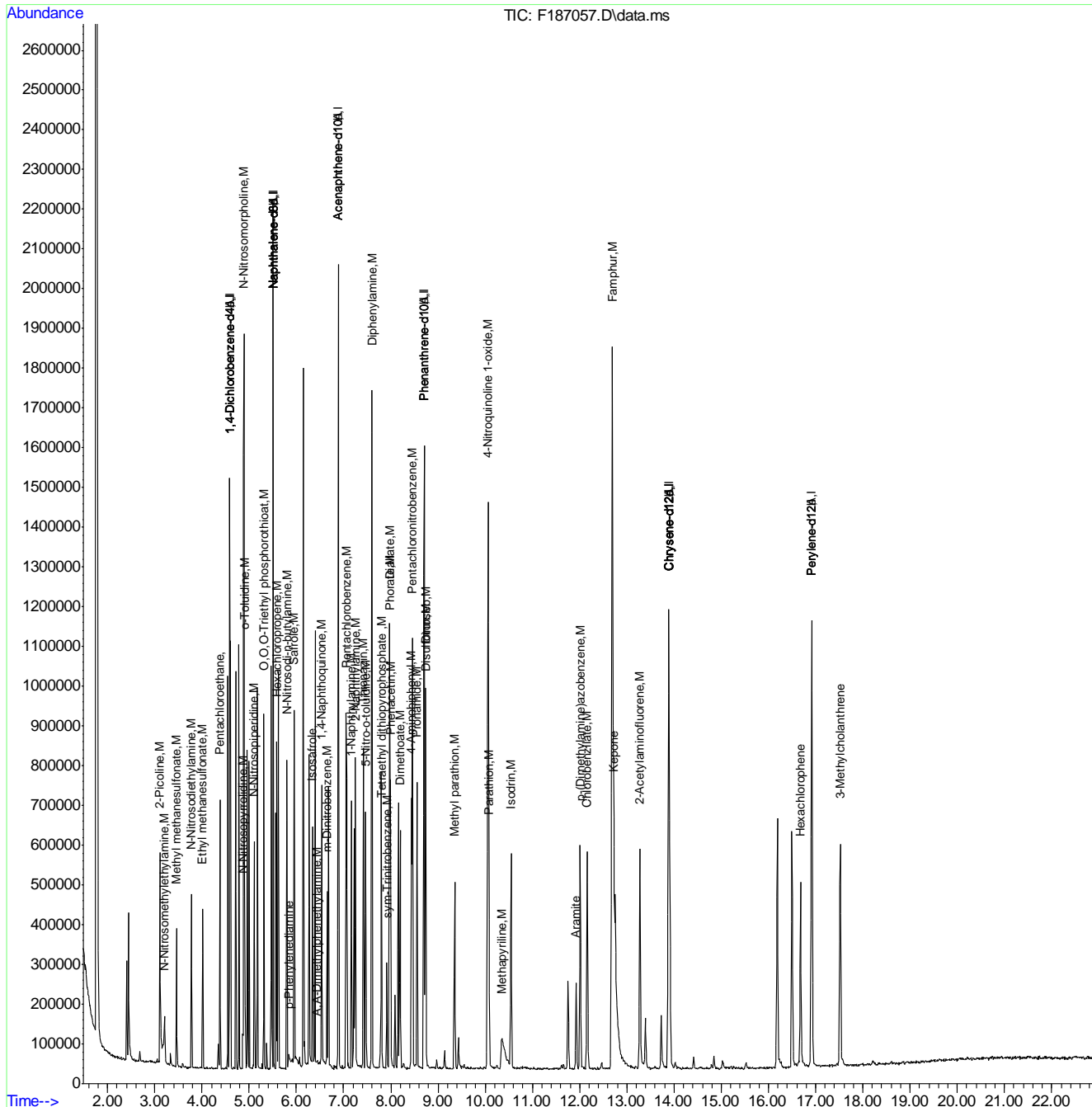
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
112) O,O,O-Triethyl phospho...	5.312	198	67805	28.71	ppm	86
113) N-Nitrosopiperidine	5.109	42	91652	27.22	ppm	92
114) A,A-Dimethylphenethyla...	6.434	58	333004m	24.19	ppm	
115) Hexachloropropene	5.590	213	100092	27.24	ppm	99
116) N-Nitrosodi-n-butylamine	5.798	84	104528	27.38	ppm	97
117) p-Phenylenediamine	5.841	108	31769m	15.22	ppm	
118) Safrole	5.953	162	102103	28.14	ppm	96
119) Isosafrole	6.343	162	71605	26.74	ppm	94
121) Thionazin	7.417	143	39288	28.24	ppm	90
122) Tetraethyl dithiopyrop...	7.807	322	46845	26.66	ppm	100
123) Phorate	7.978	75	202739	30.00	ppm	100
124) Phenacetin	7.994	108	165292	26.16	ppm	98
125) 1,4-Naphthoquinone	6.535	158	93783	30.77	ppm	93
126) m-Dinitrobenzene	6.653	168	44690	24.65	ppm	89
127) Pentachlorobenzene	7.054	250	118761	28.29	ppm	97
128) 2-Naphthylamine	7.251	143	253650	28.52	ppm	100
129) 1-Naphthylamine	7.166	143	159012	26.92	ppm	94
130) 5-Nitro-o-toluidine	7.465	152	86291	26.88	ppm	94
132) Disulfoton	8.742	88	159562	28.76	ppm	96
133) Dinoseb	8.736	211	68760	22.71	ppm	99
134) Dimethoate	8.197	87	136757	29.38	ppm	98
135) 4-Aminobiphenyl	8.437	169	290126	25.75	ppm	99
136) Methyl parathion	9.351	125	79497	27.02	ppm	98
137) Parathion	10.077	109	69993	31.49	ppm	95
138) Diphenylamine	7.598	169	463387	57.80	ppm	96
139) Isodrin	10.547	193	53589	28.10	ppm	97
140) Diallate	7.972	86	108162	29.05	ppm	95
141) Pentachloronitrobenzene	8.459	295	34338	55.42	ppm	93
142) Pronamide	8.555	173	141500	26.83	ppm	99
143) 4-Nitroquinoline 1-oxide	10.061	190	190245	98.66	ppm	95
144) Methapyriline	10.355	58	128875m	43.00	ppm	
145) sym-Trinitrobenzene	7.919	213	27853	20.81	ppm	94
147) Aramite	11.926	185	29914	25.23	ppm	96
148) p-(Dimethylamine)azobe...	12.011	120	143666	27.75	ppm	98
149) Kepone	12.722	272	208648	450.21	ppm	97
150) Famphur	12.695	218	891999	345.33	ppm	99
151) 2-Acetylaminofluorene	13.277	181	192539	24.77	ppm	98
152) Chlorobenzilate	12.161	251	135162	26.53	ppm	95
154) Hexachlorophene	16.680	196	58537	53.97	ppm	98
155) 3-Methylcholanthrene	17.519	252	91092	25.71	ppm	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF8054\
 Data File : F187057.D
 Acq On : 11 Sep 2019 5:20 am
 Operator : chriss2
 Sample : ic8054-25
 Misc : op21602,ef8054,1000,,,1,1
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Sep 11 09:29:33 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MF8050AP9.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Wed Sep 11 09:15:22 2019
 Response via : Initial Calibration



Manual Integration Approval Summary

Sample Number: EF8054-IC8054 Method: SW846 8270D
Lab FileID: F187057.D Analyst approved: 09/11/19 11:58 Kristi Schollenberger
Injection Time: 09/11/19 05:20 Supervisor approved: 09/13/19 14:06 Nina Pandya

Parameter	CAS	Sig#	R.T. (min.)	Reason
p-Phenylenediamine	106-50-3		5.84	Split peak
A,A-Dimethylphenethylamine	122-09-8		6.43	Split peak
Methapyrilene	91-80-5		10.36	Split peak

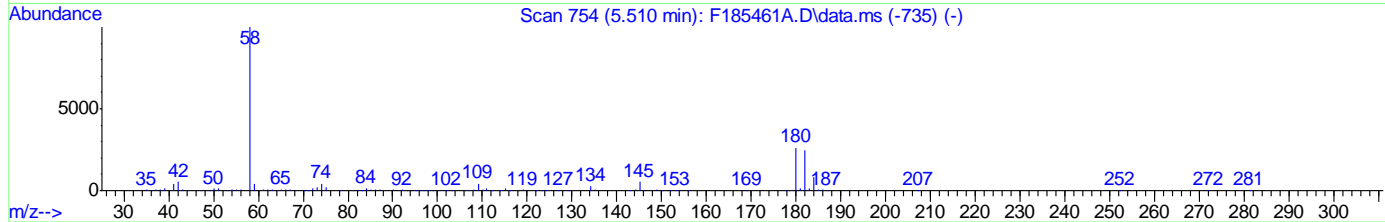
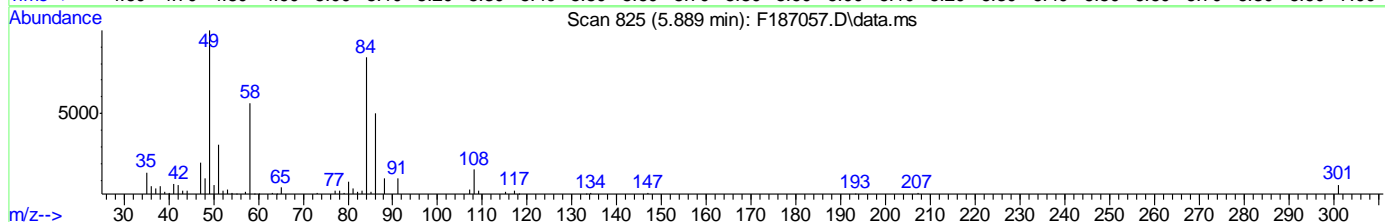
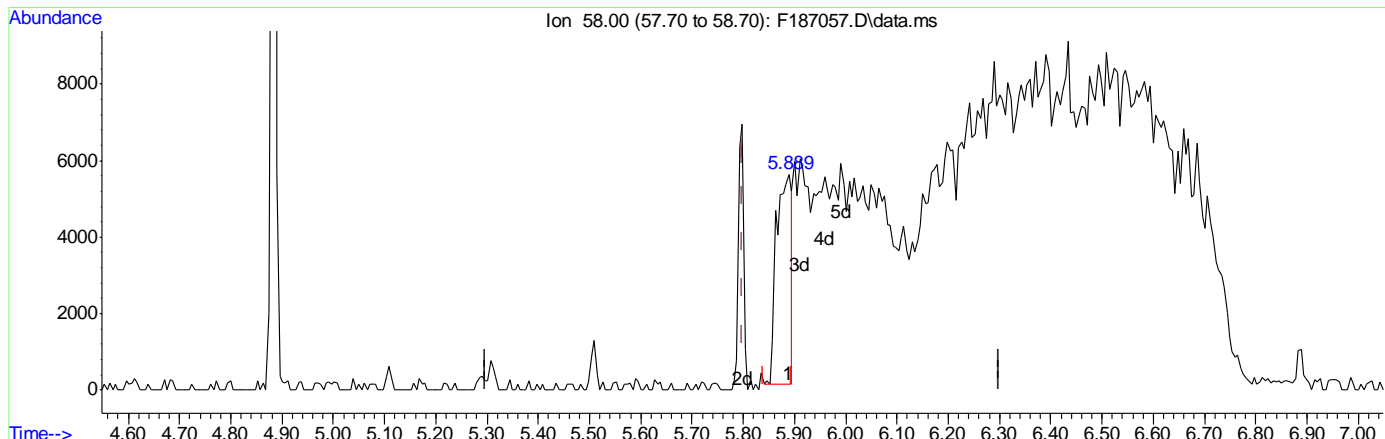
9.6.38.1

9

Quantitation Report (Qedit)

Data Path : C:\MSDCHEM\1\DATA\EF8054\
 Data File : F187057.D
 Acq On : 11 Sep 2019 5:20 am
 Operator : chriss2
 Sample : ic8054-25
 Misc : op21602,ef8054,1000,,,1,1
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Sep 11 09:25:32 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MF8050AP9.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Wed Sep 11 09:15:22 2019
 Response via : Initial Calibration



TIC: F187057.D\data.ms

(114) A,A-Dimethylphenethylamine (M)

5.889min (+0.090) 0.82ppm

response 11348

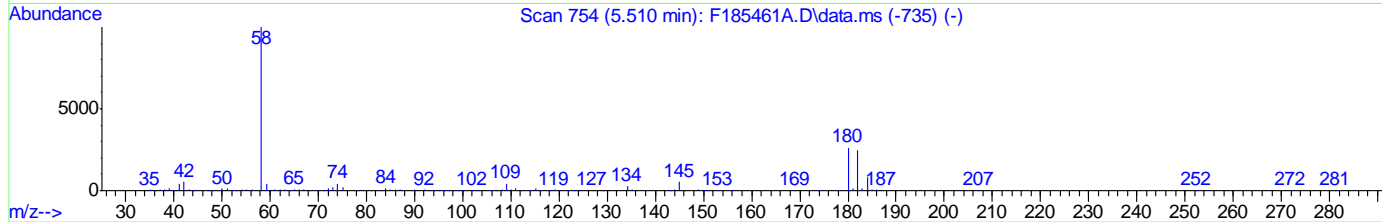
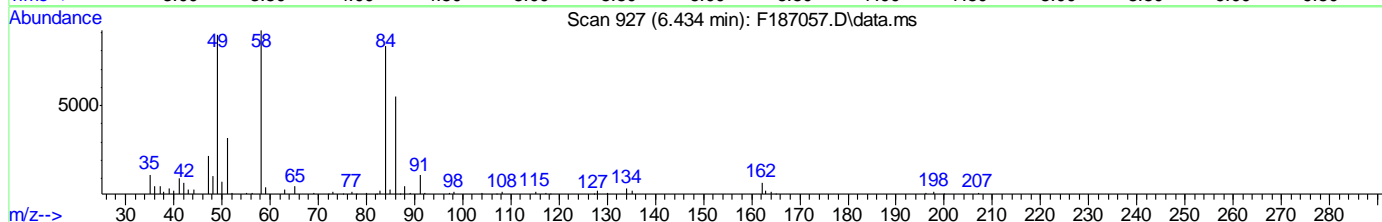
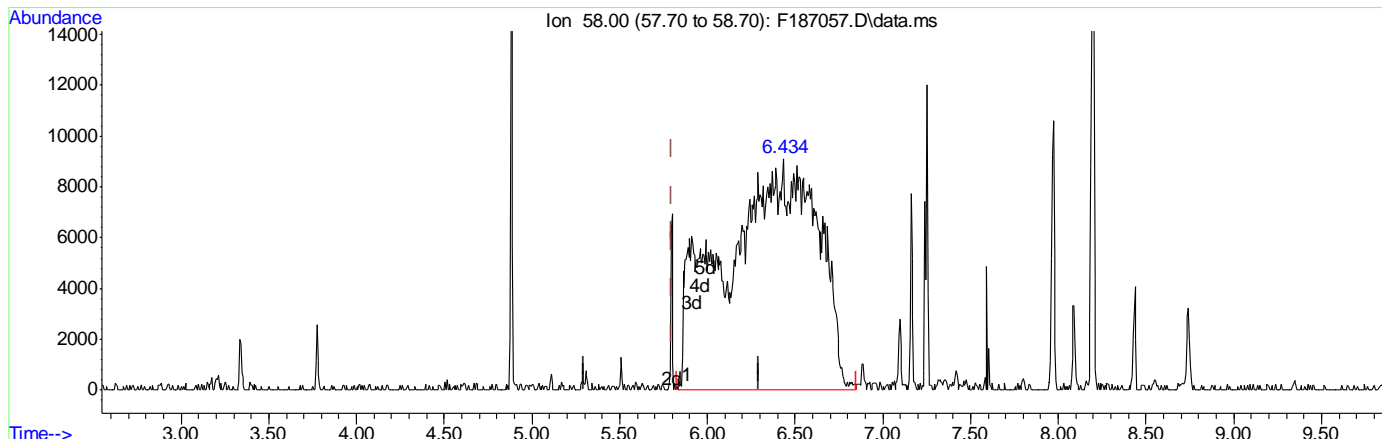
Ion	Exp%	Act%
58.00	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

9.6.38.2
9

Quantitation Report (Qedit)

Data Path : C:\MSDCHEM\1\DATA\EF8054\
 Data File : F187057.D
 Acq On : 11 Sep 2019 5:20 am
 Operator : chriss2
 Sample : ic8054-25
 Misc : op21602,ef8054,1000,,,1,1
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Sep 11 09:25:32 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MF8050AP9.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Wed Sep 11 09:15:22 2019
 Response via : Initial Calibration



(114) A,A-Dimethylphenethylamine (M)

6.434min (+0.635) 24.19ppm m

response 333004

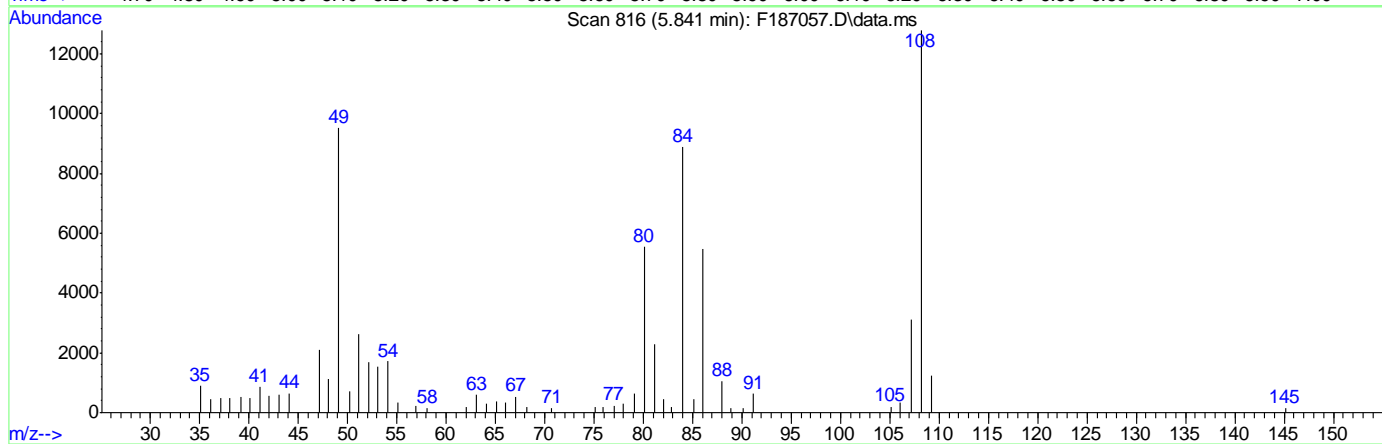
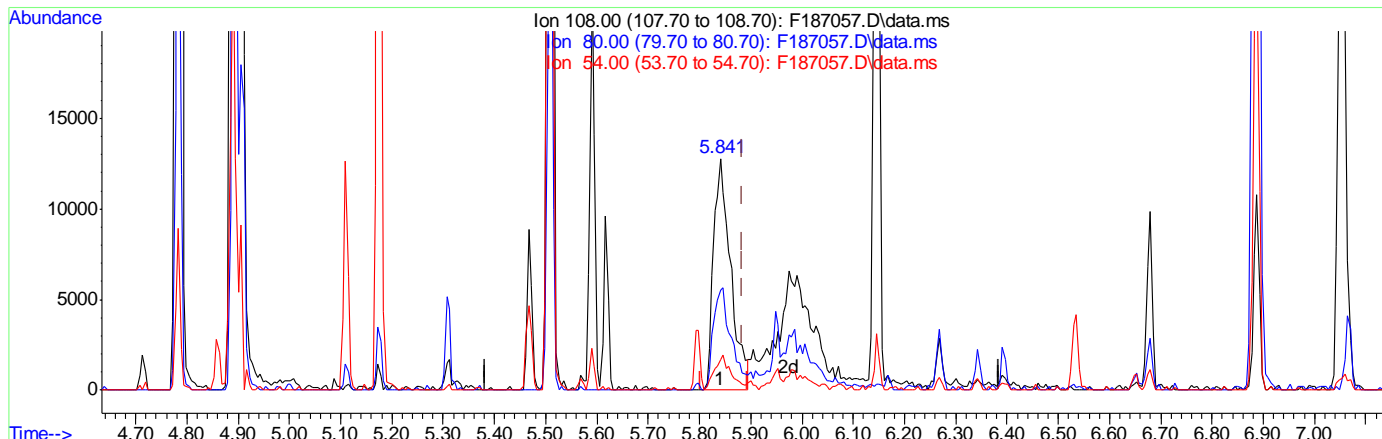
Ion	Exp%	Act%
58.00	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

9.6.38.3
9

Quantitation Report (Qedit)

Data Path : C:\MSDCHEM\1\DATA\EF8054\
 Data File : F187057.D
 Acq On : 11 Sep 2019 5:20 am
 Operator : chriss2
 Sample : ic8054-25
 Misc : op21602,ef8054,1000,,,1,1
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Sep 11 09:27:48 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MF8050AP9.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Wed Sep 11 09:15:22 2019
 Response via : Initial Calibration



(117) p-Phenylenediamine
 5.841min (-0.043) 14.11ppm
 response 29452

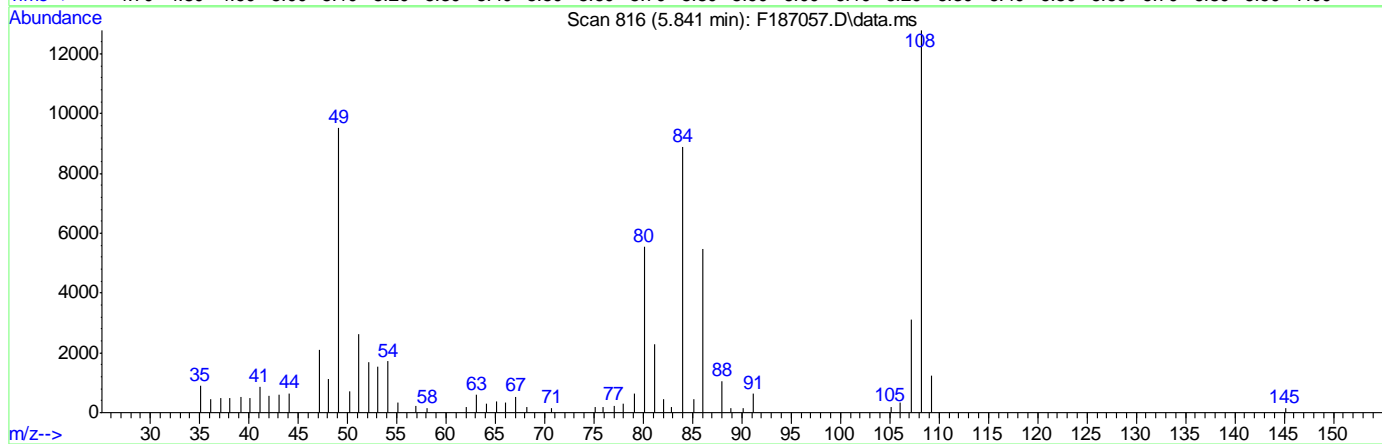
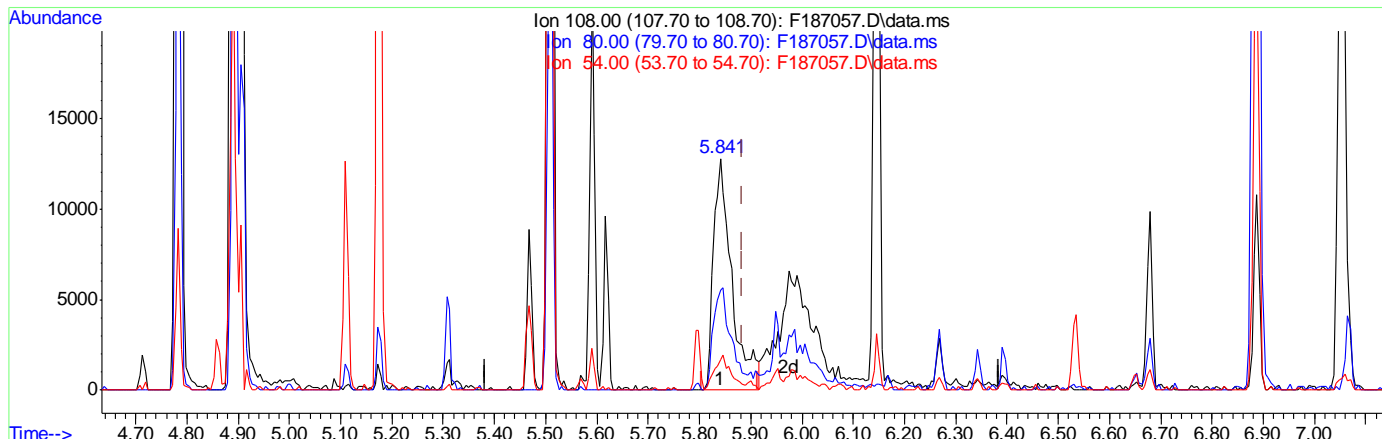
Ion	Exp%	Act%
108.00	100	100
80.00	47.00	42.90
54.00	12.40	9.99
0.00	0.00	0.00

9.6384
 9

Quantitation Report (Qedit)

Data Path : C:\MSDCHEM\1\DATA\EF8054\
 Data File : F187057.D
 Acq On : 11 Sep 2019 5:20 am
 Operator : chriss2
 Sample : ic8054-25
 Misc : op21602,ef8054,1000,,,1,1
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Sep 11 09:27:48 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MF8050AP9.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Wed Sep 11 09:15:22 2019
 Response via : Initial Calibration



(117) p-Phenylenediamine
 5.841min (-0.043) 15.22ppm m
 response 31769

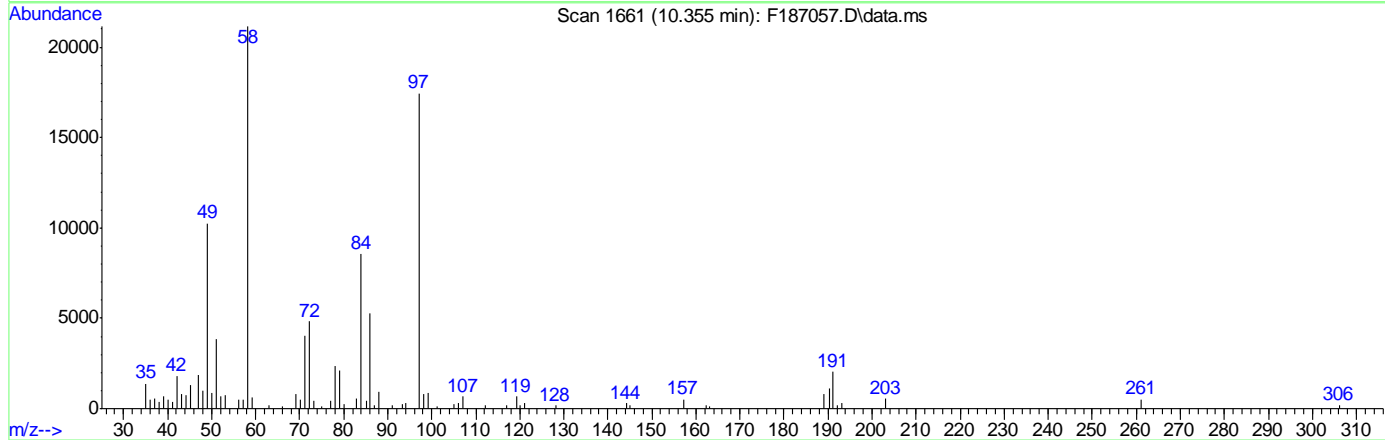
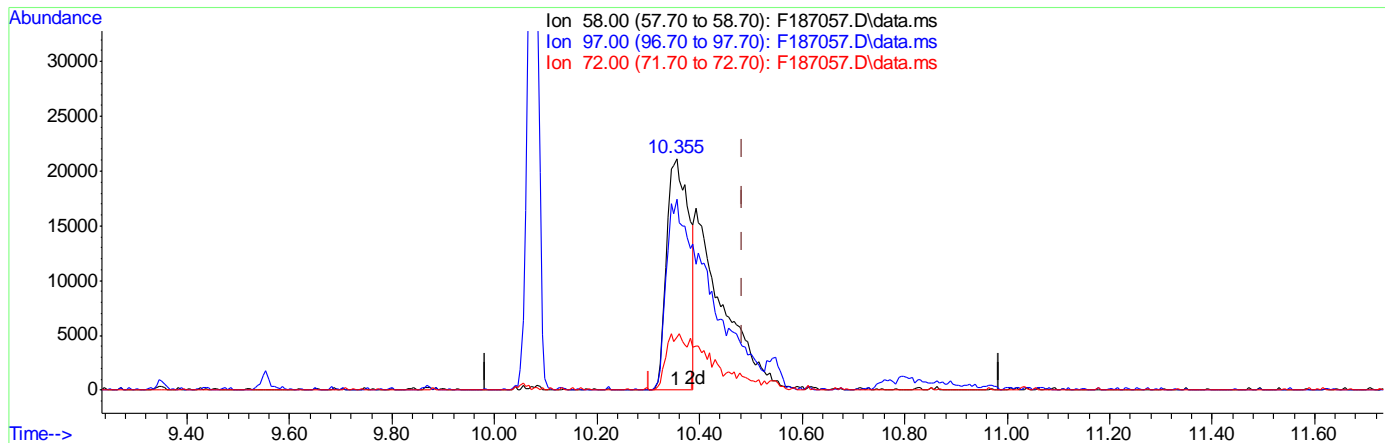
Ion	Exp%	Act%
108.00	100	100
80.00	47.00	43.27
54.00	12.40	13.42
0.00	0.00	0.00

9.6.38.5
 9

Quantitation Report (Qedit)

Data Path : C:\MSDCHEM\1\DATA\EF8054\
 Data File : F187057.D
 Acq On : 11 Sep 2019 5:20 am
 Operator : chriss2
 Sample : ic8054-25
 Misc : op21602,ef8054,1000,,,1,1
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Sep 11 09:27:48 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MF8050AP9.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Wed Sep 11 09:15:22 2019
 Response via : Initial Calibration



(144) Methapyriline (M)
 10.355min (-0.129) 21.55ppm
 response 64583

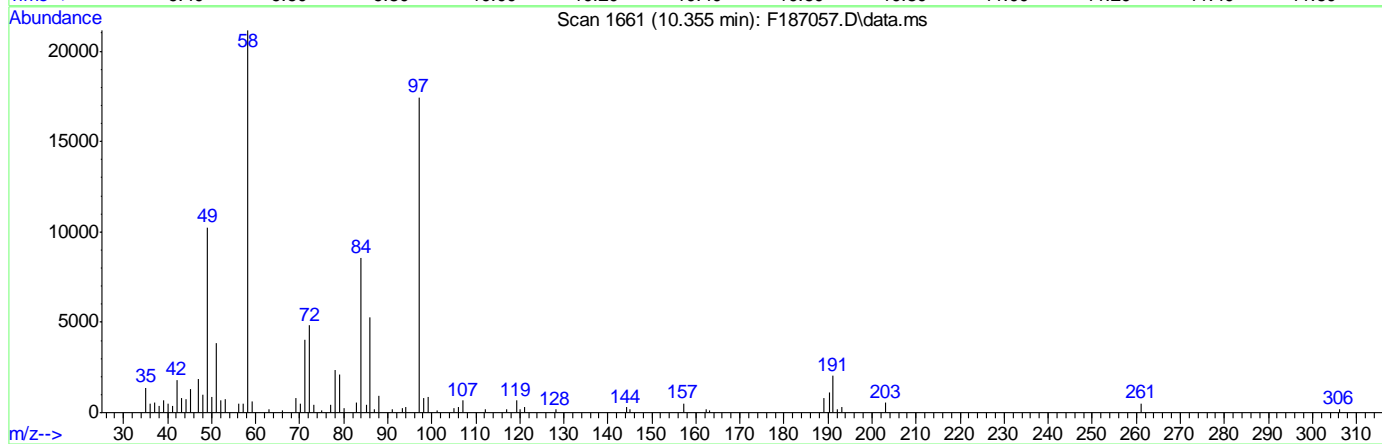
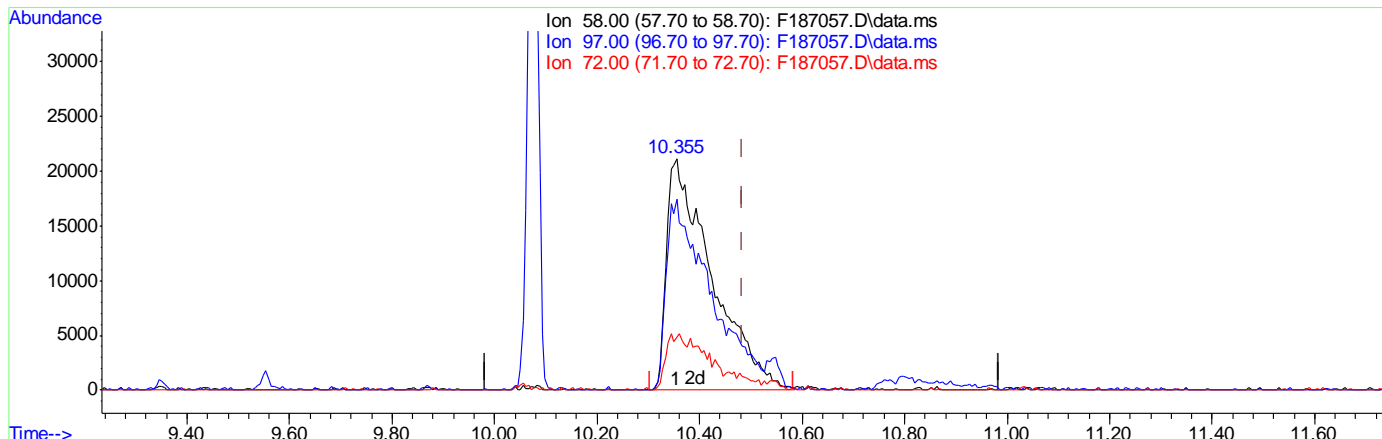
Ion	Exp%	Act%
58.00	100	100
97.00	82.00	79.06
72.00	22.00	20.82
0.00	0.00	0.00

9.6.38.6
 9

Quantitation Report (Qedit)

Data Path : C:\MSDCHEM\1\DATA\EF8054\
 Data File : F187057.D
 Acq On : 11 Sep 2019 5:20 am
 Operator : chriss2
 Sample : ic8054-25
 Misc : op21602,ef8054,1000,,,1,1
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Sep 11 09:27:48 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MF8050AP9.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Wed Sep 11 09:15:22 2019
 Response via : Initial Calibration



(144) Methapyriline (M)

10.355min (-0.129) 43.00ppm m

response 128875

Ion	Exp%	Act%
58.00	100	100
97.00	82.00	82.53
72.00	22.00	22.76
0.00	0.00	0.00

9.6.38.7
9

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF8054\
 Data File : F187058.D
 Acq On : 11 Sep 2019 5:49 am
 Operator : chriss2
 Sample : ic8054-10
 Misc : op21602,ef8054,1000,,,1,1
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Sep 11 09:32:05 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MF8050AP9.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Wed Sep 11 09:15:22 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.591	152	155400	40.00	ppm	-0.01
24) Naphthalene-d8	5.510	136	577715	40.00	ppm	-0.01
47) Acenaphthene-d10	6.888	164	344287	40.00	ppm	-0.02
69) Phenanthrene-d10	8.704	188	639115	40.00	ppm	-0.03
83) Chrysene-d12	13.886	240	596309	40.00	ppm	-0.04
91) Perylene-d12	16.915	264	647520	40.00	ppm	-0.04
101) 1,4-Dichlorobenzene-d4A	4.591	152	155400	40.00	ppm	0.00
111) Naphthalene-d8A	5.510	136	577715	40.00	ppm	0.00
120) Acenaphthene-d10A	6.888	164	344287	40.00	ppm	0.00
131) Phenanthrene-d10A	8.704	188	639115	40.00	ppm	0.00
146) Chrysene-d12A	13.886	240	596309	40.00	ppm	-0.01
153) Perylene-d12A	16.915	264	647520	40.00	ppm	-0.02
156) 1,4-Dichlorobenzene-d4b	4.591	152	155400	40.00	ppm	-0.01
158) Phenanthrene-d10b	8.704	188	639115	40.00	ppm	-0.03
160) Chrysene-d12b	13.886	240	596309	40.00	ppm	-0.04
162) Naphthalene-d8b	5.510	136	577715	40.00	ppm	-0.01
164) Acenaphthene-d10b	6.888	164	344287	40.00	ppm	-0.02
166) Naphthalene-d8c	5.510	136	577715	40.00	ppm	-0.03
171) 1,4-Dichlorobenzene-d4c	4.591	152	155400	40.00	ppm	-0.03
173) Chrysene-d12c	13.886	240	596309	40.00	ppm	-0.10
175) Chrysene-d12d	13.886	240	596309	40.00	ppm	-0.10
177) Naphthalene-d8d	5.510	136	577715	40.00	ppm	-0.03
179) Chrysene-d12e	13.886	240	596309	40.00	ppm	-0.10
181) Perylene-d12b	16.915	264	647520	40.00	ppm	-0.08
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
8) Phenol-d5	0.000	99	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
25) Nitrobenzene-d5	0.000	82	0d	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
Target Compounds						
102) 2-Picoline	3.116	93	58257	10.15	ppm	Qvalue 96
103) Pentachloroethane	4.382	167	20550	10.68	ppm	96
104) Methyl methanesulfonate	3.464	80	34866	10.44	ppm	98
105) N-Nitrosodiethylamine	3.779	102	26146	10.60	ppm	99
106) N-Nitrosomethylethylamine	3.212	42	26195	10.28	ppm	86
107) Ethyl methanesulfonate	4.014	79	41830	10.92	ppm	97
108) N-Nitrosopyrrolidine	4.858	41	21631	18.91	ppm	90
109) N-Nitrosomorpholine	4.885	56	33273	14.91	ppm	96
110) o-Toluidine	4.906	106	84891	13.00	ppm	75

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF8054\
 Data File : F187058.D
 Acq On : 11 Sep 2019 5:49 am
 Operator : chriss2
 Sample : ic8054-10
 Misc : op21602,ef8054,1000,,,1,1
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Sep 11 09:32:05 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MF8050AP9.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Wed Sep 11 09:15:22 2019
 Response via : Initial Calibration

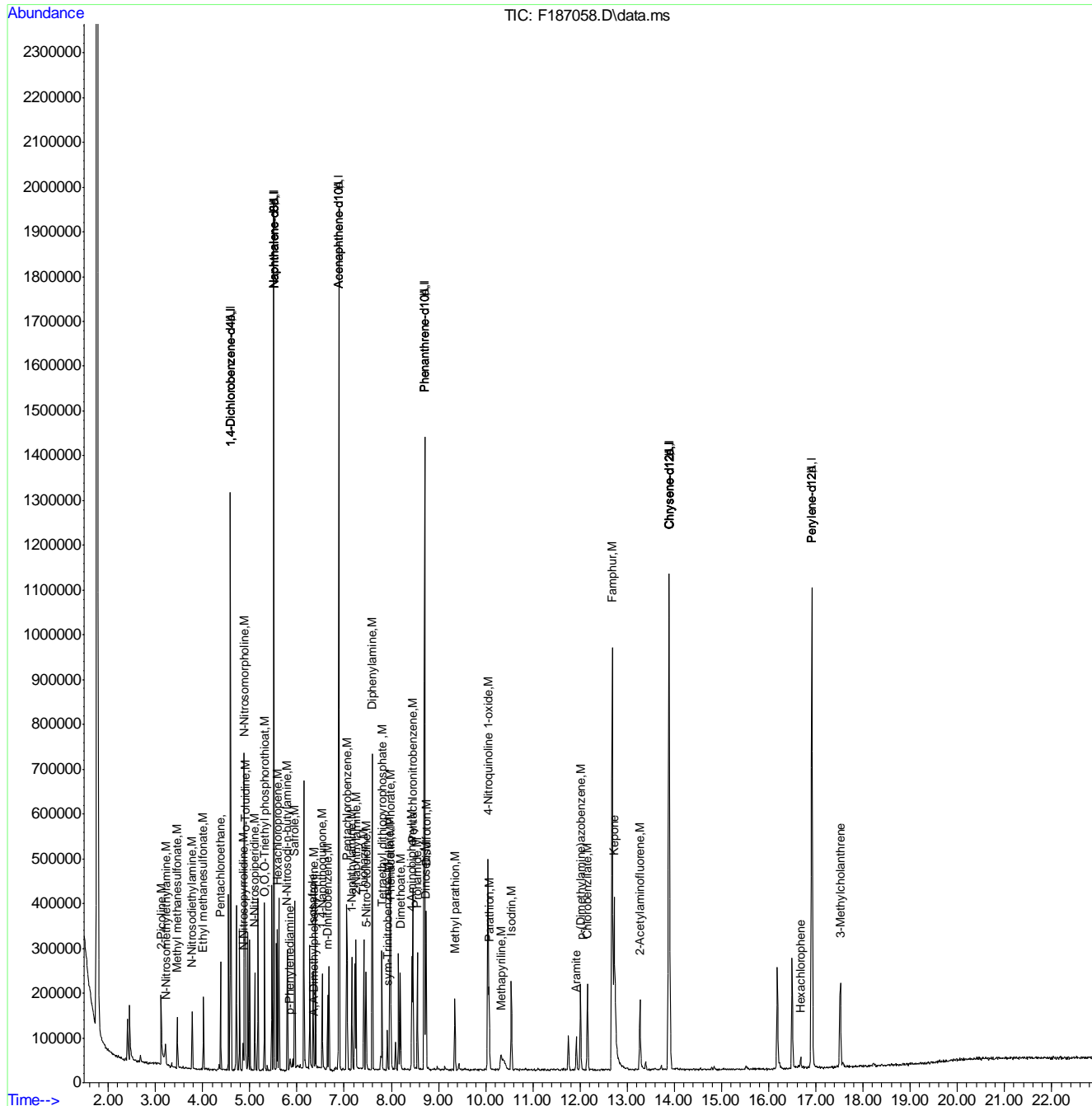
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
112) O,O,O-Triethyl phospho...	5.312	198	24942	11.34	ppm	88
113) N-Nitrosopiperidine	5.109	42	34401	10.96	ppm	97
114) A,A-Dimethylphenethyla...	6.354	58	121330m	9.46	ppm	
115) Hexachloropropene	5.590	213	35502	10.37	ppm	97
116) N-Nitrosodi-n-butylamine	5.793	84	41018	11.53	ppm	91
117) p-Phenylenediamine	5.852	108	17933	9.22	ppm	# 92
118) Safrole	5.948	162	37581	11.12	ppm	91
119) Isosafrole	6.343	162	24299	9.74	ppm	88
121) Thionazin	7.417	143	13539	10.43	ppm	84
122) Tetraethyl dithiopyrop...	7.801	322	15151	9.24	ppm	100
123) Phorate	7.972	75	75568	11.98	ppm	100
124) Phenacetin	7.988	108	57195	9.70	ppm	98
125) 1,4-Naphthoquinone	6.535	158	29279	10.30	ppm	96
126) m-Dinitrobenzene	6.648	168	15051	8.90	ppm	# 69
127) Pentachlorobenzene	7.054	250	46007	11.75	ppm	97
128) 2-Naphthylamine	7.246	143	84624	10.20	ppm	97
129) 1-Naphthylamine	7.166	143	60976	11.06	ppm	97
130) 5-Nitro-o-toluidine	7.465	152	30579	10.21	ppm	98
132) Disulfoton	8.736	88	61351	12.03	ppm	99
133) Dinoseb	8.731	211	17729	6.37	ppm	98
134) Dimethoate	8.191	87	48071	11.23	ppm	98
135) 4-Aminobiphenyl	8.432	169	104275	10.07	ppm	98
136) Methyl parathion	9.345	125	24422	9.03	ppm	96
137) Parathion	10.072	109	23364	11.43	ppm	91
138) Diphenylamine	7.593	169	174911	23.73	ppm	95
139) Isodrin	10.542	193	18756	10.70	ppm	88
140) Diallate	7.967	86	41788	12.21	ppm	82
141) Pentachloronitrobenzene	8.459	295	12808	22.48	ppm	90
142) Pronamide	8.549	173	47641	9.83	ppm	97
143) 4-Nitroquinoline 1-oxide	10.051	190	49659	28.01	ppm	89
144) Methapyriline	10.323	58	53553m	19.44	ppm	
145) sym-Trinitrobenzene	7.914	213	7330	5.96	ppm	# 72
147) Aramite	11.926	185	9209	8.06	ppm	87
148) p-(Dimethylamine)azobe...	12.011	120	46715	9.37	ppm	95
149) Kepone	12.716	272	89918	201.42	ppm	99
150) Famphur	12.684	218	404742	162.67	ppm	98
151) 2-Acetylaminofluorene	13.272	181	55565	7.42	ppm	97
152) Chlorobenzilate	12.161	251	46502	9.48	ppm	98
154) Hexachlorophene	16.680	196	3602	3.52	ppm	94
155) 3-Methylcholanthrene	17.519	252	31096	9.30	ppm	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF8054\
Data File : F187058.D
Acq On : 11 Sep 2019 5:49 am
Operator : chriss2
Sample : ic8054-10
Misc : op21602,ef8054,1000,,,1,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Sep 11 09:32:05 2019
Quant Method : C:\MSDCHEM\1\METHODS\MF8050AP9.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Wed Sep 11 09:15:22 2019
Response via : Initial Calibration



9.6:39
9

Manual Integration Approval Summary

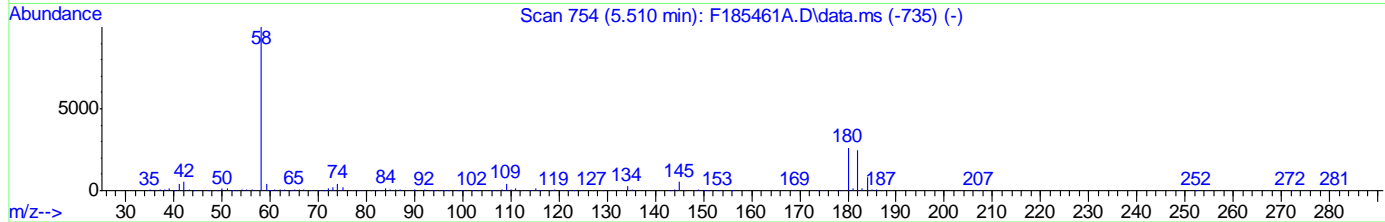
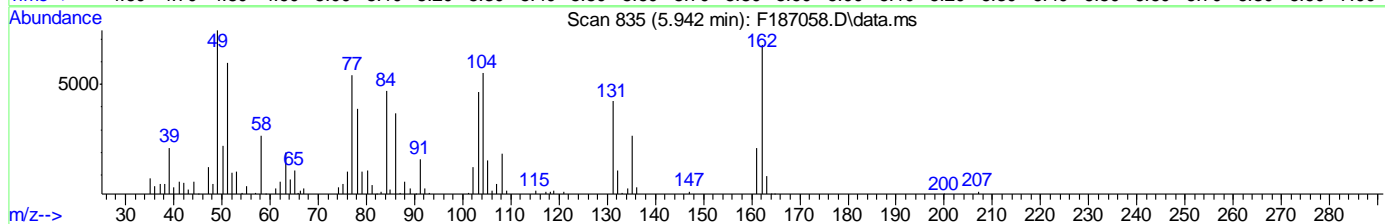
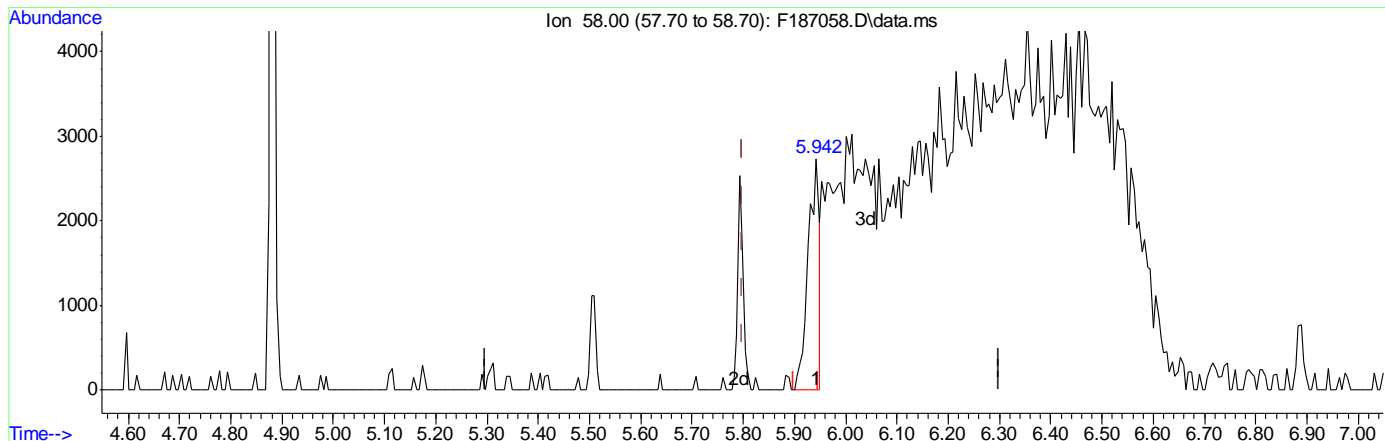
Sample Number: EF8054-IC8054 Method: SW846 8270D
Lab FileID: F187058.D Analyst approved: 09/11/19 11:58 Kristi Schollenberger
Injection Time: 09/11/19 05:49 Supervisor approved: 09/13/19 14:06 Nina Pandya

Parameter	CAS	Sig#	R.T. (min.)	Reason
A,A-Dimethylphenethylamine	122-09-8		6.35	Split peak
Methapyrilene	91-80-5		10.32	Split peak

Quantitation Report (Qedit)

Data Path : C:\MSDCHEM\1\DATA\EF8054\
 Data File : F187058.D
 Acq On : 11 Sep 2019 5:49 am
 Operator : chriss2
 Sample : ic8054-10
 Misc : op21602,ef8054,1000,,,1,1
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Sep 11 09:29:43 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MF8050AP9.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Wed Sep 11 09:15:22 2019
 Response via : Initial Calibration



TIC: F187058.D\data.ms

(114) A,A-Dimethylphenethylamine (M)
 5.942min (+0.144) 0.31ppm
 response 3994

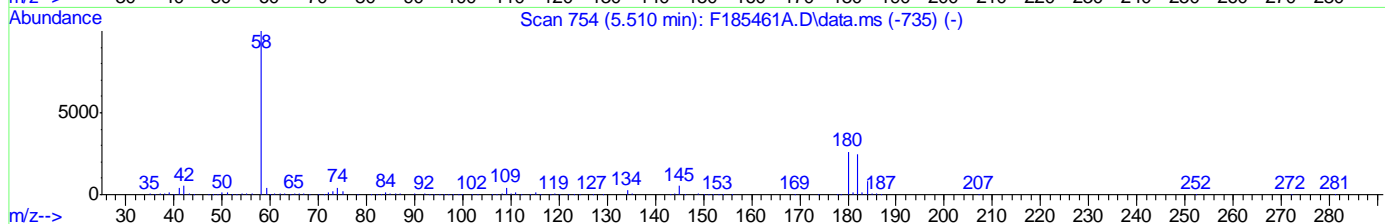
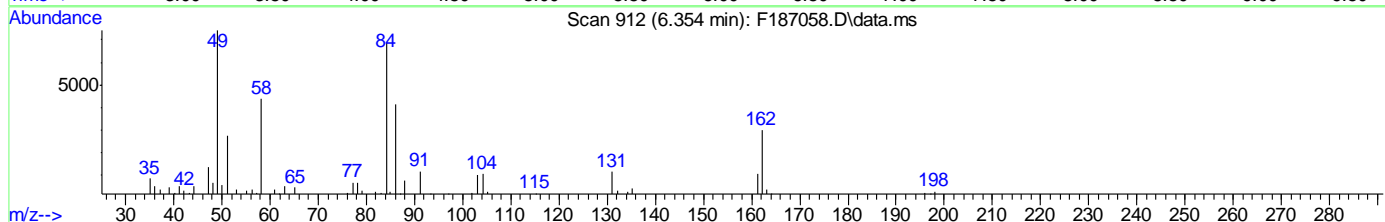
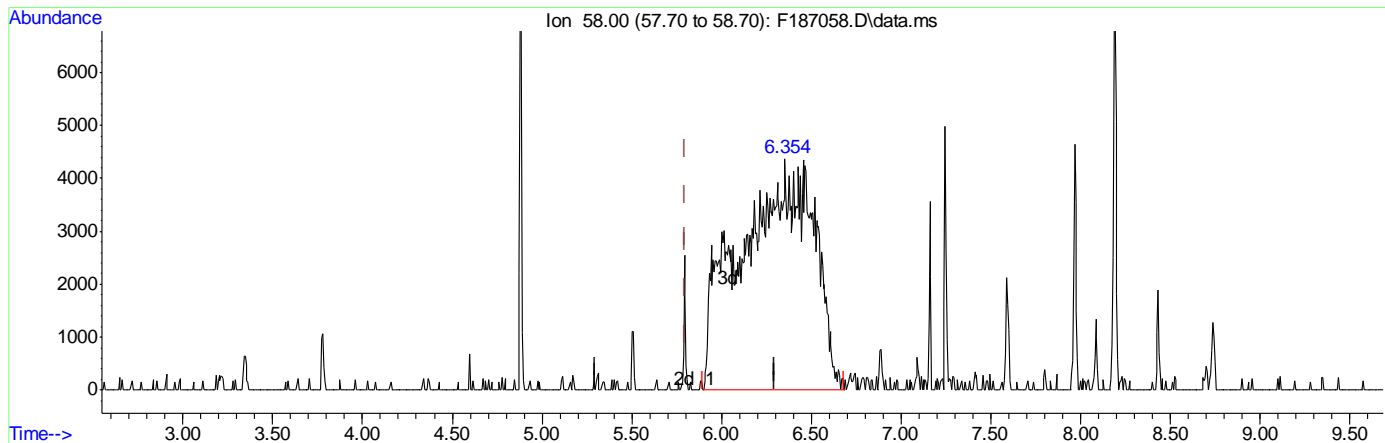
Ion	Exp%	Act%
58.00	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

9.6.39.2
 9

Quantitation Report (Qedit)

Data Path : C:\MSDCHEM\1\DATA\EF8054\
 Data File : F187058.D
 Acq On : 11 Sep 2019 5:49 am
 Operator : chriss2
 Sample : ic8054-10
 Misc : op21602,ef8054,1000,,,1,1
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Sep 11 09:29:43 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MF8050AP9.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Wed Sep 11 09:15:22 2019
 Response via : Initial Calibration



(114) A,A-Dimethylphenethylamine (M)

6.354min (+0.555) 9.46ppm m

response 121330

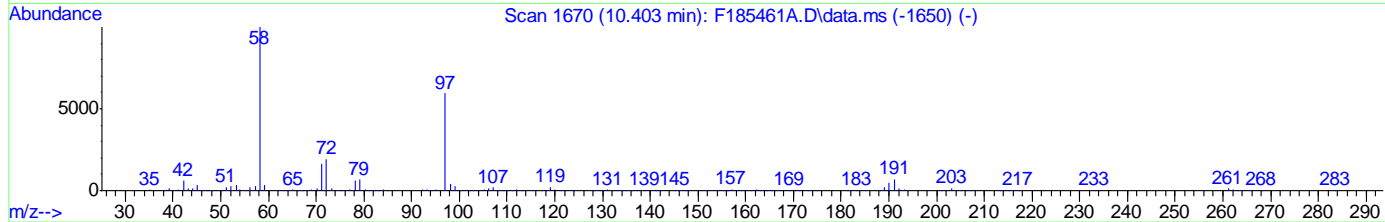
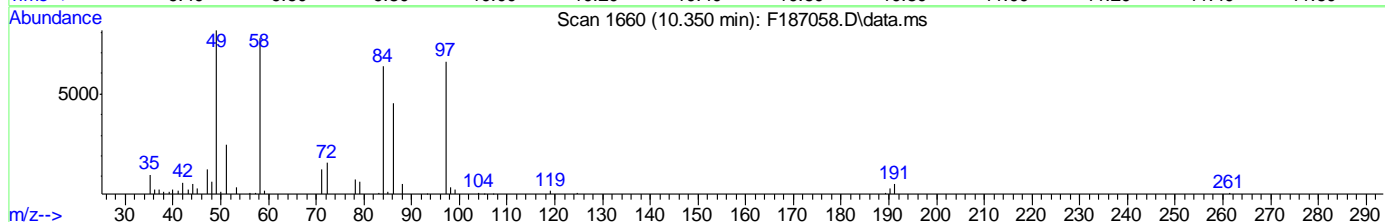
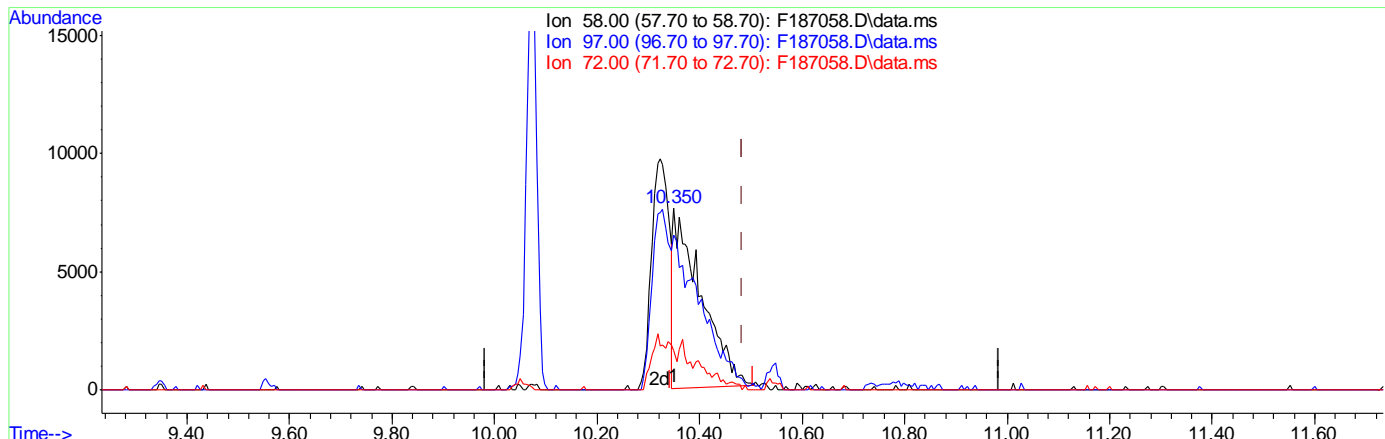
Ion	Exp%	Act%
58.00	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

9.6.39.3
9

Quantitation Report (Qedit)

Data Path : C:\MSDCHEM\1\DATA\EF8054\
 Data File : F187058.D
 Acq On : 11 Sep 2019 5:49 am
 Operator : chriss2
 Sample : ic8054-10
 Misc : op21602,ef8054,1000,,,1,1
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Sep 11 09:29:43 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MF8050AP9.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Wed Sep 11 09:15:22 2019
 Response via : Initial Calibration



TIC: F187058.D\data.ms

(144) Methapyriline (M)
 10.350min (-0.134) 10.34ppm
 response 28495

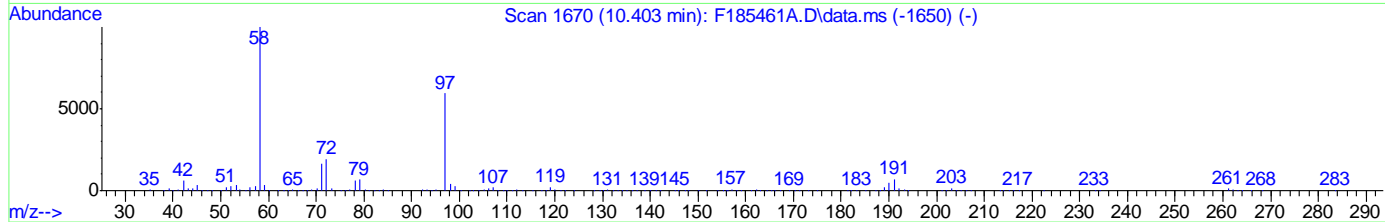
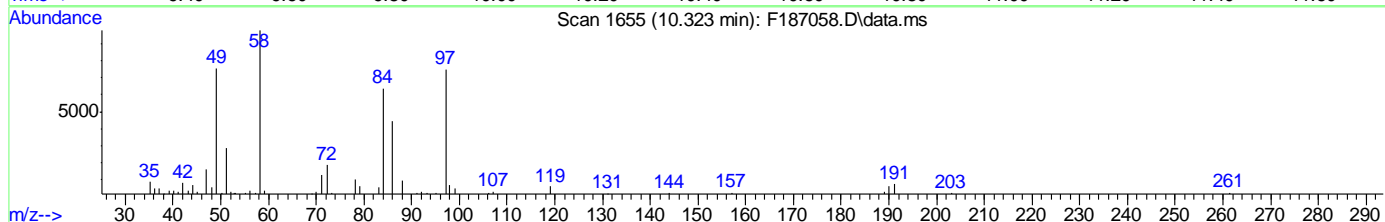
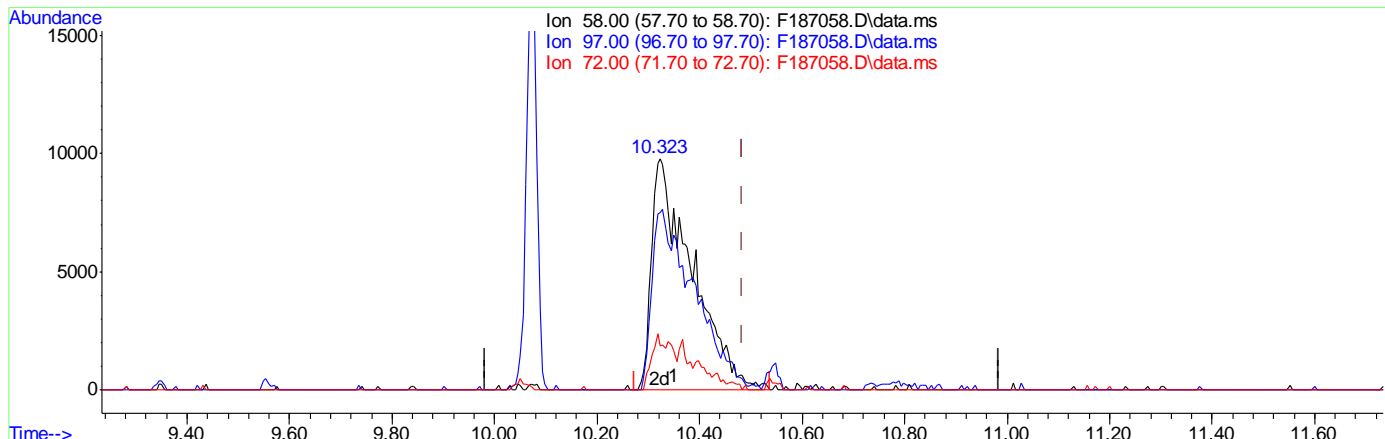
Ion	Exp%	Act%
58.00	100	100
97.00	82.00	77.62
72.00	22.00	15.72
0.00	0.00	0.00

9.6.39.4
9

Quantitation Report (Qedit)

Data Path : C:\MSDCHEM\1\DATA\EF8054\
 Data File : F187058.D
 Acq On : 11 Sep 2019 5:49 am
 Operator : chriss2
 Sample : ic8054-10
 Misc : op21602,ef8054,1000,,,1,1
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Sep 11 09:29:43 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MF8050AP9.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Wed Sep 11 09:15:22 2019
 Response via : Initial Calibration



TIC: F187058.D\data.ms

(144) Methapyriline (M)

10.323min (-0.161) 19.44ppm m

response 53553

Ion	Exp%	Act%
58.00	100	100
97.00	82.00	76.74
72.00	22.00	18.90
0.00	0.00	0.00

9.6.39.5
9

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF8054\
 Data File : F187059.D
 Acq On : 11 Sep 2019 6:18 am
 Operator : chriss2
 Sample : ic8054-5
 Misc : op21602,ef8054,1000,,,1,1
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Sep 11 09:34:25 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MF8050AP9.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Wed Sep 11 09:15:22 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.591	152	160857	40.00	ppm	-0.01
24) Naphthalene-d8	5.510	136	589696	40.00	ppm	-0.01
47) Acenaphthene-d10	6.888	164	355908	40.00	ppm	-0.02
69) Phenanthrene-d10	8.704	188	677305	40.00	ppm	-0.03
83) Chrysene-d12	13.886	240	632274	40.00	ppm	-0.04
91) Perylene-d12	16.915	264	690838	40.00	ppm	-0.04
101) 1,4-Dichlorobenzene-d4A	4.591	152	160857	40.00	ppm	0.00
111) Naphthalene-d8A	5.510	136	589696	40.00	ppm	0.00
120) Acenaphthene-d10A	6.888	164	355908	40.00	ppm	0.00
131) Phenanthrene-d10A	8.704	188	677305	40.00	ppm	0.00
146) Chrysene-d12A	13.886	240	632274	40.00	ppm	-0.01
153) Perylene-d12A	16.915	264	690838	40.00	ppm	-0.02
156) 1,4-Dichlorobenzene-d4b	4.591	152	160857	40.00	ppm	-0.01
158) Phenanthrene-d10b	8.704	188	677305	40.00	ppm	-0.03
160) Chrysene-d12b	13.886	240	632274	40.00	ppm	-0.04
162) Naphthalene-d8b	5.510	136	589696	40.00	ppm	-0.01
164) Acenaphthene-d10b	6.888	164	355908	40.00	ppm	-0.02
166) Naphthalene-d8c	5.510	136	589696	40.00	ppm	-0.03
171) 1,4-Dichlorobenzene-d4c	4.591	152	160857	40.00	ppm	-0.03
173) Chrysene-d12c	13.886	240	632274	40.00	ppm	-0.10
175) Chrysene-d12d	13.886	240	632274	40.00	ppm	-0.10
177) Naphthalene-d8d	5.510	136	589696	40.00	ppm	-0.03
179) Chrysene-d12e	13.886	240	632274	40.00	ppm	-0.10
181) Perylene-d12b	16.915	264	690838	40.00	ppm	-0.08
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
8) Phenol-d5	0.000	99	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
25) Nitrobenzene-d5	0.000	82	0d	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
Target Compounds						
102) 2-Picoline	3.122	93	29965	5.05	ppm	Qvalue 97
103) Pentachloroethane	4.383	167	10617	5.33	ppm	94
104) Methyl methanesulfonate	3.464	80	18443	5.33	ppm	98
105) N-Nitrosodiethylamine	3.779	102	14028	5.49	ppm	94
106) N-Nitrosomethylethylamine	3.213	42	13340	5.06	ppm	97
107) Ethyl methanesulfonate	4.014	79	20887	5.27	ppm	99
108) N-Nitrosopyrrolidine	4.858	41	10811	9.13	ppm	87
109) N-Nitrosomorpholine	4.885	56	17897	7.75	ppm	96
110) o-Toluidine	4.906	106	43387	6.42	ppm	86

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF8054\
 Data File : F187059.D
 Acq On : 11 Sep 2019 6:18 am
 Operator : chriss2
 Sample : ic8054-5
 Misc : op21602,ef8054,1000,,,1,1
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Sep 11 09:34:25 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MF8050AP9.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Wed Sep 11 09:15:22 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
112) O,O,O-Triethyl phospho...	5.307	198	13356	5.95	ppm	95
113) N-Nitrosopiperidine	5.109	42	17271	5.39	ppm	95
114) A,A-Dimethylphenethyla...	6.306	58	56205m	4.29	ppm	
115) Hexachloropropene	5.590	213	17836	5.10	ppm	96
116) N-Nitrosodi-n-butylamine	5.793	84	20339	5.60	ppm	95
117) p-Phenylenediamine	5.857	108	10820m	5.45	ppm	
118) Safrole	5.948	162	19924	5.77	ppm	94
119) Isosafrole	6.343	162	13996	5.50	ppm	95
121) Thionazin	7.417	143	7483	5.58	ppm	97
122) Tetraethyl dithiopyrop...	7.802	322	7859	4.64	ppm	100
123) Phorate	7.973	75	39027	5.99	ppm	100
124) Phenacetin	7.983	108	29612	4.86	ppm	96
125) 1,4-Naphthoquinone	6.535	158	14582	4.96	ppm	91
126) m-Dinitrobenzene	6.648	168	6952	3.98	ppm	74
127) Pentachlorobenzene	7.054	250	23943	5.91	ppm	95
128) 2-Naphthylamine	7.246	143	43940	5.12	ppm	97
129) 1-Naphthylamine	7.161	143	31730	5.57	ppm	97
130) 5-Nitro-o-toluidine	7.460	152	15096	4.88	ppm	88
132) Disulfoton	8.736	88	31244	5.78	ppm	96
133) Dinoseb	8.731	211	7645	2.59	ppm	95
134) Dimethoate	8.192	87	23375	5.15	ppm	97
135) 4-Aminobiphenyl	8.432	169	51633	4.70	ppm	98
136) Methyl parathion	9.345	125	11643	4.06	ppm	94
137) Parathion	10.072	109	11064	5.11	ppm	95
138) Diphenylamine	7.593	169	93204	11.93	ppm	100
139) Isodrin	10.542	193	10432	5.62	ppm	99
140) Diallate	7.967	86	22620	6.24	ppm	84
141) Pentachloronitrobenzene	8.459	295	6794	11.25	ppm	93
142) Pronamide	8.550	173	24134	4.70	ppm	97
143) 4-Nitroquinoline 1-oxide	10.051	190	18128	9.65	ppm	82
144) Methapyriline	10.312	58	25950m	8.89	ppm	
145) sym-Trinitrobenzene	7.914	213	2910	2.23	ppm	91
147) Aramite	11.926	185	4690	3.87	ppm	98
148) p-(Dimethylamine)azobe...	12.011	120	22285	4.21	ppm	95
149) Kepone	12.716	272	42436	89.65	ppm	97
150) Famphur	12.679	218	222627	84.38	ppm	99
151) 2-Acetylaminofluorene	13.272	181	24534	3.09	ppm	86
152) Chlorobenzilate	12.161	251	22423	4.31	ppm	96
155) 3-Methylcholanthrene	17.514	252	14655	4.11	ppm #	82

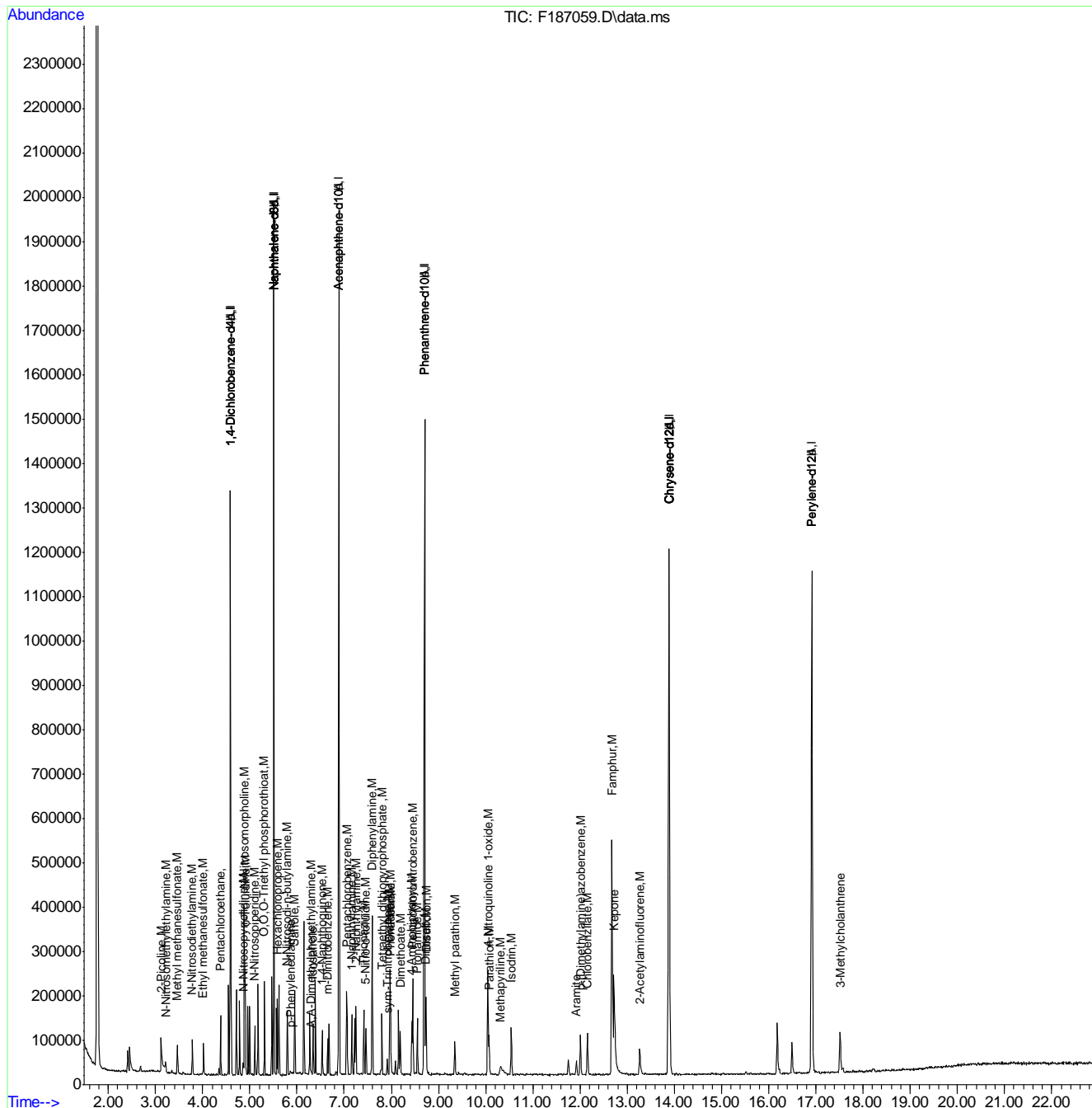
(#) = qualifier out of range (m) = manual integration (+) = signals summed

9.6.40
9

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF8054\
 Data File : F187059.D
 Acq On : 11 Sep 2019 6:18 am
 Operator : chriss2
 Sample : ic8054-5
 Misc : op21602,ef8054,1000,,,1,1
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Sep 11 09:34:25 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MF8050AP9.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Wed Sep 11 09:15:22 2019
 Response via : Initial Calibration



9.6:40
9

Manual Integration Approval Summary

Sample Number: EF8054-IC8054 Method: SW846 8270D
Lab FileID: F187059.D Analyst approved: 09/11/19 11:58 Kristi Schollenberger
Injection Time: 09/11/19 06:18 Supervisor approved: 09/13/19 14:06 Nina Pandya

Parameter	CAS	Sig#	R.T. (min.)	Reason
p-Phenylenediamine	106-50-3		5.86	Split peak
A,A-Dimethylphenethylamine	122-09-8		6.31	Split peak
Methapyrilene	91-80-5		10.31	Split peak

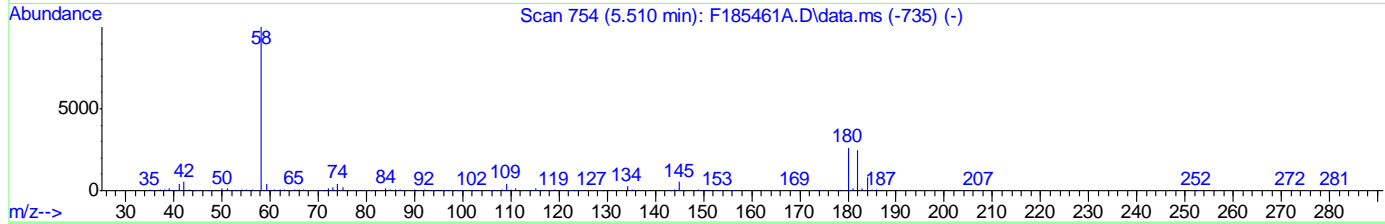
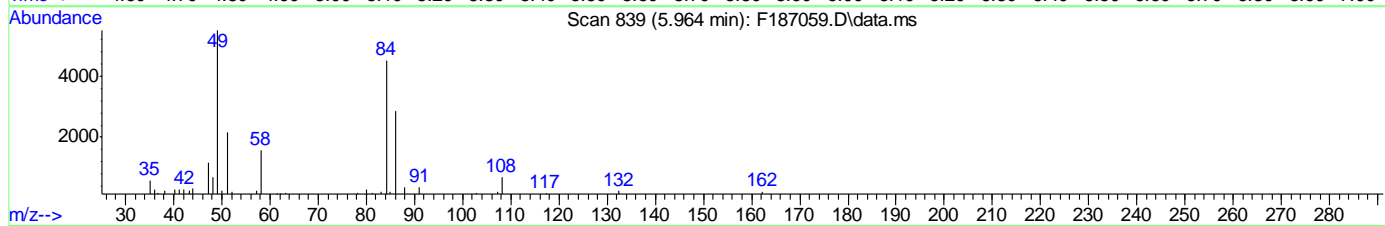
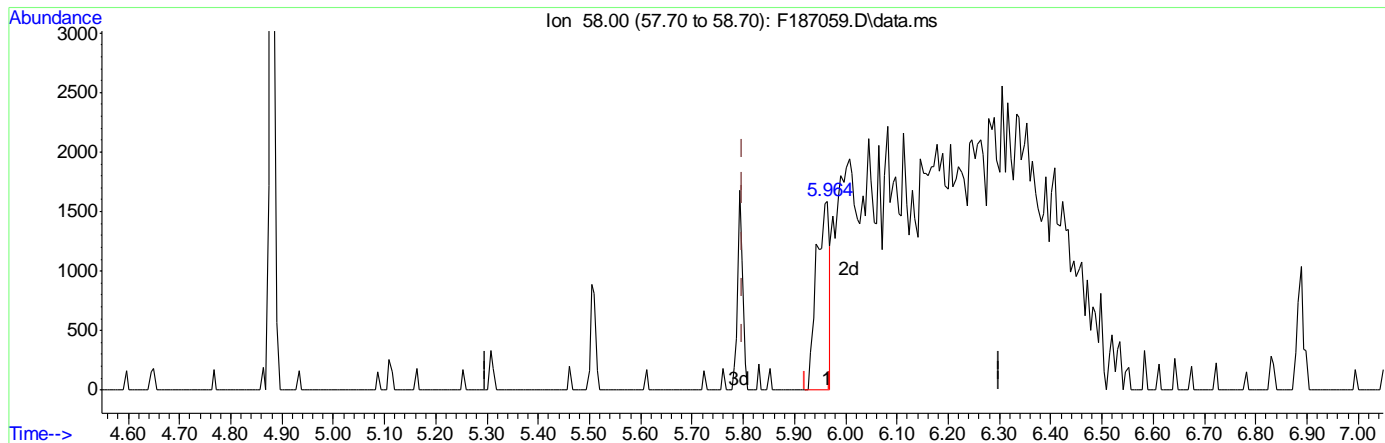
9.6.40.1

9

Quantitation Report (Qedit)

Data Path : C:\MSDCHEM\1\DATA\EF8054\
 Data File : F187059.D
 Acq On : 11 Sep 2019 6:18 am
 Operator : chriss2
 Sample : ic8054-5
 Misc : op21602,ef8054,1000,,,1,1
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Sep 11 09:32:15 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MF8050AP9.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Wed Sep 11 09:15:22 2019
 Response via : Initial Calibration



TIC: F187059.D\data.ms

(114) A,A-Dimethylphenethylamine (M)

5.964min (+0.165) 0.22ppm

response 2849

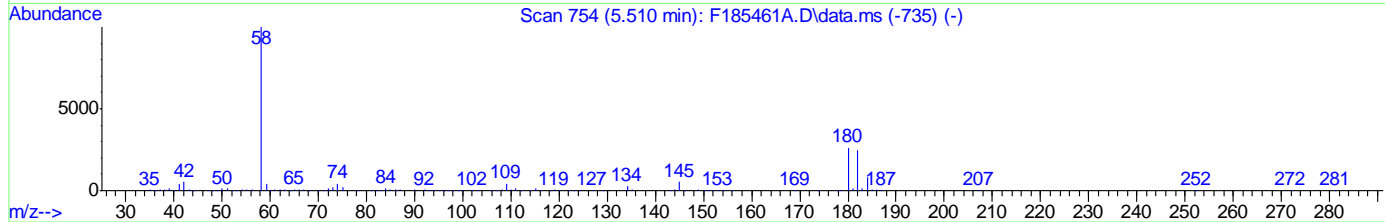
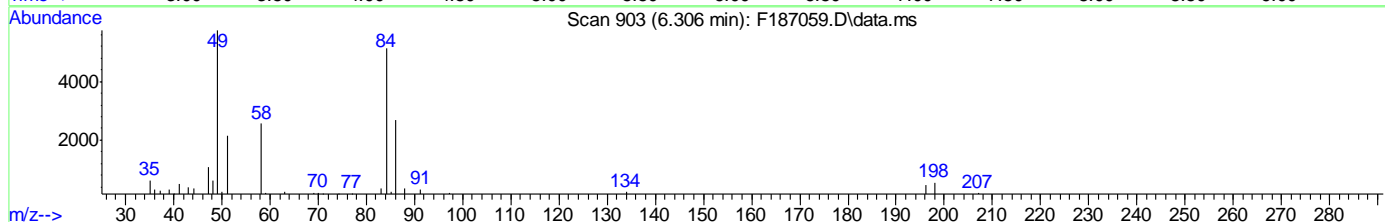
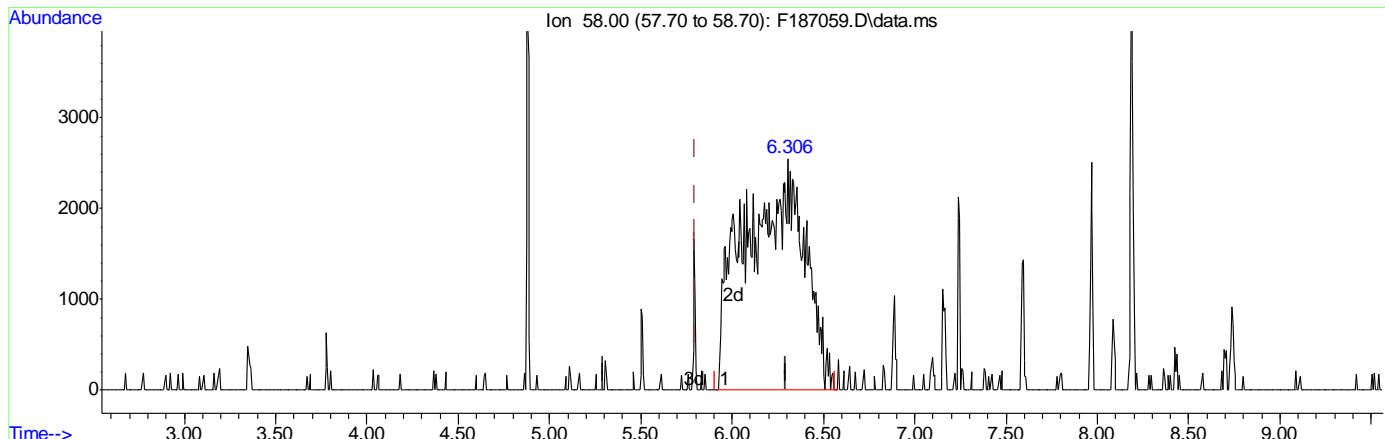
Ion	Exp%	Act%
58.00	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

9.6.40.2
9

Quantitation Report (Qedit)

Data Path : C:\MSDCHEM\1\DATA\EF8054\
 Data File : F187059.D
 Acq On : 11 Sep 2019 6:18 am
 Operator : chriss2
 Sample : ic8054-5
 Misc : op21602,ef8054,1000,,,1,1
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Sep 11 09:32:15 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MF8050AP9.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Wed Sep 11 09:15:22 2019
 Response via : Initial Calibration



TIC: F187059.D\data.ms

(114) A,A-Dimethylphenethylamine (M)

6.306min (+0.507) 4.29ppm m

response 56205

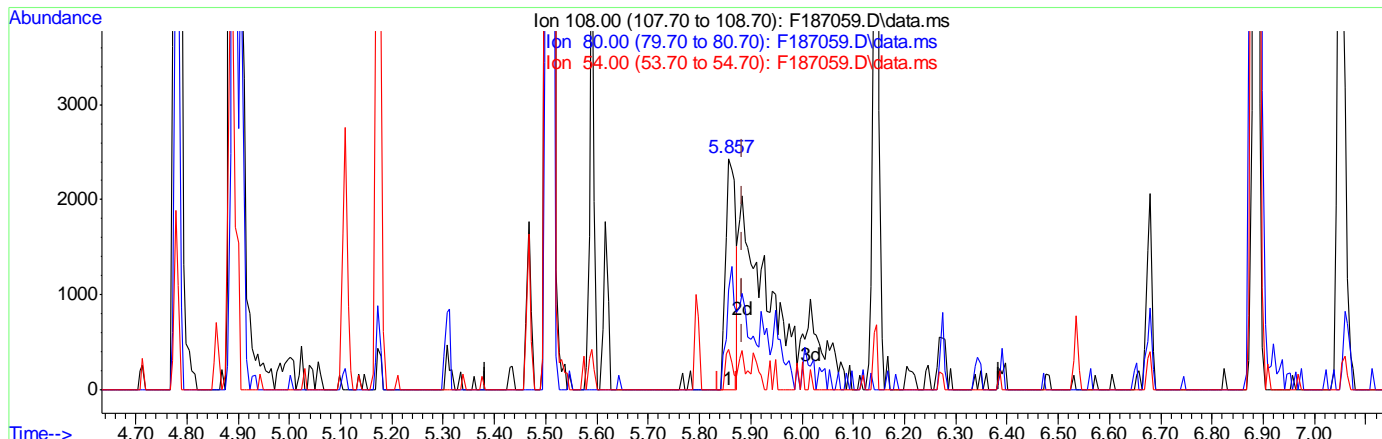
Ion	Exp%	Act%
58.00	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

9.6.40.3
9

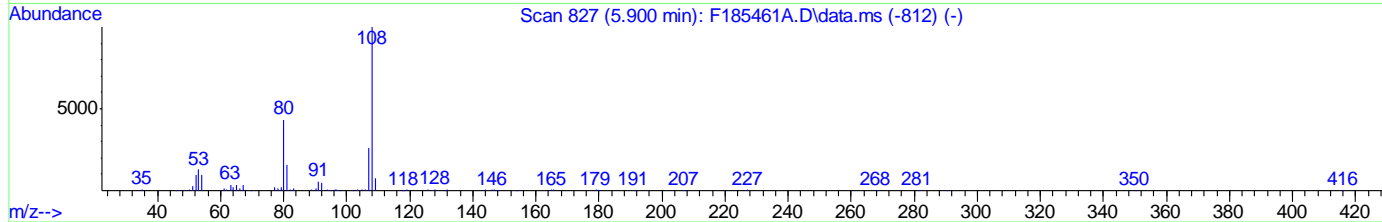
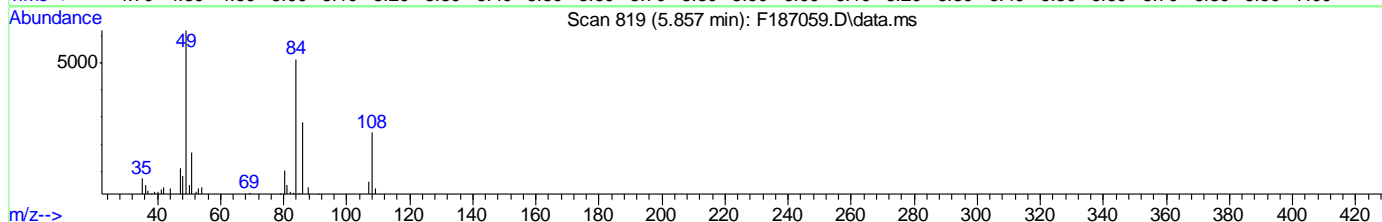
Quantitation Report (Qedit)

Data Path : C:\MSDCHEM\1\DATA\EF8054\
 Data File : F187059.D
 Acq On : 11 Sep 2019 6:18 am
 Operator : chriss2
 Sample : ic8054-5
 Misc : op21602,ef8054,1000,,,1,1
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Sep 11 09:32:15 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MF8050AP9.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Wed Sep 11 09:15:22 2019
 Response via : Initial Calibration



9.6.40.4
9



TIC: F187059.D\data.ms

(117) p-Phenylenediamine

5.857min (-0.027) 1.73ppm

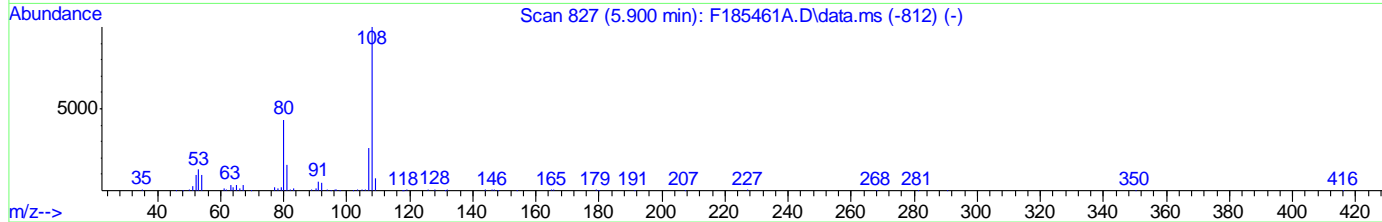
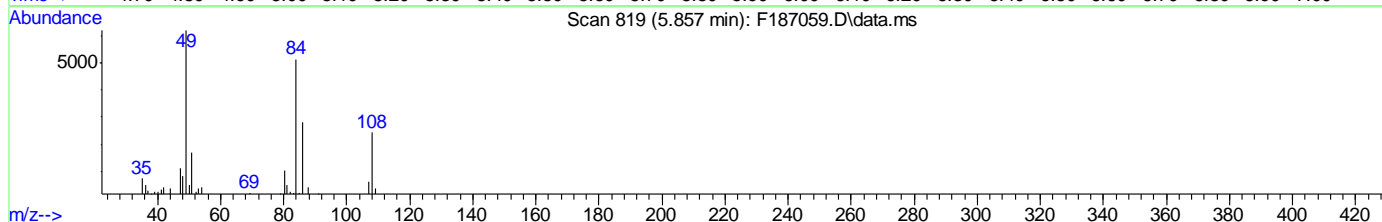
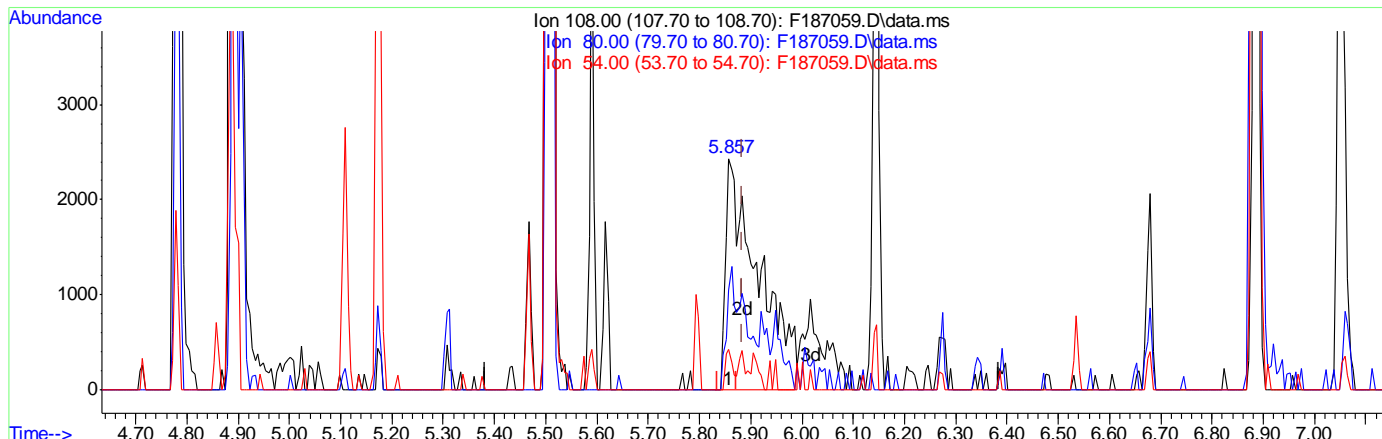
response 3428

Ion	Exp%	Act%
108.00	100	100
80.00	47.00	38.30
54.00	12.40	20.98#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\MSDCHEM\1\DATA\EF8054\
 Data File : F187059.D
 Acq On : 11 Sep 2019 6:18 am
 Operator : chriss2
 Sample : ic8054-5
 Misc : op21602,ef8054,1000,,,1,1
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Sep 11 09:32:15 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MF8050AP9.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Wed Sep 11 09:15:22 2019
 Response via : Initial Calibration



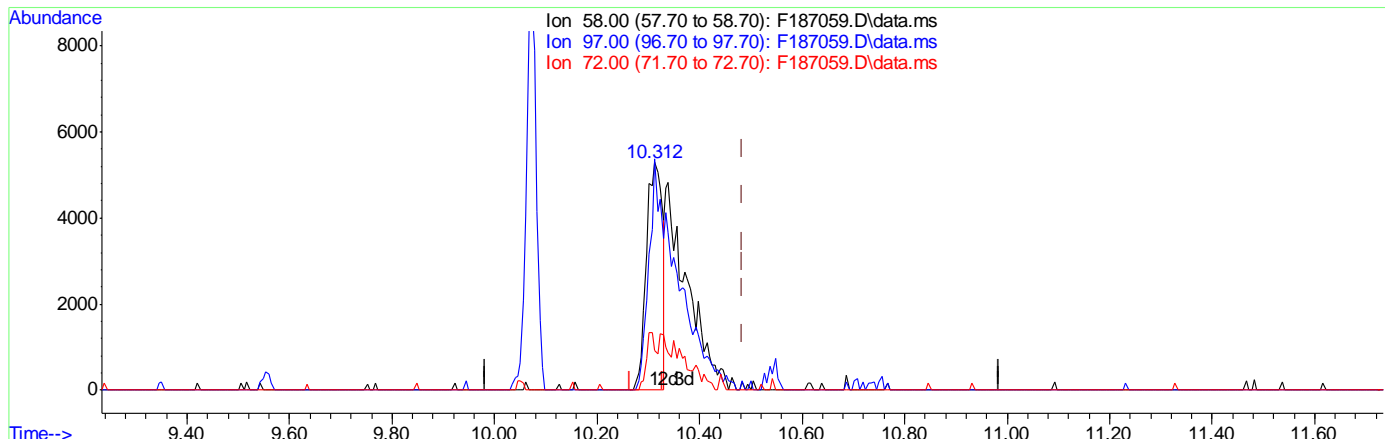
(117) p-Phenylenediamine
 5.857min (-0.027) 5.45ppm m
 response 10820

Ion	Exp%	Act%
108.00	100	100
80.00	47.00	43.24
54.00	12.40	17.55#
0.00	0.00	0.00

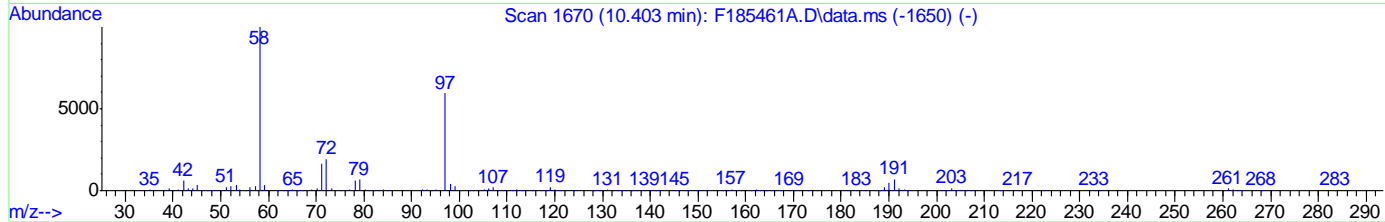
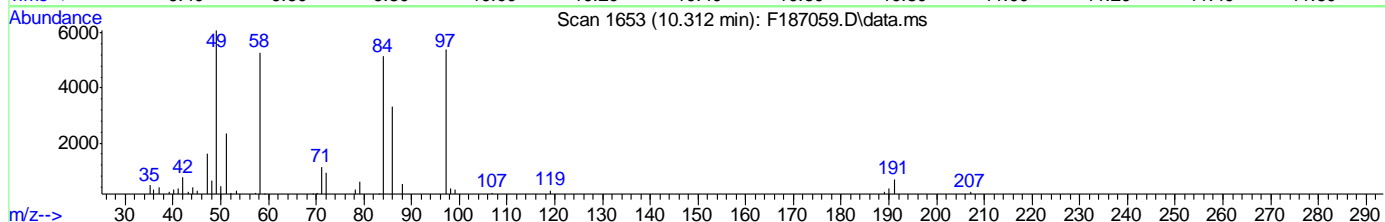
Quantitation Report (Qedit)

Data Path : C:\MSDCHEM\1\DATA\EF8054\
 Data File : F187059.D
 Acq On : 11 Sep 2019 6:18 am
 Operator : chriss2
 Sample : ic8054-5
 Misc : op21602,ef8054,1000,,,1,1
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Sep 11 09:32:15 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MF8050AP9.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Wed Sep 11 09:15:22 2019
 Response via : Initial Calibration



9.6.40.6
9



TIC: F187059.D\data.ms

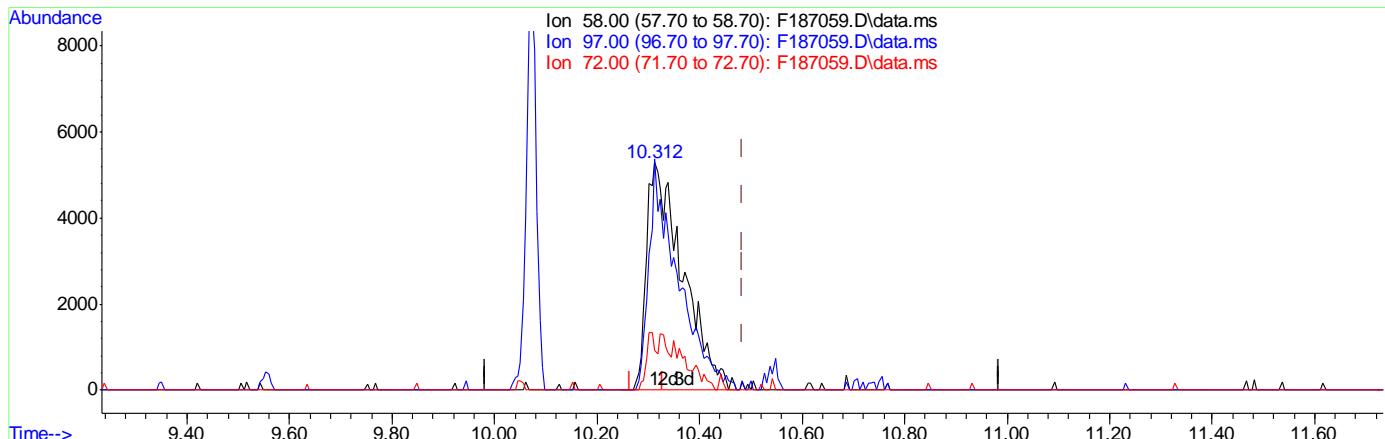
(144) Methapyriline (M)
 10.312min (-0.171) 3.84ppm
 response 11198

Ion	Exp%	Act%
58.00	100	100
97.00	82.00	108.94
72.00	22.00	8.31
0.00	0.00	0.00

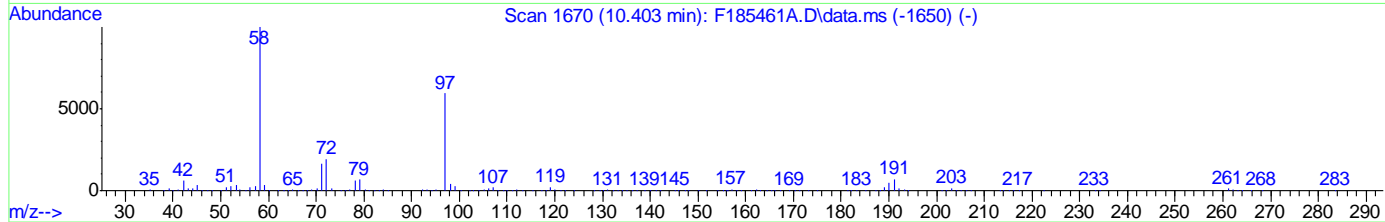
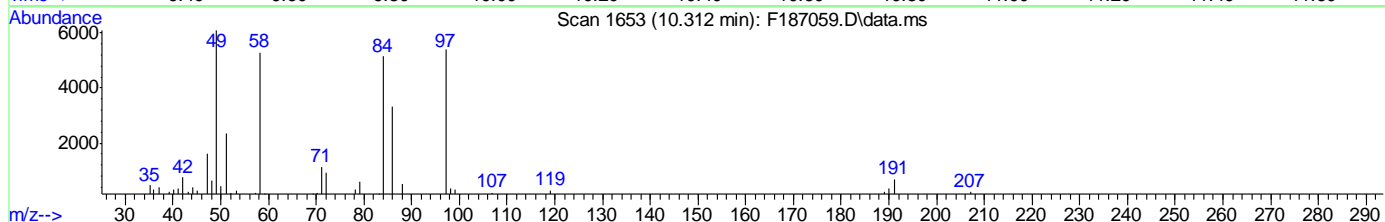
Quantitation Report (Qedit)

Data Path : C:\MSDCHEM\1\DATA\EF8054\
 Data File : F187059.D
 Acq On : 11 Sep 2019 6:18 am
 Operator : chriss2
 Sample : ic8054-5
 Misc : op21602,ef8054,1000,,,1,1
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Sep 11 09:32:15 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MF8050AP9.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Wed Sep 11 09:15:22 2019
 Response via : Initial Calibration



9.6.40.7
9



TIC: F187059.D\data.ms

(144) Methapyriline (M)
 10.312min (-0.171) 8.89ppm m
 response 25950

Ion	Exp%	Act%
58.00	100	100
97.00	82.00	101.76
72.00	22.00	17.46
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF8054\
 Data File : F187060.D
 Acq On : 11 Sep 2019 6:48 am
 Operator : chriss2
 Sample : ic8054-2
 Misc : op21602,ef8054,1000,,,1,1
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Sep 11 09:36:40 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MF8050AP9.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Wed Sep 11 09:15:22 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.591	152	326259	40.00	ppm	-0.01
24) Naphthalene-d8	5.510	136	1204851	40.00	ppm	-0.01
47) Acenaphthene-d10	6.888	164	734238	40.00	ppm	-0.02
69) Phenanthrene-d10	8.704	188	1390200	40.00	ppm	-0.03
83) Chrysene-d12	13.897	240	1377359	40.00	ppm	-0.03
91) Perylene-d12	16.931	264	1530692	40.00	ppm	-0.03
101) 1,4-Dichlorobenzene-d4A	4.591	152	326259	40.00	ppm	0.00
111) Naphthalene-d8A	5.510	136	1204851	40.00	ppm	0.00
120) Acenaphthene-d10A	6.888	164	734238	40.00	ppm	0.00
131) Phenanthrene-d10A	8.704	188	1390200	40.00	ppm	0.00
146) Chrysene-d12A	13.897	240	1377359	40.00	ppm	0.00
153) Perylene-d12A	16.931	264	1530692	40.00	ppm	0.00
156) 1,4-Dichlorobenzene-d4b	4.591	152	326259	40.00	ppm	-0.01
158) Phenanthrene-d10b	8.704	188	1390200	40.00	ppm	-0.03
160) Chrysene-d12b	13.897	240	1377359	40.00	ppm	-0.03
162) Naphthalene-d8b	5.510	136	1204851	40.00	ppm	-0.01
164) Acenaphthene-d10b	6.888	164	734238	40.00	ppm	-0.02
166) Naphthalene-d8c	5.510	136	1204851	40.00	ppm	-0.03
171) 1,4-Dichlorobenzene-d4c	4.591	152	326259	40.00	ppm	-0.03
173) Chrysene-d12c	13.897	240	1377359	40.00	ppm	-0.09
175) Chrysene-d12d	13.897	240	1377359	40.00	ppm	-0.09
177) Naphthalene-d8d	5.510	136	1204851	40.00	ppm	-0.03
179) Chrysene-d12e	13.897	240	1377359	40.00	ppm	-0.09
181) Perylene-d12b	16.931	264	1530692	40.00	ppm	-0.06
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
8) Phenol-d5	0.000	99	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
25) Nitrobenzene-d5	0.000	82	0d	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
Target Compounds						
102) 2-Picoline	3.127	93	26626	2.21	ppm	99
103) Pentachloroethane	4.382	167	9027	2.23	ppm	93
104) Methyl methanesulfonate	3.464	80	16095	2.30	ppm	98
105) N-Nitrosodiethylamine	3.779	102	11055	2.13	ppm	92
106) N-Nitrosomethylethylamine	3.212	42	11742	2.20	ppm	78
107) Ethyl methanesulfonate	4.014	79	18936	2.35	ppm	96
108) N-Nitrosopyrrolidine	4.858	41	9667	4.03	ppm	85
109) N-Nitrosomorpholine	4.885	56	15243	3.25	ppm	97
110) o-Toluidine	4.906	106	38783	2.83	ppm	84

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF8054\
 Data File : F187060.D
 Acq On : 11 Sep 2019 6:48 am
 Operator : chriss2
 Sample : ic8054-2
 Misc : op21602,ef8054,1000,,,1,1
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Sep 11 09:36:40 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MF8050AP9.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Wed Sep 11 09:15:22 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
112) O,O,O-Triethyl phospho...	5.312	198	11045	2.41	ppm	84
113) N-Nitrosopiperidine	5.109	42	16406	2.51	ppm	98
114) A,A-Dimethylphenethyla...	6.023	58	49647m	1.86	ppm	
115) Hexachloropropene	5.590	213	15515	2.17	ppm	95
116) N-Nitrosodi-n-butylamine	5.793	84	18380	2.48	ppm	92
117) p-Phenylenediamine	5.846	108	8062m	1.99	ppm	
118) Safrole	5.948	162	16430	2.33	ppm	84
119) Isosafrole	6.343	162	11968	2.30	ppm	97
121) Thionazin	7.417	143	5989	2.16	ppm	85
122) Tetraethyl dithiopyrop...	7.801	322	6980	2.00	ppm	100
123) Phorate	7.972	75	33952	2.52	ppm	100
124) Phenacetin	7.983	108	24059	1.91	ppm	97
125) 1,4-Naphthoquinone	6.535	158	12550	2.07	ppm	89
126) m-Dinitrobenzene	6.653	168	5340	1.48	ppm	95
127) Pentachlorobenzene	7.054	250	21364	2.56	ppm	99
128) 2-Naphthylamine	7.246	143	39760	2.25	ppm	100
129) 1-Naphthylamine	7.160	143	27910	2.37	ppm	87
130) 5-Nitro-o-toluidine	7.460	152	13165	2.06	ppm	88
132) Disulfoton	8.736	88	27383	2.47	ppm	80
133) Dinoseb	8.731	211	5932	0.98	ppm	93
134) Dimethoate	8.186	87	19490	2.09	ppm	97
135) 4-Aminobiphenyl	8.432	169	45220	2.01	ppm	99
136) Methyl parathion	9.345	125	9124	1.55	ppm	94
137) Parathion	10.072	109	9650	2.17	ppm	96
138) Diphenylamine	7.593	169	80704	5.03	ppm	95
139) Isodrin	10.542	193	8673	2.27	ppm	92
140) Diallate	7.967	86	18573	2.49	ppm	88
141) Pentachloronitrobenzene	8.459	295	5576	4.50	ppm	97
142) Pronamide	8.549	173	20241	1.92	ppm	98
143) 4-Nitroquinoline 1-oxide	10.045	190	15217	3.95	ppm	81
144) Methapyriline	10.302	58	21955	3.66	ppm	95
145) sym-Trinitrobenzene	7.919	213	2424	0.91	ppm	95
147) Aramite	11.926	185	3610	1.37	ppm	97
148) p-(Dimethylamine)azobe...	12.011	120	17925	1.56	ppm	95
149) Kepone	12.716	272	38876	37.70	ppm	87
150) Famphur	12.679	218	192513	33.50	ppm	97
151) 2-Acetylaminofluorene	13.272	181	18267	1.06	ppm	99
152) Chlorobenzilate	12.155	251	20077	1.77	ppm	100
155) 3-Methylcholanthrene	17.519	252	12208	1.54	ppm	93

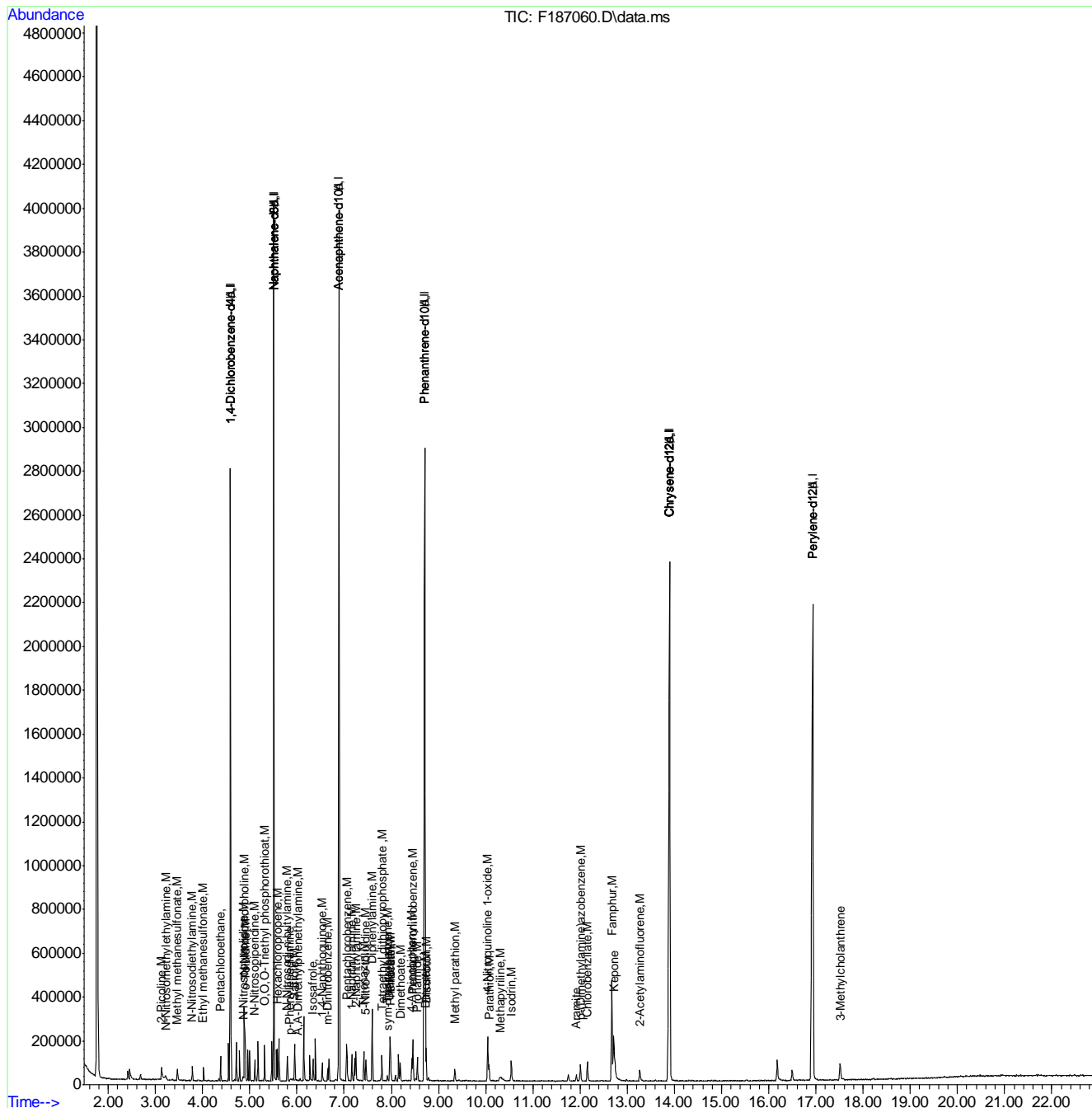
(#) = qualifier out of range (m) = manual integration (+) = signals summed

9.6.41
9

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF8054\
 Data File : F187060.D
 Acq On : 11 Sep 2019 6:48 am
 Operator : chriss2
 Sample : ic8054-2
 Misc : op21602,ef8054,1000,,,1,1
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Sep 11 09:36:40 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MF8050AP9.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Wed Sep 11 09:15:22 2019
 Response via : Initial Calibration



9.6.41
9

Manual Integration Approval Summary

Sample Number: EF8054-IC8054 Method: SW846 8270D
Lab FileID: F187060.D Analyst approved: 09/11/19 11:58 Kristi Schollenberger
Injection Time: 09/11/19 06:48 Supervisor approved: 09/13/19 14:06 Nina Pandya

Parameter	CAS	Sig#	R.T. (min.)	Reason
p-Phenylenediamine	106-50-3		5.85	Split peak
A,A-Dimethylphenethylamine	122-09-8		6.02	Split peak

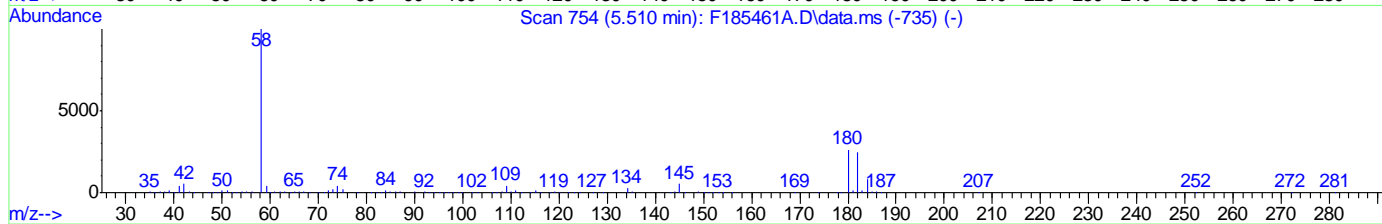
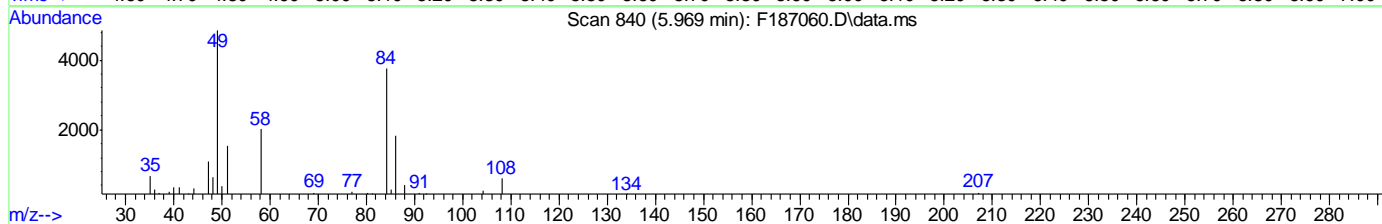
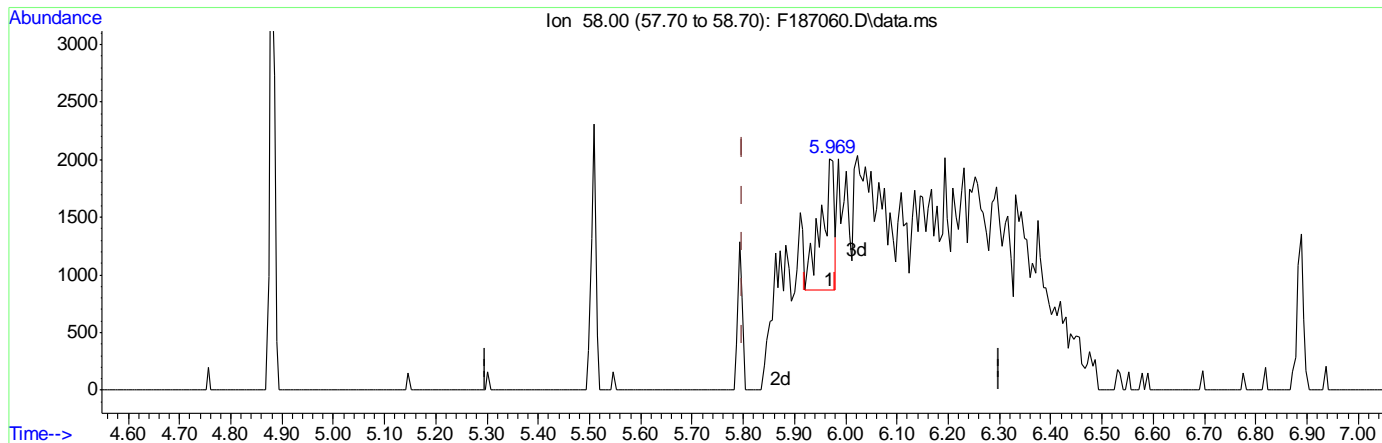
9.6.41.1

9

Quantitation Report (Qedit)

Data Path : C:\MSDCHEM\1\DATA\EF8054\
 Data File : F187060.D
 Acq On : 11 Sep 2019 6:48 am
 Operator : chriss2
 Sample : ic8054-2
 Misc : op21602,ef8054,1000,,,1,1
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Sep 11 09:34:36 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MF8050AP9.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Wed Sep 11 09:15:22 2019
 Response via : Initial Calibration



(114) A,A-Dimethylphenethylamine (M)

5.969min (+0.170) 0.08ppm

response 2008

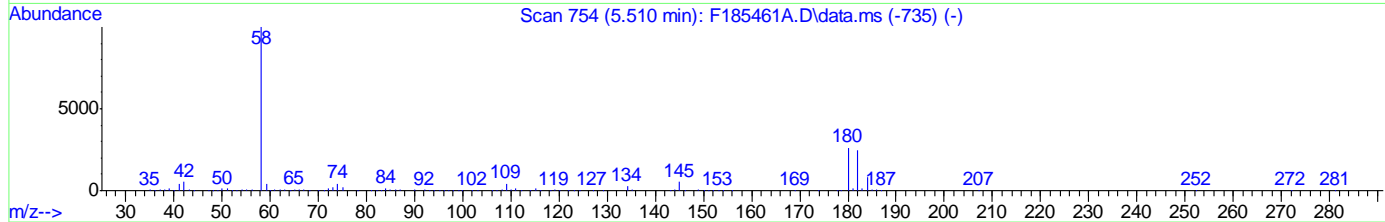
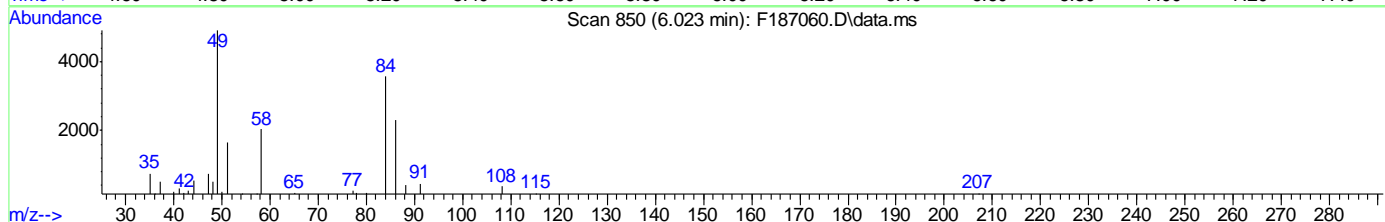
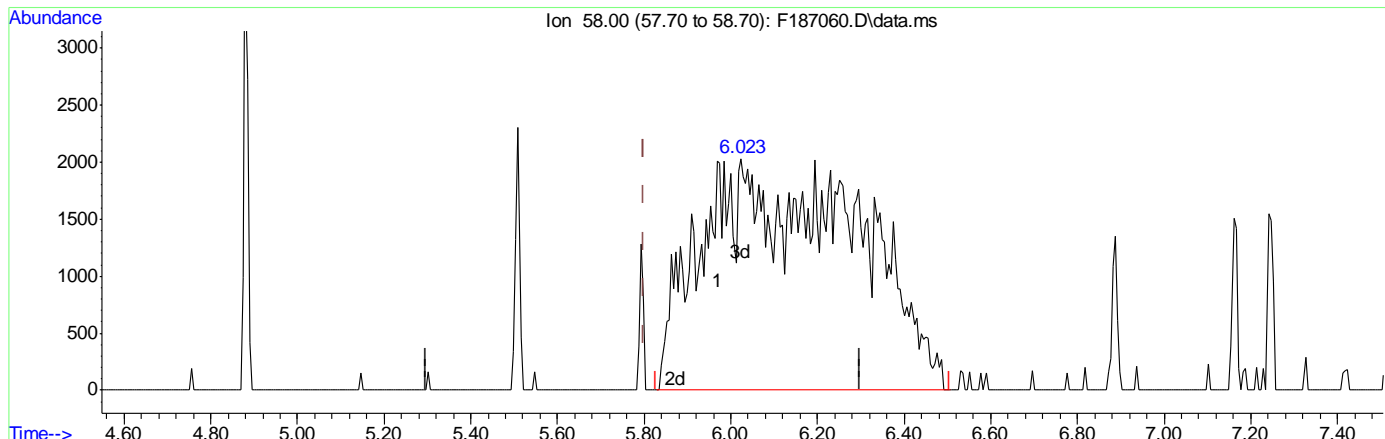
Ion	Exp%	Act%
58.00	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

9.6.41.2
9

Quantitation Report (Qedit)

Data Path : C:\MSDCHEM\1\DATA\EF8054\
 Data File : F187060.D
 Acq On : 11 Sep 2019 6:48 am
 Operator : chriss2
 Sample : ic8054-2
 Misc : op21602,ef8054,1000,,,1,1
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Sep 11 09:34:36 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MF8050AP9.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Wed Sep 11 09:15:22 2019
 Response via : Initial Calibration



(114) A,A-Dimethylphenethylamine (M)

6.023min (+0.224) 1.86ppm m

response 49647

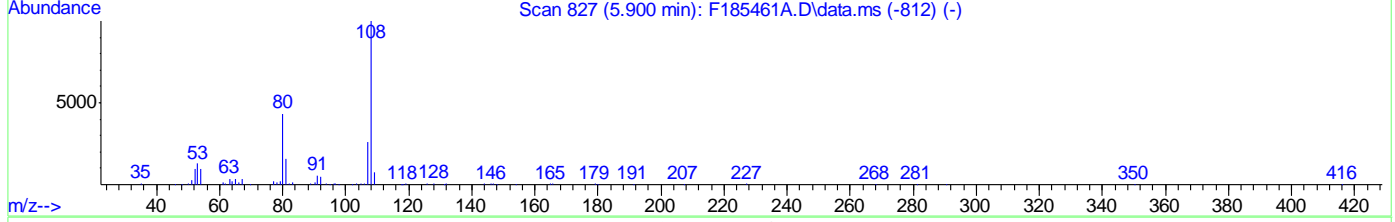
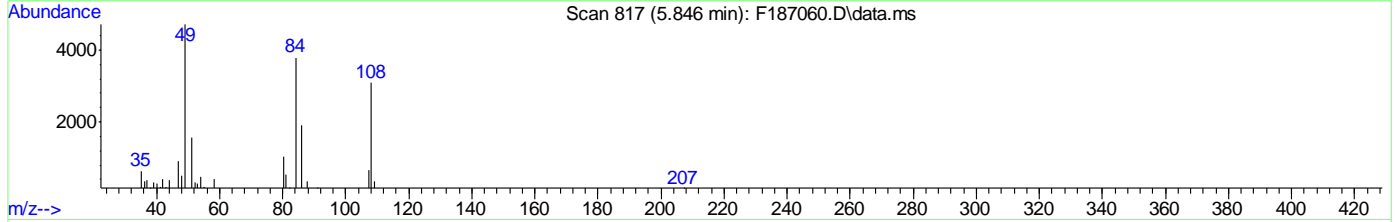
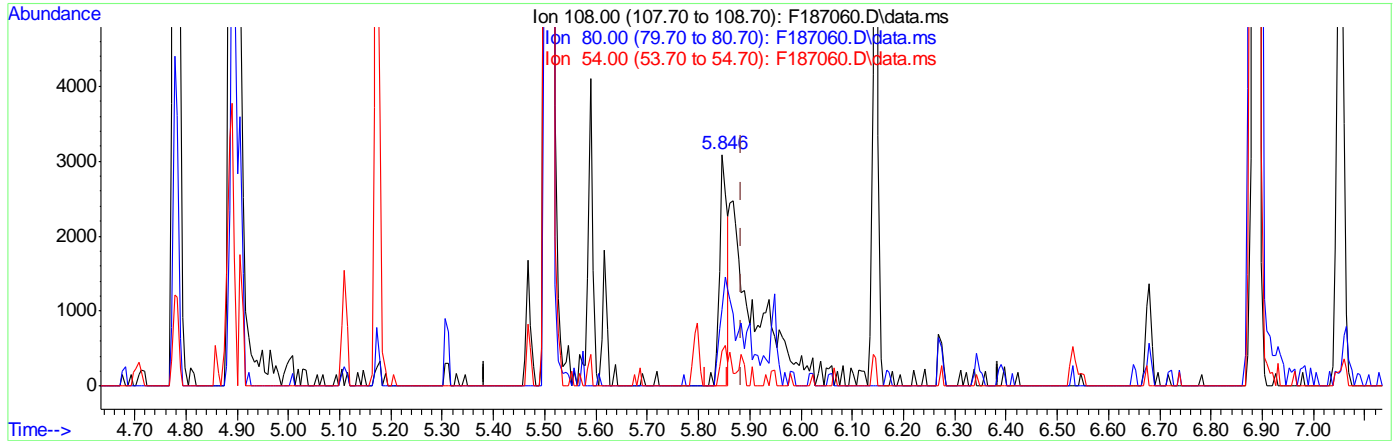
Ion	Exp%	Act%
58.00	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

9.6.41.3
9

Quantitation Report (Qedit)

Data Path : C:\MSDCHEM\1\DATA\EF8054\
 Data File : F187060.D
 Acq On : 11 Sep 2019 6:48 am
 Operator : chriss2
 Sample : ic8054-2
 Misc : op21602,ef8054,1000,,,1,1
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Sep 11 09:34:36 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MF8050AP9.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Wed Sep 11 09:15:22 2019
 Response via : Initial Calibration



TIC: F187060.D\data.ms

(117) p-Phenylenediamine
 5.846min (-0.038) 0.80ppm
 response 3226

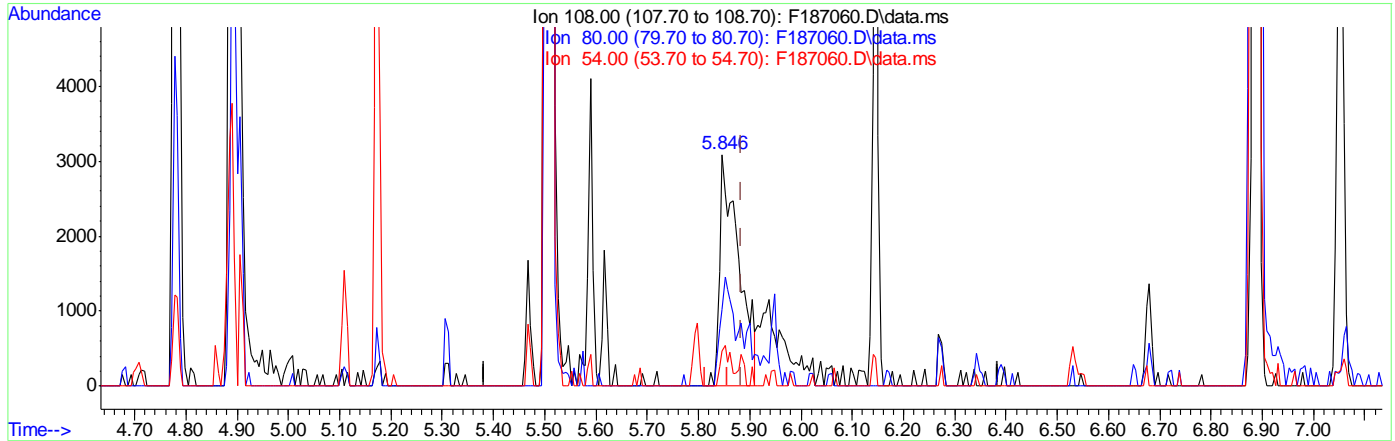
Ion	Exp%	Act%
108.00	100	100
80.00	47.00	19.27#
54.00	12.40	15.82#
0.00	0.00	0.00

9.6.41.4
9

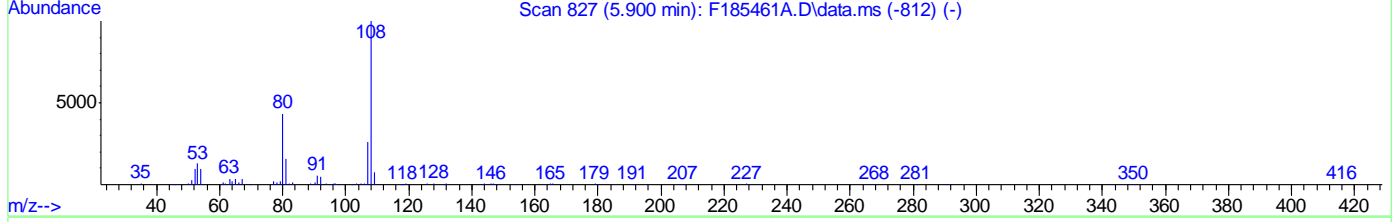
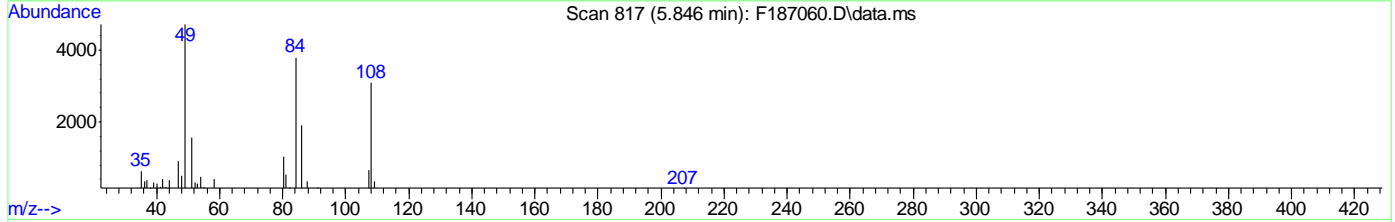
Quantitation Report (Qedit)

Data Path : C:\MSDCHEM\1\DATA\EF8054\
 Data File : F187060.D
 Acq On : 11 Sep 2019 6:48 am
 Operator : chriss2
 Sample : ic8054-2
 Misc : op21602,ef8054,1000,,,1,1
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Sep 11 09:34:36 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MF8050AP9.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Wed Sep 11 09:15:22 2019
 Response via : Initial Calibration



9.6.41.5
9



TIC: F187060.D\data.ms

(117) p-Phenylenediamine
 5.846min (-0.038) 1.99ppm m
 response 8062

Ion	Exp%	Act%
108.00	100	100
80.00	47.00	33.12#
54.00	12.40	15.31#
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF8054\
 Data File : F187061.D
 Acq On : 11 Sep 2019 7:17 am
 Operator : chriss2
 Sample : ic8054-1
 Misc : op21602,ef8054,1000,,,1,1
 ALS Vial : 9 Sample Multiplier: 1

Quant Time: Sep 11 09:49:46 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MF8050AP9.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Wed Sep 11 09:15:22 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.586	152	147811	40.00	ppm	-0.02
24) Naphthalene-d8	5.510	136	547753	40.00	ppm	-0.01
47) Acenaphthene-d10	6.888	164	329108	40.00	ppm	-0.02
69) Phenanthrene-d10	8.699	188	616932	40.00	ppm	-0.03
83) Chrysene-d12	13.887	240	566220	40.00	ppm	-0.04
91) Perylene-d12	16.916	264	615473	40.00	ppm	-0.04
101) 1,4-Dichlorobenzene-d4A	4.586	152	147811	40.00	ppm	0.00
111) Naphthalene-d8A	5.510	136	547753	40.00	ppm	0.00
120) Acenaphthene-d10A	6.888	164	329108	40.00	ppm	0.00
131) Phenanthrene-d10A	8.699	188	616932	40.00	ppm	-0.01
146) Chrysene-d12A	13.887	240	566220	40.00	ppm	-0.01
153) Perylene-d12A	16.916	264	615473	40.00	ppm	-0.02
156) 1,4-Dichlorobenzene-d4b	4.586	152	147811	40.00	ppm	-0.02
158) Phenanthrene-d10b	8.699	188	616932	40.00	ppm	-0.03
160) Chrysene-d12b	13.887	240	566220	40.00	ppm	-0.04
162) Naphthalene-d8b	5.510	136	547753	40.00	ppm	-0.01
164) Acenaphthene-d10b	6.888	164	329108	40.00	ppm	-0.02
166) Naphthalene-d8c	5.510	136	547753	40.00	ppm	-0.03
171) 1,4-Dichlorobenzene-d4c	4.586	152	147811	40.00	ppm	-0.03
173) Chrysene-d12c	13.887	240	566220	40.00	ppm	-0.10
175) Chrysene-d12d	13.887	240	566220	40.00	ppm	-0.10
177) Naphthalene-d8d	5.510	136	547753	40.00	ppm	-0.03
179) Chrysene-d12e	13.887	240	566220	40.00	ppm	-0.10
181) Perylene-d12b	16.916	264	615473	40.00	ppm	-0.08
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
8) Phenol-d5	0.000	99	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
25) Nitrobenzene-d5	0.000	82	0d	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
Target Compounds						
102) 2-Picoline	3.149	93	4906	0.90	ppm	Qvalue 98
103) Pentachloroethane	4.383	167	1944	1.06	ppm	90
104) Methyl methanesulfonate	3.474	80	3144	0.99	ppm	87
105) N-Nitrosodiethylamine	3.784	102	1847	0.79	ppm	65
106) N-Nitrosomethylethylamine	3.223	42	2835	1.17	ppm	# 46
107) Ethyl methanesulfonate	4.019	79	4257	1.17	ppm	95
108) N-Nitrosopyrrolidine	4.858	41	2215	2.04	ppm	# 74
109) N-Nitrosomorpholine	4.885	56	2972	1.40	ppm	85
110) o-Toluidine	4.906	106	7831	1.26	ppm	98

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF8054\
 Data File : F187061.D
 Acq On : 11 Sep 2019 7:17 am
 Operator : chriss2
 Sample : ic8054-1
 Misc : op21602,ef8054,1000,,,1,1
 ALS Vial : 9 Sample Multiplier: 1

Quant Time: Sep 11 09:49:46 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MF8050AP9.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Wed Sep 11 09:15:22 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
112) O,O,O-Triethyl phospho...	5.307	198	2456	1.18	ppm	85
113) N-Nitrosopiperidine	5.109	42	3070	1.03	ppm	85
114) A,A-Dimethylphenethyla...	6.119	58	9705m	0.80	ppm	
115) Hexachloropropene	5.590	213	3004	0.93	ppm	96
116) N-Nitrosodi-n-butylamine	5.793	84	4065	1.21	ppm	# 69
118) Safrole	5.948	162	3207	1.00	ppm	97
119) Isosafrole	6.343	162	1830	0.77	ppm	79
122) Tetraethyl dithiopyrop...	7.807	322	1164	0.74	ppm	100
123) Phorate	7.973	75	5958	0.99	ppm	100
124) Phenacetin	7.983	108	3387	0.60	ppm	96
125) 1,4-Naphthoquinone	6.536	158	2014	0.74	ppm	77
127) Pentachlorobenzene	7.054	250	4746	1.27	ppm	95
128) 2-Naphthylamine	7.246	143	6456	0.81	ppm	84
129) 1-Naphthylamine	7.161	143	5428	1.03	ppm	98
130) 5-Nitro-o-toluidine	7.460	152	1613	0.56	ppm	87
132) Disulfoton	8.737	88	4758	0.97	ppm	74
134) Dimethoate	8.192	87	2939	0.71	ppm	81
135) 4-Aminobiphenyl	8.432	169	6817	0.68	ppm	95
136) Methyl parathion	9.346	125	1281	0.49	ppm	84
137) Parathion	10.078	109	1044	0.53	ppm	92
138) Diphenylamine	7.593	169	16311	2.29	ppm	93
139) Isodrin	10.548	193	1776	1.05	ppm	74
140) Diallate	7.967	86	4151	1.26	ppm	77
142) Pronamide	8.550	173	3049	0.65	ppm	82
143) 4-Nitroquinoline 1-oxide	10.045	190	1171	0.68	ppm	# 48
144) Methapyriline	10.334	58	3329	1.25	ppm	# 47
148) p-(Dimethylamine)azobe...	12.006	120	2425	0.51	ppm	97
149) Kepone	12.717	272	6715	15.84	ppm	91
150) Famphur	12.717	218	1020	0.43	ppm	47
151) 2-Acetylaminofluorene	13.272	181	2112	0.30	ppm	91
152) Chlorobenzilate	12.161	251	2657	0.57	ppm	98
155) 3-Methylcholanthrene	17.509	252	1674	0.53	ppm	98

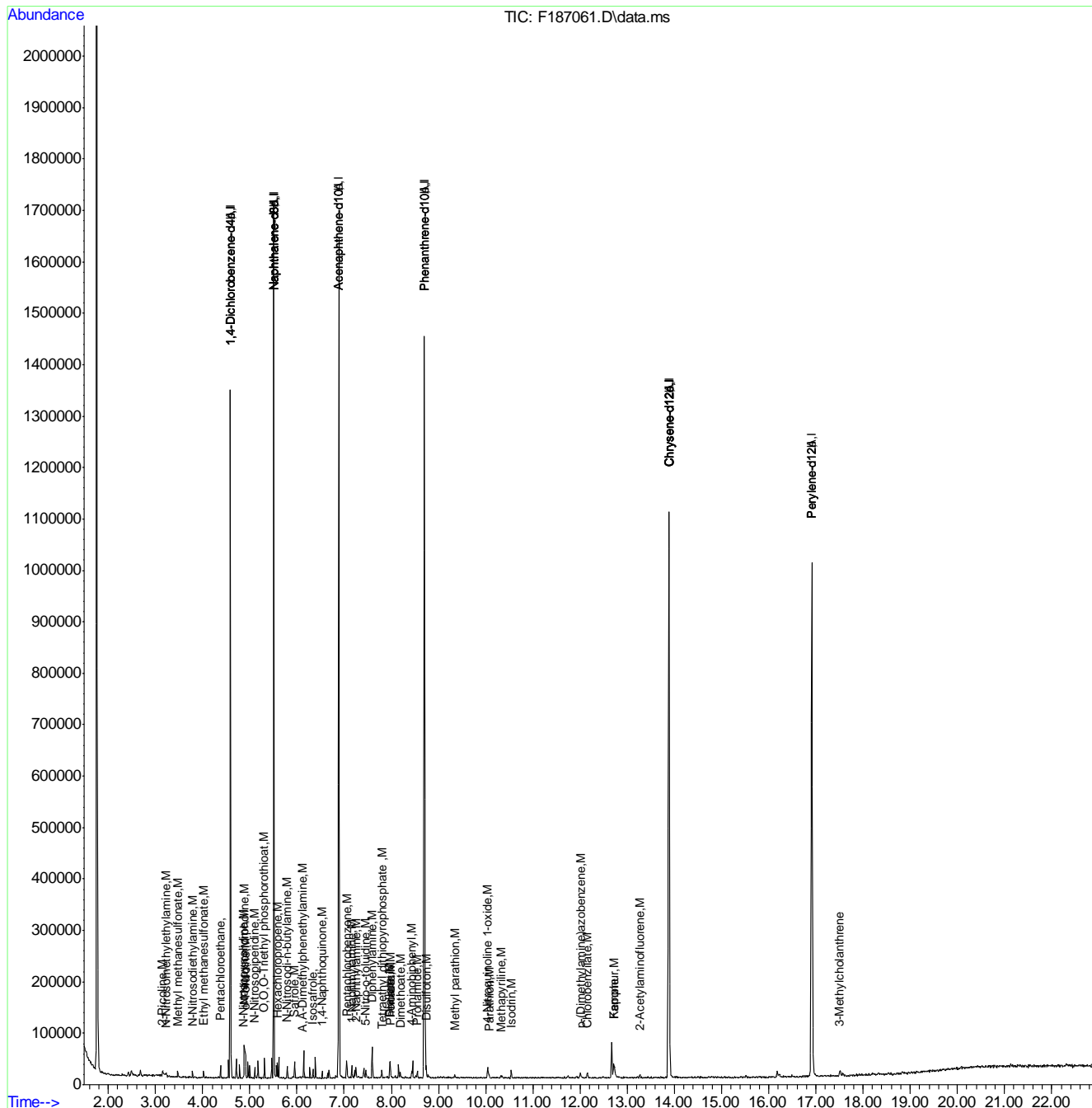
(#) = qualifier out of range (m) = manual integration (+) = signals summed

9.6.42
9

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF8054\
 Data File : F187061.D
 Acq On : 11 Sep 2019 7:17 am
 Operator : chriss2
 Sample : ic8054-1
 Misc : op21602,ef8054,1000,,,1,1
 ALS Vial : 9 Sample Multiplier: 1

Quant Time: Sep 11 09:49:46 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MF8050AP9.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Wed Sep 11 09:15:22 2019
 Response via : Initial Calibration



9.6.42
 9

Manual Integration Approval Summary

Sample Number: EF8054-IC8054 Method: SW846 8270D
Lab FileID: F187061.D Analyst approved: 09/11/19 11:58 Kristi Schollenberger
Injection Time: 09/11/19 07:17 Supervisor approved: 09/13/19 14:06 Nina Pandya

Parameter	CAS	Sig#	R.T. (min.)	Reason
A,A-Dimethylphenethylamine	122-09-8		6.12	Split peak

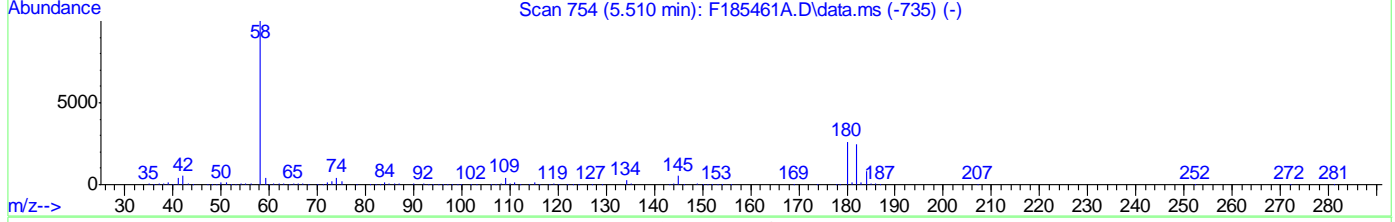
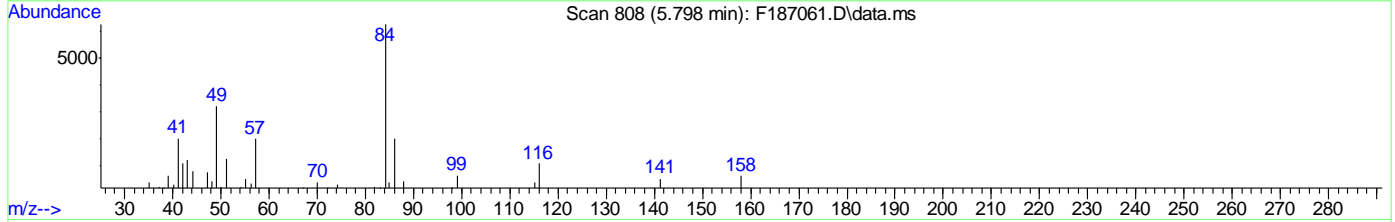
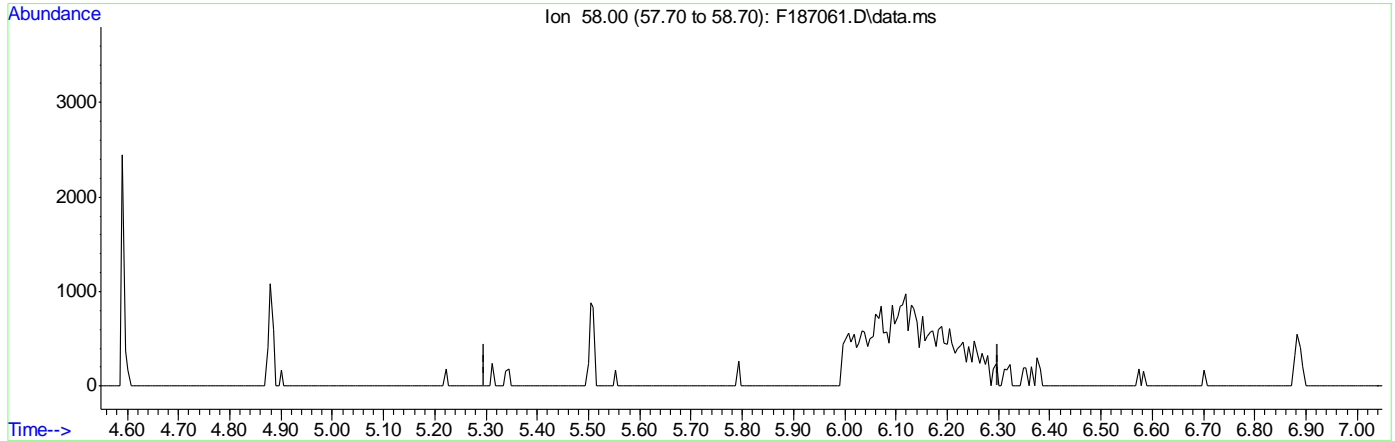
9.6.42.1

9

Quantitation Report (Qedit)

Data Path : C:\MSDCHEM\1\DATA\EF8054\
 Data File : F187061.D
 Acq On : 11 Sep 2019 7:17 am
 Operator : chriss2
 Sample : ic8054-1
 Misc : op21602,ef8054,1000,,,1,1
 ALS Vial : 9 Sample Multiplier: 1

Quant Time: Sep 11 09:36:48 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MF8050AP9.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Wed Sep 11 09:15:22 2019
 Response via : Initial Calibration



TIC: F187061.D\data.ms

(114) A,A-Dimethylphenethylamine (M)

5.799min (-5.799) 0.00ppm

response 0

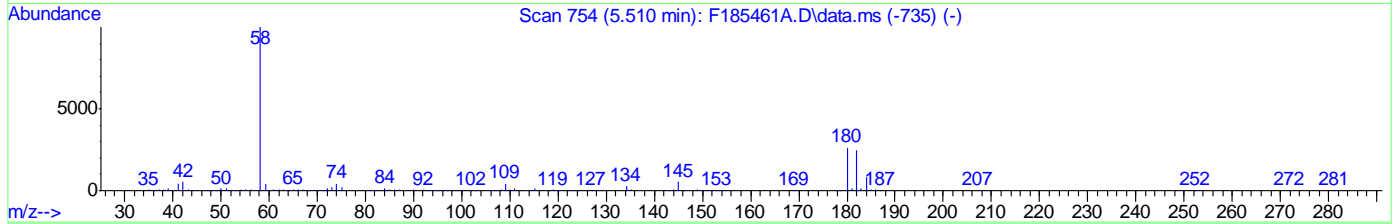
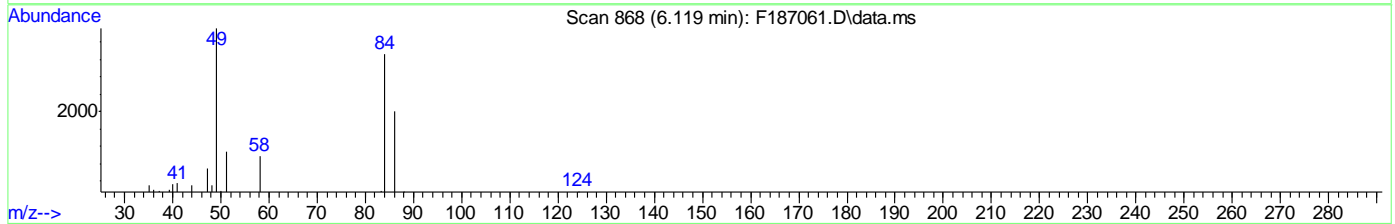
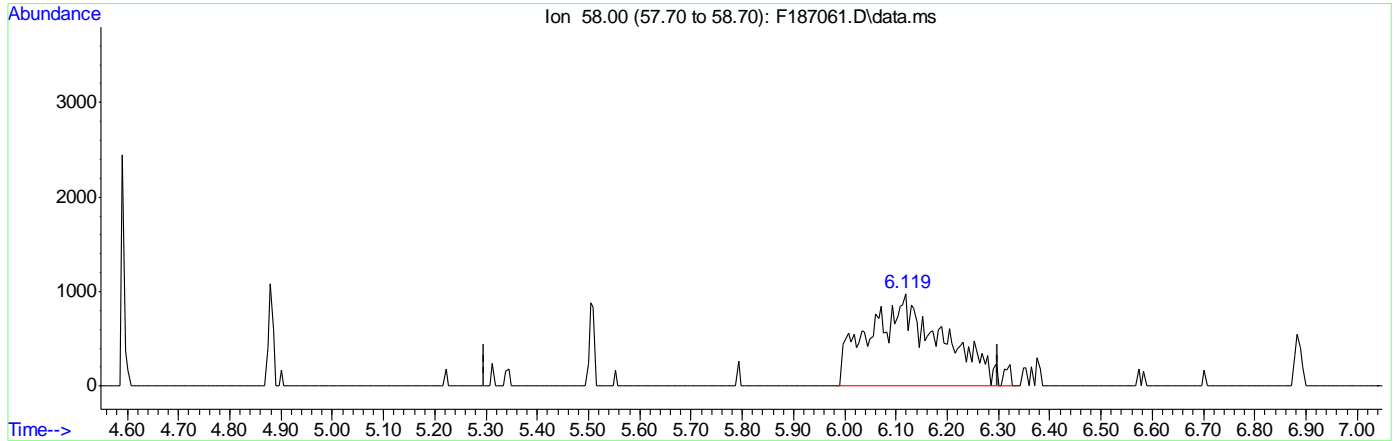
Ion	Exp%	Act%
58.00	100	0.00
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

9.6.42.2
9

Quantitation Report (Qedit)

Data Path : C:\MSDCHEM\1\DATA\EF8054\
 Data File : F187061.D
 Acq On : 11 Sep 2019 7:17 am
 Operator : chriss2
 Sample : ic8054-1
 Misc : op21602,ef8054,1000,,,1,1
 ALS Vial : 9 Sample Multiplier: 1

Quant Time: Sep 11 09:36:48 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MF8050AP9.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Wed Sep 11 09:15:22 2019
 Response via : Initial Calibration



TIC: F187061.D\data.ms

(114) A,A-Dimethylphenethylamine (M)

6.119min (+0.320) 0.80ppm m

response 9705

Ion	Exp%	Act%
58.00	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

9.6.42.3
9

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF8054\
 Data File : F187062.D
 Acq On : 11 Sep 2019 7:46 am
 Operator : chriss2
 Sample : icv8054-50
 Misc : op21602,ef8054,1000,,,1,1
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Sep 11 09:58:33 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MF8050AP9.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Wed Sep 11 09:54:58 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.586	152	164580	40.00	ppm	-0.02
24) Naphthalene-d8	5.510	136	614823	40.00	ppm	-0.01
47) Acenaphthene-d10	6.888	164	370352	40.00	ppm	-0.02
69) Phenanthrene-d10	8.699	188	693932	40.00	ppm	-0.03
83) Chrysene-d12	13.886	240	662968	40.00	ppm	-0.04
91) Perylene-d12	16.915	264	695053	40.00	ppm	-0.04
101) 1,4-Dichlorobenzene-d4A	4.586	152	164580	40.00	ppm	0.00
111) Naphthalene-d8A	5.510	136	614823	40.00	ppm	0.00
120) Acenaphthene-d10A	6.888	164	370352	40.00	ppm	0.00
131) Phenanthrene-d10A	8.699	188	693932	40.00	ppm	0.00
146) Chrysene-d12A	13.886	240	662968	40.00	ppm	0.00
153) Perylene-d12A	16.915	264	695053	40.00	ppm	0.00
156) 1,4-Dichlorobenzene-d4b	4.586	152	164580	40.00	ppm	-0.02
158) Phenanthrene-d10b	8.699	188	693932	40.00	ppm	-0.03
160) Chrysene-d12b	13.886	240	662968	40.00	ppm	-0.04
162) Naphthalene-d8b	5.510	136	614823	40.00	ppm	-0.01
164) Acenaphthene-d10b	6.888	164	370352	40.00	ppm	-0.02
166) Naphthalene-d8c	5.510	136	614823	40.00	ppm	-0.03
171) 1,4-Dichlorobenzene-d4c	4.586	152	164580	40.00	ppm	-0.03
173) Chrysene-d12c	13.886	240	662968	40.00	ppm	-0.10
175) Chrysene-d12d	13.886	240	662968	40.00	ppm	-0.10
177) Naphthalene-d8d	5.510	136	614823	40.00	ppm	-0.03
179) Chrysene-d12e	13.886	240	662968	40.00	ppm	-0.10
181) Perylene-d12b	16.915	264	695053	40.00	ppm	-0.08
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
8) Phenol-d5	0.000	99	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
25) Nitrobenzene-d5	0.000	82	0d	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
Target Compounds						
102) 2-Picoline	3.100	93	274622	45.15	ppm	Qvalue 97
105) N-Nitrosodiethylamine	3.774	102	115270	43.16	ppm	98
106) N-Nitrosomethylethylamine	3.202	42	119912	42.80	ppm	92
108) N-Nitrosopyrrolidine	4.858	41	97320	45.10	ppm	88
109) N-Nitrosomorpholine	4.890	56	142914	45.20	ppm	99
110) o-Toluidine	4.906	106	390155	46.11	ppm	# 9
113) N-Nitrosopiperidine	5.109	42	154676	42.95	ppm	99
116) N-Nitrosodi-n-butylamine	5.798	84	184870	43.75	ppm	100
117) p-Phenylenediamine	5.804	108	307782	107.19	ppm	# 92

9.643
9

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF8054\
 Data File : F187062.D
 Acq On : 11 Sep 2019 7:46 am
 Operator : chriss2
 Sample : icv8054-50
 Misc : op21602,ef8054,1000,,,1,1
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Sep 11 09:58:33 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MF8050AP9.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Wed Sep 11 09:54:58 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
128) 2-Naphthylamine	7.251	143	496625	53.57	ppm	99
129) 1-Naphthylamine	7.166	143	482668	75.80	ppm	93
130) 5-Nitro-o-toluidine	7.470	152	147415	47.30	ppm	92
135) 4-Aminobiphenyl	8.432	169	576060	52.37	ppm	100
148) p-(Dimethylamine)azobe...	12.017	120	241992	45.35	ppm	100
151) 2-Acetylaminofluorene	13.283	181	350619	47.04	ppm	98

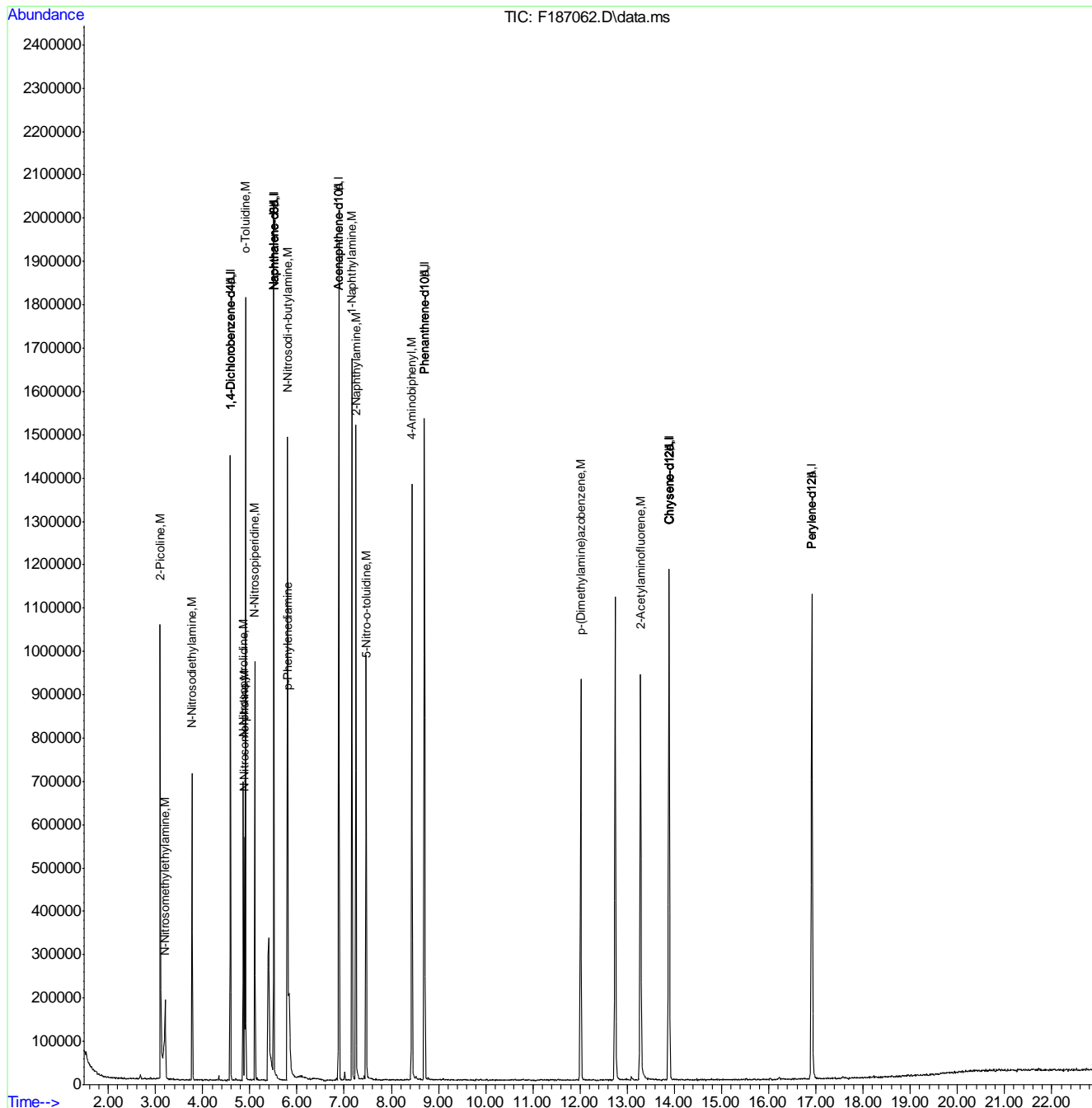
(#) = qualifier out of range (m) = manual integration (+) = signals summed

9.6.43
9

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF8054\
 Data File : F187062.D
 Acq On : 11 Sep 2019 7:46 am
 Operator : chriss2
 Sample : icv8054-50
 Misc : op21602,ef8054,1000,,,1,1
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Sep 11 09:58:33 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MF8050AP9.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Wed Sep 11 09:54:58 2019
 Response via : Initial Calibration



9.6.43
 9

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF8054\
 Data File : F187063.D
 Acq On : 11 Sep 2019 8:15 am
 Operator : chriss2
 Sample : icv8054-50
 Misc : op21602,ef8054,1000,,,1,1
 ALS Vial : 11 Sample Multiplier: 1

Quant Time: Sep 11 10:02:45 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MF8050AP9.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Wed Sep 11 09:54:58 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.591	152	171359	40.00	ppm	-0.01
24) Naphthalene-d8	5.510	136	626071	40.00	ppm	-0.01
47) Acenaphthene-d10	6.888	164	387764	40.00	ppm	-0.02
69) Phenanthrene-d10	8.704	188	692492	40.00	ppm	-0.03
83) Chrysene-d12	13.886	240	640844	40.00	ppm	-0.04
91) Perylene-d12	16.915	264	685021	40.00	ppm	-0.04
101) 1,4-Dichlorobenzene-d4A	4.591	152	171359	40.00	ppm	0.00
111) Naphthalene-d8A	5.510	136	626071	40.00	ppm	0.00
120) Acenaphthene-d10A	6.888	164	387764	40.00	ppm	0.00
131) Phenanthrene-d10A	8.704	188	692492	40.00	ppm	0.00
146) Chrysene-d12A	13.886	240	640844	40.00	ppm	0.00
153) Perylene-d12A	16.915	264	685021	40.00	ppm	0.00
156) 1,4-Dichlorobenzene-d4b	4.591	152	171359	40.00	ppm	-0.01
158) Phenanthrene-d10b	8.704	188	692492	40.00	ppm	-0.03
160) Chrysene-d12b	13.886	240	640844	40.00	ppm	-0.04
162) Naphthalene-d8b	5.510	136	626071	40.00	ppm	-0.01
164) Acenaphthene-d10b	6.888	164	387764	40.00	ppm	-0.02
166) Naphthalene-d8c	5.510	136	626071	40.00	ppm	-0.03
171) 1,4-Dichlorobenzene-d4c	4.591	152	171359	40.00	ppm	-0.03
173) Chrysene-d12c	13.886	240	640844	40.00	ppm	-0.10
175) Chrysene-d12d	13.886	240	640844	40.00	ppm	-0.10
177) Naphthalene-d8d	5.510	136	626071	40.00	ppm	-0.03
179) Chrysene-d12e	13.886	240	640844	40.00	ppm	-0.10
181) Perylene-d12b	16.915	264	685021	40.00	ppm	-0.08
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
51) 2-Fluorobiphenyl	0.000	172	0d	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
Target Compounds						
103) Pentachloroethane	4.382	167	94037	41.68	ppm	98
104) Methyl methanesulfonate	3.458	80	163632	42.84	ppm	98
107) Ethyl methanesulfonate	4.014	79	200793	44.22	ppm	99
115) Hexachloropropene	5.590	213	162111	42.43	ppm	98
118) Safrole	5.953	162	176890	44.58	ppm	98
119) Isosafrole	6.348	162	184294	67.03	ppm	92
124) Phenacetin	7.999	108	278151	43.97	ppm	97
125) 1,4-Naphthoquinone	6.535	158	193844	58.38	ppm	100
127) Pentachlorobenzene	7.054	250	205075	40.70	ppm	99

9.6.44
9

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF8054\
 Data File : F187063.D
 Acq On : 11 Sep 2019 8:15 am
 Operator : chriss2
 Sample : icv8054-50
 Misc : op21602,ef8054,1000,,,1,1
 ALS Vial : 11 Sample Multiplier: 1

Quant Time: Sep 11 10:02:45 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MF8050AP9.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Wed Sep 11 09:54:58 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
139) Isodrin	10.547	193	94036	45.71	ppm	98
140) Diallate	7.967	86	186562	43.58	ppm	98
141) Pentachloronitrobenzene	8.459	295	29373	43.79	ppm	93
142) Pronamide	8.555	173	245069	48.45	ppm	97
143) 4-Nitroquinoline 1-oxide	10.051	190	56815	36.27	ppm	90
145) sym-Trinitrobenzene	7.919	213	43461	35.01	ppm	90
147) Aramite	11.926	185	52197	47.56	ppm	96
149) Kepone	12.716	272	72867	63.26	ppm	97
152) Chlorobenzilate	12.161	251	238541	48.81	ppm	98
155) 3-Methylcholanthrene	17.530	252	170115	54.23	ppm	96

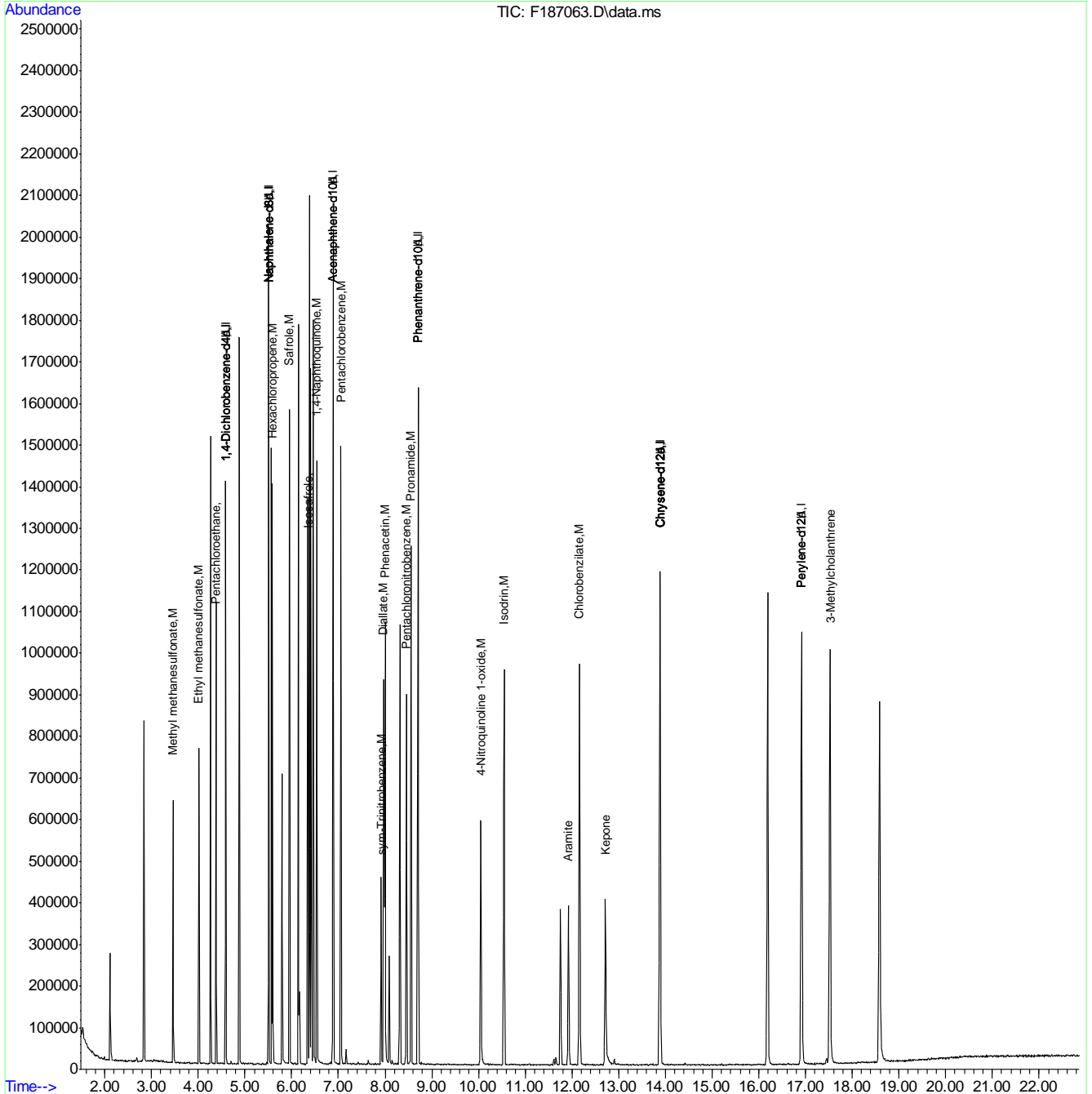
(#) = qualifier out of range (m) = manual integration (+) = signals summed

9.6.44
9

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF8054\
 Data File : F187063.D
 Acq On : 11 Sep 2019 8:15 am
 Operator : chriss2
 Sample : icv8054-50
 Misc : op21602,ef8054,1000,,,1,1
 ALS Vial : 11 Sample Multiplier: 1

Quant Time: Sep 11 10:02:45 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MF8050AP9.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Wed Sep 11 09:54:58 2019
 Response via : Initial Calibration



9.6.44
9

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF8054\
 Data File : F187064.D
 Acq On : 11 Sep 2019 8:45 am
 Operator : chriss2
 Sample : icv8054-50
 Misc : op21602,ef8054,1000,,,1,1
 ALS Vial : 12 Sample Multiplier: 1

Quant Time: Sep 11 10:09:47 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MF8050AP9.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Wed Sep 11 09:54:58 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.586	152	166606	40.00	ppm	-0.02
24) Naphthalene-d8	5.510	136	631413	40.00	ppm	-0.01
47) Acenaphthene-d10	6.888	164	382199	40.00	ppm	-0.02
69) Phenanthrene-d10	8.705	188	696776	40.00	ppm	-0.03
83) Chrysene-d12	13.892	240	664083	40.00	ppm	-0.04
91) Perylene-d12	16.921	264	725602	40.00	ppm	-0.04
101) 1,4-Dichlorobenzene-d4A	4.586	152	166606	40.00	ppm	0.00
111) Naphthalene-d8A	5.510	136	631413	40.00	ppm	0.00
120) Acenaphthene-d10A	6.888	164	382199	40.00	ppm	0.00
131) Phenanthrene-d10A	8.705	188	696776	40.00	ppm	0.00
146) Chrysene-d12A	13.892	240	664083	40.00	ppm	0.00
153) Perylene-d12A	16.921	264	725602	40.00	ppm	0.00
156) 1,4-Dichlorobenzene-d4b	4.586	152	166606	40.00	ppm	-0.02
158) Phenanthrene-d10b	8.705	188	696776	40.00	ppm	-0.03
160) Chrysene-d12b	13.892	240	664083	40.00	ppm	-0.04
162) Naphthalene-d8b	5.510	136	631413	40.00	ppm	-0.01
164) Acenaphthene-d10b	6.888	164	382199	40.00	ppm	-0.02
166) Naphthalene-d8c	5.510	136	631413	40.00	ppm	-0.03
171) 1,4-Dichlorobenzene-d4c	4.586	152	166606	40.00	ppm	-0.03
173) Chrysene-d12c	13.892	240	664083	40.00	ppm	-0.10
175) Chrysene-d12d	13.892	240	664083	40.00	ppm	-0.10
177) Naphthalene-d8d	5.510	136	631413	40.00	ppm	-0.03
179) Chrysene-d12e	13.892	240	664083	40.00	ppm	-0.10
181) Perylene-d12b	16.921	264	725602	40.00	ppm	-0.07
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
25) Nitrobenzene-d5	0.000	82	0d	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
Target Compounds						
126) m-Dinitrobenzene	6.653	168	84722	49.09	ppm	91
138) Diphenylamine	7.599	169	464456	50.93	ppm	99

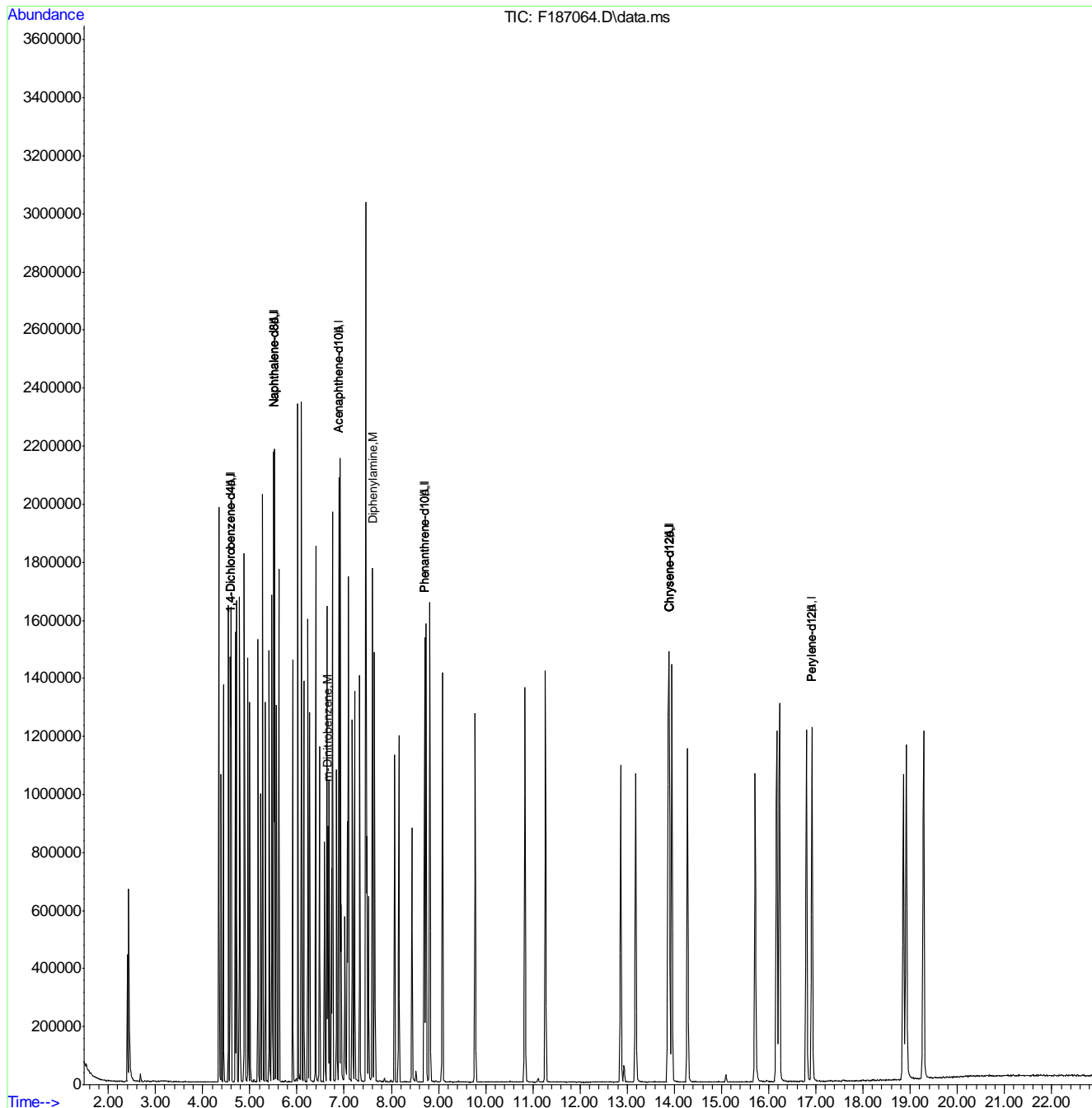
(#) = qualifier out of range (m) = manual integration (+) = signals summed

9.6.45
9

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF8054\
 Data File : F187064.D
 Acq On : 11 Sep 2019 8:45 am
 Operator : chriss2
 Sample : icv8054-50
 Misc : op21602,ef8054,1000,,,1,1
 ALS Vial : 12 Sample Multiplier: 1

Quant Time: Sep 11 10:09:47 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MF8050AP9.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Wed Sep 11 09:54:58 2019
 Response via : Initial Calibration



9.6.45
 9

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF8054\
 Data File : F187065.D
 Acq On : 11 Sep 2019 9:14 am
 Operator : chriss2
 Sample : icv8054-50
 Misc : op21602,ef8054,1000,,,1,1
 ALS Vial : 13 Sample Multiplier: 1

Quant Time: Sep 11 10:12:12 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MF8050AP9.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Wed Sep 11 09:54:58 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.591	152	165770	40.00	ppm	-0.01
24) Naphthalene-d8	5.510	136	600560	40.00	ppm	-0.01
47) Acenaphthene-d10	6.888	164	331956	40.00	ppm	-0.02
69) Phenanthrene-d10	8.699	188	671220	40.00	ppm	-0.03
83) Chrysene-d12	13.886	240	659589	40.00	ppm	-0.04
91) Perylene-d12	16.915	264	653985	40.00	ppm	-0.04
101) 1,4-Dichlorobenzene-d4A	4.591	152	165770	40.00	ppm	0.00
111) Naphthalene-d8A	5.510	136	600560	40.00	ppm	0.00
120) Acenaphthene-d10A	6.888	164	331956	40.00	ppm	0.00
131) Phenanthrene-d10A	8.699	188	671220	40.00	ppm	0.00
146) Chrysene-d12A	13.886	240	659589	40.00	ppm	0.00
153) Perylene-d12A	16.915	264	653985	40.00	ppm	0.00
156) 1,4-Dichlorobenzene-d4b	4.591	152	165770	40.00	ppm	-0.01
158) Phenanthrene-d10b	8.699	188	671220	40.00	ppm	-0.03
160) Chrysene-d12b	13.886	240	659589	40.00	ppm	-0.04
162) Naphthalene-d8b	5.510	136	600560	40.00	ppm	-0.01
164) Acenaphthene-d10b	6.888	164	331956	40.00	ppm	-0.02
166) Naphthalene-d8c	5.510	136	600560	40.00	ppm	-0.03
171) 1,4-Dichlorobenzene-d4c	4.591	152	165770	40.00	ppm	-0.03
173) Chrysene-d12c	13.886	240	659589	40.00	ppm	-0.10
175) Chrysene-d12d	13.886	240	659589	40.00	ppm	-0.10
177) Naphthalene-d8d	5.510	136	600560	40.00	ppm	-0.03
179) Chrysene-d12e	13.886	240	659589	40.00	ppm	-0.10
181) Perylene-d12b	16.915	264	653985	40.00	ppm	-0.08
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
8) Phenol-d5	0.000	99	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
Target Compounds						
112) O,O,O-Triethyl phospho...	5.312	198	131239	51.12	ppm	Qvalue 93
121) Thionazin	7.417	143	77954	58.22	ppm	96
122) Tetraethyl dithiopyrop...	7.807	322	96992	63.47	ppm	100
123) Phorate	7.978	75	407724	59.69	ppm	100
132) Disulfoton	8.742	88	348125	59.11	ppm	89
134) Dimethoate	8.197	87	268715	58.18	ppm	98
136) Methyl parathion	9.351	125	165665	61.13	ppm	96
137) Parathion	10.077	109	132883	56.07	ppm	95
150) Famphur	12.684	218	390041	69.94	ppm	99

9.6.46
9

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF8054\
 Data File : F187065.D
 Acq On : 11 Sep 2019 9:14 am
 Operator : chriss2
 Sample : icv8054-50
 Misc : op21602,ef8054,1000,,,1,1
 ALS Vial : 13 Sample Multiplier: 1

Quant Time: Sep 11 10:12:12 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MF8050AP9.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Wed Sep 11 09:54:58 2019
 Response via : Initial Calibration

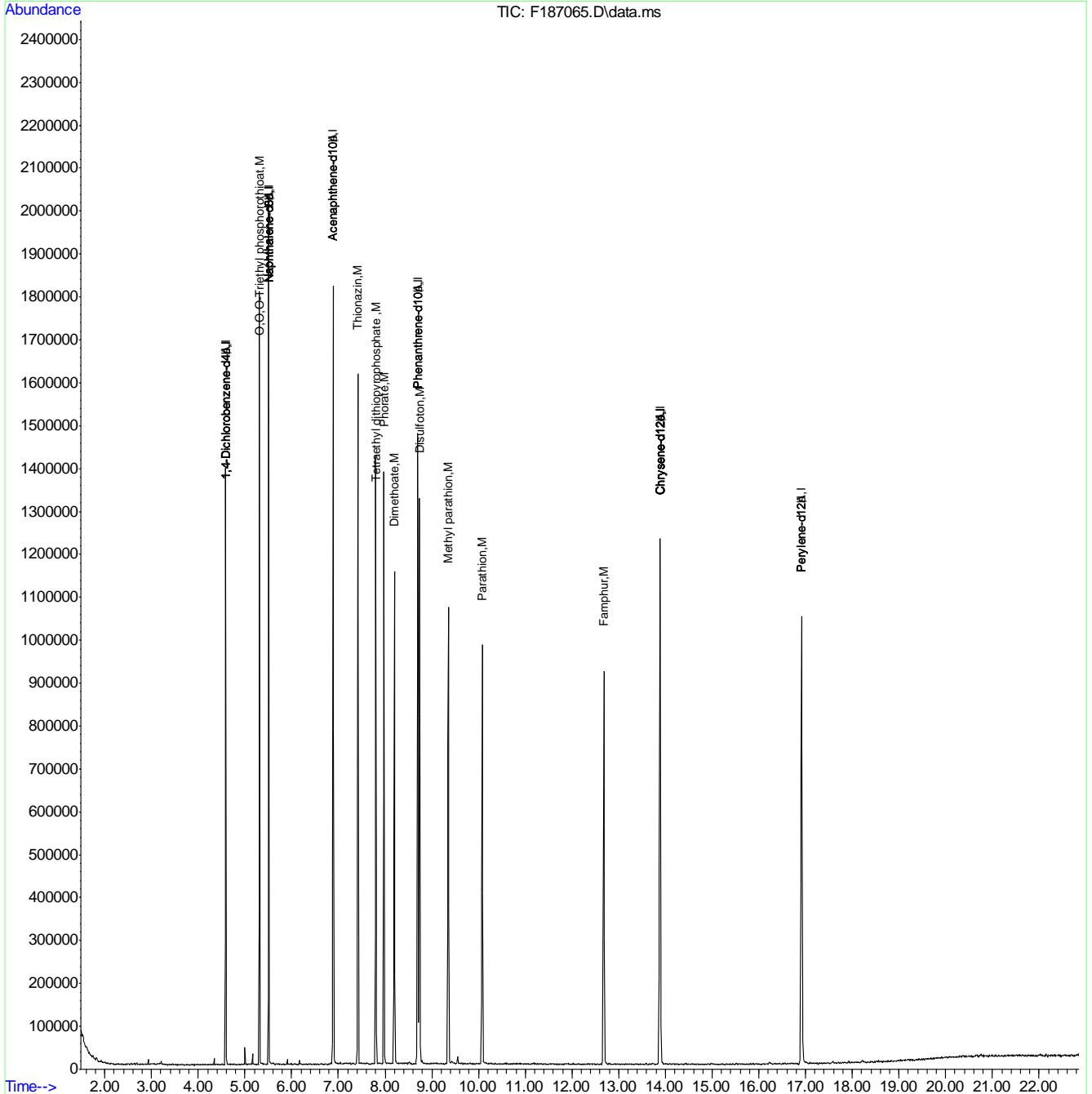
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
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(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF8054\
 Data File : F187065.D
 Acq On : 11 Sep 2019 9:14 am
 Operator : chriss2
 Sample : icv8054-50
 Misc : op21602,ef8054,1000,,,1,1
 ALS Vial : 13 Sample Multiplier: 1

Quant Time: Sep 11 10:12:12 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MF8050AP9.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Wed Sep 11 09:54:58 2019
 Response via : Initial Calibration



9.6.46
 9

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF8054\
 Data File : F187066.D
 Acq On : 11 Sep 2019 9:43 am
 Operator : chriss2
 Sample : icv8054-50
 Misc : op21602,ef8054,1000,,,1,1
 ALS Vial : 14 Sample Multiplier: 1

Quant Time: Sep 11 10:15:41 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MF8050AP9.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Wed Sep 11 09:54:58 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.586	152	165159	40.00	ppm	-0.02
24) Naphthalene-d8	5.510	136	583578	40.00	ppm	-0.01
47) Acenaphthene-d10	6.888	164	326659	40.00	ppm	-0.02
69) Phenanthrene-d10	8.710	188	685828	40.00	ppm	-0.02
83) Chrysene-d12	13.886	240	699960	40.00	ppm	-0.04
91) Perylene-d12	16.916	264	708333	40.00	ppm	-0.04
101) 1,4-Dichlorobenzene-d4A	4.586	152	165159	40.00	ppm	0.00
111) Naphthalene-d8A	5.510	136	583578	40.00	ppm	0.00
120) Acenaphthene-d10A	6.888	164	326659	40.00	ppm	0.00
131) Phenanthrene-d10A	8.710	188	685828	40.00	ppm	0.01
146) Chrysene-d12A	13.886	240	699960	40.00	ppm	0.00
153) Perylene-d12A	16.916	264	708333	40.00	ppm	0.00
156) 1,4-Dichlorobenzene-d4b	4.586	152	165159	40.00	ppm	-0.02
158) Phenanthrene-d10b	8.710	188	685828	40.00	ppm	-0.02
160) Chrysene-d12b	13.886	240	699960	40.00	ppm	-0.04
162) Naphthalene-d8b	5.510	136	583578	40.00	ppm	-0.01
164) Acenaphthene-d10b	6.888	164	326659	40.00	ppm	-0.02
166) Naphthalene-d8c	5.510	136	583578	40.00	ppm	-0.03
171) 1,4-Dichlorobenzene-d4c	4.586	152	165159	40.00	ppm	-0.03
173) Chrysene-d12c	13.886	240	699960	40.00	ppm	-0.10
175) Chrysene-d12d	13.886	240	699960	40.00	ppm	-0.10
177) Naphthalene-d8d	5.510	136	583578	40.00	ppm	-0.03
179) Chrysene-d12e	13.886	240	699960	40.00	ppm	-0.10
181) Perylene-d12b	16.916	264	708333	40.00	ppm	-0.08
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
8) Phenol-d5	0.000	99	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
Target Compounds						
133) Dinoseb	8.742	211	142454	46.94	ppm	Qvalue 97

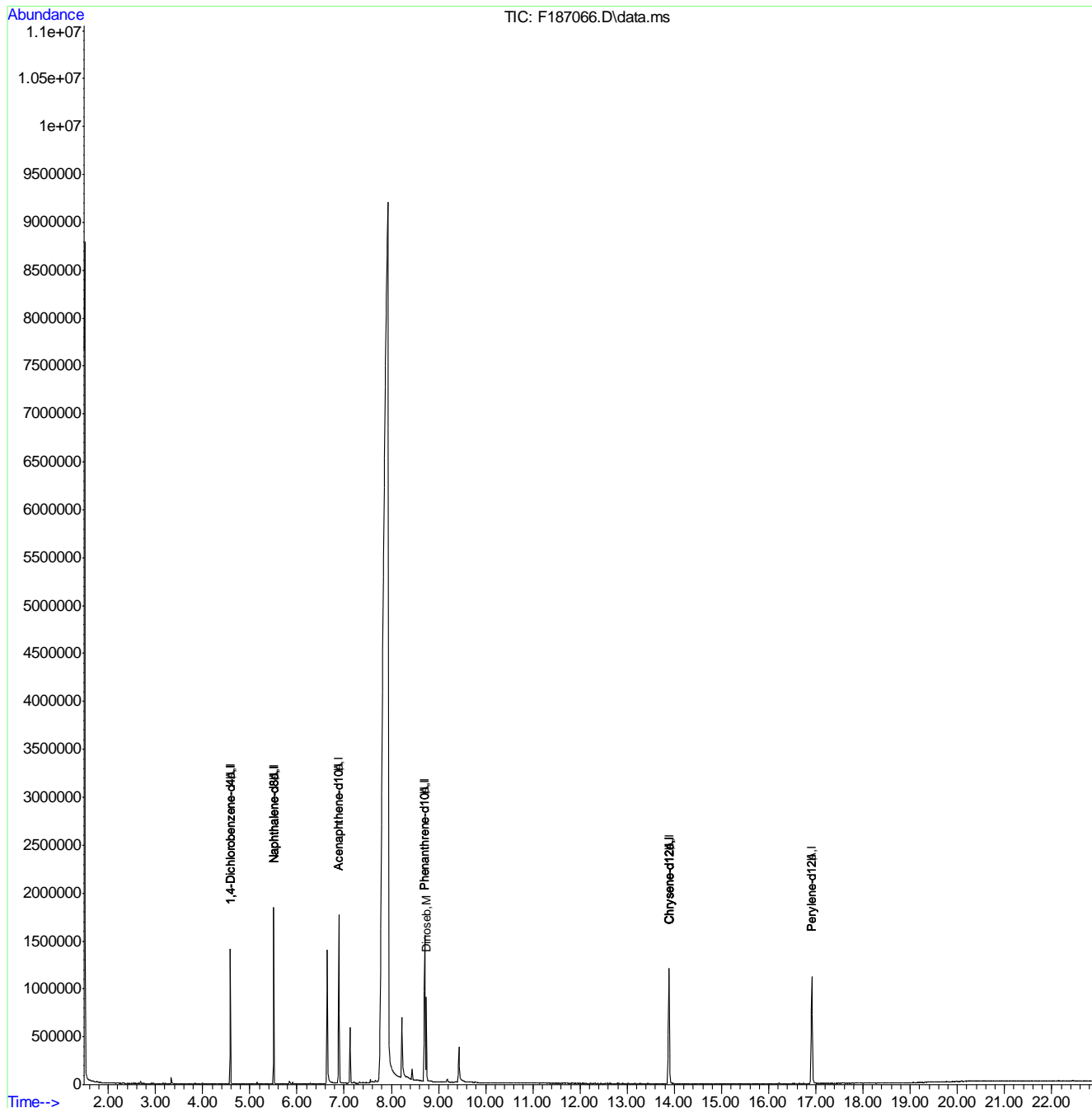
(#) = qualifier out of range (m) = manual integration (+) = signals summed

9.6.47
9

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF8054\
 Data File : F187066.D
 Acq On : 11 Sep 2019 9:43 am
 Operator : chriss2
 Sample : icv8054-50
 Misc : op21602,ef8054,1000,,,1,1
 ALS Vial : 14 Sample Multiplier: 1

Quant Time: Sep 11 10:15:41 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MF8050AP9.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Wed Sep 11 09:54:58 2019
 Response via : Initial Calibration



9.6.47
9

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF8057\
 Data File : F187092.D
 Acq On : 12 Sep 2019 4:00 am
 Operator : chriss2
 Sample : ic8057-100
 Misc : op21602,ef8057,1000,,,1,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 12 16:53:13 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MF8050AP9.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Wed Sep 11 14:17:57 2019
 Response via : Initial Calibration

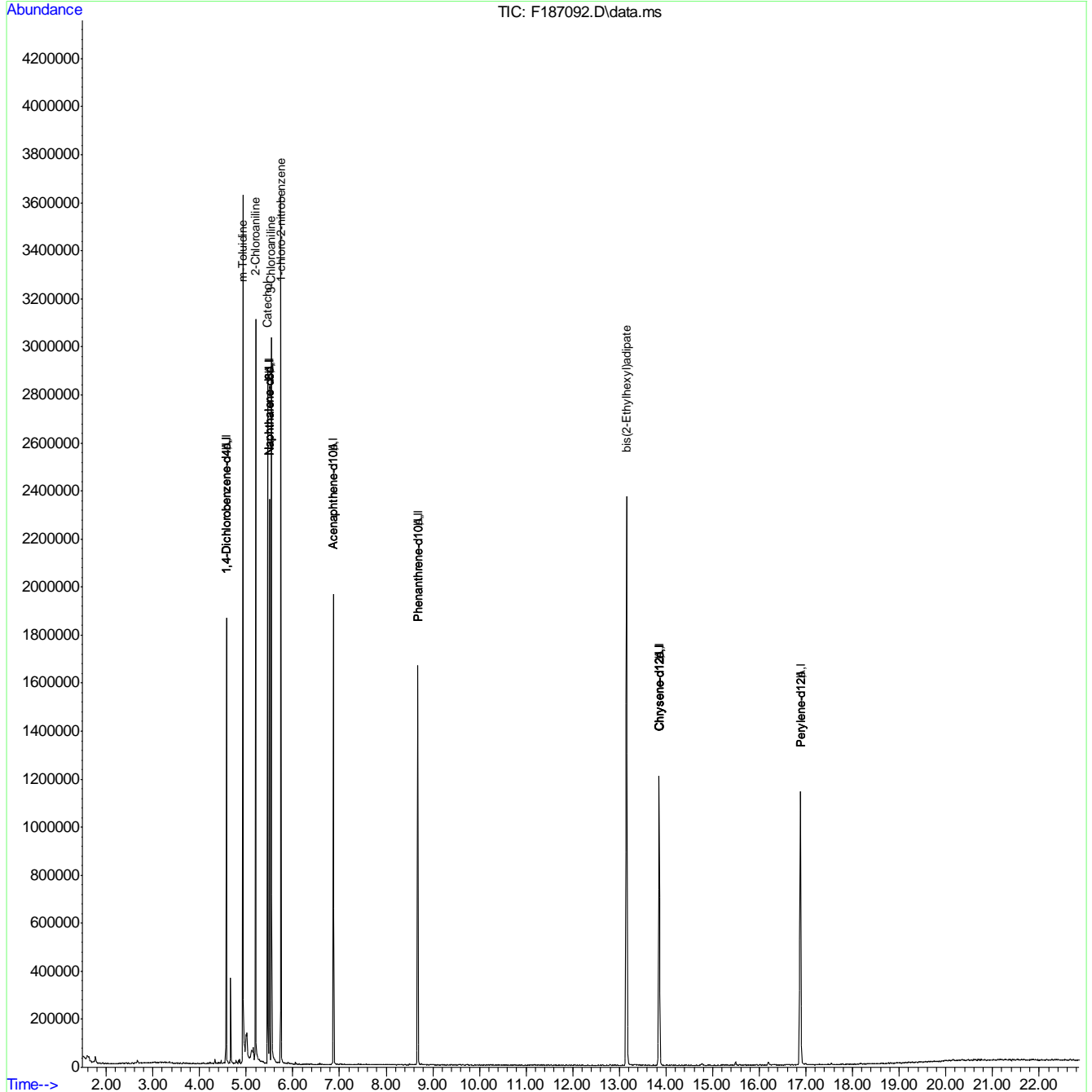
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.575	152	187531	40.00	ppm	-0.03
24) Naphthalene-d8	5.494	136	675477	40.00	ppm	-0.03
47) Acenaphthene-d10	6.872	164	401242	40.00	ppm	-0.03
69) Phenanthrene-d10	8.678	188	717360	40.00	ppm	-0.05
83) Chrysene-d12	13.854	240	637365	40.00	ppm	-0.08
91) Perylene-d12	16.883	264	678637	40.00	ppm	-0.08
101) 1,4-Dichlorobenzene-d4A	4.575	152	187531	40.00	ppm	-0.01
111) Naphthalene-d8A	5.494	136	675477	40.00	ppm	-0.02
120) Acenaphthene-d10A	6.872	164	401242	40.00	ppm	-0.02
131) Phenanthrene-d10A	8.678	188	717360	40.00	ppm	-0.02
146) Chrysene-d12A	13.854	240	637365	40.00	ppm	-0.03
153) Perylene-d12A	16.883	264	678637	40.00	ppm	-0.03
156) 1,4-Dichlorobenzene-d4b	4.575	152	187531	40.00	ppm	-0.03
158) Phenanthrene-d10b	8.678	188	717360	40.00	ppm	-0.05
160) Chrysene-d12b	13.854	240	637365	40.00	ppm	-0.08
162) Naphthalene-d8b	5.494	136	675477	40.00	ppm	-0.03
164) Acenaphthene-d10b	6.872	164	401242	40.00	ppm	-0.03
166) Naphthalene-d8c	5.494	136	675477	40.00	ppm	-0.02
171) 1,4-Dichlorobenzene-d4c	4.575	152	187531	40.00	ppm	-0.01
173) Chrysene-d12c	13.854	240	637365	40.00	ppm	-0.03
175) Chrysene-d12d	13.854	240	637365	40.00	ppm	-0.14
177) Naphthalene-d8d	5.494	136	675477	40.00	ppm	-0.04
179) Chrysene-d12e	13.854	240	637365	40.00	ppm	-0.14
181) Perylene-d12b	16.883	264	678637	40.00	ppm	-0.11
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
8) Phenol-d5	0.000	99	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
Target Compounds						
167) Catechol	5.456	110	656300	119.25	ppm	94
168) 2-Chloroaniline	5.200	127	739544	90.14	ppm	98
169) 3-Chloroaniline	5.536	127	658066	91.19	ppm	93
170) 1-chloro-2-nitrobenzene	5.745	75	412362	94.54	ppm	97
172) m-Toluidine	4.927	106	693445	109.54	ppm	99
174) bis(2-Ethylhexyl)adipate	13.155	129	709168	109.88	ppm	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF8057\
 Data File : F187092.D
 Acq On : 12 Sep 2019 4:00 am
 Operator : chriss2
 Sample : ic8057-100
 Misc : op21602,ef8057,1000,,,1,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 12 16:53:13 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MF8050AP9.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Wed Sep 11 14:17:57 2019
 Response via : Initial Calibration



9.6.48
9

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF8057\
 Data File : F187093.D
 Acq On : 12 Sep 2019 4:40 am
 Operator : chriss2
 Sample : ic8057-80
 Misc : op21602,ef8057,1000,,,1,1
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 12 16:53:43 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MF8050AP9.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Wed Sep 11 14:17:57 2019
 Response via : Initial Calibration

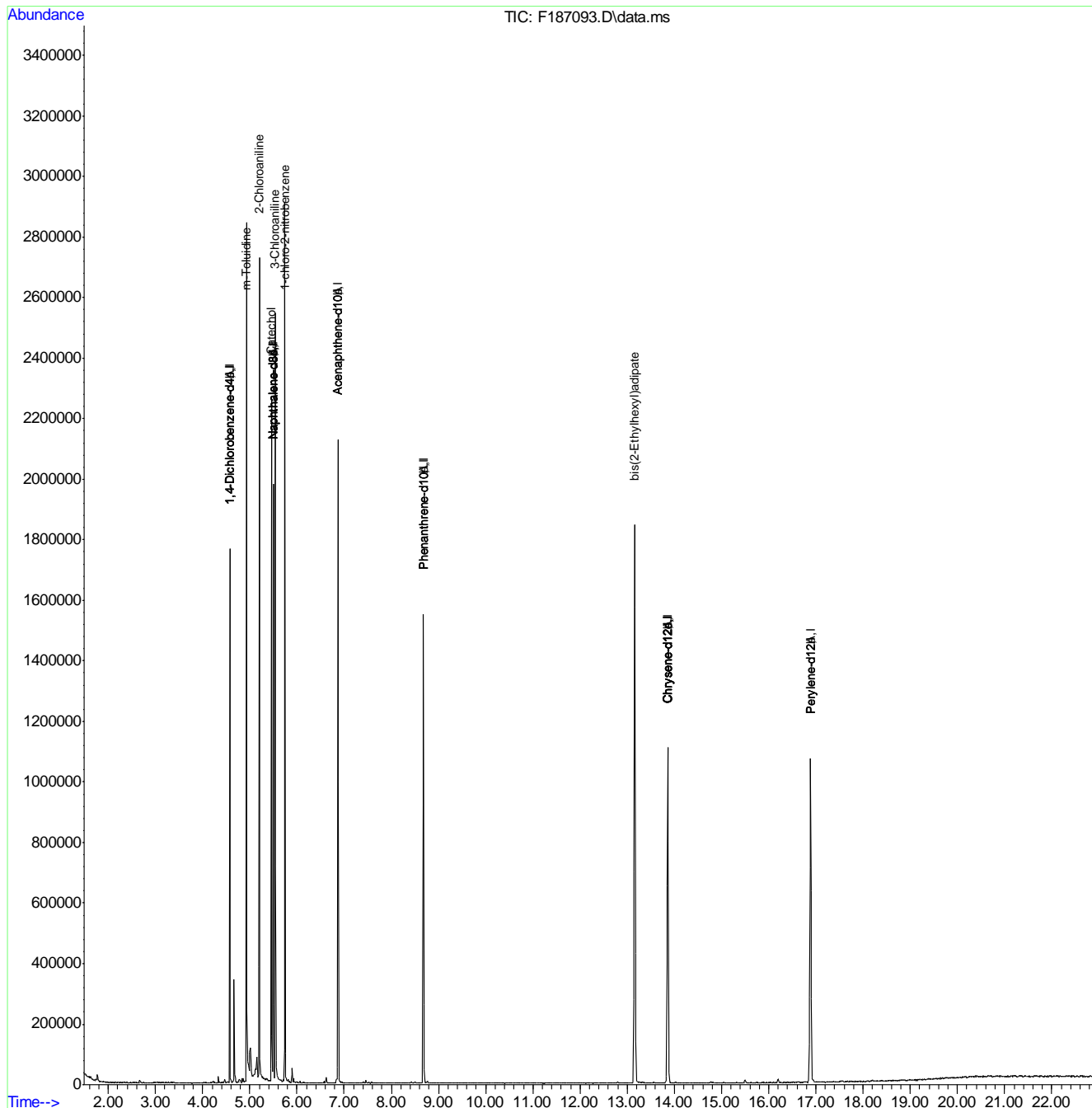
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.575	152	174463	40.00	ppm	-0.03
24) Naphthalene-d8	5.494	136	628585	40.00	ppm	-0.03
47) Acenaphthene-d10	6.872	164	382428	40.00	ppm	-0.03
69) Phenanthrene-d10	8.683	188	682069	40.00	ppm	-0.05
83) Chrysene-d12	13.860	240	604177	40.00	ppm	-0.07
91) Perylene-d12	16.889	264	641539	40.00	ppm	-0.07
101) 1,4-Dichlorobenzene-d4A	4.575	152	174463	40.00	ppm	-0.01
111) Naphthalene-d8A	5.494	136	628585	40.00	ppm	-0.02
120) Acenaphthene-d10A	6.872	164	382428	40.00	ppm	-0.02
131) Phenanthrene-d10A	8.683	188	682069	40.00	ppm	-0.02
146) Chrysene-d12A	13.860	240	604177	40.00	ppm	-0.03
153) Perylene-d12A	16.889	264	641539	40.00	ppm	-0.03
156) 1,4-Dichlorobenzene-d4b	4.575	152	174463	40.00	ppm	-0.03
158) Phenanthrene-d10b	8.683	188	682069	40.00	ppm	-0.05
160) Chrysene-d12b	13.860	240	604177	40.00	ppm	-0.07
162) Naphthalene-d8b	5.494	136	628585	40.00	ppm	-0.03
164) Acenaphthene-d10b	6.872	164	382428	40.00	ppm	-0.03
166) Naphthalene-d8c	5.494	136	628585	40.00	ppm	-0.02
171) 1,4-Dichlorobenzene-d4c	4.575	152	174463	40.00	ppm	-0.01
173) Chrysene-d12c	13.860	240	604177	40.00	ppm	-0.03
175) Chrysene-d12d	13.860	240	604177	40.00	ppm	-0.13
177) Naphthalene-d8d	5.494	136	628585	40.00	ppm	-0.04
179) Chrysene-d12e	13.860	240	604177	40.00	ppm	-0.13
181) Perylene-d12b	16.889	264	641539	40.00	ppm	-0.11
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
8) Phenol-d5	0.000	99	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
Target Compounds						
167) Catechol	5.456	110	496739	96.99	ppm	94
168) 2-Chloroaniline	5.200	127	578642	75.79	ppm	100
169) 3-Chloroaniline	5.536	127	507916	75.63	ppm	94
170) 1-chloro-2-nitrobenzene	5.745	75	330739	81.48	ppm	96
172) m-Toluidine	4.927	106	544605	92.47	ppm	98
174) bis(2-Ethylhexyl)adipate	13.160	129	548337	89.63	ppm	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF8057\
Data File : F187093.D
Acq On : 12 Sep 2019 4:40 am
Operator : chriss2
Sample : ic8057-80
Misc : op21602,ef8057,1000,,,1,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 12 16:53:43 2019
Quant Method : C:\MSDCHEM\1\METHODS\MF8050AP9.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Wed Sep 11 14:17:57 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF8057\
 Data File : F187094.D
 Acq On : 12 Sep 2019 5:09 am
 Operator : chriss2
 Sample : icc8057-50
 Misc : op21602,ef8057,1000,,,1,1
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Sep 12 16:21:40 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MF8050AP9.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Wed Sep 11 14:17:57 2019
 Response via : Initial Calibration

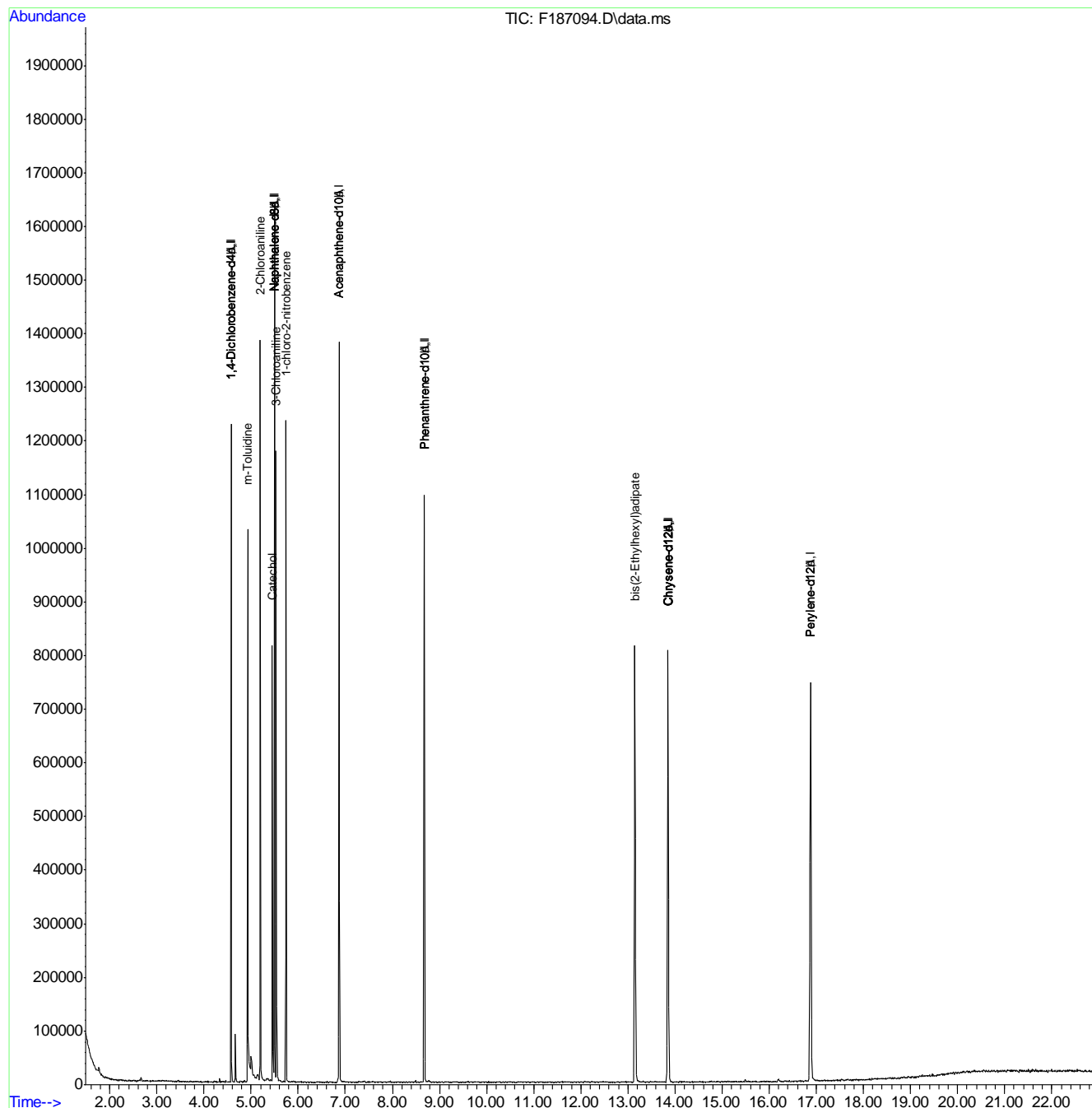
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.575	152	121194	40.00	ppm	-0.03
24) Naphthalene-d8	5.494	136	444871	40.00	ppm	-0.03
47) Acenaphthene-d10	6.867	164	263725	40.00	ppm	-0.04
69) Phenanthrene-d10	8.678	188	472041	40.00	ppm	-0.05
83) Chrysene-d12	13.854	240	416228	40.00	ppm	-0.07
91) Perylene-d12	16.878	264	436894	40.00	ppm	-0.08
101) 1,4-Dichlorobenzene-d4A	4.575	152	121194	40.00	ppm	-0.01
111) Naphthalene-d8A	5.494	136	444871	40.00	ppm	-0.02
120) Acenaphthene-d10A	6.867	164	263725	40.00	ppm	-0.02
131) Phenanthrene-d10A	8.678	188	472041	40.00	ppm	-0.02
146) Chrysene-d12A	13.854	240	416228	40.00	ppm	-0.03
153) Perylene-d12A	16.878	264	436894	40.00	ppm	-0.04
156) 1,4-Dichlorobenzene-d4b	4.575	152	121194	40.00	ppm	-0.03
158) Phenanthrene-d10b	8.678	188	472041	40.00	ppm	-0.05
160) Chrysene-d12b	13.854	240	416228	40.00	ppm	-0.08
162) Naphthalene-d8b	5.494	136	444871	40.00	ppm	-0.03
164) Acenaphthene-d10b	6.867	164	263725	40.00	ppm	-0.04
166) Naphthalene-d8c	5.494	136	444871	40.00	ppm	-0.02
171) 1,4-Dichlorobenzene-d4c	4.575	152	121194	40.00	ppm	-0.01
173) Chrysene-d12c	13.854	240	416228	40.00	ppm	-0.03
175) Chrysene-d12d	13.854	240	416228	40.00	ppm	-0.14
177) Naphthalene-d8d	5.494	136	444871	40.00	ppm	-0.04
179) Chrysene-d12e	13.854	240	416228	40.00	ppm	-0.14
181) Perylene-d12b	16.878	264	436894	40.00	ppm	-0.12
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
8) Phenol-d5	0.000	99	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
Target Compounds						
167) Catechol	5.451	110	210900	58.18	ppm	Qvalue 94
168) 2-Chloroaniline	5.195	127	252301	46.69	ppm	99
169) 3-Chloroaniline	5.531	127	223681	47.06	ppm	98
170) 1-chloro-2-nitrobenzene	5.740	75	153911	53.58	ppm	88
172) m-Toluidine	4.928	106	241498	59.03	ppm	100
174) bis(2-Ethylhexyl)adipate	13.149	129	222298	52.74	ppm	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF8057\
Data File : F187094.D
Acq On : 12 Sep 2019 5:09 am
Operator : chriss2
Sample : icc8057-50
Misc : op21602,ef8057,1000,,,1,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Sep 12 16:21:40 2019
Quant Method : C:\MSDCHEM\1\METHODS\MF8050AP9.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Wed Sep 11 14:17:57 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF8057\
 Data File : F187095.D
 Acq On : 12 Sep 2019 5:38 am
 Operator : chriss2
 Sample : ic8057-25
 Misc : op21602,ef8057,1000,,,1,1
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Sep 12 16:22:27 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MF8050AP9.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Wed Sep 11 14:17:57 2019
 Response via : Initial Calibration

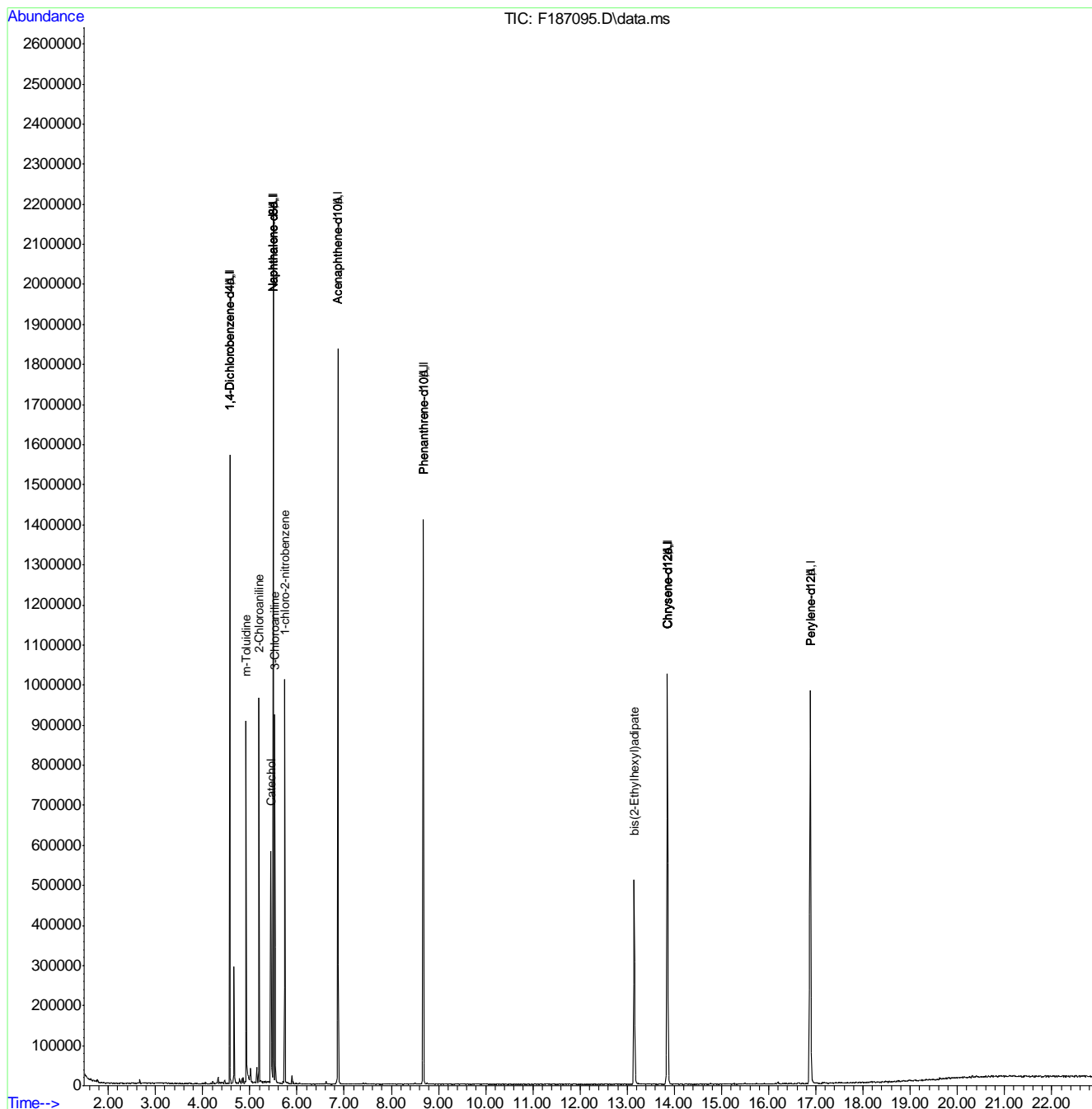
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.575	152	154318	40.00	ppm	-0.03
24) Naphthalene-d8	5.494	136	572699	40.00	ppm	-0.03
47) Acenaphthene-d10	6.867	164	330569	40.00	ppm	-0.04
69) Phenanthrene-d10	8.678	188	600281	40.00	ppm	-0.05
83) Chrysene-d12	13.855	240	530549	40.00	ppm	-0.07
91) Perylene-d12	16.884	264	557313	40.00	ppm	-0.07
101) 1,4-Dichlorobenzene-d4A	4.575	152	154318	40.00	ppm	-0.01
111) Naphthalene-d8A	5.494	136	572699	40.00	ppm	-0.02
120) Acenaphthene-d10A	6.867	164	330569	40.00	ppm	-0.02
131) Phenanthrene-d10A	8.678	188	600281	40.00	ppm	-0.02
146) Chrysene-d12A	13.855	240	530549	40.00	ppm	-0.03
153) Perylene-d12A	16.884	264	557313	40.00	ppm	-0.03
156) 1,4-Dichlorobenzene-d4b	4.575	152	154318	40.00	ppm	-0.03
158) Phenanthrene-d10b	8.678	188	600281	40.00	ppm	-0.05
160) Chrysene-d12b	13.855	240	530549	40.00	ppm	-0.07
162) Naphthalene-d8b	5.494	136	572699	40.00	ppm	-0.03
164) Acenaphthene-d10b	6.867	164	330569	40.00	ppm	-0.04
166) Naphthalene-d8c	5.494	136	572699	40.00	ppm	-0.02
171) 1,4-Dichlorobenzene-d4c	4.575	152	154318	40.00	ppm	-0.01
173) Chrysene-d12c	13.855	240	530549	40.00	ppm	-0.03
175) Chrysene-d12d	13.855	240	530549	40.00	ppm	-0.14
177) Naphthalene-d8d	5.494	136	572699	40.00	ppm	-0.04
179) Chrysene-d12e	13.855	240	530549	40.00	ppm	-0.14
181) Perylene-d12b	16.884	264	557313	40.00	ppm	-0.11
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
8) Phenol-d5	0.000	99	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
25) Nitrobenzene-d5	0.000	82	0d	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
Target Compounds						
167) Catechol	5.451	110	137603	29.49	ppm	92
168) 2-Chloroaniline	5.195	127	168263	24.19	ppm	98
169) 3-Chloroaniline	5.531	127	156064	25.51	ppm	97
170) 1-chloro-2-nitrobenzene	5.740	75	102693	27.77	ppm	90
172) m-Toluidine	4.922	106	188717	36.23	ppm	99
174) bis(2-Ethylhexyl)adipate	13.149	129	140112	26.08	ppm	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF8057\
Data File : F187095.D
Acq On : 12 Sep 2019 5:38 am
Operator : chriss2
Sample : ic8057-25
Misc : op21602,ef8057,1000,,,1,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Sep 12 16:22:27 2019
Quant Method : C:\MSDCHEM\1\METHODS\MF8050AP9.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Wed Sep 11 14:17:57 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF8057\
 Data File : F187096.D
 Acq On : 12 Sep 2019 6:07 am
 Operator : chriss2
 Sample : ic8057-10
 Misc : op21602,ef8057,1000,,,1,1
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Sep 12 16:23:09 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MF8050AP9.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Wed Sep 11 14:17:57 2019
 Response via : Initial Calibration

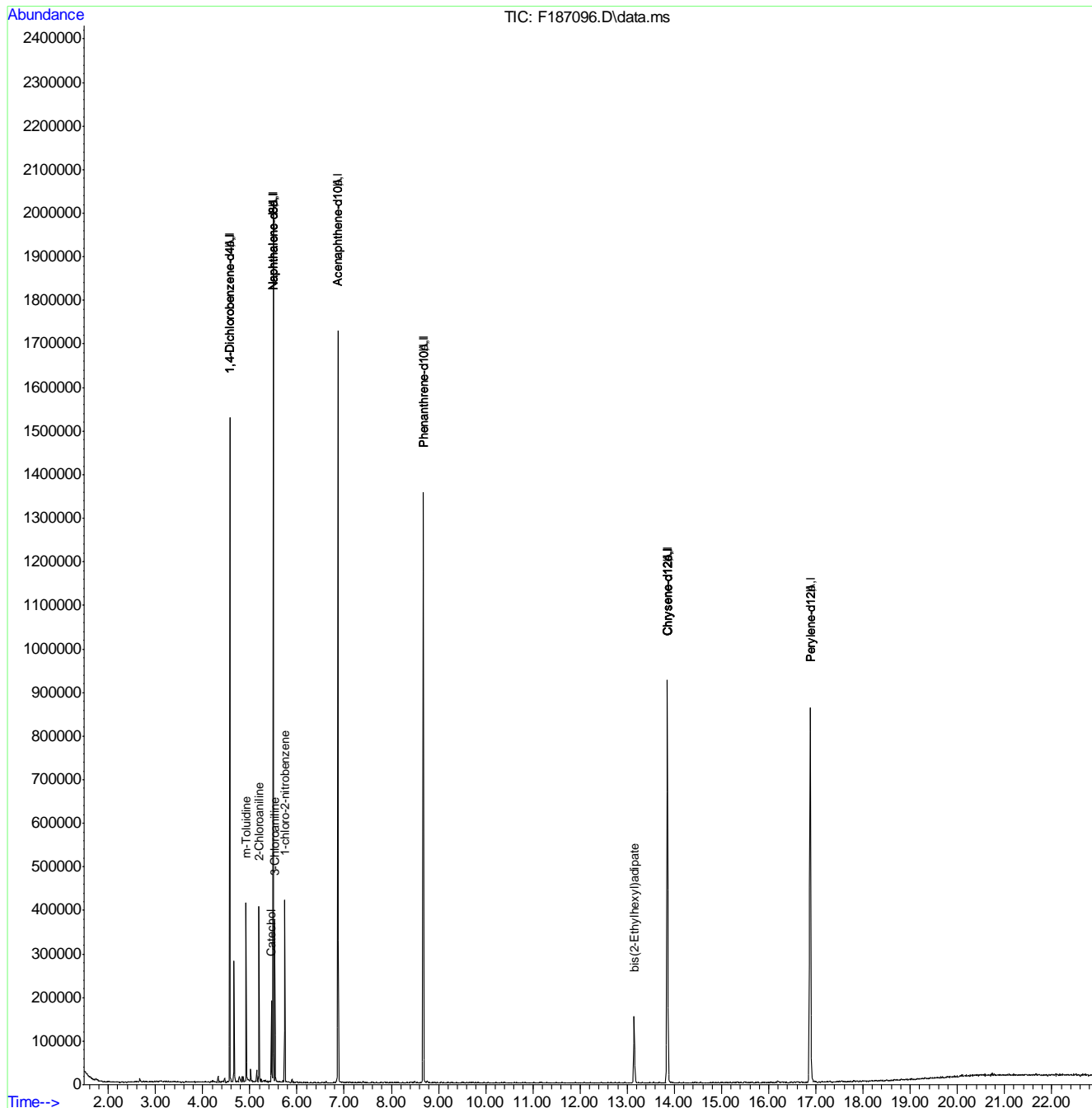
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.575	152	144780	40.00	ppm	-0.03
24) Naphthalene-d8	5.494	136	533814	40.00	ppm	-0.03
47) Acenaphthene-d10	6.867	164	311407	40.00	ppm	-0.04
69) Phenanthrene-d10	8.678	188	560066	40.00	ppm	-0.05
83) Chrysene-d12	13.855	240	490804	40.00	ppm	-0.07
91) Perylene-d12	16.884	264	509897	40.00	ppm	-0.07
101) 1,4-Dichlorobenzene-d4A	4.575	152	144780	40.00	ppm	-0.01
111) Naphthalene-d8A	5.494	136	533814	40.00	ppm	-0.02
120) Acenaphthene-d10A	6.867	164	311407	40.00	ppm	-0.02
131) Phenanthrene-d10A	8.678	188	560066	40.00	ppm	-0.02
146) Chrysene-d12A	13.855	240	490804	40.00	ppm	-0.03
153) Perylene-d12A	16.884	264	509897	40.00	ppm	-0.03
156) 1,4-Dichlorobenzene-d4b	4.575	152	144780	40.00	ppm	-0.03
158) Phenanthrene-d10b	8.678	188	560066	40.00	ppm	-0.05
160) Chrysene-d12b	13.855	240	490804	40.00	ppm	-0.07
162) Naphthalene-d8b	5.494	136	533814	40.00	ppm	-0.03
164) Acenaphthene-d10b	6.867	164	311407	40.00	ppm	-0.04
166) Naphthalene-d8c	5.494	136	533814	40.00	ppm	-0.02
171) 1,4-Dichlorobenzene-d4c	4.575	152	144780	40.00	ppm	-0.01
173) Chrysene-d12c	13.855	240	490804	40.00	ppm	-0.03
175) Chrysene-d12d	13.855	240	490804	40.00	ppm	-0.14
177) Naphthalene-d8d	5.494	136	533814	40.00	ppm	-0.04
179) Chrysene-d12e	13.855	240	490804	40.00	ppm	-0.14
181) Perylene-d12b	16.884	264	509897	40.00	ppm	-0.11
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
8) Phenol-d5	0.000	99	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
Target Compounds						
167) Catechol	5.457	110	51598	11.86	ppm	92
168) 2-Chloroaniline	5.195	127	67645	10.43	ppm	97
169) 3-Chloroaniline	5.531	127	63942	11.21	ppm	94
170) 1-chloro-2-nitrobenzene	5.740	75	40009	11.61	ppm	93
172) m-Toluidine	4.922	106	75267	15.40	ppm	98
174) bis(2-Ethylhexyl)adipate	13.149	129	44257	8.90	ppm	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF8057\
 Data File : F187096.D
 Acq On : 12 Sep 2019 6:07 am
 Operator : chriss2
 Sample : ic8057-10
 Misc : op21602,ef8057,1000,,,1,1
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Sep 12 16:23:09 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MF8050AP9.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Wed Sep 11 14:17:57 2019
 Response via : Initial Calibration



9.6-52
9

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF8057\
 Data File : F187097.D
 Acq On : 12 Sep 2019 6:36 am
 Operator : chriss2
 Sample : ic8057-5
 Misc : op21602,ef8057,1000,,,1,1
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Sep 12 16:23:49 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MF8050AP9.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Wed Sep 11 14:17:57 2019
 Response via : Initial Calibration

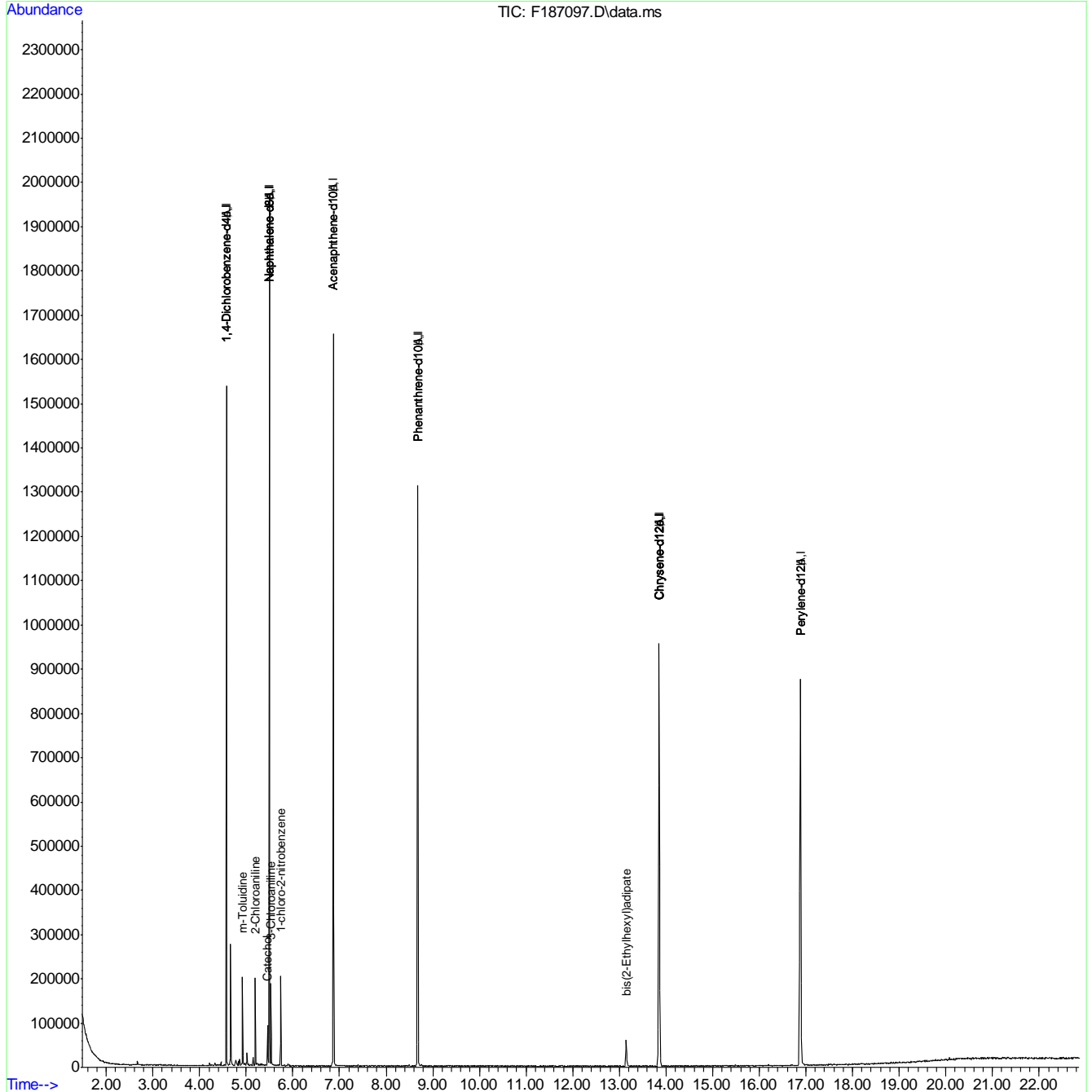
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.575	152	143535	40.00	ppm	-0.03
24) Naphthalene-d8	5.494	136	520713	40.00	ppm	-0.03
47) Acenaphthene-d10	6.867	164	308725	40.00	ppm	-0.04
69) Phenanthrene-d10	8.678	188	548832	40.00	ppm	-0.05
83) Chrysene-d12	13.854	240	479596	40.00	ppm	-0.08
91) Perylene-d12	16.883	264	512480	40.00	ppm	-0.08
101) 1,4-Dichlorobenzene-d4A	4.575	152	143535	40.00	ppm	-0.01
111) Naphthalene-d8A	5.494	136	520713	40.00	ppm	-0.02
120) Acenaphthene-d10A	6.867	164	308725	40.00	ppm	-0.02
131) Phenanthrene-d10A	8.678	188	548832	40.00	ppm	-0.02
146) Chrysene-d12A	13.854	240	479596	40.00	ppm	-0.03
153) Perylene-d12A	16.883	264	512480	40.00	ppm	-0.03
156) 1,4-Dichlorobenzene-d4b	4.575	152	143535	40.00	ppm	-0.03
158) Phenanthrene-d10b	8.678	188	548832	40.00	ppm	-0.05
160) Chrysene-d12b	13.854	240	479596	40.00	ppm	-0.08
162) Naphthalene-d8b	5.494	136	520713	40.00	ppm	-0.03
164) Acenaphthene-d10b	6.867	164	308725	40.00	ppm	-0.04
166) Naphthalene-d8c	5.494	136	520713	40.00	ppm	-0.02
171) 1,4-Dichlorobenzene-d4c	4.575	152	143535	40.00	ppm	-0.01
173) Chrysene-d12c	13.854	240	479596	40.00	ppm	-0.03
175) Chrysene-d12d	13.854	240	479596	40.00	ppm	-0.14
177) Naphthalene-d8d	5.494	136	520713	40.00	ppm	-0.04
179) Chrysene-d12e	13.854	240	479596	40.00	ppm	-0.14
181) Perylene-d12b	16.883	264	512480	40.00	ppm	-0.11
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
8) Phenol-d5	0.000	99	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
Target Compounds						
167) Catechol	5.456	110	22628	5.33	ppm	98
168) 2-Chloroaniline	5.194	127	33476	5.29	ppm	98
169) 3-Chloroaniline	5.531	127	30195	5.43	ppm	95
170) 1-chloro-2-nitrobenzene	5.739	75	20098	5.98	ppm	86
172) m-Toluidine	4.922	106	36406	7.51	ppm	94
174) bis(2-Ethylhexyl)adipate	13.149	129	16673	3.43	ppm	85

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF8057\
 Data File : F187097.D
 Acq On : 12 Sep 2019 6:36 am
 Operator : chriss2
 Sample : ic8057-5
 Misc : op21602,ef8057,1000,,,1,1
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Sep 12 16:23:49 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MF8050AP9.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Wed Sep 11 14:17:57 2019
 Response via : Initial Calibration



9.6-53
 9

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF8057\
 Data File : F187098.D
 Acq On : 12 Sep 2019 7:05 am
 Operator : chriss2
 Sample : ic8057-2
 Misc : op21602,ef8057,1000,,,1,1
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Sep 12 16:24:29 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MF8050AP9.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Wed Sep 11 14:17:57 2019
 Response via : Initial Calibration

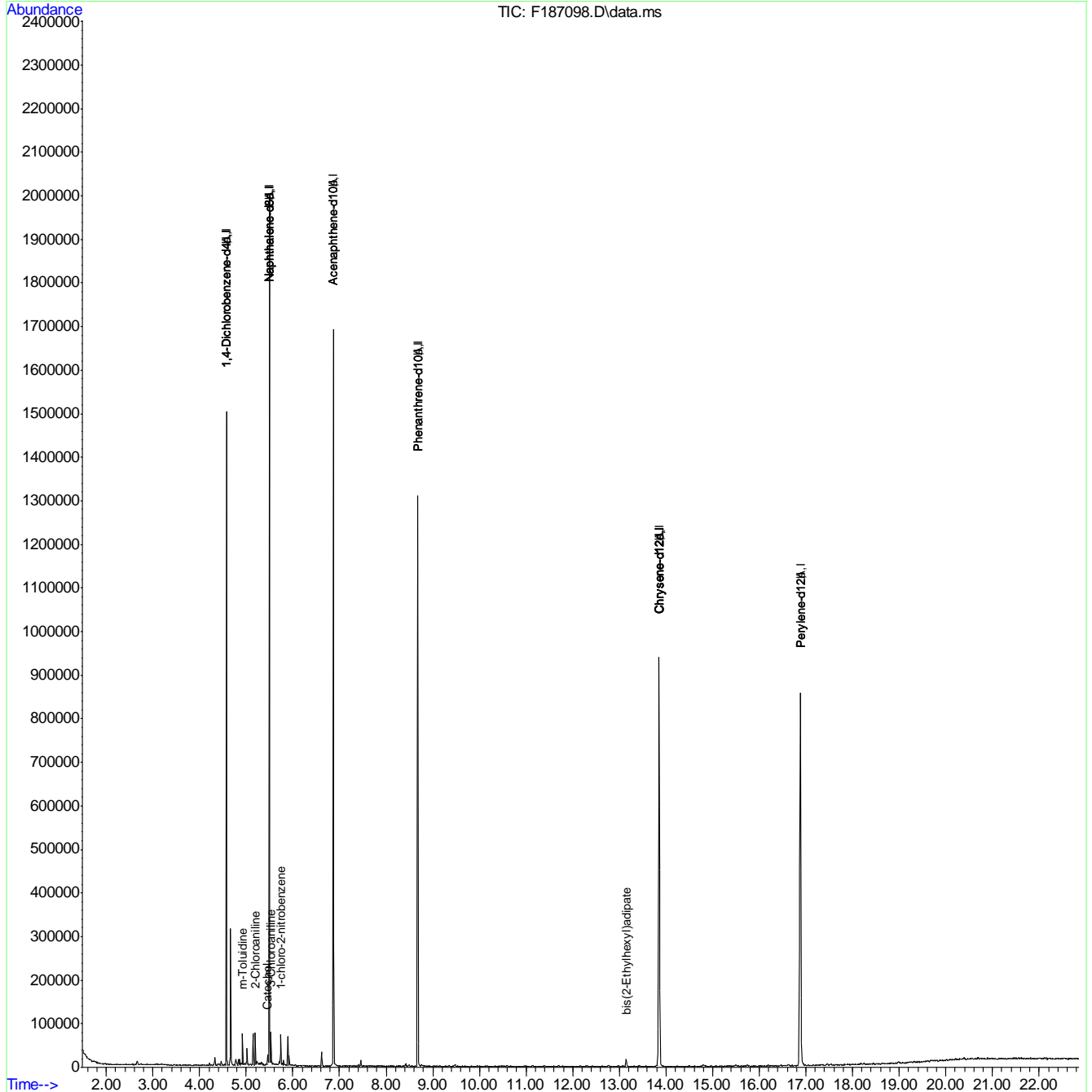
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.575	152	138545	40.00	ppm	-0.03
24) Naphthalene-d8	5.494	136	513055	40.00	ppm	-0.03
47) Acenaphthene-d10	6.867	164	296342	40.00	ppm	-0.04
69) Phenanthrene-d10	8.678	188	551342	40.00	ppm	-0.05
83) Chrysene-d12	13.854	240	475906	40.00	ppm	-0.08
91) Perylene-d12	16.883	264	512945	40.00	ppm	-0.08
101) 1,4-Dichlorobenzene-d4A	4.575	152	138545	40.00	ppm	-0.01
111) Naphthalene-d8A	5.494	136	513055	40.00	ppm	-0.02
120) Acenaphthene-d10A	6.867	164	296342	40.00	ppm	-0.02
131) Phenanthrene-d10A	8.678	188	551342	40.00	ppm	-0.02
146) Chrysene-d12A	13.854	240	475906	40.00	ppm	-0.03
153) Perylene-d12A	16.883	264	512945	40.00	ppm	-0.03
156) 1,4-Dichlorobenzene-d4b	4.575	152	138545	40.00	ppm	-0.03
158) Phenanthrene-d10b	8.678	188	551342	40.00	ppm	-0.05
160) Chrysene-d12b	13.854	240	475906	40.00	ppm	-0.08
162) Naphthalene-d8b	5.494	136	513055	40.00	ppm	-0.03
164) Acenaphthene-d10b	6.867	164	296342	40.00	ppm	-0.04
166) Naphthalene-d8c	5.494	136	513055	40.00	ppm	-0.02
171) 1,4-Dichlorobenzene-d4c	4.575	152	138545	40.00	ppm	-0.01
173) Chrysene-d12c	13.854	240	475906	40.00	ppm	-0.03
175) Chrysene-d12d	13.854	240	475906	40.00	ppm	-0.14
177) Naphthalene-d8d	5.494	136	513055	40.00	ppm	-0.04
179) Chrysene-d12e	13.854	240	475906	40.00	ppm	-0.14
181) Perylene-d12b	16.883	264	512945	40.00	ppm	-0.11
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
8) Phenol-d5	0.000	99	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
25) Nitrobenzene-d5	0.000	82	0d	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
Target Compounds						
167) Catechol	5.456	110	6427	1.54	ppm	Qvalue # 82
168) 2-Chloroaniline	5.195	127	12132	1.95	ppm	96
169) 3-Chloroaniline	5.531	127	11564	2.11	ppm	96
170) 1-chloro-2-nitrobenzene	5.739	75	6869	2.07	ppm	92
172) m-Toluidine	4.922	106	14077	3.01	ppm	95
174) bis(2-Ethylhexyl)adipate	13.149	129	5928	1.23	ppm	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF8057\
 Data File : F187098.D
 Acq On : 12 Sep 2019 7:05 am
 Operator : chriss2
 Sample : ic8057-2
 Misc : op21602,ef8057,1000,,,1,1
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Sep 12 16:24:29 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MF8050AP9.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Wed Sep 11 14:17:57 2019
 Response via : Initial Calibration



9.6.54
 9

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF8057\
 Data File : F187099.D
 Acq On : 12 Sep 2019 7:35 am
 Operator : chriss2
 Sample : ic8057-1
 Misc : op21602,ef8057,1000,,,1,1
 ALS Vial : 9 Sample Multiplier: 1

Quant Time: Sep 12 16:25:08 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MF8050AP9.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Wed Sep 11 14:17:57 2019
 Response via : Initial Calibration

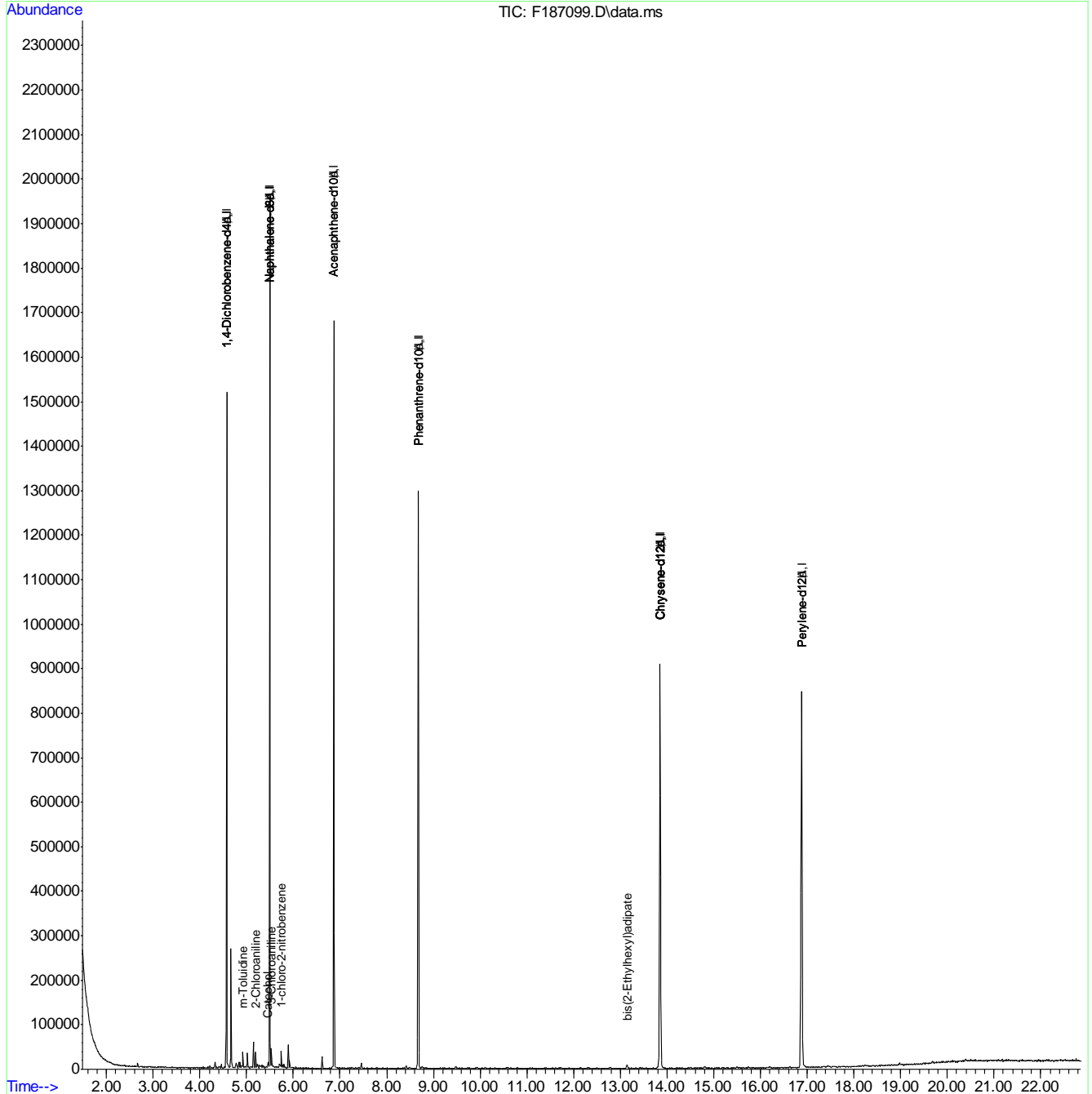
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.575	152	138244	40.00	ppm	-0.03
24) Naphthalene-d8	5.494	136	504477	40.00	ppm	-0.03
47) Acenaphthene-d10	6.867	164	298163	40.00	ppm	-0.04
69) Phenanthrene-d10	8.678	188	545799	40.00	ppm	-0.05
83) Chrysene-d12	13.855	240	465040	40.00	ppm	-0.07
91) Perylene-d12	16.884	264	496395	40.00	ppm	-0.07
101) 1,4-Dichlorobenzene-d4A	4.575	152	138244	40.00	ppm	-0.01
111) Naphthalene-d8A	5.494	136	504477	40.00	ppm	-0.02
120) Acenaphthene-d10A	6.867	164	298163	40.00	ppm	-0.02
131) Phenanthrene-d10A	8.678	188	545799	40.00	ppm	-0.02
146) Chrysene-d12A	13.855	240	465040	40.00	ppm	-0.03
153) Perylene-d12A	16.884	264	496395	40.00	ppm	-0.03
156) 1,4-Dichlorobenzene-d4b	4.575	152	138244	40.00	ppm	-0.03
158) Phenanthrene-d10b	8.678	188	545799	40.00	ppm	-0.05
160) Chrysene-d12b	13.855	240	465040	40.00	ppm	-0.07
162) Naphthalene-d8b	5.494	136	504477	40.00	ppm	-0.03
164) Acenaphthene-d10b	6.867	164	298163	40.00	ppm	-0.04
166) Naphthalene-d8c	5.494	136	504477	40.00	ppm	-0.02
171) 1,4-Dichlorobenzene-d4c	4.575	152	138244	40.00	ppm	-0.01
173) Chrysene-d12c	13.855	240	465040	40.00	ppm	-0.03
175) Chrysene-d12d	13.855	240	465040	40.00	ppm	-0.14
177) Naphthalene-d8d	5.494	136	504477	40.00	ppm	-0.04
179) Chrysene-d12e	13.855	240	465040	40.00	ppm	-0.14
181) Perylene-d12b	16.884	264	496395	40.00	ppm	-0.11
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
8) Phenol-d5	0.000	99	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
Target Compounds						
167) Catechol	5.462	110	3128	0.76	ppm	Qvalue 72
168) 2-Chloroaniline	5.195	127	6339	1.03	ppm	94
169) 3-Chloroaniline	5.531	127	5971	1.11	ppm	95
170) 1-chloro-2-nitrobenzene	5.740	75	3169	0.97	ppm	84
172) m-Toluidine	4.922	106	6188	1.33	ppm	82
174) bis(2-Ethylhexyl)adipate	13.149	129	2712	0.58	ppm	96

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF8057\
 Data File : F187099.D
 Acq On : 12 Sep 2019 7:35 am
 Operator : chriss2
 Sample : ic8057-1
 Misc : op21602,ef8057,1000,,,1,1
 ALS Vial : 9 Sample Multiplier: 1

Quant Time: Sep 12 16:25:08 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MF8050AP9.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Wed Sep 11 14:17:57 2019
 Response via : Initial Calibration



9.6.55
 9

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF8057\
 Data File : F187101.D
 Acq On : 12 Sep 2019 8:33 am
 Operator : chriss2
 Sample : icv8057-50
 Misc : op21602,ef8057,1000,,,1,1
 ALS Vial : 11 Sample Multiplier: 1

Quant Time: Sep 12 16:40:44 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MF8050AP9.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Thu Sep 12 16:38:40 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.575	152	115659	40.00	ppm	-0.03
24) Naphthalene-d8	5.494	136	448176	40.00	ppm	-0.03
47) Acenaphthene-d10	6.867	164	256977	40.00	ppm	-0.04
69) Phenanthrene-d10	8.678	188	458339	40.00	ppm	-0.05
83) Chrysene-d12	13.854	240	388110	40.00	ppm	-0.08
91) Perylene-d12	16.883	264	402864	40.00	ppm	-0.08
101) 1,4-Dichlorobenzene-d4A	4.575	152	115659	40.00	ppm	-0.01
111) Naphthalene-d8A	5.494	136	448176	40.00	ppm	-0.02
120) Acenaphthene-d10A	6.867	164	256977	40.00	ppm	-0.02
131) Phenanthrene-d10A	8.678	188	458339	40.00	ppm	-0.02
146) Chrysene-d12A	13.854	240	388110	40.00	ppm	-0.03
153) Perylene-d12A	16.883	264	402864	40.00	ppm	-0.03
156) 1,4-Dichlorobenzene-d4b	4.575	152	115659	40.00	ppm	-0.03
158) Phenanthrene-d10b	8.678	188	458339	40.00	ppm	-0.05
160) Chrysene-d12b	13.854	240	388110	40.00	ppm	-0.08
162) Naphthalene-d8b	5.494	136	448176	40.00	ppm	-0.03
164) Acenaphthene-d10b	6.867	164	256977	40.00	ppm	-0.04
166) Naphthalene-d8c	5.494	136	448176	40.00	ppm	0.00
171) 1,4-Dichlorobenzene-d4c	4.575	152	115659	40.00	ppm	0.00
173) Chrysene-d12c	13.854	240	388110	40.00	ppm	0.00
175) Chrysene-d12d	13.854	240	388110	40.00	ppm	-0.14
177) Naphthalene-d8d	5.494	136	448176	40.00	ppm	-0.04
179) Chrysene-d12e	13.854	240	388110	40.00	ppm	-0.14
181) Perylene-d12b	16.883	264	402864	40.00	ppm	-0.11
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
8) Phenol-d5	0.000	99	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
Target Compounds						
172) m-Toluidine	4.922	106	208479	39.72	ppm	Qvalue 98

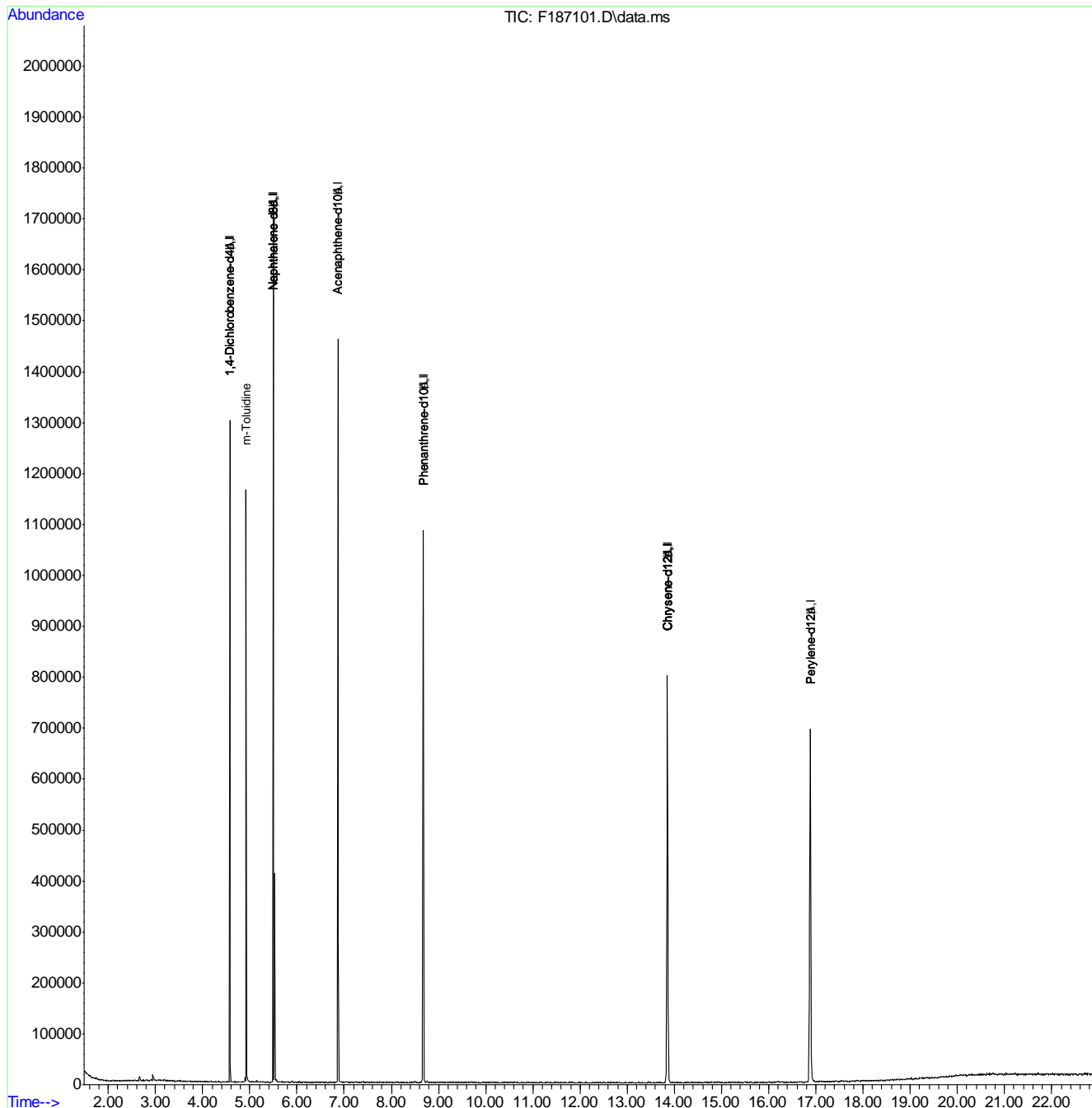
(#) = qualifier out of range (m) = manual integration (+) = signals summed

9.6.56
9

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF8057\
 Data File : F187101.D
 Acq On : 12 Sep 2019 8:33 am
 Operator : chriss2
 Sample : icv8057-50
 Misc : op21602,ef8057,1000,,,1,1
 ALS Vial : 11 Sample Multiplier: 1

Quant Time: Sep 12 16:40:44 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MF8050AP9.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Thu Sep 12 16:38:40 2019
 Response via : Initial Calibration



9.6.56
 9

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF8057\
 Data File : F187102.D
 Acq On : 12 Sep 2019 9:02 am
 Operator : chriss2
 Sample : icv8057-50
 Misc : op21602,ef8057,1000,,,1,1
 ALS Vial : 12 Sample Multiplier: 1

Quant Time: Sep 12 16:42:27 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MF8050AP9.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Thu Sep 12 16:38:40 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.575	152	101641	40.00	ppm	-0.03
24) Naphthalene-d8	5.494	136	392598	40.00	ppm	-0.03
47) Acenaphthene-d10	6.872	164	219724	40.00	ppm	-0.03
69) Phenanthrene-d10	8.678	188	452542	40.00	ppm	-0.05
83) Chrysene-d12	13.860	240	477472	40.00	ppm	-0.07
91) Perylene-d12	16.884	264	475923	40.00	ppm	-0.07
101) 1,4-Dichlorobenzene-d4A	4.575	152	101641	40.00	ppm	-0.01
111) Naphthalene-d8A	5.494	136	392598	40.00	ppm	-0.02
120) Acenaphthene-d10A	6.872	164	219724	40.00	ppm	-0.02
131) Phenanthrene-d10A	8.678	188	452542	40.00	ppm	-0.02
146) Chrysene-d12A	13.860	240	477472	40.00	ppm	-0.03
153) Perylene-d12A	16.884	264	475923	40.00	ppm	-0.03
156) 1,4-Dichlorobenzene-d4b	4.575	152	101641	40.00	ppm	-0.03
158) Phenanthrene-d10b	8.678	188	452542	40.00	ppm	-0.05
160) Chrysene-d12b	13.860	240	477472	40.00	ppm	-0.07
162) Naphthalene-d8b	5.494	136	392598	40.00	ppm	-0.03
164) Acenaphthene-d10b	6.872	164	219724	40.00	ppm	-0.03
166) Naphthalene-d8c	5.494	136	392598	40.00	ppm	0.00
171) 1,4-Dichlorobenzene-d4c	4.575	152	101641	40.00	ppm	0.00
173) Chrysene-d12c	13.860	240	477472	40.00	ppm	0.00
175) Chrysene-d12d	13.860	240	477472	40.00	ppm	-0.13
177) Naphthalene-d8d	5.494	136	392598	40.00	ppm	-0.04
179) Chrysene-d12e	13.860	240	477472	40.00	ppm	-0.13
181) Perylene-d12b	16.884	264	475923	40.00	ppm	-0.11
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
25) Nitrobenzene-d5	0.000	82	0d	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
Target Compounds						Qvalue
174) bis(2-Ethylhexyl)adipate	13.149	129	222103	42.94	ppm	98

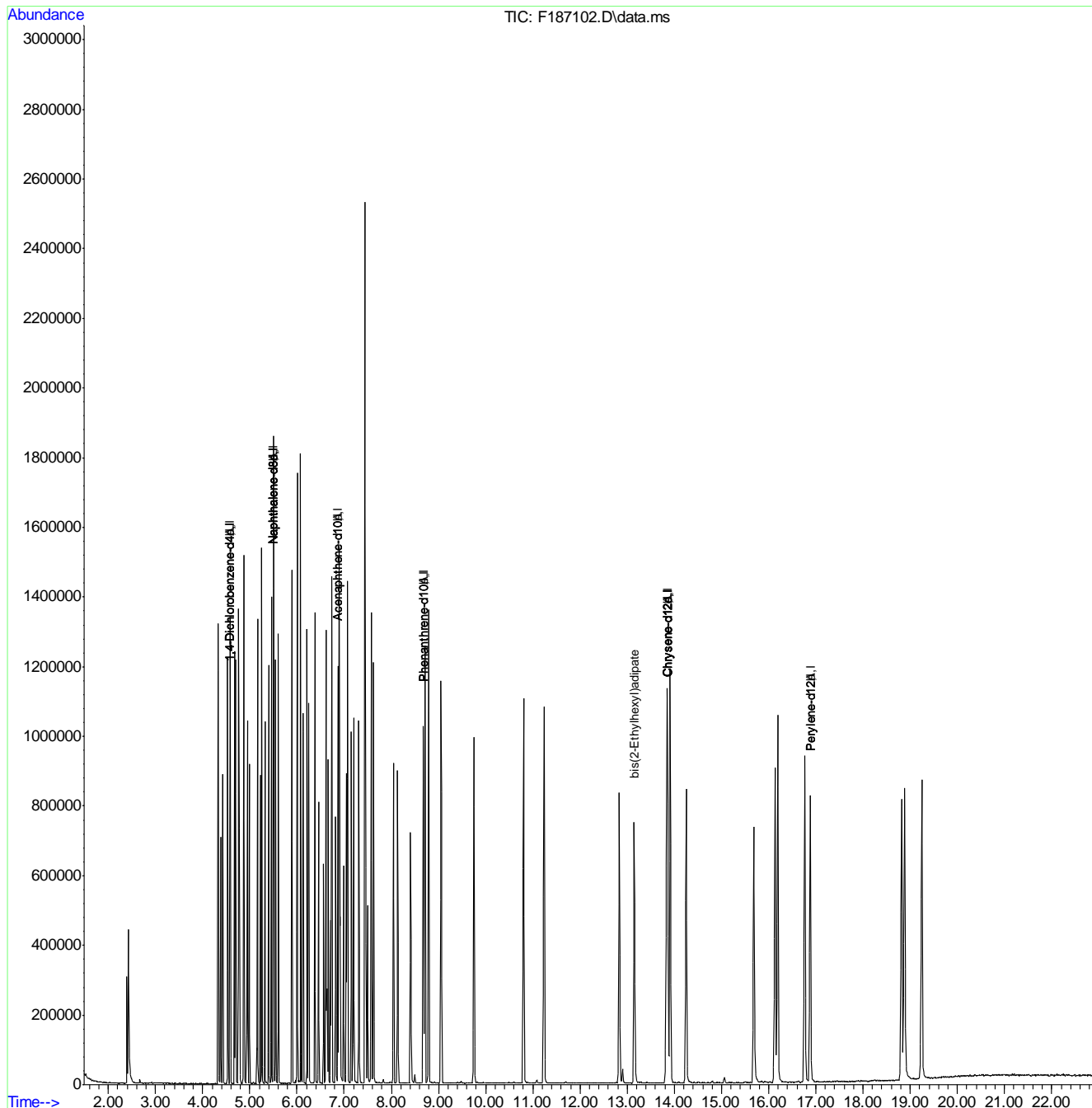
(#) = qualifier out of range (m) = manual integration (+) = signals summed

9.6-57
9

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF8057\
 Data File : F187102.D
 Acq On : 12 Sep 2019 9:02 am
 Operator : chriss2
 Sample : icv8057-50
 Misc : op21602,ef8057,1000,,,1,1
 ALS Vial : 12 Sample Multiplier: 1

Quant Time: Sep 12 16:42:27 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MF8050AP9.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Thu Sep 12 16:38:40 2019
 Response via : Initial Calibration



9.6-57
9

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF8057\
 Data File : F187103.D
 Acq On : 12 Sep 2019 9:31 am
 Operator : chriss2
 Sample : icv8057-50
 Misc : op21602,ef8057,1000,,,1,1
 ALS Vial : 13 Sample Multiplier: 1

Quant Time: Sep 12 16:47:44 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MF8050AP9.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Thu Sep 12 16:38:40 2019
 Response via : Initial Calibration

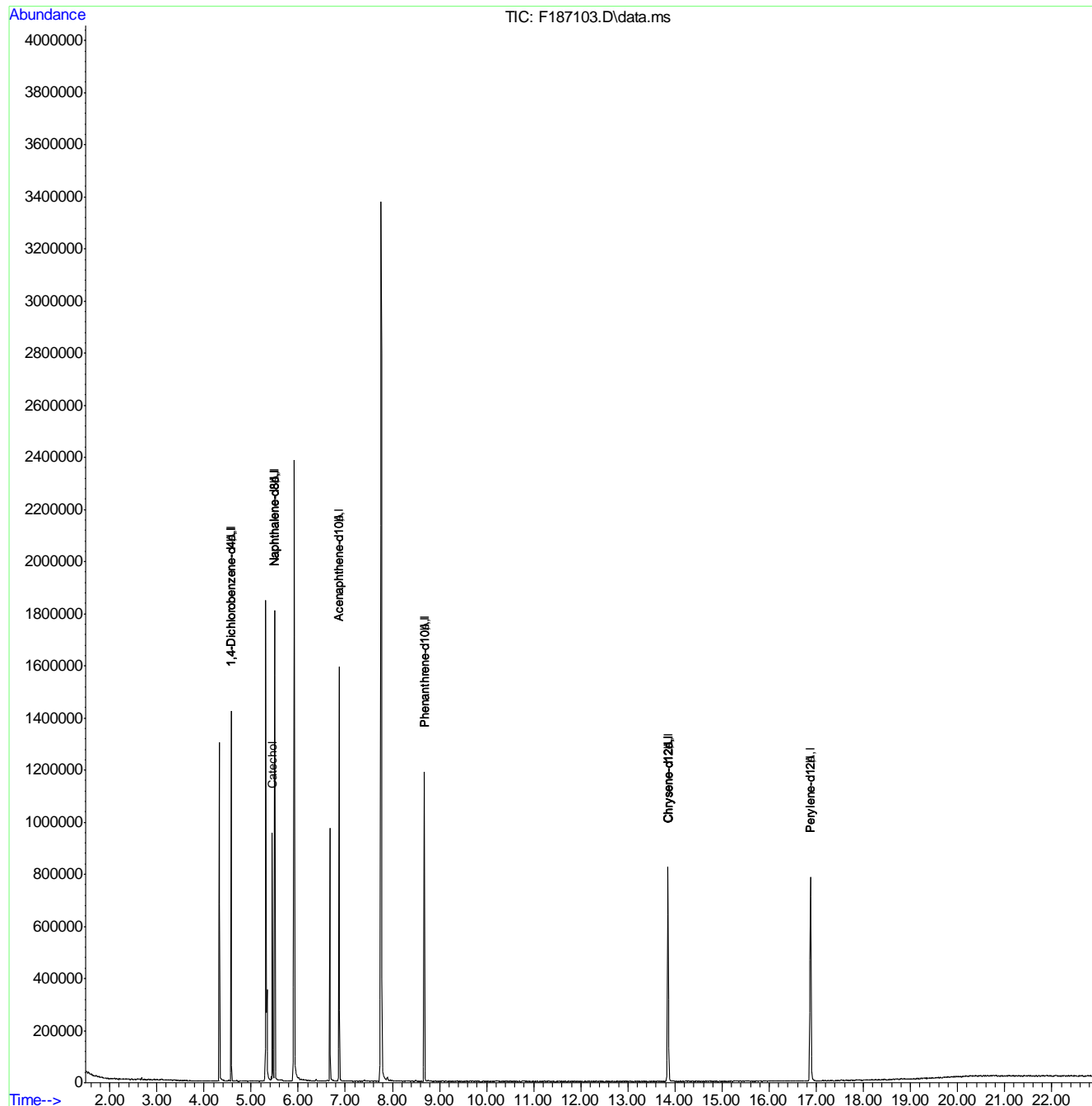
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.575	152	133260	40.00	ppm	-0.03
24) Naphthalene-d8	5.494	136	490589	40.00	ppm	-0.03
47) Acenaphthene-d10	6.867	164	287484	40.00	ppm	-0.04
69) Phenanthrene-d10	8.678	188	509148	40.00	ppm	-0.05
83) Chrysene-d12	13.854	240	433145	40.00	ppm	-0.08
91) Perylene-d12	16.878	264	448824	40.00	ppm	-0.08
101) 1,4-Dichlorobenzene-d4A	4.575	152	133260	40.00	ppm	-0.01
111) Naphthalene-d8A	5.494	136	490589	40.00	ppm	-0.02
120) Acenaphthene-d10A	6.867	164	287484	40.00	ppm	-0.02
131) Phenanthrene-d10A	8.678	188	509148	40.00	ppm	-0.02
146) Chrysene-d12A	13.854	240	433145	40.00	ppm	-0.03
153) Perylene-d12A	16.878	264	448824	40.00	ppm	-0.04
156) 1,4-Dichlorobenzene-d4b	4.575	152	133260	40.00	ppm	-0.03
158) Phenanthrene-d10b	8.678	188	509148	40.00	ppm	-0.05
160) Chrysene-d12b	13.854	240	433145	40.00	ppm	-0.08
162) Naphthalene-d8b	5.494	136	490589	40.00	ppm	-0.03
164) Acenaphthene-d10b	6.867	164	287484	40.00	ppm	-0.04
166) Naphthalene-d8c	5.494	136	490589	40.00	ppm	0.00
171) 1,4-Dichlorobenzene-d4c	4.575	152	133260	40.00	ppm	0.00
173) Chrysene-d12c	13.854	240	433145	40.00	ppm	0.00
175) Chrysene-d12d	13.854	240	433145	40.00	ppm	-0.14
177) Naphthalene-d8d	5.494	136	490589	40.00	ppm	-0.04
179) Chrysene-d12e	13.854	240	433145	40.00	ppm	-0.14
181) Perylene-d12b	16.878	264	448824	40.00	ppm	-0.12
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
8) Phenol-d5	0.000	99	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
Target Compounds						
167) Catechol	5.451	110	216779	50.86	ppm	Qvalue 99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF8057\
 Data File : F187103.D
 Acq On : 12 Sep 2019 9:31 am
 Operator : chriss2
 Sample : icv8057-50
 Misc : op21602,ef8057,1000,,,1,1
 ALS Vial : 13 Sample Multiplier: 1

Quant Time: Sep 12 16:47:44 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MF8050AP9.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Thu Sep 12 16:38:40 2019
 Response via : Initial Calibration



9.6-58
9

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF8059\
 Data File : F187136.D
 Acq On : 13 Sep 2019 4:20 am
 Operator : chriss2
 Sample : icv8057-50
 Misc : op21602,ef8059,1000,,,1,1
 ALS Vial : 11 Sample Multiplier: 1

Quant Time: Sep 13 10:09:56 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MF8050AP9.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Fri Sep 13 10:00:50 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.564	152	149799	40.00	ppm	-0.04
24) Naphthalene-d8	5.483	136	538024	40.00	ppm	-0.04
47) Acenaphthene-d10	6.851	164	305340	40.00	ppm	-0.05
69) Phenanthrene-d10	8.651	188	537866	40.00	ppm	-0.08
83) Chrysene-d12	13.817	240	433882	40.00	ppm	-0.11
91) Perylene-d12	16.841	264	437951	40.00	ppm	-0.12
101) 1,4-Dichlorobenzene-d4A	4.564	152	149799	40.00	ppm	-0.02
111) Naphthalene-d8A	5.483	136	538024	40.00	ppm	-0.03
120) Acenaphthene-d10A	6.851	164	305340	40.00	ppm	-0.04
131) Phenanthrene-d10A	8.651	188	537866	40.00	ppm	-0.05
146) Chrysene-d12A	13.817	240	433882	40.00	ppm	-0.07
153) Perylene-d12A	16.841	264	437951	40.00	ppm	-0.07
156) 1,4-Dichlorobenzene-d4b	4.564	152	149799	40.00	ppm	-0.04
158) Phenanthrene-d10b	8.651	188	537866	40.00	ppm	-0.08
160) Chrysene-d12b	13.817	240	433882	40.00	ppm	-0.11
162) Naphthalene-d8b	5.483	136	538024	40.00	ppm	-0.04
164) Acenaphthene-d10b	6.851	164	305340	40.00	ppm	-0.05
166) Naphthalene-d8c	5.483	136	538024	40.00	ppm	-0.01
171) 1,4-Dichlorobenzene-d4c	4.564	152	149799	40.00	ppm	-0.01
173) Chrysene-d12c	13.817	240	433882	40.00	ppm	-0.04
175) Chrysene-d12d	13.817	240	433882	40.00	ppm	-0.17
177) Naphthalene-d8d	5.483	136	538024	40.00	ppm	-0.05
179) Chrysene-d12e	13.817	240	433882	40.00	ppm	0.00
181) Perylene-d12b	16.841	264	437951	40.00	ppm	-0.15
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
8) Phenol-d5	0.000	99	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
Target Compounds						
168) 2-Chloroaniline	5.184	127	273995	42.67	ppm	99
169) 3-Chloroaniline	5.520	127	263723	44.83	ppm	95

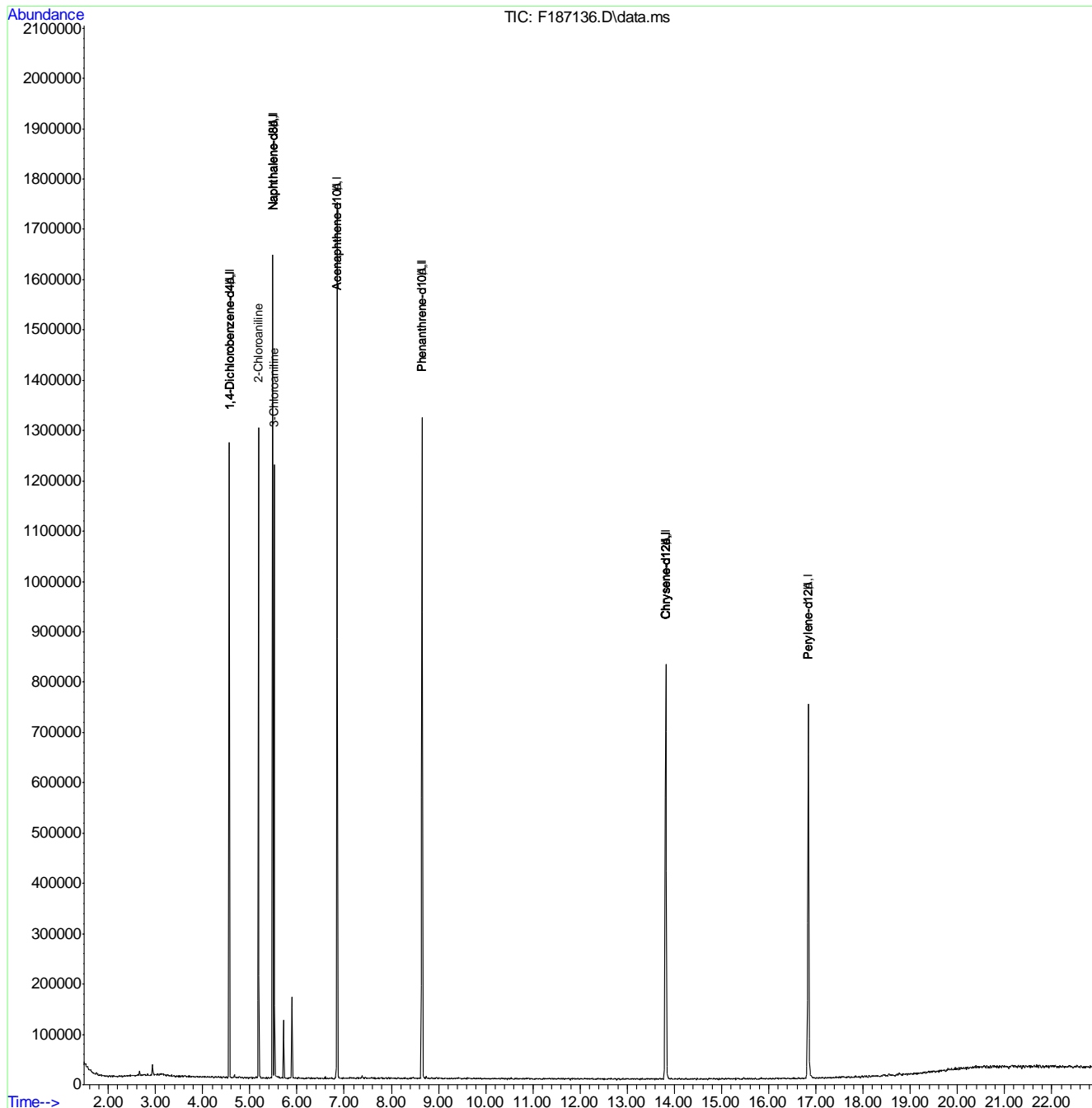
(#) = qualifier out of range (m) = manual integration (+) = signals summed

9.6.59
9

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF8059\
 Data File : F187136.D
 Acq On : 13 Sep 2019 4:20 am
 Operator : chriss2
 Sample : icv8057-50
 Misc : op21602,ef8059,1000,,,1,1
 ALS Vial : 11 Sample Multiplier: 1

Quant Time: Sep 13 10:09:56 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MF8050AP9.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Fri Sep 13 10:00:50 2019
 Response via : Initial Calibration



9.6.59
 9

Quantitation Report (QT Reviewed)

Data Path : X:\svoa-gcms\completed\10_oct\10-21-2019\aimeel\ef8099\
 Data File : f187960.d
 Acq On : 19 Oct 2019 12:29 am
 Operator : chriss2
 Sample : cc8050-25 Inst : GCMSF
 Misc : op21602,ef8099,1000,,,1,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MF8050.M
 Quant Results File: MF8050.RES
 Quant Time: Oct 22 12:38:14 2019
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Mon Oct 21 05:14:01 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
Internal Standards							
1) 1,4-Dichlorobenzene-d4	4.496	152	155488	40.00	ppm	0.00	
24) Naphthalene-d8	5.421	136	533258	40.00	ppm	0.00	
47) Acenaphthene-d10	6.767	164	365688	40.00	ppm	0.00	
69) Phenanthrene-d10	8.535	188	676247	40.00	ppm	0.00	
83) Chrysene-d12	13.669	240	703115	40.00	ppm	0.00	
91) Perylene-d12	16.687	264	658130	40.00	ppm	0.00	
101) 1,4-Dichlorobenzene-d4b	4.496	152	155488	40.00	ppm	0.00	
103) Phenanthrene-d10b	8.535	188	676247	40.00	ppm	0.00	
105) Chrysene-d12b	13.669	240	703115	40.00	ppm	0.00	
107) Naphthalene-d8b	5.421	136	533258	40.00	ppm	0.00	
109) Acenaphthene-d10b	6.767	164	365688	40.00	ppm	0.00	
System Monitoring Compounds							
5) 2-Fluorophenol	3.519	112	123171	21.38	ppm	0.00	
Spiked Amount	50.000		Recovery	=	42.76%		
8) Phenol-d5	4.245	99	173336	24.33	ppm	0.00	
Spiked Amount	50.000		Recovery	=	48.66%		
25) Nitrobenzene-d5	4.902	82	177766	28.80	ppm	0.00	
Spiked Amount	50.000		Recovery	=	57.60%		
51) 2-Fluorobiphenyl	6.195	172	358701	25.43	ppm	0.00	
Spiked Amount	50.000		Recovery	=	50.86%		
73) 2,4,6-Tribromophenol	7.606	330	64977	32.04	ppm	0.00	
Spiked Amount	50.000		Recovery	=	64.08%		
85) Terphenyl-d14	11.489	244	430749	26.13	ppm	0.00	
Spiked Amount	50.000		Recovery	=	52.26%		
Target Compounds							Qvalue
2) 1,4-Dioxane	2.012	88	57373	20.47	ppm		100
3) Pyridine	2.349	79	141070	20.37	ppm		100
4) N-Nitrosodimethylamine	2.317	42	76328	25.72	ppm		100
6) Indene	4.689	116	213277	24.14	ppm		100
7) Cumene	3.903	105	373214	25.15	ppm		100
9) Phenol	4.256	94	192660	23.16	ppm		100
10) Aniline	4.261	93	195163	20.98	ppm		100
11) bis(2-Chloroethyl)ether	4.304	93	132416	22.07	ppm		100
12) 2-Chlorophenol	4.347	128	134892	23.21	ppm		100
13) Decane	4.390	43	121482	22.59	ppm		100
14) 1,3-Dichlorobenzene	4.459	146	170354	25.10	ppm		100
15) 1,4-Dichlorobenzene	4.512	146	170765	24.56	ppm		100
16) Benzyl alcohol	4.609	108	82498	24.13	ppm		100
17) 1,2-Dichlorobenzene	4.625	146	163023	24.64	ppm		100
18) Acetophenone	4.796	105	216628	26.23	ppm		100
19) 2-Methylphenol	4.694	108	128146	24.41	ppm		100
20) 2,2'-oxybis(1-Chloropr...	4.705	121	39664	24.86	ppm		100
21) 3&4-Methylphenol	4.806	108	125351	24.34	ppm		100
22) n-Nitroso-di-n-propyla...	4.796	70	115613	26.84	ppm		100
23) Hexachloroethane	4.870	201	70350	27.57	ppm		100
26) Nitrobenzene	4.918	77	184211	28.99	ppm		100
27) Quinoline	5.677	129	264398	25.97	ppm		100
28) Isophorone	5.089	82	297671	27.65	ppm		100
29) 2-Nitrophenol	5.148	139	78263	33.04	ppm		100
30) 2,4-Dimethylphenol	5.186	107	152973	26.48	ppm		100
31) Benzoic acid	5.271	105	115930	30.48	ppm		100
32) bis(2-Chloroethoxy)met...	5.244	93	160231	23.26	ppm		100
33) 2,4-Dichlorophenol	5.324	162	128657	28.74	ppm		100
34) 2,6-Dichlorophenol	5.479	162	124086	28.12	ppm		100

6 09:06



Quantitation Report (QT Reviewed)

Data Path : X:\svoa-gcms\completed\10_oct\10-21-2019\aimeel\ef8099\
 Data File : f187960.d
 Acq On : 19 Oct 2019 12:29 am
 Operator : chriss2
 Sample : cc8050-25 Inst : GCMSF
 Misc : op21602,ef8099,1000,,,1,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MF8050.M
 Quant Results File: MF8050.RES
 Quant Time: Oct 22 12:38:14 2019
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Mon Oct 21 05:14:01 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
35) 1,3,5-Trichlorobenzene	5.153	180	150991	27.32	ppm	100
36) 1,2,4-Trichlorobenzene	5.378	180	144204	27.60	ppm	100
37) 1,2,3-Trichlorobenzene	5.538	180	148755	28.94	ppm	100
38) Naphthalene	5.431	128	383810	24.50	ppm	100
39) 4-Chloroaniline	5.474	127	159819	24.14	ppm	100
40) 2,3-Dichloroaniline	6.136	161	158382	29.00	ppm	100
41) Caprolactam	5.725	55	57549	28.79	ppm	100
42) Hexachlorobutadiene	5.527	225	105146	31.31	ppm	100
43) 4-Chloro-3-methylphenol	5.827	107	145386	30.48	ppm	100
44) 2-Methylnaphthalene	5.923	141	206731	26.22	ppm	100
45) 1-Methylnaphthalene	5.998	142	278791	27.01	ppm	100
46) Dimethylnaphthalene	6.404	156	275460	28.56	ppm	100
48) Hexachlorocyclopentadiene	6.046	237	216229	55.76	ppm	100
49) 2,4,6-Trichlorophenol	6.136	196	111804	28.47	ppm	100
50) 2,4,5-Trichlorophenol	6.168	196	111935m	26.26	ppm	100
52) 2-Chloronaphthalene	6.291	162	297982	23.89	ppm	100
53) Biphenyl	6.275	154	359737	23.79	ppm	100
54) 2-Nitroaniline	6.377	65	132361	34.32	ppm	100
55) Dimethylphthalate	6.521	163	347880	26.02	ppm	100
56) Acenaphthylene	6.639	152	431951	24.48	ppm	100
57) 2,6-Dinitrotoluene	6.575	165	76413	26.61	ppm	100
58) 3-Nitroaniline	6.729	138	76817	25.88	ppm	100
59) Acenaphthene	6.799	153	282716	23.63	ppm	100
60) 2,4-Dinitrophenol	6.826	184	99287	69.84	ppm	100
61) 4-Nitrophenol	6.895	109	71006	34.46	ppm	100
62) Dibenzofuran	6.965	168	405291	25.42	ppm	100
63) 2,4-Dinitrotoluene	6.954	165	110837	28.62	ppm	100
64) 2,3,4,6-Tetrachlorophenol	7.098	232	99051	31.06	ppm	100
65) Diethylphthalate	7.200	149	372943	27.63	ppm	100
66) Fluorene	7.322	166	340685	27.04	ppm	100
67) 4-Chlorophenyl-phenyle...	7.322	204	192441	29.94	ppm	100
68) 4-Nitroaniline	7.354	138	72380	23.71	ppm	100
70) 4,6-Dinitro-2-methylph...	7.392	198	74453	31.36	ppm	100
71) n-Nitrosodiphenylamine	7.461	169	251355	25.28	ppm	100
72) 1,2-Diphenylhydrazine	7.504	77	388858	24.73	ppm	100
74) 4-Bromophenyl-phenylether	7.921	248	117882	29.43	ppm	100
75) Hexachlorobenzene	8.006	284	123537	27.57	ppm	100
76) Pentachlorophenol	8.279	266	170809	65.17	ppm	100
77) Phenanthrene	8.572	178	478667	23.61	ppm	100
78) Anthracene	8.647	178	487957	24.77	ppm	100
79) Carbazole	8.914	167	451379	25.13	ppm	100
80) Di-n-butylphthalate	9.593	149	631272	30.00	ppm	100
81) Fluoranthene	10.635	202	609754	31.02	ppm	100
82) Octadecane	8.450	57	198015	24.57	ppm	100
84) Pyrene	11.062	202	626820	24.17	ppm	100
86) Butylbenzylphthalate	12.649	149	281395	24.29	ppm	100
87) Benzo[a]anthracene	13.648	228	618377	26.81	ppm	100
88) 3,3'-Dichlorobenzidine	13.696	252	222635	25.80	ppm	100
89) Chrysene	13.722	228	593165	23.72	ppm	100
90) bis(2-Ethylhexyl)phtha...	14.054	149	362463	22.86	ppm	100
92) Di-n-octylphthalate	15.480	149	627891	27.47	ppm	100
93) Benzo[b]fluoranthene	15.939	252	592647	30.00	ppm	100
94) Benzo[k]fluoranthene	16.004	252	532186	25.78	ppm	100
95) Benzo[a]pyrene	16.564	252	503321	29.70	ppm	100
96) Indeno[1,2,3-cd]pyrene	18.621	276	453889	28.93	ppm	100
97) Dibenz(a,h)acridine	18.263	279	434527	29.51	ppm	100
98) Dibenz[a,h]anthracene	18.680	278	446256	26.14	ppm	100

6 09:06



Quantitation Report (QT Reviewed)

Data Path : X:\svoa-gcms\completed\10_oct\10-21-2019\aimeel\ef8099\
 Data File : f187960.d
 Acq On : 19 Oct 2019 12:29 am
 Operator : chriss2
 Sample : cc8050-25 Inst : GCMSF
 Misc : op21602,ef8099,1000,,,1,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MF8050.M
 Quant Results File: MF8050.RES
 Quant Time: Oct 22 12:38:14 2019
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Mon Oct 21 05:14:01 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
99) 7,12-Dimethylbenz(a)an...	15.961	256	257943	29.04	ppm	100
100) Benzo[g,h,i]perylene	19.043	276	435388	26.36	ppm	100

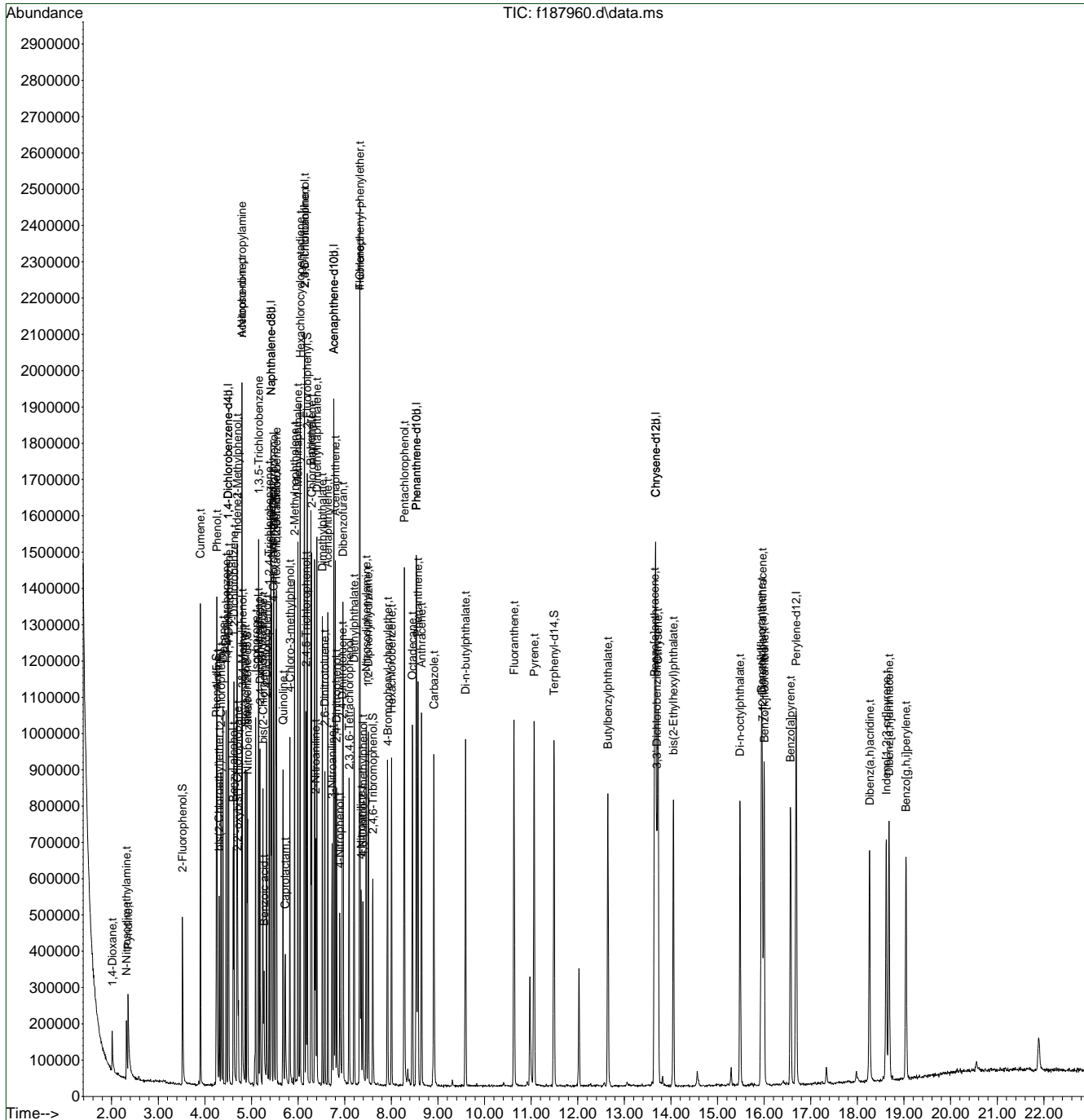
(#) = qualifier out of range (m) = manual integration (+) = signals summed

6 09:6

Quantitation Report (QT Reviewed)

Data Path : X:\svoa-gcms\completed\10_oct\10-21-2019\aimeel\ef8099\
 Data File : f187960.d
 Acq On : 19 Oct 2019 12:29 am
 Operator : chriss2
 Sample : cc8050-25 Inst : GCMSF
 Misc : op21602,ef8099,1000,,,1,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MF8050.M
 Quant Results File: MF8050.RES
 Quant Time: Oct 22 12:38:14 2019
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Mon Oct 21 05:14:01 2019
 Response via : Initial Calibration



6 09:9'6

Manual Integration Approval Summary

Sample Number: EF8099-CC8050 Method: SW846 8270D
Lab FileID: F187960.D Analyst approved: 10/22/19 12:41 Jeryll Fabriene Reyes
Injection Time: 10/19/19 00:29 Supervisor approved: 10/22/19 18:02 Nina Pandya

Parameter	CAS	Sig#	R.T. (min.)	Reason
2,4,5-Trichlorophenol	95-95-4		6.17	Overlapping peak

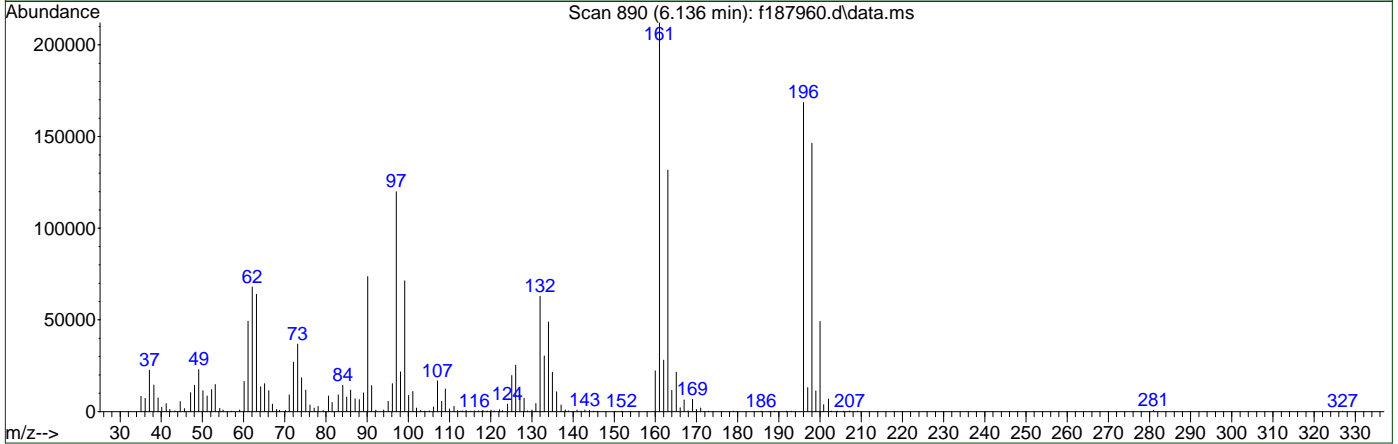
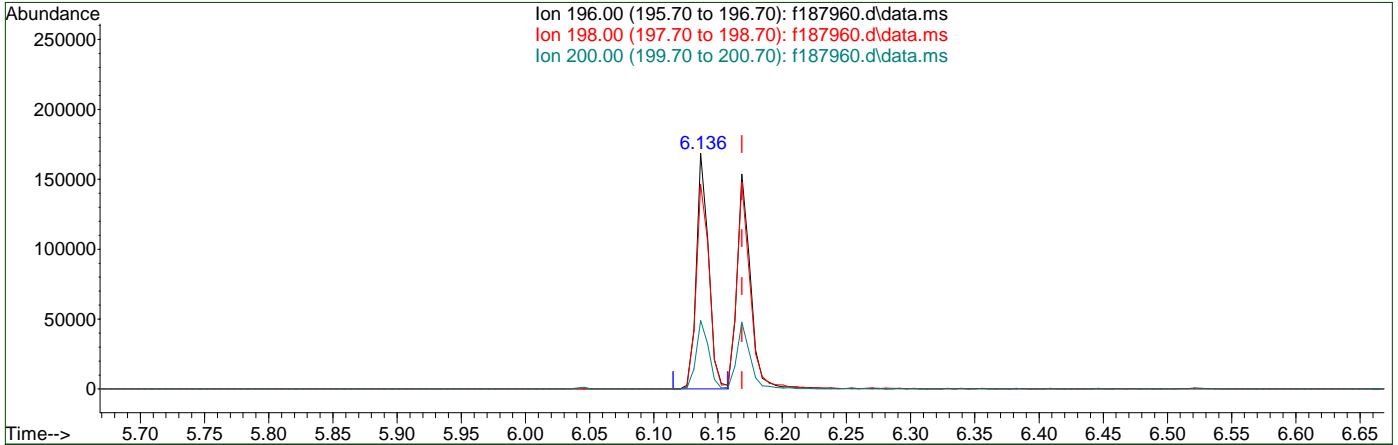
9.6.60.1

9

Quantitation Report (Qedit)

Data Path : X:\svoa-gcms\completed\10_oct\10-21-2019\aimeel\ef8099\
 Data File : f187960.d
 Acq On : 19 Oct 2019 12:29 am
 Operator : chriss2
 Sample : cc8050-25 Inst : GCMSF
 Misc : op21602,ef8099,1000,,,1,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MF8050.M
 Quant Results File: MF8050.RES
 Quant Time: Oct 21 05:16:12 2019
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Mon Oct 21 05:14:01 2019
 Response via : Initial Calibration



TIC: f187960.d\data.ms

(50) 2,4,5-Trichlorophenol (t)

6.136min (-0.032) 26.23ppm

response 111804

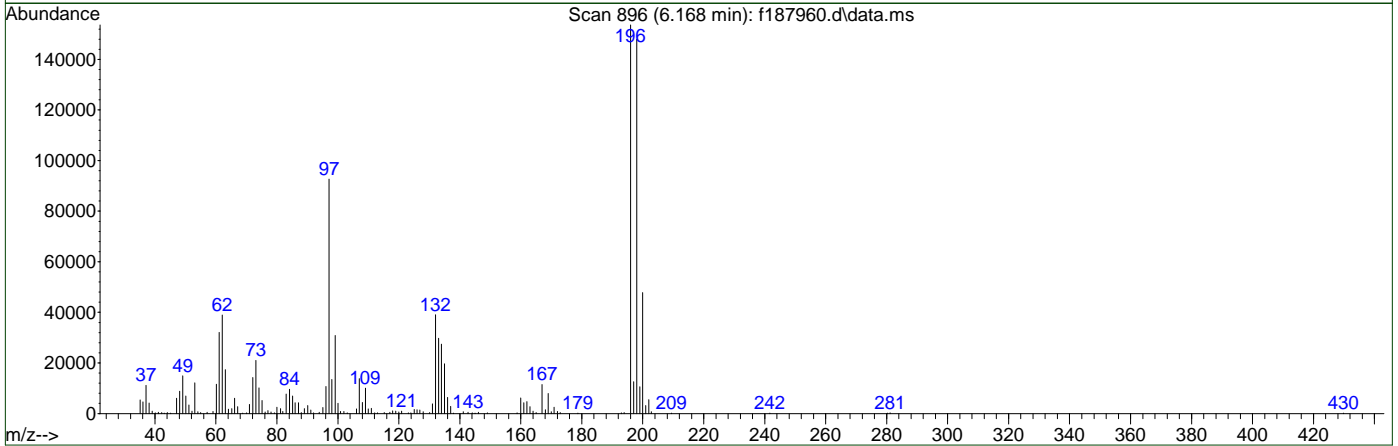
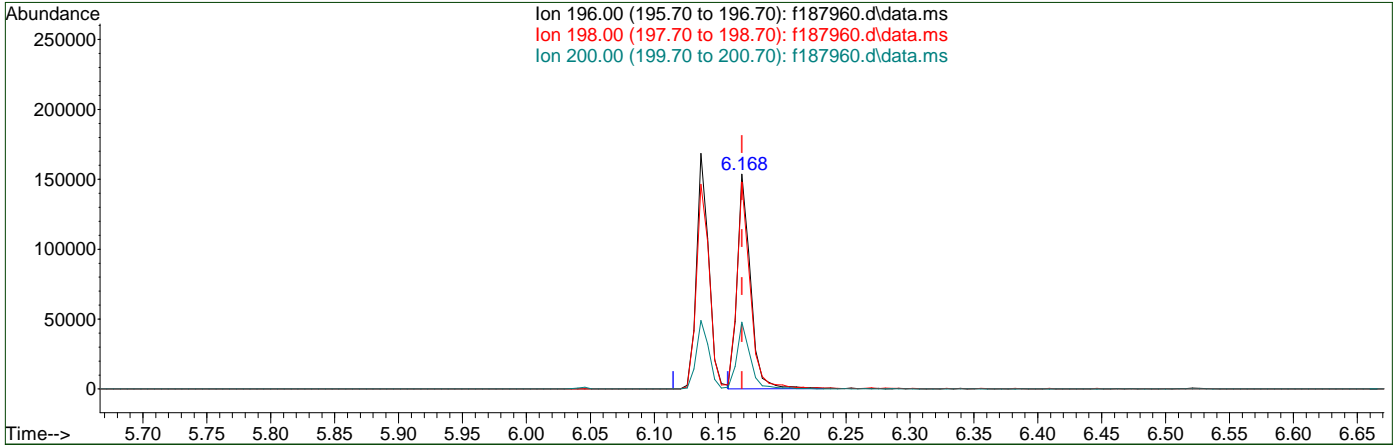
Ion	Exp%	Act%
196.00	100	100
198.00	96.20	86.64
200.00	30.90	28.97
0.00	0.00	0.00

9.6.60.2
9

Quantitation Report (Qedit)

Data Path : X:\svoa-gcms\completed\10_oct\10-21-2019\aimeel\ef8099\
 Data File : f187960.d
 Acq On : 19 Oct 2019 12:29 am
 Operator : chriss2
 Sample : cc8050-25
 Misc : op21602,ef8099,1000,,,1,1
 ALS Vial : 2 Sample Multiplier: 1
 Inst : GCMSF

Quant Method : C:\MSDCHEM\1\METHODS\MF8050.M
 Quant Results File: MF8050.RES
 Quant Time: Oct 21 05:16:12 2019
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Mon Oct 21 05:14:01 2019
 Response via : Initial Calibration



TIC: f187960.d\data.ms

(50) 2,4,5-Trichlorophenol (t)
 6.168min (0.000) 26.26ppm m
 response 111935

Ion	Exp%	Act%
196.00	100	100
198.00	96.20	96.29
200.00	30.90	31.10
0.00	0.00	0.00

9.6.60.3
 9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\data_aimeel\ef8099\
 Data File : f187961.d
 Acq On : 19 Oct 2019 12:58 am
 Operator : chriss2
 Sample : cc8051-25 Inst : GCMSF
 Misc : op21602,ef8099,1000,,,1,1
 ALS Vial : 3 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MF8050.M
 Quant Results File: MF8050.RES
 Quant Time: Oct 21 05:19:24 2019
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Mon Oct 21 05:18:00 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.496	152	212792	40.00	ppm	0.00
24) Naphthalene-d8	5.415	136	719889	40.00	ppm	0.00
47) Acenaphthene-d10	6.767	164	451398	40.00	ppm	0.00
69) Phenanthrene-d10	8.535	188	867515	40.00	ppm	0.00
83) Chrysene-d12	13.669	240	809912	40.00	ppm	0.00
91) Perylene-d12	16.687	264	795007	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4b	4.496	152	212792	40.00	ppm	0.00
103) Phenanthrene-d10b	8.535	188	867515	40.00	ppm	0.00
105) Chrysene-d12b	13.669	240	809912	40.00	ppm	0.00
107) Naphthalene-d8b	5.415	136	719889	40.00	ppm	0.00
109) Acenaphthene-d10b	6.767	164	451398	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
8) Phenol-d5	0.000	99	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
Target Compounds						
102) Benzaldehyde	4.176	105	136788	21.24	ppm	99
104) Atrazine	8.166	200	111219	33.22	ppm	100

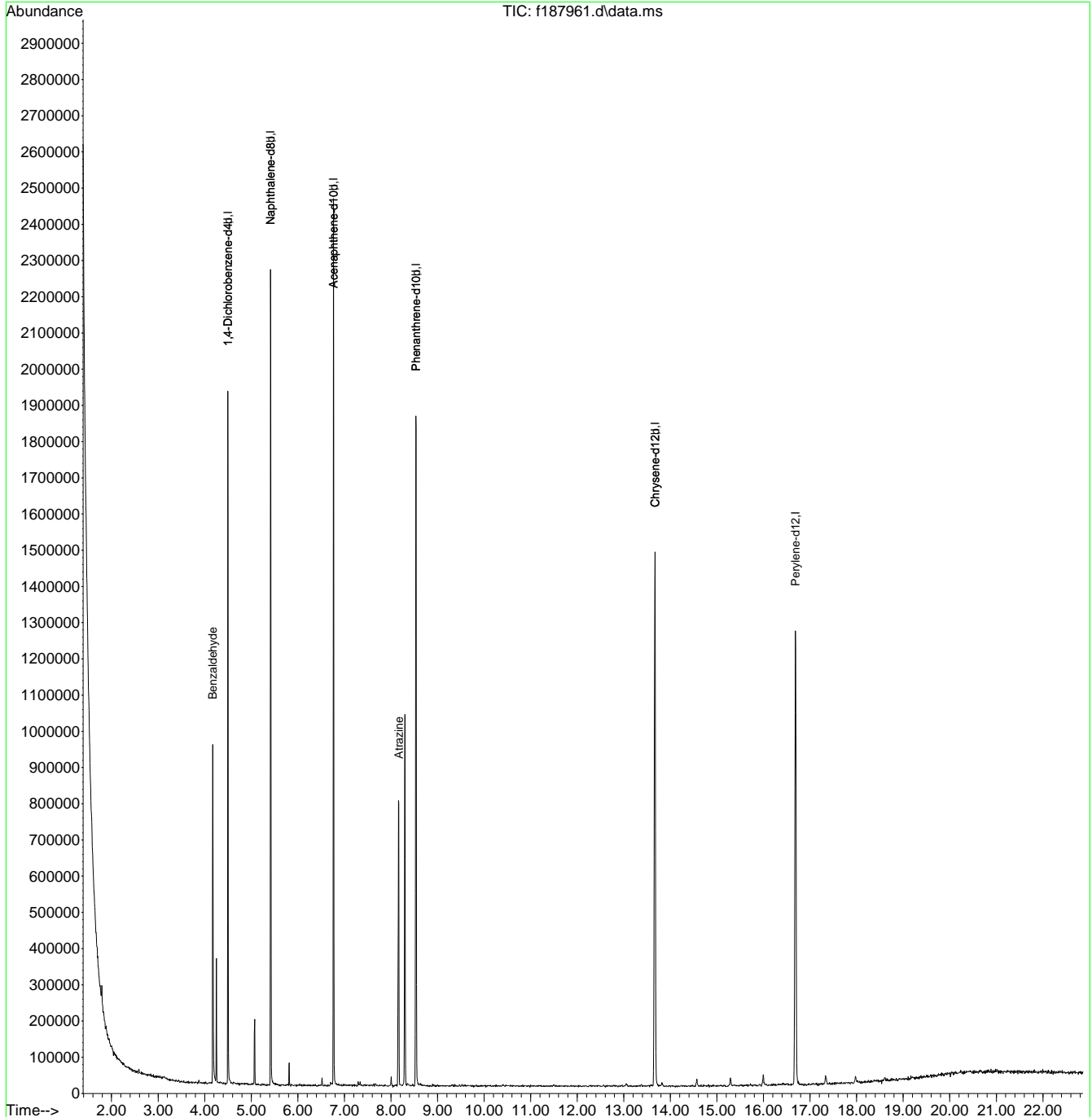
(#) = qualifier out of range (m) = manual integration (+) = signals summed

9.6.61
9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\data_aimeel\ef8099\
 Data File : f187961.d
 Acq On : 19 Oct 2019 12:58 am
 Operator : chriss2
 Sample : cc8051-25
 Misc : op21602,ef8099,1000,,,1,1
 ALS Vial : 3 Sample Multiplier: 1
 Inst : GCMSF

Quant Method : C:\MSDCHEM\1\METHODS\MF8050.M
 Quant Results File: MF8050.RES
 Quant Time: Oct 21 05:19:24 2019
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Mon Oct 21 05:18:00 2019
 Response via : Initial Calibration



9.6.61
 9



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\data_aimeel\ef8099\
 Data File : f187962.d
 Acq On : 19 Oct 2019 1:27 am
 Operator : chriss2
 Sample : cc8052-25 Inst : GCMSF
 Misc : op21602,ef8099,1000,,,1,1
 ALS Vial : 4 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MF8050.M
 Quant Results File: MF8050.RES
 Quant Time: Oct 21 05:21:20 2019
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Mon Oct 21 05:20:23 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.502	152	146157	40.00	ppm	0.00
24) Naphthalene-d8	5.415	136	520018	40.00	ppm	0.00
47) Acenaphthene-d10	6.767	164	328897	40.00	ppm	0.00
69) Phenanthrene-d10	8.535	188	632898	40.00	ppm	0.00
83) Chrysene-d12	13.669	240	616830	40.00	ppm	0.00
91) Perylene-d12	16.687	264	658502	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4b	4.502	152	146157	40.00	ppm	0.00
103) Phenanthrene-d10b	8.535	188	632898	40.00	ppm	0.00
105) Chrysene-d12b	13.669	240	616830	40.00	ppm	0.00
107) Naphthalene-d8b	5.415	136	520018	40.00	ppm	0.00
109) Acenaphthene-d10b	6.767	164	328897	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
Target Compounds						
106) Benzidine	10.971	184	219511	23.85	ppm	98
108) Hydroquinone	5.720	110	101440	26.62	ppm	99
110) 1,2,4,5-Tetrachloroben...	6.051	216	138655	27.82	ppm	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

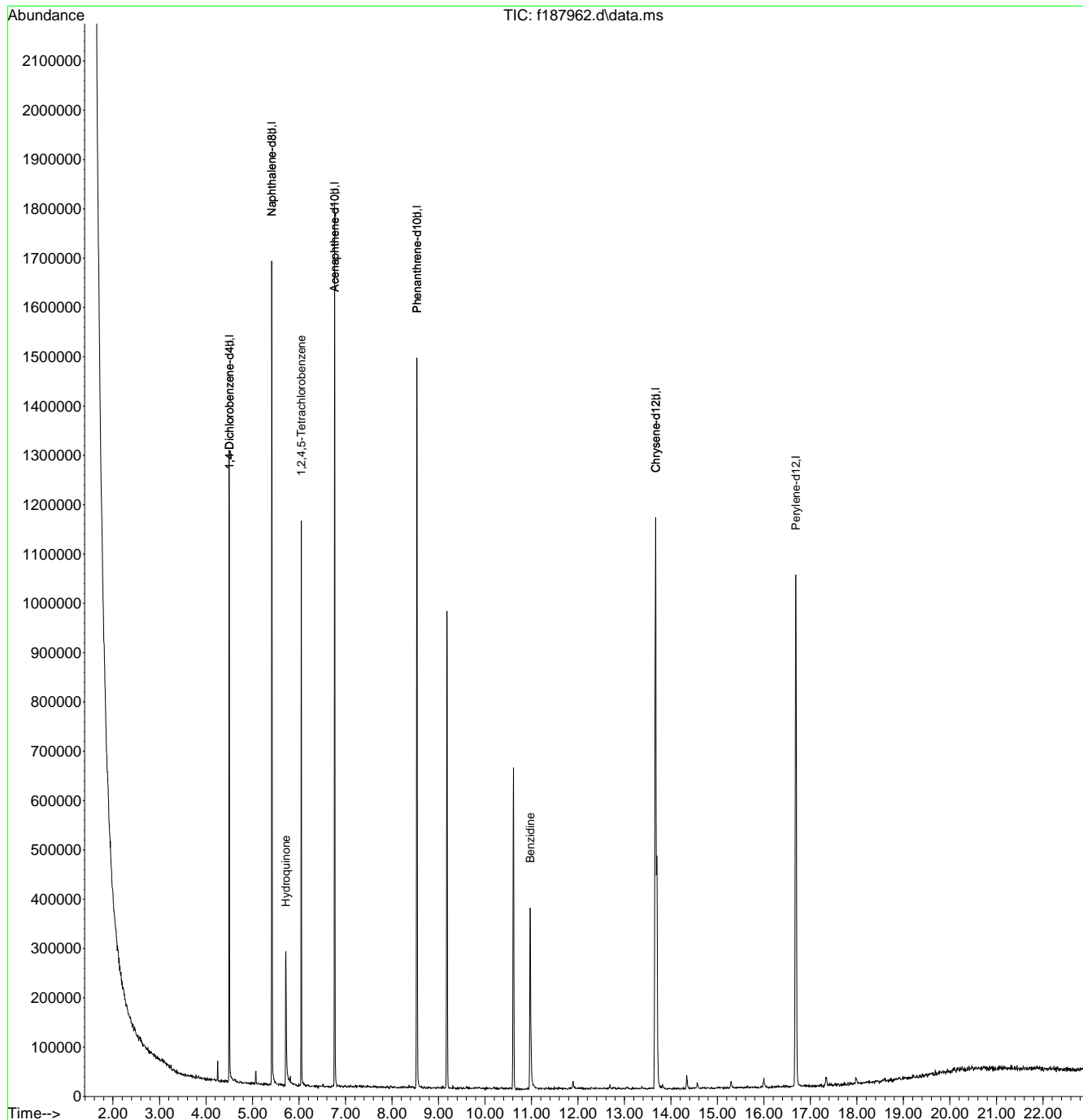
9.6.62
9



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\data_aimeel\ef8099\
 Data File : f187962.d
 Acq On : 19 Oct 2019 1:27 am
 Operator : chriss2
 Sample : cc8052-25 Inst : GCMSF
 Misc : op21602,ef8099,1000,,,1,1
 ALS Vial : 4 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MF8050.M
 Quant Results File: MF8050.RES
 Quant Time: Oct 21 05:21:20 2019
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Mon Oct 21 05:20:23 2019
 Response via : Initial Calibration



9.6.62
9



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\data_aimeel\ef8099\
 Data File : f187963.d
 Acq On : 19 Oct 2019 1:56 am
 Operator : chriss2
 Sample : cc8054-25 Inst : GCMSF
 Misc : op21602,ef8099,1000,,,1,1
 ALS Vial : 5 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MF8050AP9.M
 Quant Results File: MF8050AP9.RES
 Quant Time: Oct 21 07:02:53 2019
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Thu Oct 03 16:07:20 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.496	152	152378	40.00	ppm	-0.11
24) Naphthalene-d8	5.421	136	483439	40.00	ppm	-0.10
47) Acenaphthene-d10	6.767	164	357821	40.00	ppm	-0.14
69) Phenanthrene-d10	8.540	188	723559	40.00	ppm	-0.19
83) Chrysene-d12	13.669	240	770124	40.00	ppm	-0.26
91) Perylene-d12	16.693	264	765251	40.00	ppm	-0.27
101) 1,4-Dichlorobenzene-d4A	4.496	152	152378	40.00	ppm	-0.09
111) Naphthalene-d8A	5.421	136	483439	40.00	ppm	-0.09
120) Acenaphthene-d10A	6.767	164	357821	40.00	ppm	-0.12
131) Phenanthrene-d10A	8.540	188	723559	40.00	ppm	-0.16
146) Chrysene-d12A	13.669	240	770124	40.00	ppm	-0.22
153) Perylene-d12A	16.693	264	765251	40.00	ppm	-0.22
156) 1,4-Dichlorobenzene-d4b	4.496	152	152378	40.00	ppm	-0.11
158) Phenanthrene-d10b	8.540	188	723559	40.00	ppm	0.10
160) Chrysene-d12b	13.669	240	770124	40.00	ppm	0.13
162) Naphthalene-d8b	5.421	136	483439	40.00	ppm	-0.10
164) Acenaphthene-d10b	6.767	164	357821	40.00	ppm	-0.14
166) Naphthalene-d8c	5.421	136	483439	40.00	ppm	-0.07
171) 1,4-Dichlorobenzene-d4c	4.496	152	152378	40.00	ppm	#-0.08
173) Chrysene-d12c	13.669	240	770124	40.00	ppm	0.13
175) Chrysene-d12d	13.669	240	770124	40.00	ppm	-0.04
177) Naphthalene-d8d	5.421	136	483439	40.00	ppm	-0.12
179) Chrysene-d12e	13.669	240	770124	40.00	ppm	-0.15
181) Perylene-d12b	16.693	264	765251	40.00	ppm	-0.30
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
25) Nitrobenzene-d5	0.000	82	0d	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
Target Compounds						
102) 2-Picoline	3.022	93	118106	20.97	ppm	Qvalue 90
103) Pentachloroethane	4.288	167	50121	24.98	ppm	92
104) Methyl methanesulfonate	3.380	80	85086	25.05	ppm	88
105) N-Nitrosodiethylamine	3.690	102	51359	20.77	ppm	93
106) N-Nitrosomethylethylamine	3.123	42	64853	25.00	ppm	# 71
107) Ethyl methanesulfonate	3.930	79	85496	21.18	ppm	92
108) N-Nitrosopyrrolidine	4.779	41	44681	22.37	ppm	# 74
109) N-Nitrosomorpholine	4.801	56	78807	26.92	ppm	86
110) o-Toluidine	4.822	106	160206	20.45	ppm	78
112) O,O,O-Triethyl phospho...	5.223	198	66299	32.08	ppm	82
113) N-Nitrosopiperidine	5.020	42	88507	31.26	ppm	# 75
114) A,A-Dimethylphenethyla...	5.308	58	205432m	20.44	ppm	
115) Hexachloropropene	5.501	213	103707	35.16	ppm	100
116) N-Nitrosodi-n-butylamine	5.709	84	82686	24.88	ppm	86
117) p-Phenylenediamine	5.725	108	33448	34.80	ppm	# 75
118) Safrole	5.859	162	83311	27.19	ppm	79

9.6.63
 9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\data_aimeel\ef8099\
 Data File : f187963.d
 Acq On : 19 Oct 2019 1:56 am
 Operator : chriss2
 Sample : cc8054-25 Inst : GCMSF
 Misc : op21602,ef8099,1000,,,1,1
 ALS Vial : 5 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MF8050AP9.M
 Quant Results File: MF8050AP9.RES
 Quant Time: Oct 21 07:02:53 2019
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Thu Oct 03 16:07:20 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
119) Isosafrole	6.243	162	52280	24.63	ppm	87
121) Thionazin	7.285	143	32813	22.73	ppm	94
122) Tetraethyl dithiopyrop...	7.659	322	50816	30.85	ppm	100
123) Phorate	7.830	75	296184	40.23	ppm	100
124) Phenacetin	7.857	108	152887	26.19	ppm	94
125) 1,4-Napthhoquinone	6.430	158	71835	23.45	ppm	74
126) m-Dinitrobenzene	6.548	168	41512	25.69	ppm	91
127) Pentachlorobenzene	6.932	250	122315	26.30	ppm	95
128) 2-Naphthylamine	7.125	143	200182	22.35	ppm	92
129) 1-Naphthylamine	7.039	143	124742	20.28	ppm	89
130) 5-Nitro-o-toluidine	7.338	152	70019	23.26	ppm	92
132) Disulfoton	8.572	88	144697	22.79	ppm	82
133) Dinoseb	8.572	211	85140	27.43	ppm	96
134) Dimethoate	8.049	87	108369	21.76	ppm	84
135) 4-Aminobiphenyl	8.279	169	307057	26.77	ppm	99
136) Methyl parathion	9.176	125	77050	26.37	ppm	90
137) Parathion	9.892	109	73526	28.78	ppm	95
138) Diphenylamine	7.461	169	430182	45.43	ppm	98
139) Isodrin	10.341	193	58393	27.16	ppm	88
140) Diallate	7.819	86	102053	22.81	ppm	88
141) Pentachloronitrobenzene	8.300	295	39464	56.31	ppm	95
142) Pronamide	8.396	173	153650	29.07	ppm	99
143) 4-Nitroquinoline 1-oxide	9.887	190	207065	100.56	ppm	98
144) Methapyriline	10.084	58	86608	17.59	ppm	99
145) sym-Trinitrobenzene	7.809	213	34199	27.09	ppm #	77
147) Aramite	11.719	185	35388	26.83	ppm	92
148) p-(Dimethylamine)azobe...	11.805	120	143556	23.16	ppm	77
149) Kepone	12.494	272	195695	141.37	ppm	99
150) Famphur	12.483	218	1016341	156.09	ppm	95
151) 2-Acetylaminofluorene	13.076	181	214690	24.79	ppm	100
152) Chlorobenzilate	11.949	251	165454	28.17	ppm	99
154) Hexachlorophene	16.458	196	51627	67.50	ppm	93
155) 3-Methylcholanthrene	17.291	252	92014	26.26	ppm	92

(#) = qualifier out of range (m) = manual integration (+) = signals summed

9.6.63
9

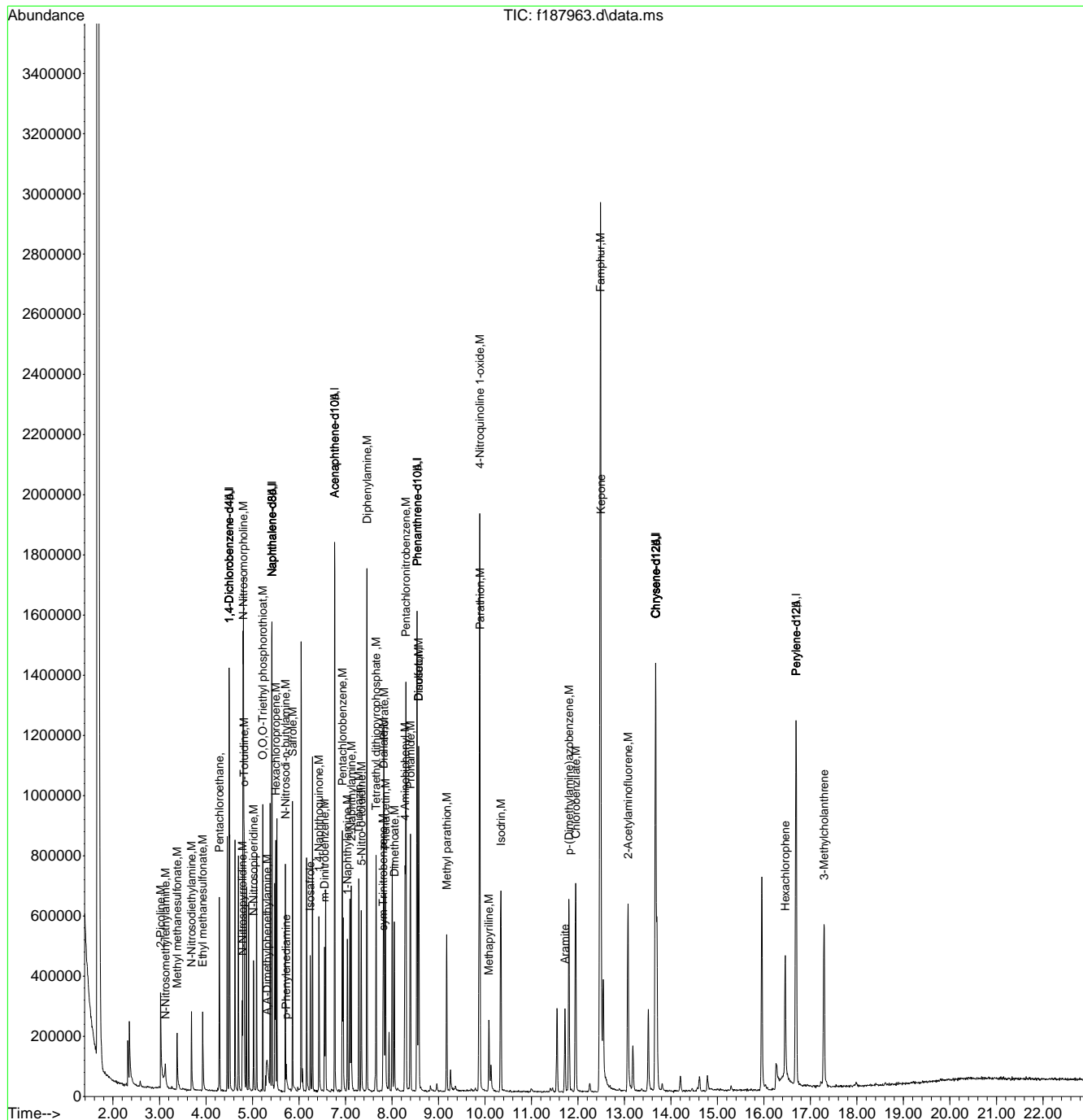


Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\data_aimeel\ef8099\
 Data File : f187963.d
 Acq On : 19 Oct 2019 1:56 am
 Operator : chriss2
 Sample : cc8054-25
 Misc : op21602,ef8099,1000,,,1,1
 ALS Vial : 5 Sample Multiplier: 1

Inst : GCMSF

Quant Method : C:\MSDCHEM\1\METHODS\MF8050AP9.M
 Quant Results File: MF8050AP9.RES
 Quant Time: Oct 21 07:02:53 2019
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Thu Oct 03 16:07:20 2019
 Response via : Initial Calibration



Manual Integration Approval Summary

Sample Number: EF8099-CC8054 Method: SW846 8270D
Lab FileID: F187963.D Analyst approved: 10/21/19 07:09 Aimee Laurente
Injection Time: 10/19/19 01:56 Supervisor approved: 10/22/19 18:02 Nina Pandya

Parameter	CAS	Sig#	R.T. (min.)	Reason
A,A-Dimethylphenethylamine	122-09-8		5.31	Poor instrument integration

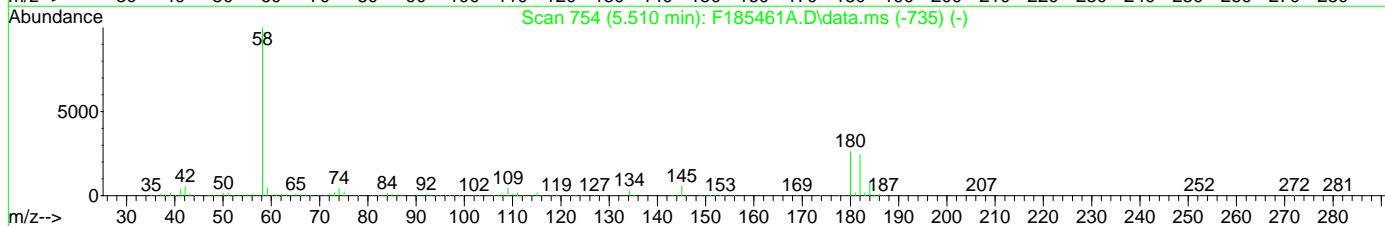
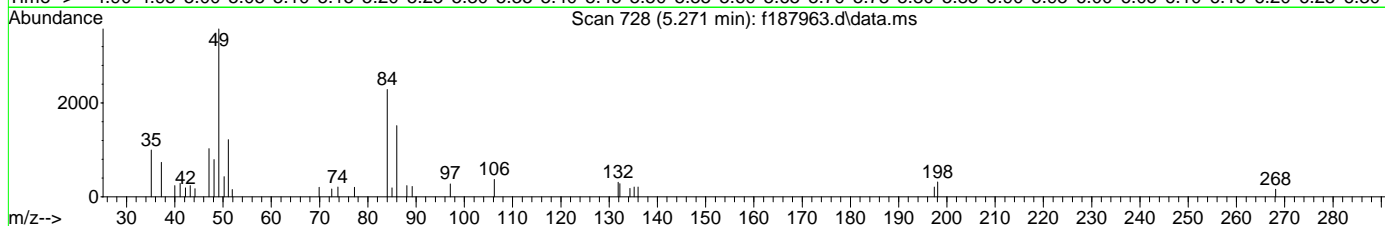
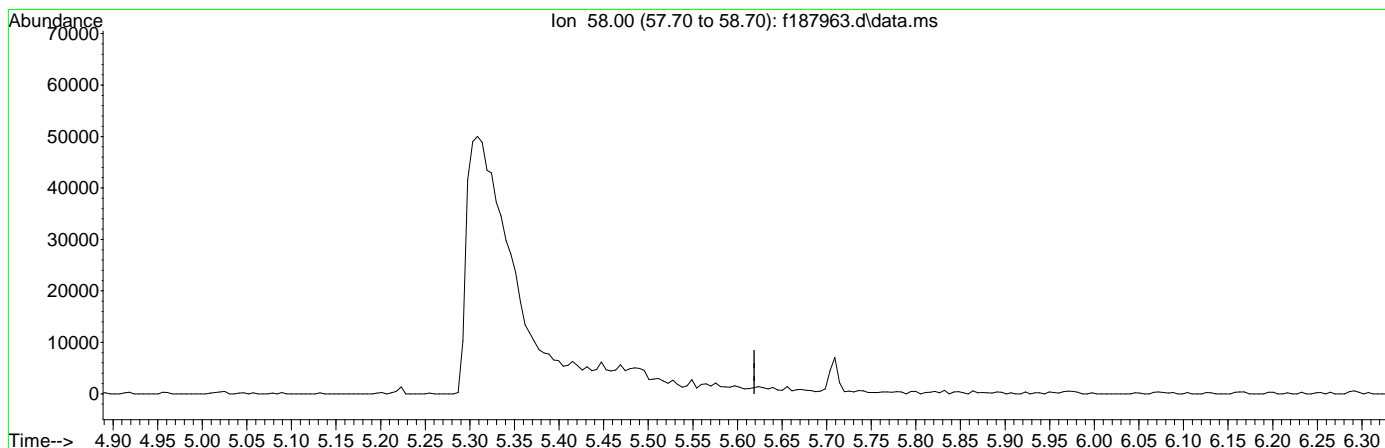
9.6.63.1

9

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\data_aimeel\ef8099\
 Data File : f187963.d
 Acq On : 19 Oct 2019 1:56 am
 Operator : chriss2
 Sample : cc8054-25 Inst : GCMSF
 Misc : op21602,ef8099,1000,,,1,1
 ALS Vial : 5 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MF8050AP9.M
 Quant Results File: MF8050AP9.RES
 Quant Time: Oct 19 03:13:00 2019
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Thu Oct 03 16:07:20 2019
 Response via : Initial Calibration



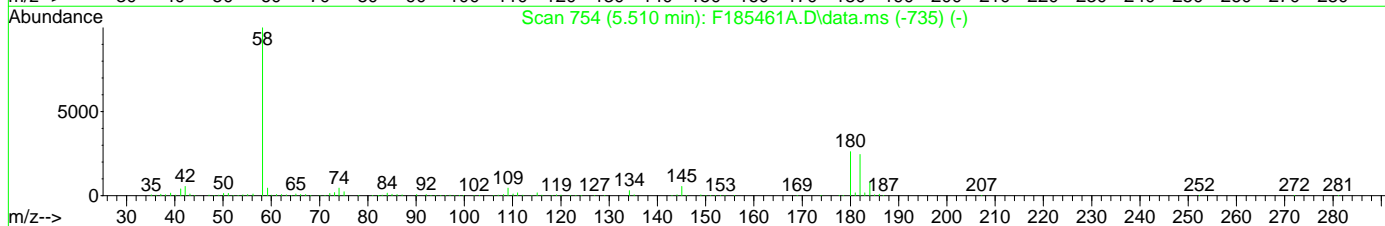
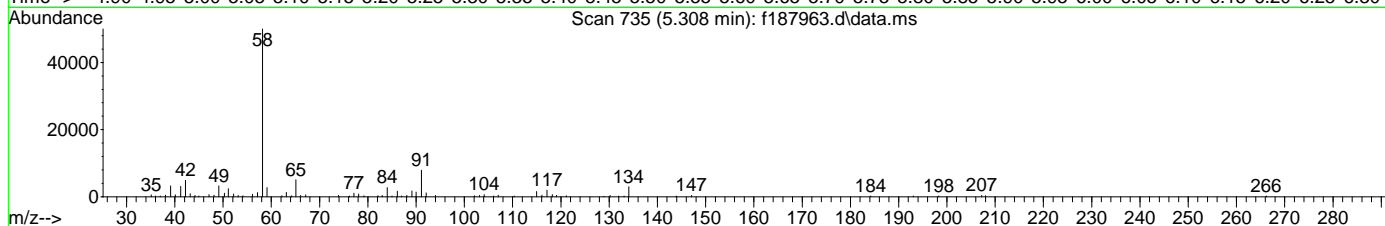
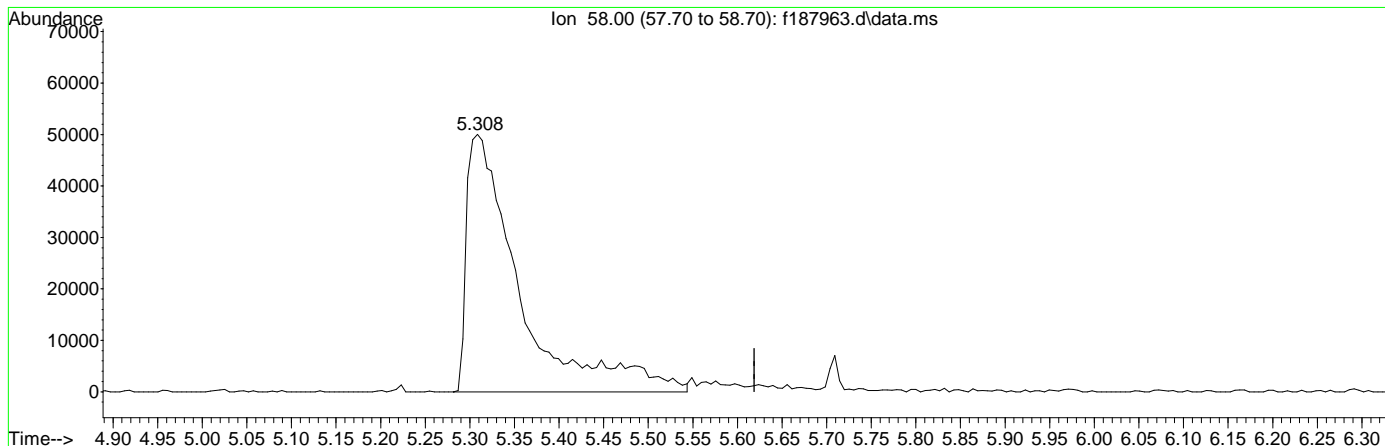
TIC: f187963.d\data.ms

(114)	A,A-Dimethylphenethylamine (M)	
6.119min	(-6.119)	0.00ppm
response	0	
Ion	Exp%	Act%
58.00	100	0.00
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\data_aimeel\ef8099\
 Data File : f187963.d
 Acq On : 19 Oct 2019 1:56 am
 Operator : chriss2
 Sample : cc8054-25 Inst : GCMSF
 Misc : op21602,ef8099,1000,,,1,1
 ALS Vial : 5 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MF8050AP9.M
 Quant Results File: MF8050AP9.RES
 Quant Time: Oct 19 03:13:00 2019
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Thu Oct 03 16:07:20 2019
 Response via : Initial Calibration



TIC: f187963.d\data.ms

(114) A,A-Dimethylphenethylamine (M)

5.308min (-0.811) 20.44ppm m

response 205432

Ion	Exp%	Act%
58.00	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\data_aimeel\ef8099\
 Data File : f187964.d
 Acq On : 19 Oct 2019 2:24 am
 Operator : chriss2
 Sample : cc8057-25 Inst : GCMSF
 Misc : op21602,ef8099,1000,,,1,1
 ALS Vial : 6 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MF8050AP9.M
 Quant Results File: MF8050AP9.RES
 Quant Time: Oct 21 07:06:03 2019
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Mon Oct 21 07:04:23 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.496	152	217255	40.00	ppm	0.00
24) Naphthalene-d8	5.415	136	718940	40.00	ppm	0.00
47) Acenaphthene-d10	6.767	164	501785	40.00	ppm	0.00
69) Phenanthrene-d10	8.540	188	963389	40.00	ppm	0.00
83) Chrysene-d12	13.674	240	895292	40.00	ppm	0.00
91) Perylene-d12	16.693	264	962260	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4A	4.496	152	217255	40.00	ppm	0.00
111) Naphthalene-d8A	5.415	136	718940	40.00	ppm	0.00
120) Acenaphthene-d10A	6.767	164	501785	40.00	ppm	0.00
131) Phenanthrene-d10A	8.540	188	963389	40.00	ppm	0.00
146) Chrysene-d12A	13.674	240	895292	40.00	ppm	0.00
153) Perylene-d12A	16.693	264	962260	40.00	ppm	0.00
156) 1,4-Dichlorobenzene-d4b	4.496	152	217255	40.00	ppm	0.00
158) Phenanthrene-d10b	8.540	188	963389	40.00	ppm	0.00
160) Chrysene-d12b	13.674	240	895292	40.00	ppm	0.00
162) Naphthalene-d8b	5.415	136	718940	40.00	ppm	0.00
164) Acenaphthene-d10b	6.767	164	501785	40.00	ppm	0.00
166) Naphthalene-d8c	5.415	136	718940	40.00	ppm	0.00
171) 1,4-Dichlorobenzene-d4c	4.496	152	217255	40.00	ppm	0.00
173) Chrysene-d12c	13.674	240	895292	40.00	ppm	0.00
175) Chrysene-d12d	13.674	240	895292	40.00	ppm	0.00
177) Naphthalene-d8d	5.415	136	718940	40.00	ppm	0.00
179) Chrysene-d12e	13.674	240	895292	40.00	ppm	0.00
181) Perylene-d12b	16.693	264	962260	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
8) Phenol-d5	0.000	99	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
Target Compounds						
167) Catechol	5.383	110	145799	23.34	ppm	# 68
168) 2-Chloroaniline	5.121	127	203059	23.67	ppm	# 1
169) 3-Chloroaniline	5.458	127	187897	23.90	ppm	# 40
170) 1-chloro-2-nitrobenzene	5.666	75	153325	31.04	ppm	100
172) m-Toluidine	4.849	106	235487	23.88	ppm	# 1
174) bis(2-Ethylhexyl)adipate	12.964	129	217413	23.27	ppm	93

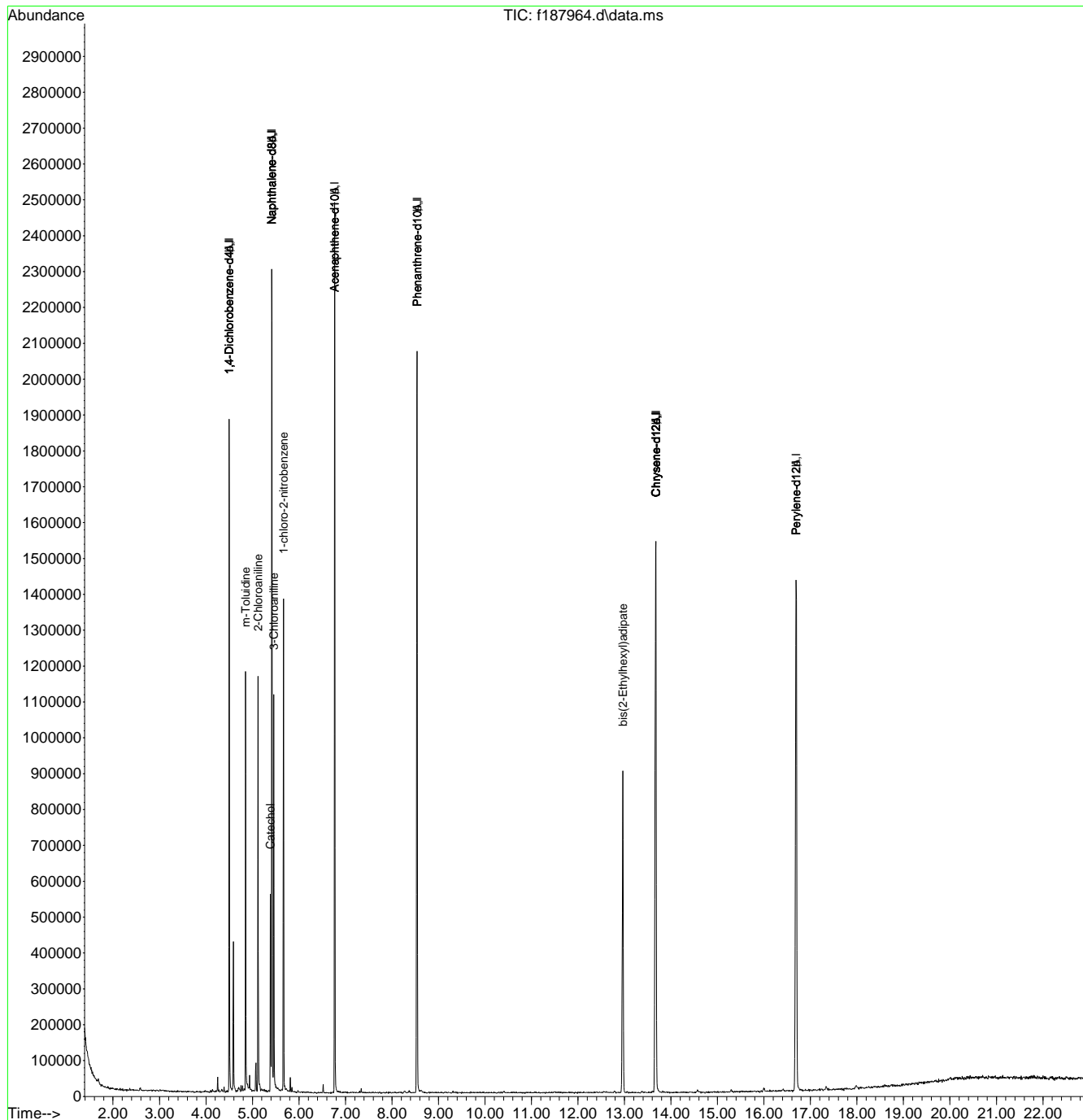
(#) = qualifier out of range (m) = manual integration (+) = signals summed

9.6.64
9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\data_aimeel\ef8099\
 Data File : f187964.d
 Acq On : 19 Oct 2019 2:24 am
 Operator : chriss2
 Sample : cc8057-25 Inst : GCMSF
 Misc : op21602,ef8099,1000,,,1,1
 ALS Vial : 6 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MF8050AP9.M
 Quant Results File: MF8050AP9.RES
 Quant Time: Oct 21 07:06:03 2019
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Mon Oct 21 07:04:23 2019
 Response via : Initial Calibration



9.6.64
9



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6772\
 Data File : ml60087.D
 Acq On : 3 Oct 2019 8:09 pm
 Operator : hennys
 Sample : ic6772-100
 Misc : op21044,em6772,1000,,,1,1
 ALS Vial : 16 Sample Multiplier: 1

Quant Time: Oct 04 11:54:21 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MM6771.M
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 QLast Update : Fri Oct 04 11:52:11 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.422	152	309929	40.00	ppm	0.00
24) Naphthalene-d8	5.480	136	1098035	40.00	ppm	0.00
47) Acenaphthene-d10	7.681	164	704657	40.00	ppm	0.00
69) Phenanthrene-d10	10.223	188	1137108	40.00	ppm	0.00
83) Chrysene-d12	15.314	240	1155909	40.00	ppm	-0.01
91) Perylene-d12	17.905	264	1195087	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.422	152	309929	40.00	ppm	0.00
103) Acenaphthene-d10a	7.681	164	704657	40.00	ppm	0.00
105) Acenaphthene-d10b	7.681	164	704657	40.00	ppm	0.00
107) Chrysene-d12a	15.314	240	1155909	40.00	ppm	-0.01
110) Phenanthrene-d10a	10.223	188	1137108	40.00	ppm	0.00
112) Phenanthrene-d10b	10.223	188	1137108	40.00	ppm	0.00
114) Naphthalene-d8a	5.480	136	1098035	40.00	ppm	0.00
116) Chrysene-d12c	15.314	240	1155909	40.00	ppm	-0.01
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
109) 1-chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
113) o-terphenyl	0.000	230	0	0.00	ppm	
Target Compounds						
102) Benzaldehyde	4.101	105	808900	96.91	ppm	99
104) Atrazine	9.881	215	309230	92.08	ppm	98
111) Pentachloronitrobenzene	9.946	295	135946	90.73	ppm	99

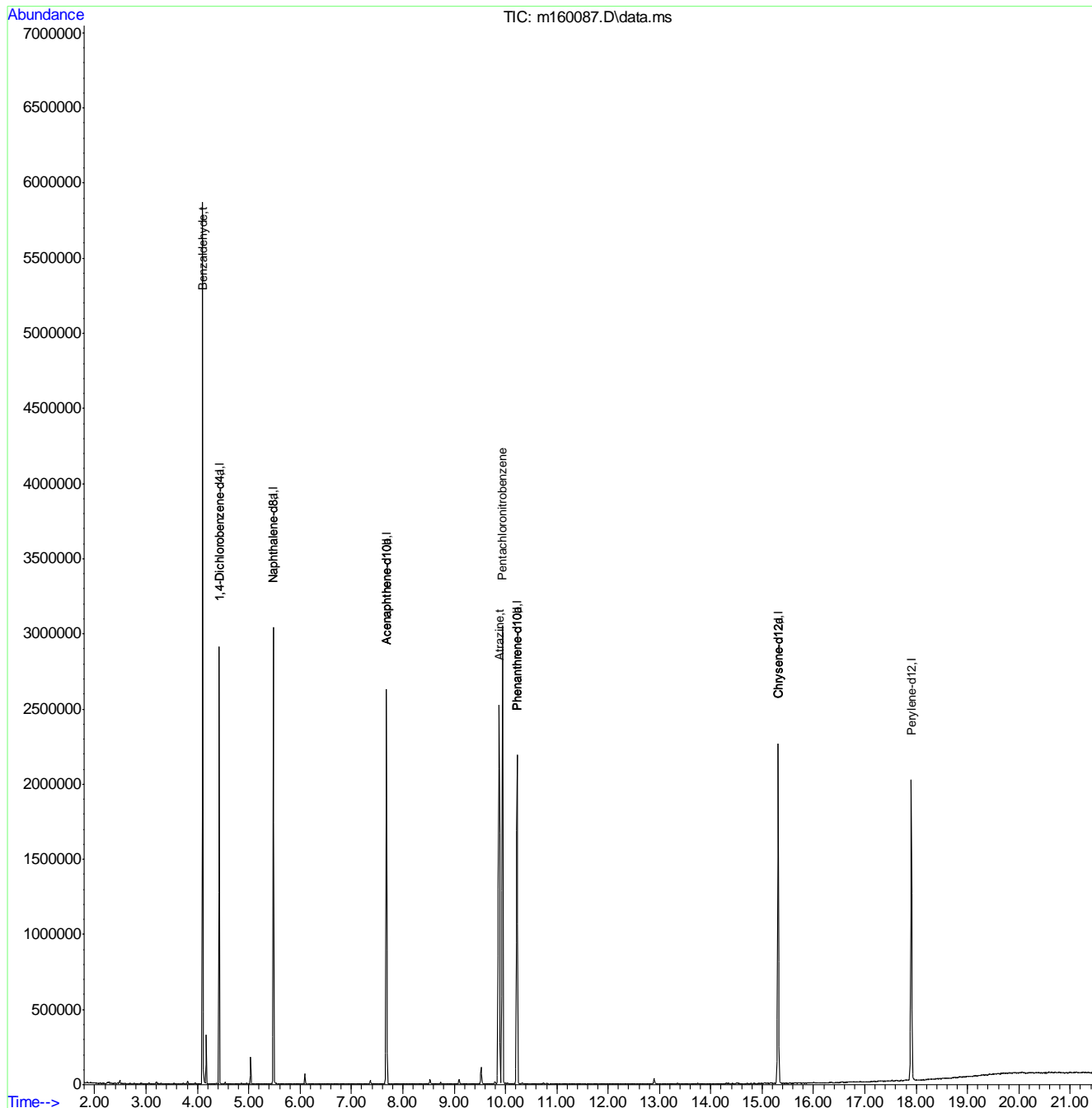
(#) = qualifier out of range (m) = manual integration (+) = signals summed

9.6.65
9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6772\
 Data File : m160087.D
 Acq On : 3 Oct 2019 8:09 pm
 Operator : hennys
 Sample : ic6772-100
 Misc : op21044,em6772,1000,,,1,1
 ALS Vial : 16 Sample Multiplier: 1

Quant Time: Oct 04 11:54:21 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MM6771.M
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30m x 0.25mm x 0.25um
 QLast Update : Fri Oct 04 11:52:11 2019
 Response via : Initial Calibration



9.6.65
 9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6772\
 Data File : m160088.D
 Acq On : 3 Oct 2019 8:37 pm
 Operator : hennys
 Sample : ic6772-80
 Misc : op21044,em6772,1000,,,1,1
 ALS Vial : 17 Sample Multiplier: 1

Quant Time: Oct 04 11:55:08 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MM6771.M
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 QLast Update : Fri Oct 04 11:52:11 2019
 Response via : Initial Calibration

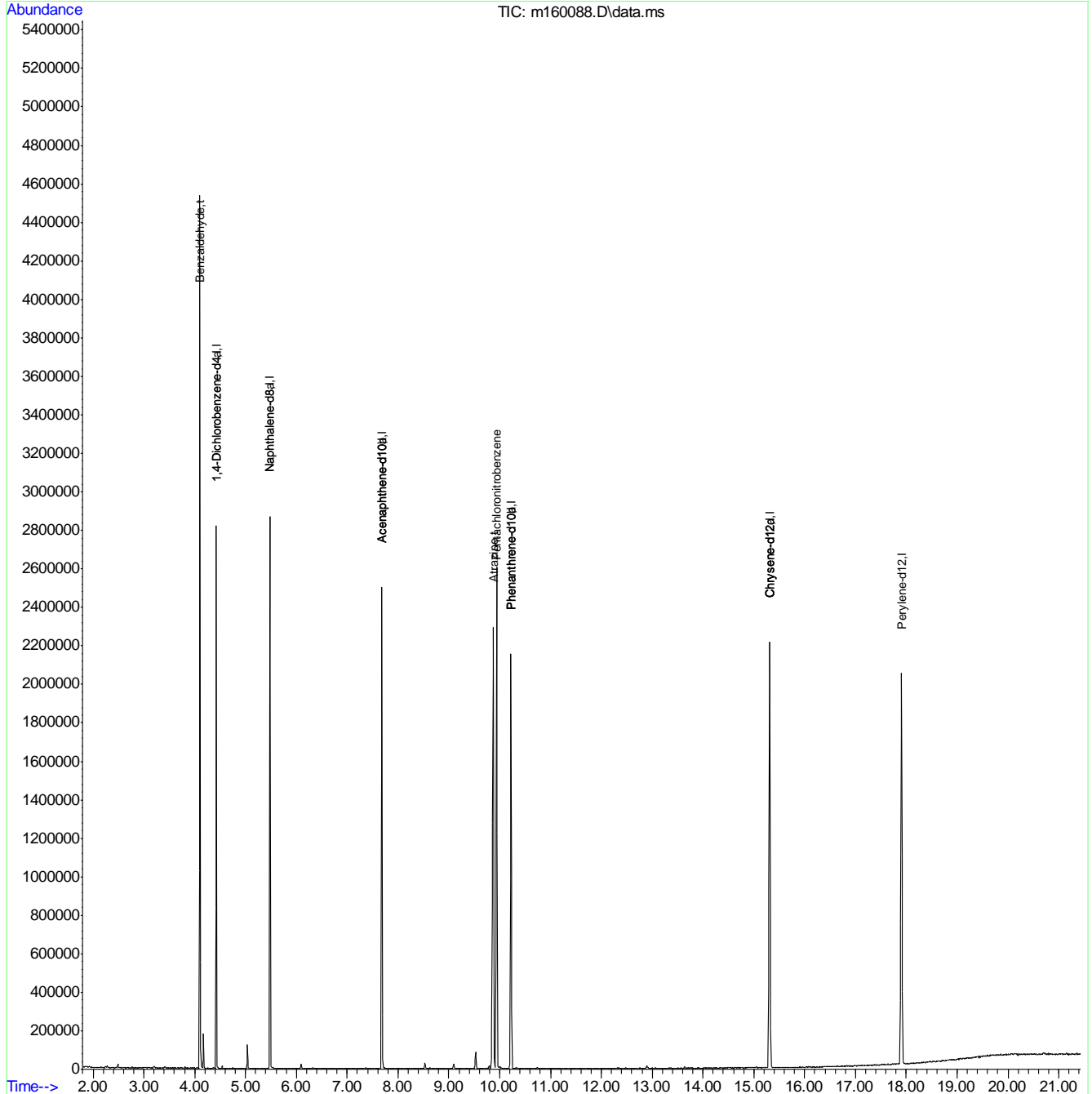
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.421	152	309395	40.00	ppm	0.00
24) Naphthalene-d8	5.479	136	1080205	40.00	ppm	0.00
47) Acenaphthene-d10	7.680	164	677869	40.00	ppm	0.00
69) Phenanthrene-d10	10.223	188	1127509	40.00	ppm	0.00
83) Chrysene-d12	15.314	240	1125443	40.00	ppm	-0.01
91) Perylene-d12	17.905	264	1181633	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.421	152	309395	40.00	ppm	0.00
103) Acenaphthene-d10a	7.680	164	677869	40.00	ppm	0.00
105) Acenaphthene-d10b	7.680	164	677869	40.00	ppm	0.00
107) Chrysene-d12a	15.314	240	1125443	40.00	ppm	-0.01
110) Phenanthrene-d10a	10.223	188	1127509	40.00	ppm	0.00
112) Phenanthrene-d10b	10.223	188	1127509	40.00	ppm	0.00
114) Naphthalene-d8a	5.479	136	1080205	40.00	ppm	0.00
116) Chrysene-d12c	15.314	240	1125443	40.00	ppm	-0.01
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
109) 1-chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
113) o-terphenyl	0.000	230	0	0.00	ppm	
Target Compounds						
102) Benzaldehyde	4.101	105	651531	78.19	ppm	98
104) Atrazine	9.875	215	248899	77.04	ppm	97
111) Pentachloronitrobenzene	9.945	295	112553	75.75	ppm	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6772\
Data File : m160088.D
Acq On : 3 Oct 2019 8:37 pm
Operator : hennys
Sample : ic6772-80
Misc : op21044,em6772,1000,,,1,1
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Oct 04 11:55:08 2019
Quant Method : C:\MSDCHEM\1\METHODS\MM6771.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30m x 0.25mm x 0.25um
QLast Update : Fri Oct 04 11:52:11 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6772\
 Data File : m160089.D
 Acq On : 3 Oct 2019 9:06 pm
 Operator : hennys
 Sample : icc6772-50
 Misc : op21044,em6772,1000,,,1,1
 ALS Vial : 18 Sample Multiplier: 1

Quant Time: Oct 04 11:53:23 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MM6771.M
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 QLast Update : Fri Oct 04 11:52:11 2019
 Response via : Initial Calibration

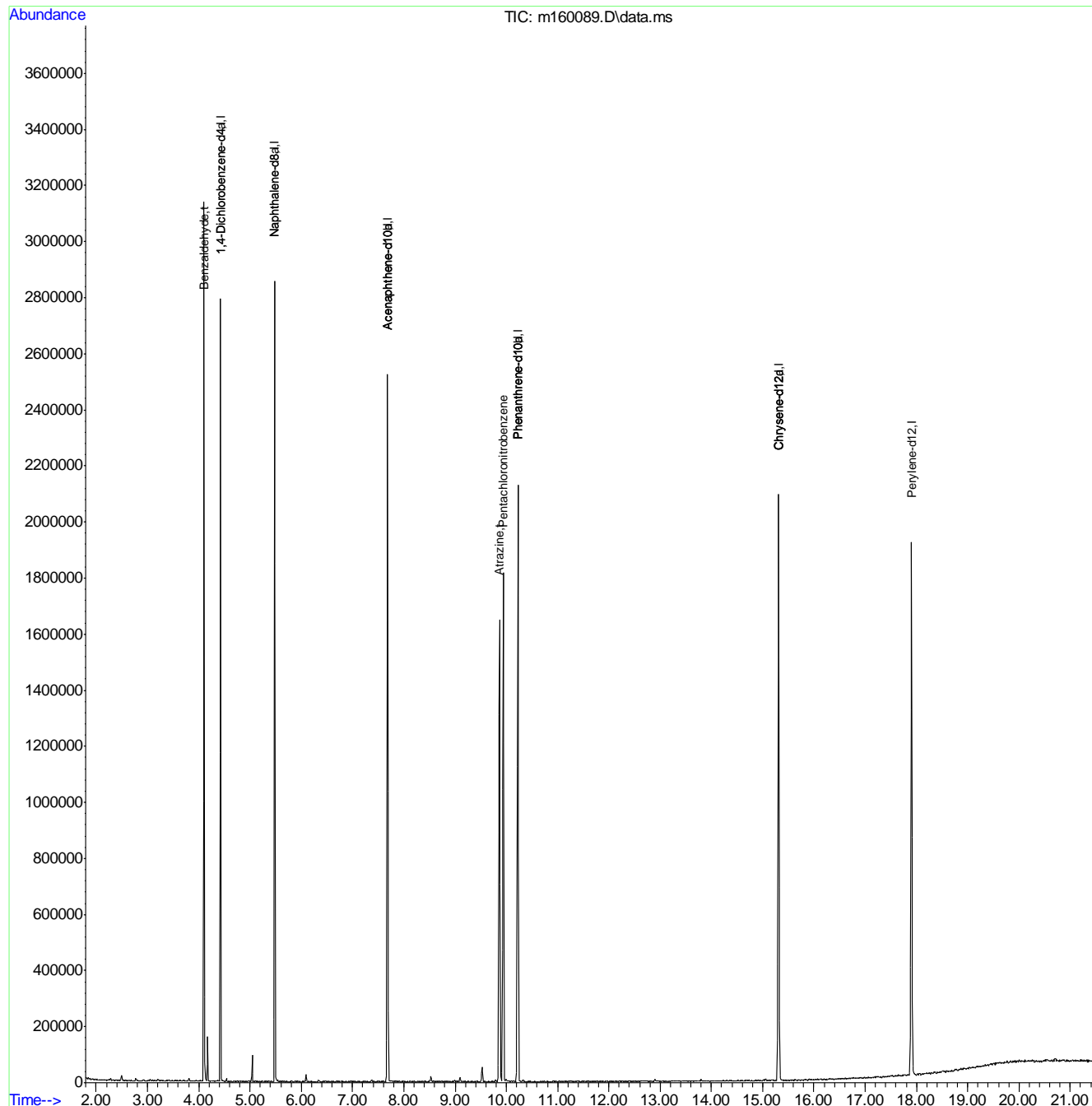
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.422	152	302358	40.00	ppm	0.00
24) Naphthalene-d8	5.479	136	1060061	40.00	ppm	0.00
47) Acenaphthene-d10	7.680	164	666863	40.00	ppm	0.00
69) Phenanthrene-d10	10.223	188	1105005	40.00	ppm	0.00
83) Chrysene-d12	15.314	240	1098771	40.00	ppm	-0.01
91) Perylene-d12	17.905	264	1123874	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.422	152	302358	40.00	ppm	0.00
103) Acenaphthene-d10a	7.680	164	666863	40.00	ppm	0.00
105) Acenaphthene-d10b	7.680	164	666863	40.00	ppm	0.00
107) Chrysene-d12a	15.314	240	1098771	40.00	ppm	-0.01
110) Phenanthrene-d10a	10.223	188	1105005	40.00	ppm	0.00
112) Phenanthrene-d10b	10.223	188	1105005	40.00	ppm	0.00
114) Naphthalene-d8a	5.479	136	1060061	40.00	ppm	0.00
116) Chrysene-d12c	15.314	240	1098771	40.00	ppm	-0.01
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
109) 1-chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
113) o-terphenyl	0.000	230	0	0.00	ppm	
Target Compounds						
102) Benzaldehyde	4.101	105	407158	50.00	ppm	100
104) Atrazine	9.865	215	158908	50.00	ppm	100
111) Pentachloronitrobenzene	9.940	295	72806	50.00	ppm	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6772\
Data File : m160089.D
Acq On : 3 Oct 2019 9:06 pm
Operator : hennys
Sample : icc6772-50
Misc : op21044,em6772,1000,,,1,1
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Oct 04 11:53:23 2019
Quant Method : C:\MSDCHEM\1\METHODS\MM6771.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30m x 0.25mm x 0.25um
QLast Update : Fri Oct 04 11:52:11 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6772\
 Data File : ml60090.D
 Acq On : 3 Oct 2019 9:34 pm
 Operator : hennys
 Sample : ic6772-25
 Misc : op21044,em6772,1000,,,1,1
 ALS Vial : 19 Sample Multiplier: 1

Quant Time: Oct 04 11:56:06 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MM6771.M
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 QLast Update : Fri Oct 04 11:52:11 2019
 Response via : Initial Calibration

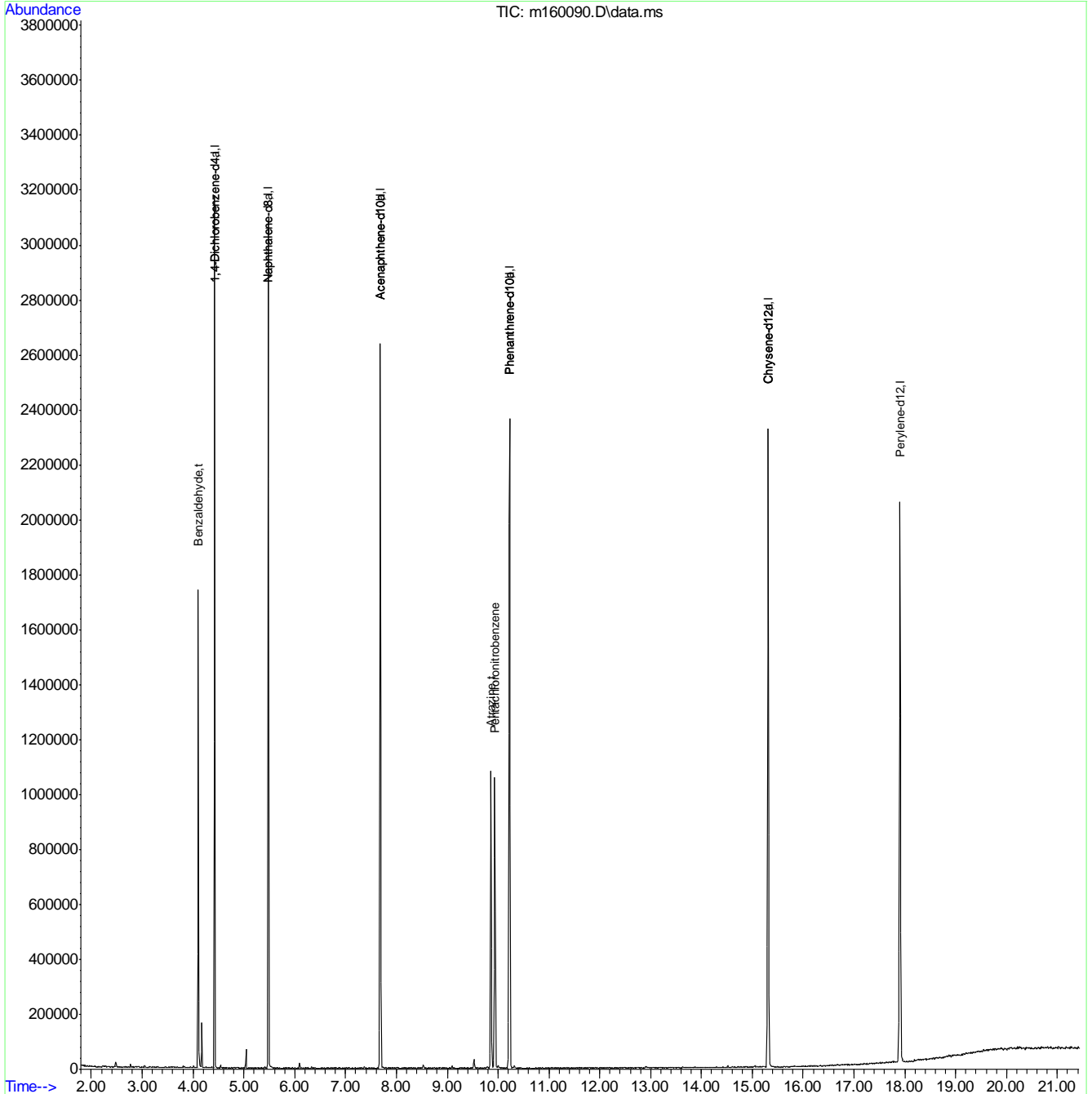
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.422	152	335349	40.00	ppm	0.00
24) Naphthalene-d8	5.479	136	1155351	40.00	ppm	0.00
47) Acenaphthene-d10	7.680	164	723264	40.00	ppm	0.00
69) Phenanthrene-d10	10.223	188	1242415	40.00	ppm	0.00
83) Chrysene-d12	15.314	240	1196910	40.00	ppm	-0.01
91) Perylene-d12	17.905	264	1247511	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.422	152	335349	40.00	ppm	0.00
103) Acenaphthene-d10a	7.680	164	723264	40.00	ppm	0.00
105) Acenaphthene-d10b	7.680	164	723264	40.00	ppm	0.00
107) Chrysene-d12a	15.314	240	1196910	40.00	ppm	-0.01
110) Phenanthrene-d10a	10.223	188	1242415	40.00	ppm	0.00
112) Phenanthrene-d10b	10.223	188	1242415	40.00	ppm	0.00
114) Naphthalene-d8a	5.479	136	1155351	40.00	ppm	0.00
116) Chrysene-d12c	15.314	240	1196910	40.00	ppm	-0.01
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
109) 1-chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
113) o-terphenyl	0.000	230	0	0.00	ppm	
Target Compounds						
102) Benzaldehyde	4.101	105	234289	25.94	ppm	97
104) Atrazine	9.860	215	89261	25.90	ppm	96
111) Pentachloronitrobenzene	9.935	295	41868	25.57	ppm	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6772\
 Data File : m160090.D
 Acq On : 3 Oct 2019 9:34 pm
 Operator : hennys
 Sample : ic6772-25
 Misc : op21044,em6772,1000,,,1,1
 ALS Vial : 19 Sample Multiplier: 1

Quant Time: Oct 04 11:56:06 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MM6771.M
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30m x 0.25mm x 0.25um
 QLast Update : Fri Oct 04 11:52:11 2019
 Response via : Initial Calibration



6 89'9'6

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6772\
 Data File : m160091.D
 Acq On : 3 Oct 2019 10:02 pm
 Operator : hennys
 Sample : ic6772-10
 Misc : op21044,em6772,1000,,,1,1
 ALS Vial : 20 Sample Multiplier: 1

Quant Time: Oct 04 12:05:34 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MM6771.M
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 QLast Update : Fri Oct 04 11:52:11 2019
 Response via : Initial Calibration

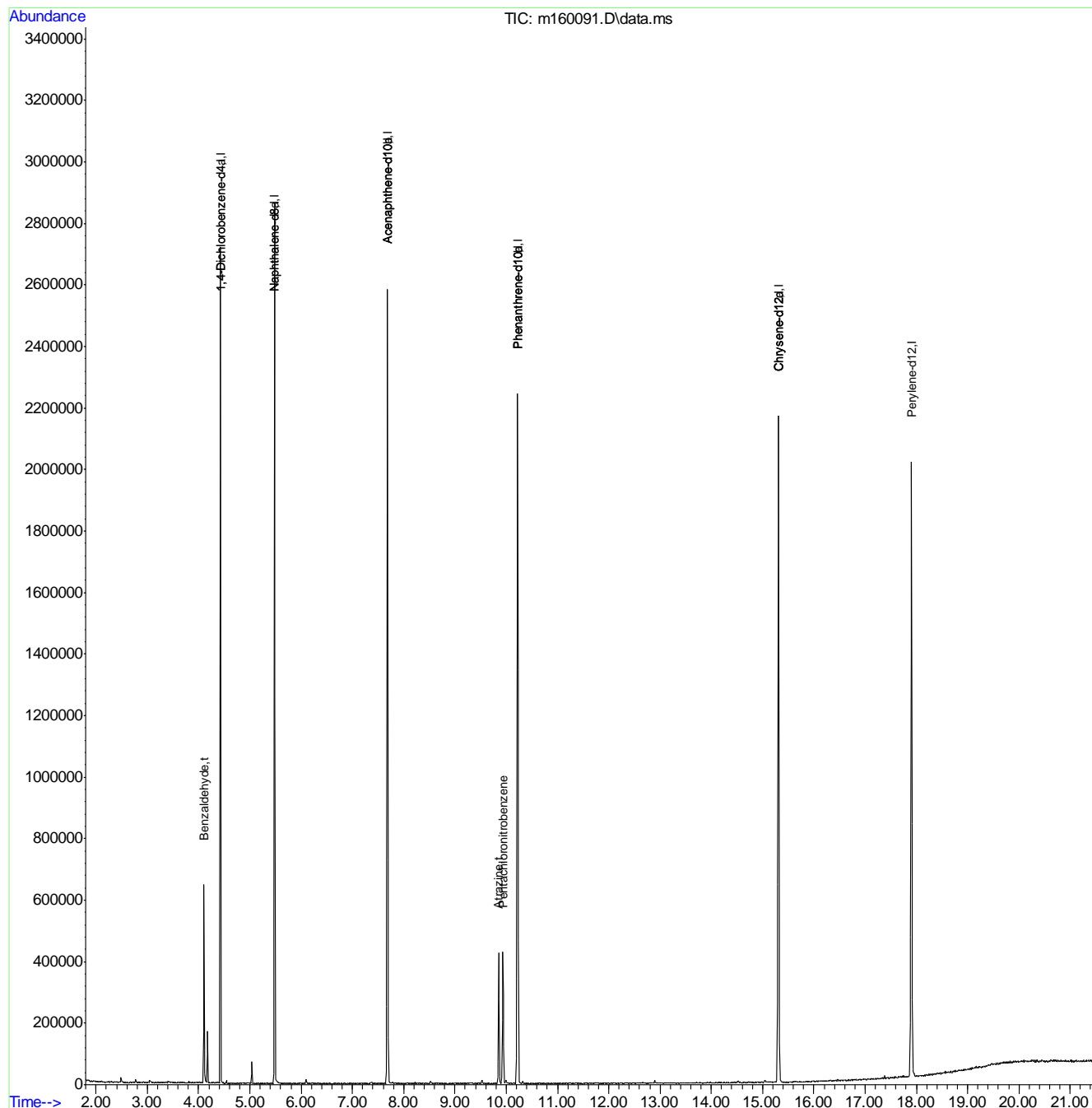
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.424	152	322711	40.00	ppm	0.00
24) Naphthalene-d8	5.482	136	1077575	40.00	ppm	0.00
47) Acenaphthene-d10	7.683	164	679604	40.00	ppm	0.00
69) Phenanthrene-d10	10.220	188	1222197	40.00	ppm	0.00
83) Chrysene-d12	15.311	240	1149683	40.00	ppm	-0.01
91) Perylene-d12	17.907	264	1186188	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.424	152	322711	40.00	ppm	0.00
103) Acenaphthene-d10a	7.683	164	679604	40.00	ppm	0.00
105) Acenaphthene-d10b	7.683	164	679604	40.00	ppm	0.00
107) Chrysene-d12a	15.311	240	1149683	40.00	ppm	-0.01
110) Phenanthrene-d10a	10.220	188	1222197	40.00	ppm	0.00
112) Phenanthrene-d10b	10.220	188	1222197	40.00	ppm	0.00
114) Naphthalene-d8a	5.482	136	1077575	40.00	ppm	0.00
116) Chrysene-d12c	15.311	240	1149683	40.00	ppm	-0.01
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
109) 1-chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
113) o-terphenyl	0.000	230	0	0.00	ppm	
Target Compounds						
102) Benzaldehyde	4.103	105	89291	10.27	ppm	96
104) Atrazine	9.857	215	33039	10.20	ppm	93
111) Pentachloronitrobenzene	9.937	295	15643	9.71	ppm	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6772\
Data File : m160091.D
Acq On : 3 Oct 2019 10:02 pm
Operator : hennys
Sample : ic6772-10
Misc : op21044,em6772,1000,,,1,1
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Oct 04 12:05:34 2019
Quant Method : C:\MSDCHEM\1\METHODS\MM6771.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30m x 0.25mm x 0.25um
QLast Update : Fri Oct 04 11:52:11 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6772\
 Data File : ml60092.D
 Acq On : 3 Oct 2019 10:30 pm
 Operator : hennys
 Sample : ic6772-5
 Misc : op21044,em6772,1000,,,1,1
 ALS Vial : 21 Sample Multiplier: 1

Quant Time: Oct 04 11:57:45 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MM6771.M
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 QLast Update : Fri Oct 04 11:52:11 2019
 Response via : Initial Calibration

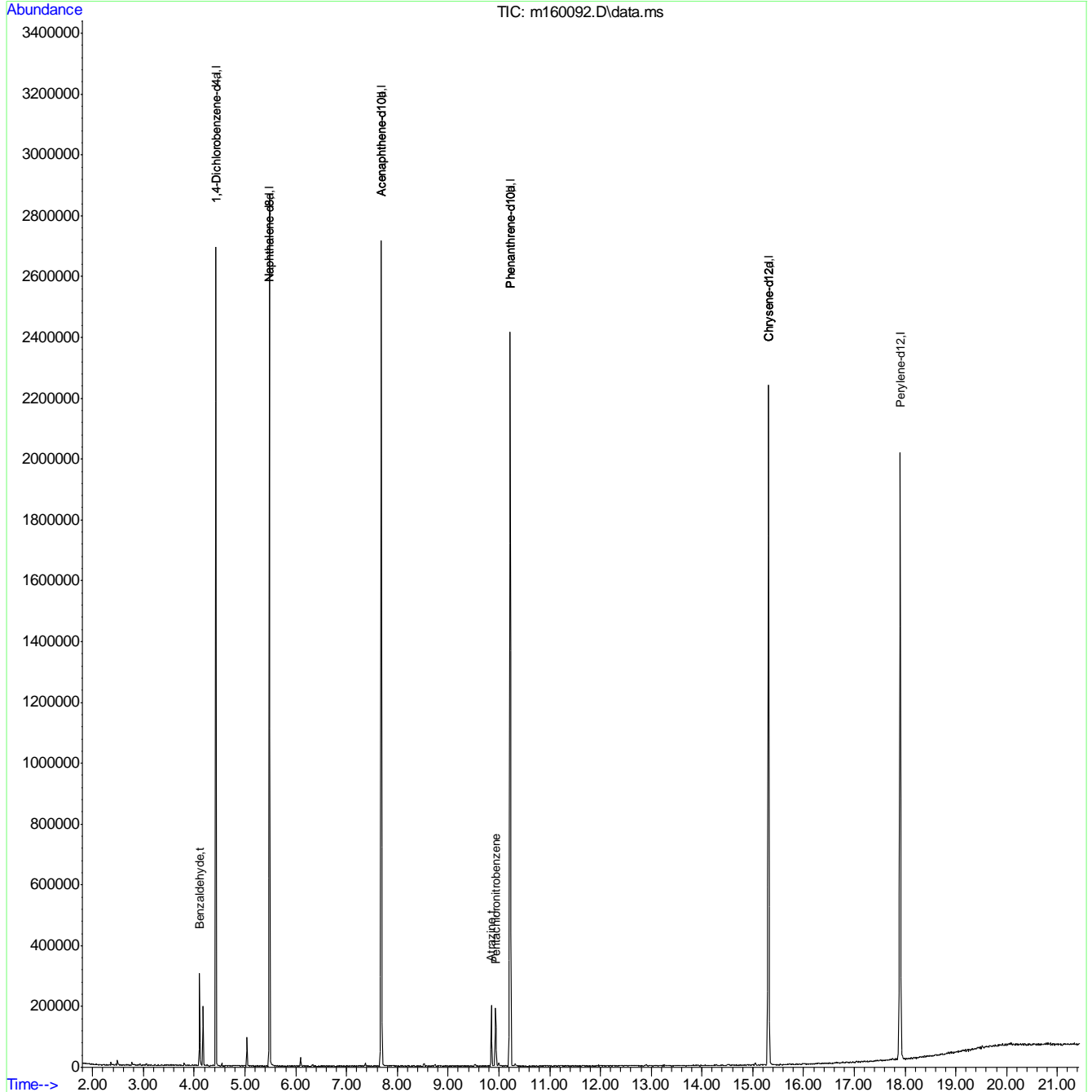
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.424	152	329542	40.00	ppm	0.00
24) Naphthalene-d8	5.482	136	1107413	40.00	ppm	0.00
47) Acenaphthene-d10	7.683	164	698111	40.00	ppm	0.00
69) Phenanthrene-d10	10.220	188	1275966	40.00	ppm	0.00
83) Chrysene-d12	15.311	240	1167290	40.00	ppm	-0.01
91) Perylene-d12	17.908	264	1222791	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.424	152	329542	40.00	ppm	0.00
103) Acenaphthene-d10a	7.683	164	698111	40.00	ppm	0.00
105) Acenaphthene-d10b	7.683	164	698111	40.00	ppm	0.00
107) Chrysene-d12a	15.311	240	1167290	40.00	ppm	-0.01
110) Phenanthrene-d10a	10.220	188	1275966	40.00	ppm	0.00
112) Phenanthrene-d10b	10.220	188	1275966	40.00	ppm	0.00
114) Naphthalene-d8a	5.482	136	1107413	40.00	ppm	0.00
116) Chrysene-d12c	15.311	240	1167290	40.00	ppm	-0.01
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
109) 1-chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
113) o-terphenyl	0.000	230	0	0.00	ppm	
Target Compounds						
102) Benzaldehyde	4.103	105	44622	5.03	ppm	95
104) Atrazine	9.852	215	15592	4.69	ppm	93
111) Pentachloronitrobenzene	9.937	295	6729	4.00	ppm	93

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6772\
 Data File : m160092.D
 Acq On : 3 Oct 2019 10:30 pm
 Operator : hennys
 Sample : ic6772-5
 Misc : op21044,em6772,1000,,,1,1
 ALS Vial : 21 Sample Multiplier: 1

Quant Time: Oct 04 11:57:45 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MM6771.M
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30m x 0.25mm x 0.25um
 QLast Update : Fri Oct 04 11:52:11 2019
 Response via : Initial Calibration



9.6-70
 9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6772\
 Data File : ml60093.D
 Acq On : 3 Oct 2019 10:58 pm
 Operator : hennys
 Sample : ic6772-2
 Misc : op21044,em6772,1000,,,1,1
 ALS Vial : 22 Sample Multiplier: 1

Quant Time: Oct 04 11:58:30 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MM6771.M
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 QLast Update : Fri Oct 04 11:52:11 2019
 Response via : Initial Calibration

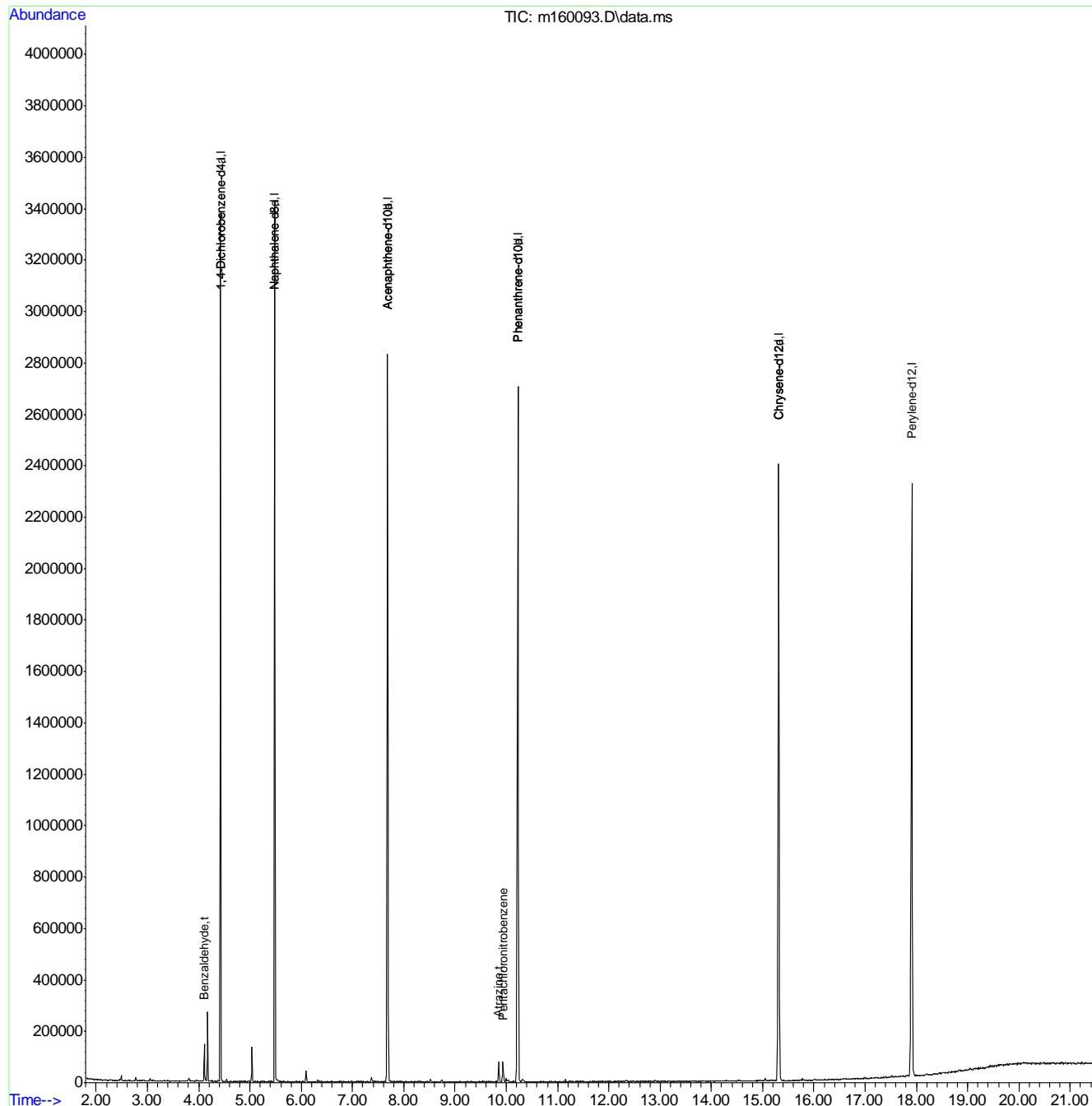
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.422	152	367081	40.00	ppm	0.00
24) Naphthalene-d8	5.480	136	1231446	40.00	ppm	0.00
47) Acenaphthene-d10	7.681	164	772718	40.00	ppm	0.00
69) Phenanthrene-d10	10.224	188	1433111	40.00	ppm	0.00
83) Chrysene-d12	15.315	240	1297952	40.00	ppm	-0.01
91) Perylene-d12	17.911	264	1383290	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.422	152	367081	40.00	ppm	0.00
103) Acenaphthene-d10a	7.681	164	772718	40.00	ppm	0.00
105) Acenaphthene-d10b	7.681	164	772718	40.00	ppm	0.00
107) Chrysene-d12a	15.315	240	1297952	40.00	ppm	-0.01
110) Phenanthrene-d10a	10.224	188	1433111	40.00	ppm	0.00
112) Phenanthrene-d10b	10.224	188	1433111	40.00	ppm	0.00
114) Naphthalene-d8a	5.480	136	1231446	40.00	ppm	0.00
116) Chrysene-d12c	15.315	240	1297952	40.00	ppm	-0.01
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
109) 1-chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
113) o-terphenyl	0.000	230	0	0.00	ppm	
Target Compounds						
102) Benzaldehyde	4.107	105	20290	2.05	ppm	99
104) Atrazine	9.855	215	6200	1.68	ppm	90
111) Pentachloronitrobenzene	9.940	295	2596	1.37	ppm	82

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6772\
 Data File : m160093.D
 Acq On : 3 Oct 2019 10:58 pm
 Operator : hennys
 Sample : ic6772-2
 Misc : op21044,em6772,1000,,,1,1
 ALS Vial : 22 Sample Multiplier: 1

Quant Time: Oct 04 11:58:30 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MM6771.M
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30m x 0.25mm x 0.25um
 QLast Update : Fri Oct 04 11:52:11 2019
 Response via : Initial Calibration



9.6-71
9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6772\
 Data File : ml60095.D
 Acq On : 3 Oct 2019 11:31 pm
 Operator : hennys
 Sample : ic6772-1
 Misc : op21044,em6772,1000,,,1,1
 ALS Vial : 23 Sample Multiplier: 1

Quant Time: Oct 04 12:16:30 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MM6771.M
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 QLast Update : Fri Oct 04 11:52:11 2019
 Response via : Initial Calibration

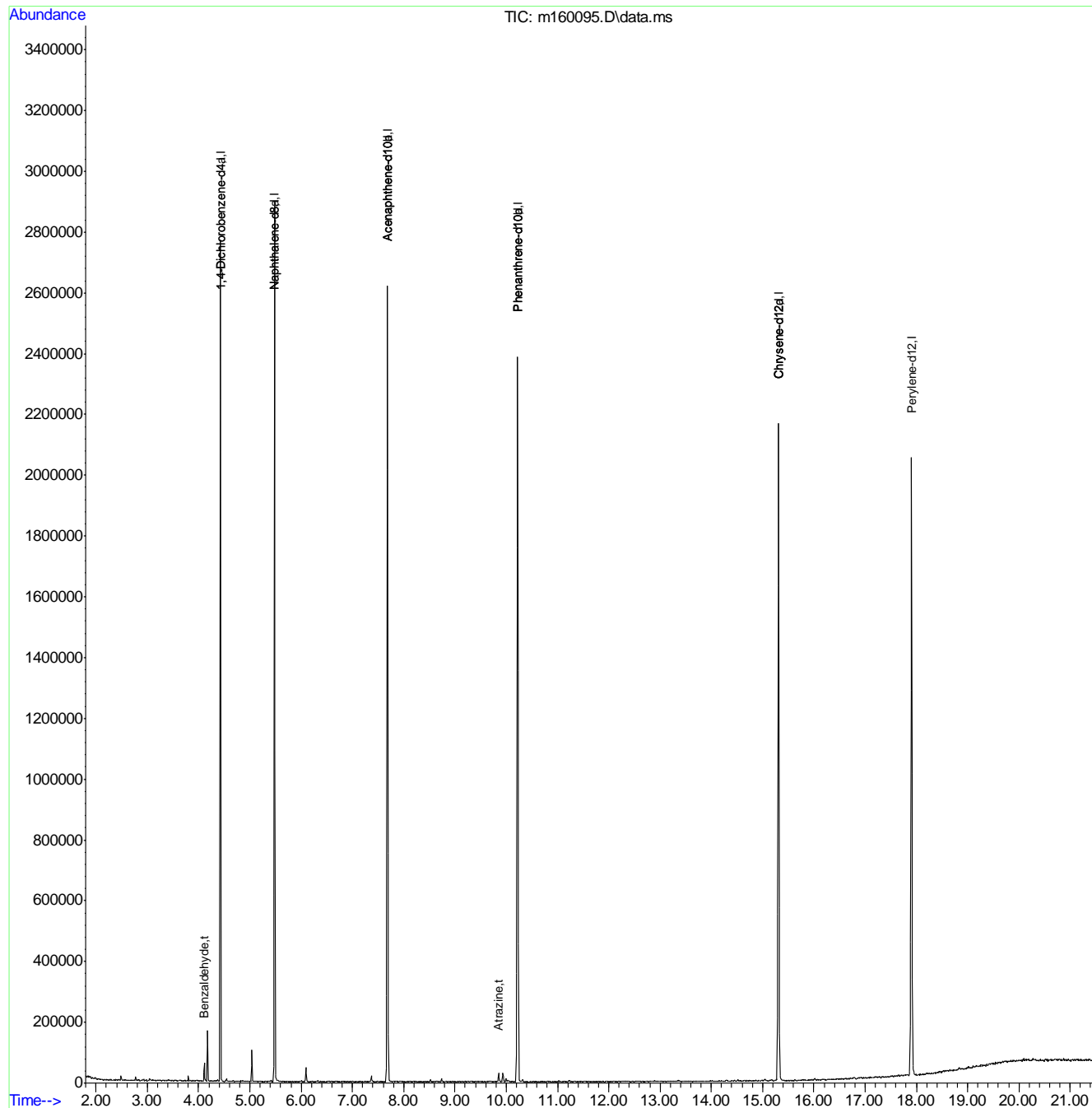
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.424	152	337495	40.00	ppm	0.00
24) Naphthalene-d8	5.482	136	1097609	40.00	ppm	0.00
47) Acenaphthene-d10	7.683	164	687395	40.00	ppm	0.00
69) Phenanthrene-d10	10.220	188	1262566	40.00	ppm	0.00
83) Chrysene-d12	15.316	240	1127342	40.00	ppm	0.00
91) Perylene-d12	17.907	264	1178107	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.424	152	337495	40.00	ppm	0.00
103) Acenaphthene-d10a	7.683	164	687395	40.00	ppm	0.00
105) Acenaphthene-d10b	7.683	164	687395	40.00	ppm	0.00
107) Chrysene-d12a	15.316	240	1127342	40.00	ppm	0.00
110) Phenanthrene-d10a	10.220	188	1262566	40.00	ppm	0.00
112) Phenanthrene-d10b	10.220	188	1262566	40.00	ppm	0.00
114) Naphthalene-d8a	5.482	136	1097609	40.00	ppm	0.00
116) Chrysene-d12c	15.316	240	1127342	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
109) 1-chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
113) o-terphenyl	0.000	230	0	0.00	ppm	
Target Compounds						
102) Benzaldehyde	4.109	105	8828	0.97	ppm	Qvalue 89
104) Atrazine	9.846	215	2385	0.73	ppm	# 83

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6772\
Data File : m160095.D
Acq On : 3 Oct 2019 11:31 pm
Operator : hennys
Sample : ic6772-1
Misc : op21044,em6772,1000,,,1,1
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Oct 04 12:16:30 2019
Quant Method : C:\MSDCHEM\1\METHODS\MM6771.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30m x 0.25mm x 0.25um
QLast Update : Fri Oct 04 11:52:11 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6773\
 Data File : ml60098.D
 Acq On : 4 Oct 2019 12:36 am
 Operator : hennys
 Sample : ic6773-100
 Misc : op21044,em6773,1000,,,1,1
 ALS Vial : 25 Sample Multiplier: 1

Quant Time: Oct 04 13:02:56 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MM6771.M
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 QLast Update : Fri Oct 04 13:01:12 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.424	152	358790	40.00	ppm	0.00
24) Naphthalene-d8	5.482	136	1211389	40.00	ppm	0.00
47) Acenaphthene-d10	7.683	164	722274	40.00	ppm	0.00
69) Phenanthrene-d10	10.220	188	1344743	40.00	ppm	0.00
83) Chrysene-d12	15.317	240	1184067	40.00	ppm	0.00
91) Perylene-d12	17.908	264	1223972	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.424	152	358790	40.00	ppm	0.00
103) Acenaphthene-d10a	7.683	164	722274	40.00	ppm	0.00
105) Acenaphthene-d10b	7.683	164	722274	40.00	ppm	0.00
107) Chrysene-d12a	15.317	240	1184067	40.00	ppm	0.00
110) Phenanthrene-d10a	10.220	188	1344743	40.00	ppm	0.00
112) Phenanthrene-d10b	10.220	188	1344743	40.00	ppm	0.00
114) Naphthalene-d8a	5.482	136	1211389	40.00	ppm	0.00
116) Chrysene-d12c	15.317	240	1184067	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
109) 1-chlorooctadecane	12.533	57	768293	93.16	ppm	0.00
Spiked Amount	50.000		Recovery	=	186.32%	
113) o-terphenyl	11.043	230	1579758	88.60	ppm	0.00
Target Compounds						
106) 1,2,4,5-Tetrachloroben...	6.465	216	984867	89.71	ppm	99
108) Benzidine	12.913	184	2052364	90.35	ppm	100
115) Hydroquinone	6.000	110	1039664	94.32	ppm	99

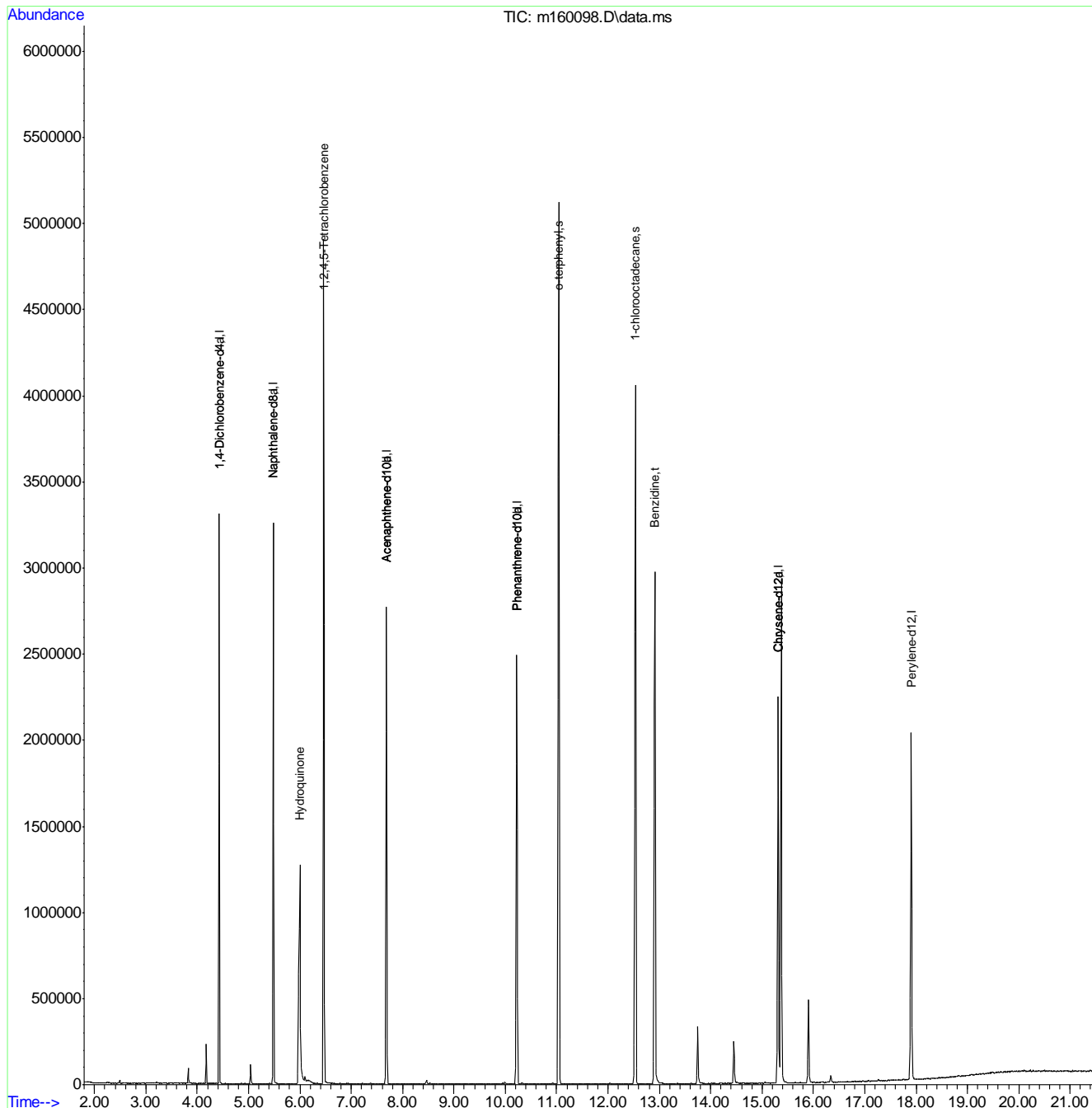
(#) = qualifier out of range (m) = manual integration (+) = signals summed

9.673
9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6773\
 Data File : m160098.D
 Acq On : 4 Oct 2019 12:36 am
 Operator : hennys
 Sample : ic6773-100
 Misc : op21044,em6773,1000,,,1,1
 ALS Vial : 25 Sample Multiplier: 1

Quant Time: Oct 04 13:02:56 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MM6771.M
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 QLast Update : Fri Oct 04 13:01:12 2019
 Response via : Initial Calibration



9.6-73
9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6773\
 Data File : ml60099.D
 Acq On : 4 Oct 2019 1:04 am
 Operator : hennys
 Sample : ic6773-80
 Misc : op21044,em6773,1000,,,1,1
 ALS Vial : 26 Sample Multiplier: 1

Quant Time: Oct 04 13:04:07 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MM6771.M
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 QLast Update : Fri Oct 04 13:01:12 2019
 Response via : Initial Calibration

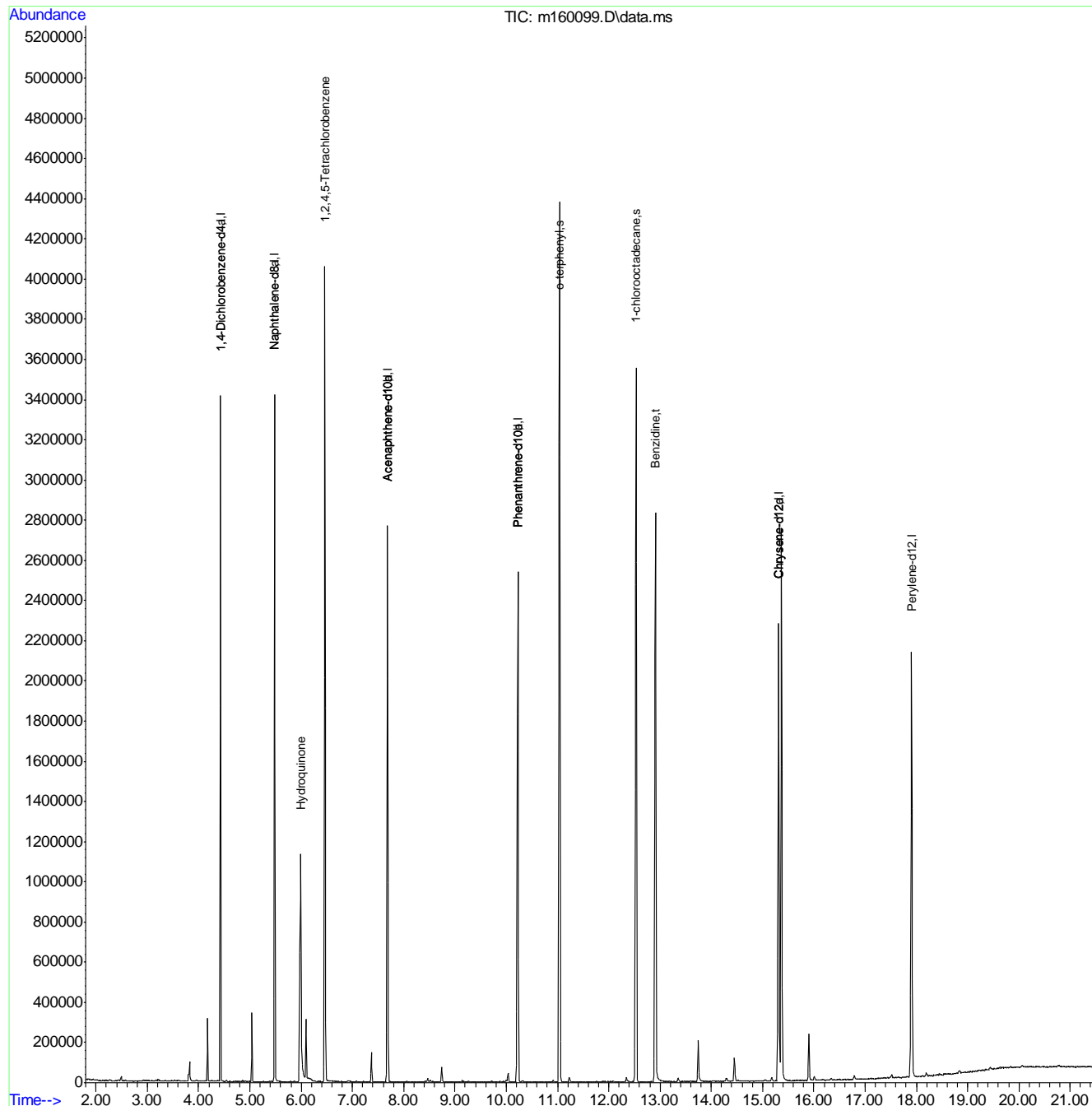
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.424	152	375085	40.00	ppm	0.00
24) Naphthalene-d8	5.481	136	1242039	40.00	ppm	0.00
47) Acenaphthene-d10	7.682	164	733633	40.00	ppm	0.00
69) Phenanthrene-d10	10.225	188	1394402	40.00	ppm	0.00
83) Chrysene-d12	15.316	240	1261040	40.00	ppm	0.00
91) Perylene-d12	17.912	264	1317745	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.424	152	375085	40.00	ppm	0.00
103) Acenaphthene-d10a	7.682	164	733633	40.00	ppm	0.00
105) Acenaphthene-d10b	7.682	164	733633	40.00	ppm	0.00
107) Chrysene-d12a	15.316	240	1261040	40.00	ppm	0.00
110) Phenanthrene-d10a	10.225	188	1394402	40.00	ppm	0.00
112) Phenanthrene-d10b	10.225	188	1394402	40.00	ppm	0.00
114) Naphthalene-d8a	5.481	136	1242039	40.00	ppm	0.00
116) Chrysene-d12c	15.316	240	1261040	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
109) 1-chlorooctadecane	12.533	57	661496	75.32	ppm	0.00
Spiked Amount	50.000		Recovery	=	150.64%	
113) o-terphenyl	11.042	230	1364988	73.83	ppm	0.00
Target Compounds						
106) 1,2,4,5-Tetrachloroben...	6.464	216	845509	75.82	ppm	99
108) Benzidine	12.912	184	1827886	75.55	ppm	99
115) Hydroquinone	5.994	110	876899	77.59	ppm	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6773\
Data File : m160099.D
Acq On : 4 Oct 2019 1:04 am
Operator : hennys
Sample : ic6773-80
Misc : op21044,em6773,1000,,,1,1
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Oct 04 13:04:07 2019
Quant Method : C:\MSDCHEM\1\METHODS\MM6771.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Fri Oct 04 13:01:12 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6773\
 Data File : ml60100.D
 Acq On : 4 Oct 2019 1:32 am
 Operator : hennys
 Sample : icc6773-50
 Misc : op21044,em6773,1000,,,1,1
 ALS Vial : 27 Sample Multiplier: 1

Quant Time: Oct 04 13:01:54 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MM6771.M
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 QLast Update : Fri Oct 04 13:01:12 2019
 Response via : Initial Calibration

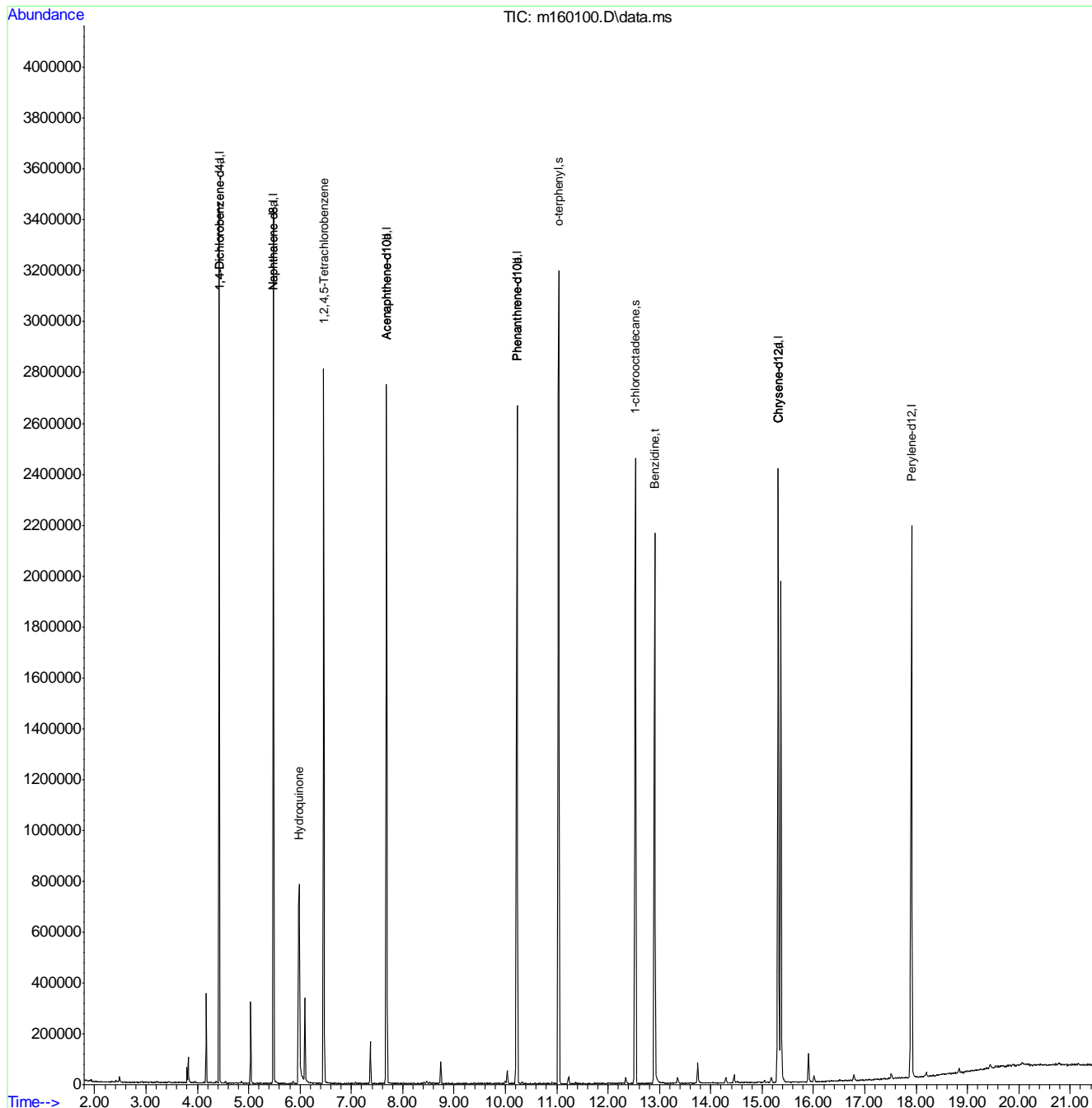
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.423	152	384900	40.00	ppm	0.00
24) Naphthalene-d8	5.480	136	1270636	40.00	ppm	0.00
47) Acenaphthene-d10	7.681	164	754469	40.00	ppm	0.00
69) Phenanthrene-d10	10.224	188	1415841	40.00	ppm	0.00
83) Chrysene-d12	15.315	240	1303564	40.00	ppm	0.00
91) Perylene-d12	17.912	264	1363615	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.423	152	384900	40.00	ppm	0.00
103) Acenaphthene-d10a	7.681	164	754469	40.00	ppm	0.00
105) Acenaphthene-d10b	7.681	164	754469	40.00	ppm	0.00
107) Chrysene-d12a	15.315	240	1303564	40.00	ppm	0.00
110) Phenanthrene-d10a	10.224	188	1415841	40.00	ppm	0.00
112) Phenanthrene-d10b	10.224	188	1415841	40.00	ppm	0.00
114) Naphthalene-d8a	5.480	136	1270636	40.00	ppm	0.00
116) Chrysene-d12c	15.315	240	1303564	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
109) 1-chlorooctadecane	12.532	57	453955	50.00	ppm	0.00
Spiked Amount	50.000		Recovery	=	100.00%	
113) o-terphenyl	11.036	230	938598	50.00	ppm	0.00
Target Compounds						
106) 1,2,4,5-Tetrachloroben...	6.463	216	573375	50.00	ppm	100
108) Benzidine	12.906	184	1250455	50.00	ppm	100
115) Hydroquinone	5.982	110	578086	50.00	ppm	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6773\
Data File : m160100.D
Acq On : 4 Oct 2019 1:32 am
Operator : hennys
Sample : icc6773-50
Misc : op21044,em6773,1000,,,1,1
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Oct 04 13:01:54 2019
Quant Method : C:\MSDCHEM\1\METHODS\MM6771.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Fri Oct 04 13:01:12 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6773\
 Data File : ml60101.D
 Acq On : 4 Oct 2019 2:00 am
 Operator : hennys
 Sample : ic6773-25
 Misc : op21044,em6773,1000,,,1,1
 ALS Vial : 28 Sample Multiplier: 1

Quant Time: Oct 04 13:05:19 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MM6771.M
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 QLast Update : Fri Oct 04 13:01:12 2019
 Response via : Initial Calibration

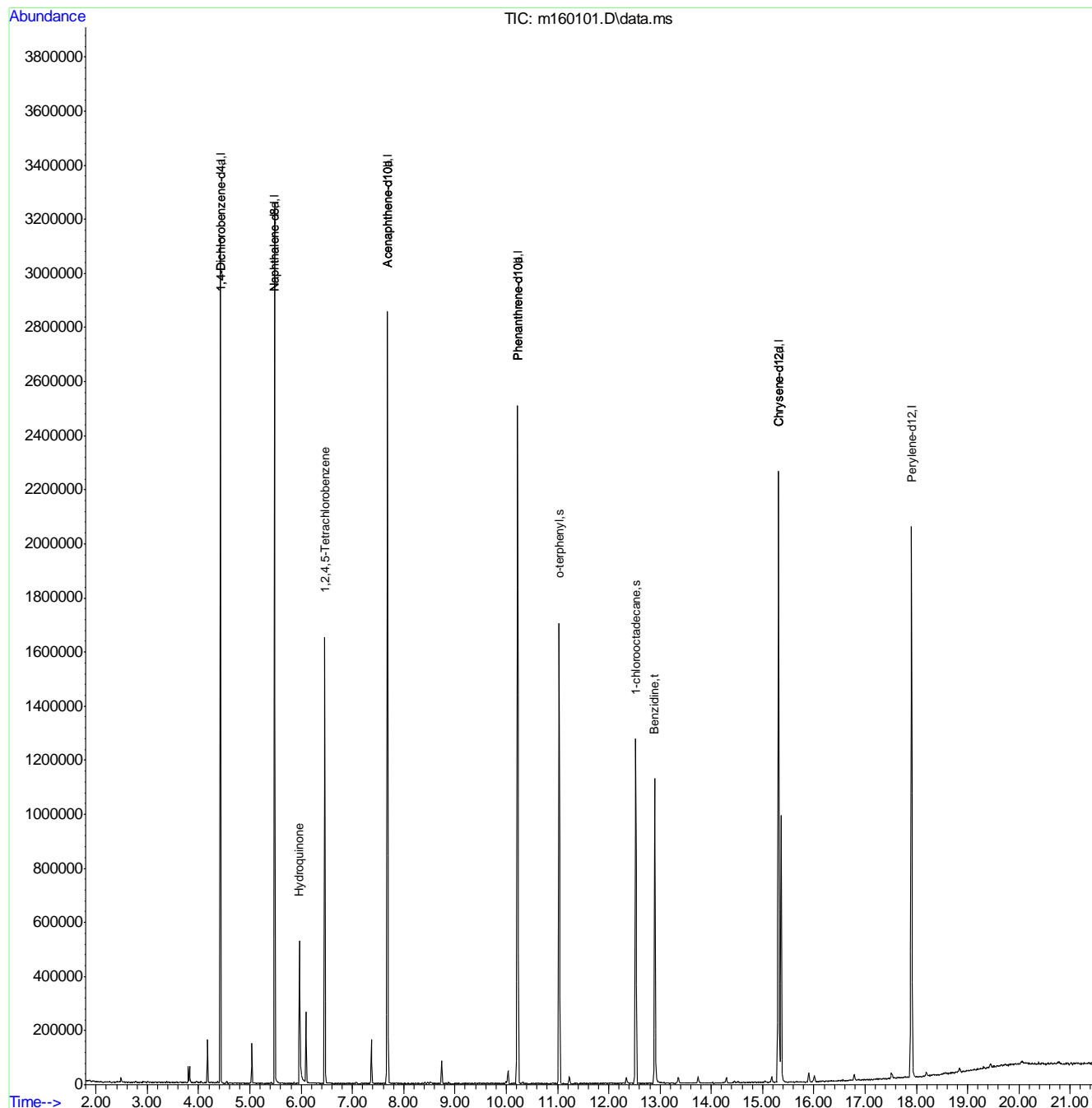
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.424	152	364019	40.00	ppm	0.00
24) Naphthalene-d8	5.482	136	1209020	40.00	ppm	0.00
47) Acenaphthene-d10	7.683	164	724157	40.00	ppm	0.00
69) Phenanthrene-d10	10.220	188	1337809	40.00	ppm	0.00
83) Chrysene-d12	15.311	240	1215185	40.00	ppm	-0.01
91) Perylene-d12	17.907	264	1244285	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.424	152	364019	40.00	ppm	0.00
103) Acenaphthene-d10a	7.683	164	724157	40.00	ppm	0.00
105) Acenaphthene-d10b	7.683	164	724157	40.00	ppm	0.00
107) Chrysene-d12a	15.311	240	1215185	40.00	ppm	0.00
110) Phenanthrene-d10a	10.220	188	1337809	40.00	ppm	0.00
112) Phenanthrene-d10b	10.220	188	1337809	40.00	ppm	0.00
114) Naphthalene-d8a	5.482	136	1209020	40.00	ppm	0.00
116) Chrysene-d12c	15.311	240	1215185	40.00	ppm	-0.01
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
109) 1-chlorooctadecane	12.528	57	229235	27.08	ppm	0.00
Spiked Amount	50.000		Recovery	=	54.16%	
113) o-terphenyl	11.032	230	476346	26.86	ppm	0.00
Target Compounds						
106) 1,2,4,5-Tetrachloroben...	6.459	216	304712	27.68	ppm	99
108) Benzidine	12.896	184	617357	26.48	ppm	100
115) Hydroquinone	5.968	110	255471	23.22	ppm	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6773\
Data File : m160101.D
Acq On : 4 Oct 2019 2:00 am
Operator : hennys
Sample : ic6773-25
Misc : op21044,em6773,1000,,,1,1
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Oct 04 13:05:19 2019
Quant Method : C:\MSDCHEM\1\METHODS\MM6771.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Fri Oct 04 13:01:12 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6773\
 Data File : m160102.D
 Acq On : 4 Oct 2019 2:28 am
 Operator : hennys
 Sample : ic6773-10
 Misc : op21044,em6773,1000,,,1,1
 ALS Vial : 29 Sample Multiplier: 1

Quant Time: Oct 04 13:06:17 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MM6771.M
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 QLast Update : Fri Oct 04 13:01:12 2019
 Response via : Initial Calibration

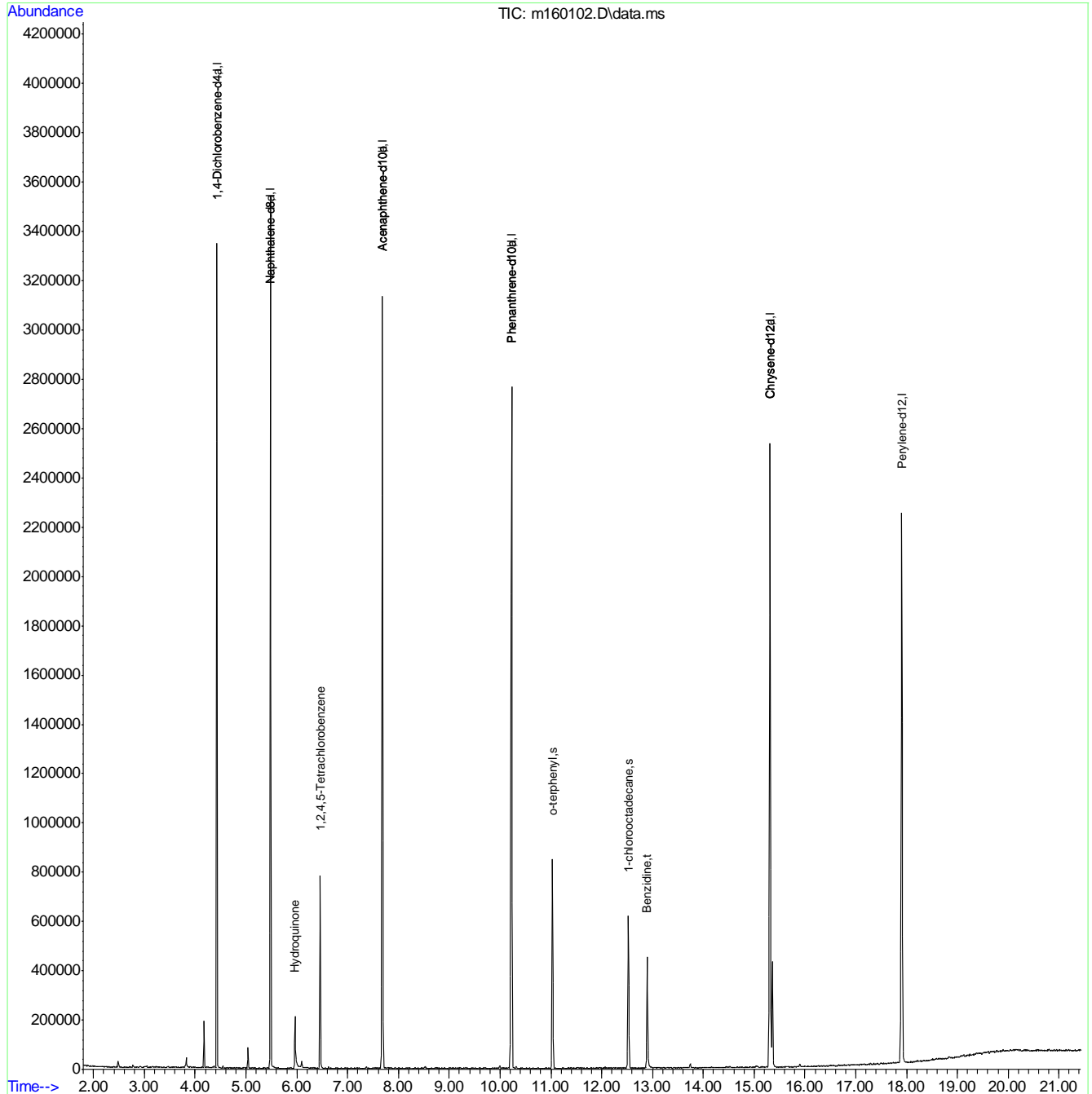
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.424	152	398026	40.00	ppm	0.00
24) Naphthalene-d8	5.481	136	1319025	40.00	ppm	0.00
47) Acenaphthene-d10	7.682	164	819905	40.00	ppm	0.00
69) Phenanthrene-d10	10.225	188	1495431	40.00	ppm	0.00
83) Chrysene-d12	15.316	240	1343308	40.00	ppm	0.00
91) Perylene-d12	17.907	264	1393479	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.424	152	398026	40.00	ppm	0.00
103) Acenaphthene-d10a	7.682	164	819905	40.00	ppm	0.00
105) Acenaphthene-d10b	7.682	164	819905	40.00	ppm	0.00
107) Chrysene-d12a	15.316	240	1343308	40.00	ppm	0.00
110) Phenanthrene-d10a	10.225	188	1495431	40.00	ppm	0.00
112) Phenanthrene-d10b	10.225	188	1495431	40.00	ppm	0.00
114) Naphthalene-d8a	5.481	136	1319025	40.00	ppm	0.00
116) Chrysene-d12c	15.316	240	1343308	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
109) 1-chlorooctadecane	12.522	57	103124	11.02	ppm	0.00
Spiked Amount	50.000		Recovery	=	22.04%	
113) o-terphenyl	11.032	230	227523	11.48	ppm	0.00
Target Compounds						
106) 1,2,4,5-Tetrachloroben...	6.459	216	141802	11.38	ppm	99
108) Benzidine	12.896	184	258543	10.03	ppm	98
115) Hydroquinone	5.962	110	92383	7.70	ppm	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6773\
 Data File : m160102.D
 Acq On : 4 Oct 2019 2:28 am
 Operator : hennys
 Sample : ic6773-10
 Misc : op21044,em6773,1000,,,1,1
 ALS Vial : 29 Sample Multiplier: 1

Quant Time: Oct 04 13:06:17 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MM6771.M
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30m x 0.25mm x 0.25um
 QLast Update : Fri Oct 04 13:01:12 2019
 Response via : Initial Calibration



9.6.77
 9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6773\
 Data File : m160103.D
 Acq On : 4 Oct 2019 2:56 am
 Operator : hennys
 Sample : ic6773-5
 Misc : op21044,em6773,1000,,,1,1
 ALS Vial : 30 Sample Multiplier: 1

Quant Time: Oct 04 13:07:16 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MM6771.M
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 QLast Update : Fri Oct 04 13:01:12 2019
 Response via : Initial Calibration

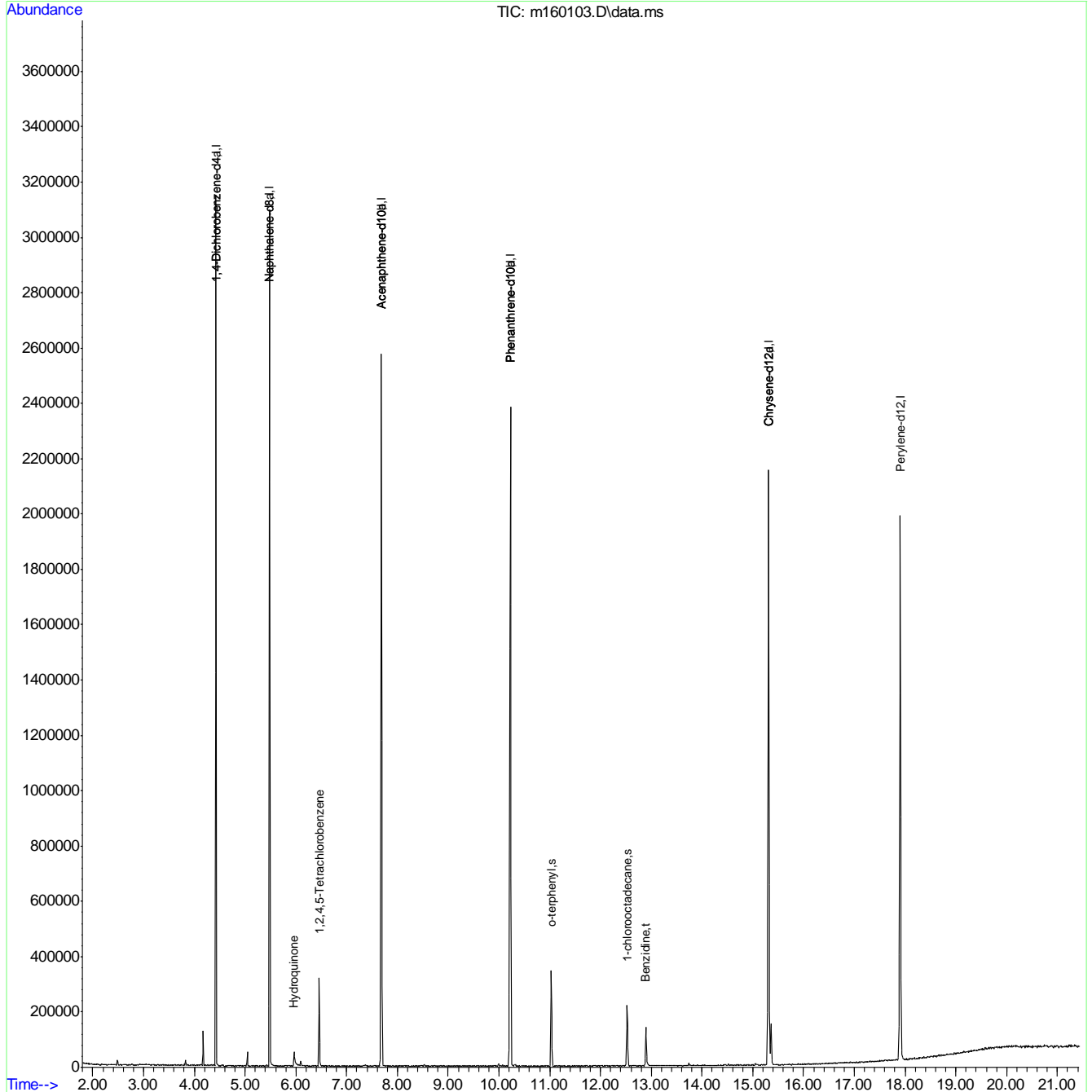
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.422	152	341407	40.00	ppm	0.00
24) Naphthalene-d8	5.480	136	1142590	40.00	ppm	0.00
47) Acenaphthene-d10	7.681	164	695733	40.00	ppm	0.00
69) Phenanthrene-d10	10.224	188	1270399	40.00	ppm	0.00
83) Chrysene-d12	15.315	240	1132115	40.00	ppm	-0.01
91) Perylene-d12	17.906	264	1148762	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.422	152	341407	40.00	ppm	0.00
103) Acenaphthene-d10a	7.681	164	695733	40.00	ppm	0.00
105) Acenaphthene-d10b	7.681	164	695733	40.00	ppm	0.00
107) Chrysene-d12a	15.315	240	1132115	40.00	ppm	0.00
110) Phenanthrene-d10a	10.224	188	1270399	40.00	ppm	0.00
112) Phenanthrene-d10b	10.224	188	1270399	40.00	ppm	0.00
114) Naphthalene-d8a	5.480	136	1142590	40.00	ppm	0.00
116) Chrysene-d12c	15.315	240	1132115	40.00	ppm	-0.01
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
109) 1-chlorooctadecane	12.521	57	37530	4.76	ppm	-0.01
Spiked Amount	50.000		Recovery	=	9.52%	
113) o-terphenyl	11.030	230	92622	5.50	ppm	0.00
Target Compounds						
106) 1,2,4,5-Tetrachloroben...	6.457	216	60035	5.68	ppm	99
108) Benzidine	12.895	184	84080	3.87	ppm	99
115) Hydroquinone	5.966	110	31434	3.02	ppm	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6773\
 Data File : m160103.D
 Acq On : 4 Oct 2019 2:56 am
 Operator : hennys
 Sample : ic6773-5
 Misc : op21044,em6773,1000,,,1,1
 ALS Vial : 30 Sample Multiplier: 1

Quant Time: Oct 04 13:07:16 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MM6771.M
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 QLast Update : Fri Oct 04 13:01:12 2019
 Response via : Initial Calibration



9.6.78
6

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6773\
 Data File : ml60104.D
 Acq On : 4 Oct 2019 3:24 am
 Operator : hennys
 Sample : ic6773-2
 Misc : op21044,em6773,1000,,,1,1
 ALS Vial : 31 Sample Multiplier: 1

Quant Time: Oct 04 13:08:29 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MM6771.M
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 QLast Update : Fri Oct 04 13:01:12 2019
 Response via : Initial Calibration

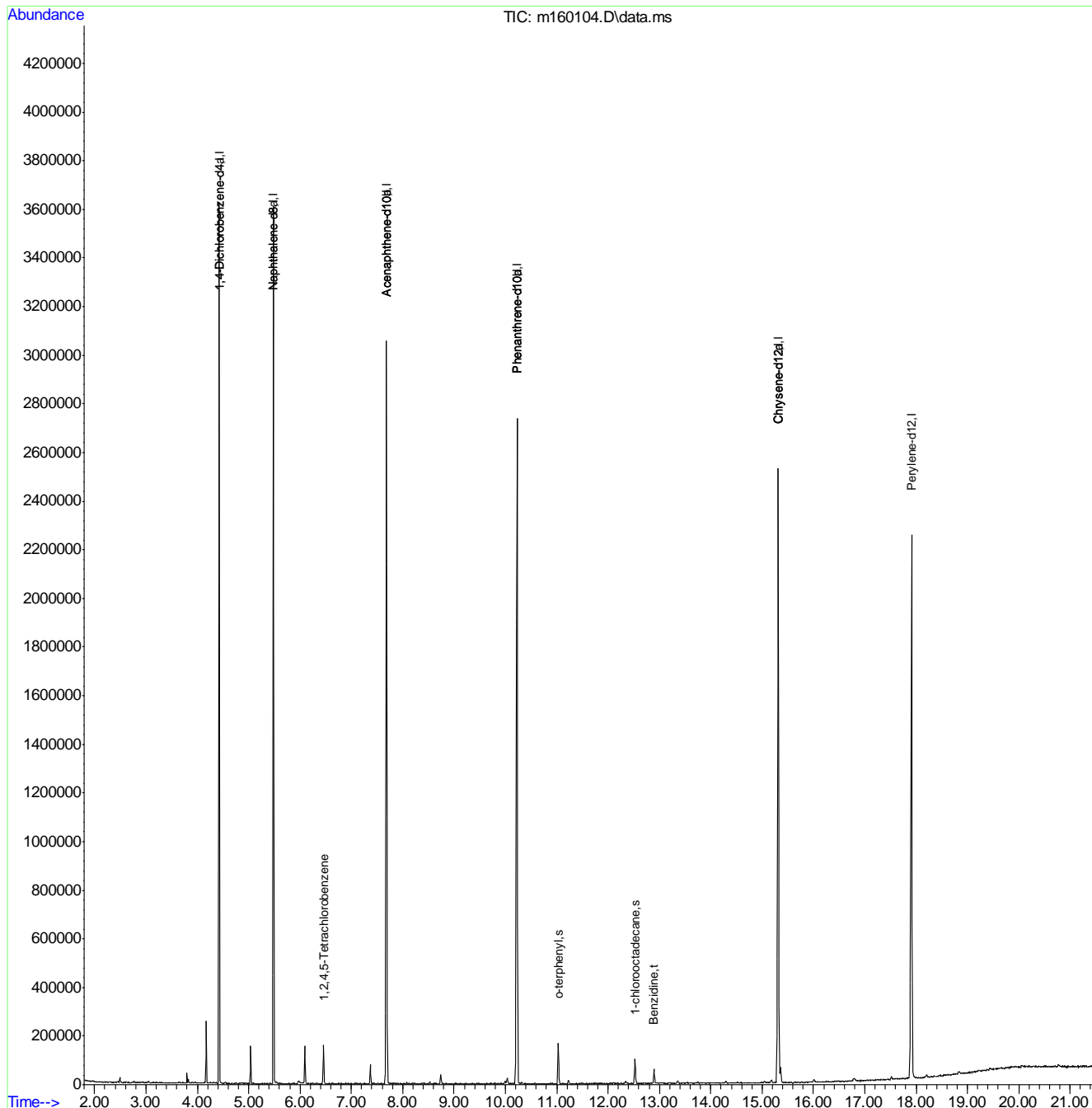
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.423	152	408387	40.00	ppm	0.00
24) Naphthalene-d8	5.481	136	1331860	40.00	ppm	0.00
47) Acenaphthene-d10	7.682	164	816497	40.00	ppm	0.00
69) Phenanthrene-d10	10.225	188	1490375	40.00	ppm	0.00
83) Chrysene-d12	15.316	240	1341358	40.00	ppm	0.00
91) Perylene-d12	17.912	264	1385704	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.423	152	408387	40.00	ppm	0.00
103) Acenaphthene-d10a	7.682	164	816497	40.00	ppm	0.00
105) Acenaphthene-d10b	7.682	164	816497	40.00	ppm	0.00
107) Chrysene-d12a	15.316	240	1341358	40.00	ppm	0.00
110) Phenanthrene-d10a	10.225	188	1490375	40.00	ppm	0.00
112) Phenanthrene-d10b	10.225	188	1490375	40.00	ppm	0.00
114) Naphthalene-d8a	5.481	136	1331860	40.00	ppm	0.00
116) Chrysene-d12c	15.316	240	1341358	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
109) 1-chlorooctadecane	12.522	57	17750	1.90	ppm	-0.01
Spiked Amount	50.000		Recovery	=	3.80%	
113) o-terphenyl	11.031	230	44267	2.24	ppm	0.00
Target Compounds						
106) 1,2,4,5-Tetrachloroben...	6.459	216	30161	2.43	ppm	97
108) Benzidine	12.896	184	36634	1.42	ppm	95

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6773\
 Data File : ml60104.D
 Acq On : 4 Oct 2019 3:24 am
 Operator : hennys
 Sample : ic6773-2
 Misc : op21044,em6773,1000,,,1,1
 ALS Vial : 31 Sample Multiplier: 1

Quant Time: Oct 04 13:08:29 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MM6771.M
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 QLast Update : Fri Oct 04 13:01:12 2019
 Response via : Initial Calibration



6 6796

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6773\
 Data File : m160105.D
 Acq On : 4 Oct 2019 3:52 am
 Operator : hennys
 Sample : ic6773-1
 Misc : op21044,em6773,1000,,,1,1
 ALS Vial : 32 Sample Multiplier: 1

Quant Time: Oct 04 13:09:30 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MM6771.M
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 QLast Update : Fri Oct 04 13:01:12 2019
 Response via : Initial Calibration

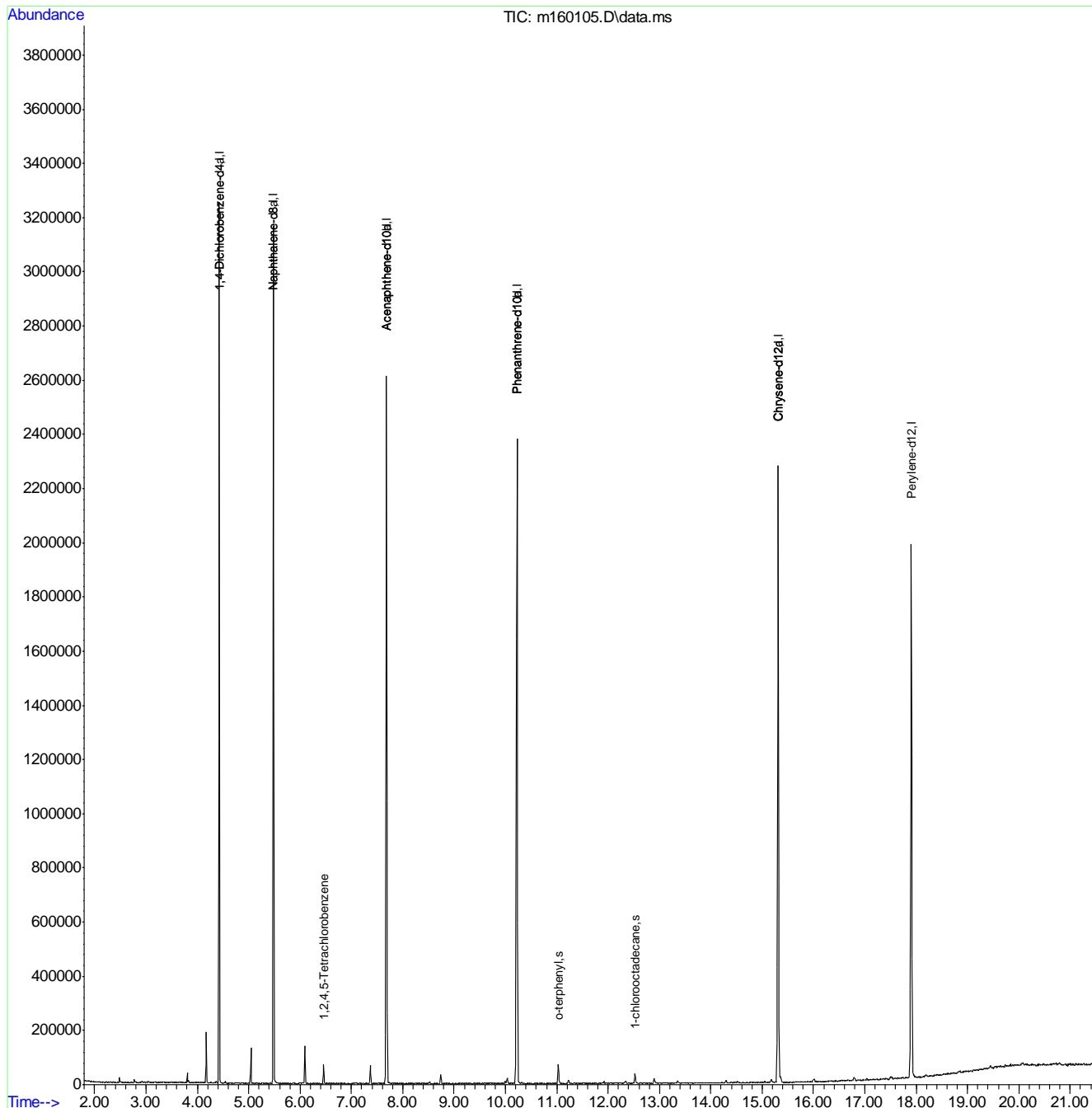
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.422	152	343580	40.00	ppm	0.00
24) Naphthalene-d8	5.480	136	1133551	40.00	ppm	0.00
47) Acenaphthene-d10	7.681	164	703077	40.00	ppm	0.00
69) Phenanthrene-d10	10.224	188	1290951	40.00	ppm	0.00
83) Chrysene-d12	15.315	240	1141024	40.00	ppm	-0.01
91) Perylene-d12	17.906	264	1176440	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.422	152	343580	40.00	ppm	0.00
103) Acenaphthene-d10a	7.681	164	703077	40.00	ppm	0.00
105) Acenaphthene-d10b	7.681	164	703077	40.00	ppm	0.00
107) Chrysene-d12a	15.315	240	1141024	40.00	ppm	0.00
110) Phenanthrene-d10a	10.224	188	1290951	40.00	ppm	0.00
112) Phenanthrene-d10b	10.224	188	1290951	40.00	ppm	0.00
114) Naphthalene-d8a	5.480	136	1133551	40.00	ppm	0.00
116) Chrysene-d12c	15.315	240	1141024	40.00	ppm	-0.01
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
109) 1-chlorooctadecane	12.521	57	6079	0.76	ppm	-0.01
Spiked Amount	50.000		Recovery	=	1.52%	
113) o-terphenyl	11.030	230	17612	1.03	ppm	0.00
Target Compounds						
106) 1,2,4,5-Tetrachloroben...	6.457	216	12330	1.15	ppm	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6773\
Data File : m160105.D
Acq On : 4 Oct 2019 3:52 am
Operator : hennys
Sample : ic6773-1
Misc : op21044,em6773,1000,,,1,1
ALS Vial : 32 Sample Multiplier: 1

Quant Time: Oct 04 13:09:30 2019
Quant Method : C:\MSDCHEM\1\METHODS\MM6771.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Fri Oct 04 13:01:12 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6773\
 Data File : m160106A.D
 Acq On : 4 Oct 2019 4:21 am
 Operator : hennys
 Sample : icv6772-50
 Misc : op21044,em6773,1000,,,1,1
 ALS Vial : 33 Sample Multiplier: 1

Quant Time: Oct 04 13:22:22 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MM6771.M
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 QLast Update : Fri Oct 04 13:18:02 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.424	152	314875	40.00	ppm	0.00
24) Naphthalene-d8	5.482	136	1139730	40.00	ppm	0.00
47) Acenaphthene-d10	7.683	164	681524	40.00	ppm	0.00
69) Phenanthrene-d10	10.226	188	1148474	40.00	ppm	0.00
83) Chrysene-d12	15.311	240	1200770	40.00	ppm	-0.01
91) Perylene-d12	17.908	264	1226350	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.424	152	314875	40.00	ppm	0.00
103) Acenaphthene-d10a	7.683	164	681524	40.00	ppm	0.00
105) Acenaphthene-d10b	7.683	164	681524	40.00	ppm	0.00
107) Chrysene-d12a	15.311	240	1200770	40.00	ppm	0.00
110) Phenanthrene-d10a	10.226	188	1148474	40.00	ppm	0.00
112) Phenanthrene-d10b	10.226	188	1148474	40.00	ppm	0.00
114) Naphthalene-d8a	5.482	136	1139730	40.00	ppm	0.00
116) Chrysene-d12c	15.311	240	1200770	40.00	ppm	-0.01
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
109) 1-chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
113) o-terphenyl	0.000	230	0	0.00	ppm	
Target Compounds						
102) Benzaldehyde	4.104	105	412562	48.56	ppm	99
104) Atrazine	9.873	215	163289	54.01	ppm	99
111) Pentachloronitrobenzene	9.937	295	62868	45.89	ppm	98

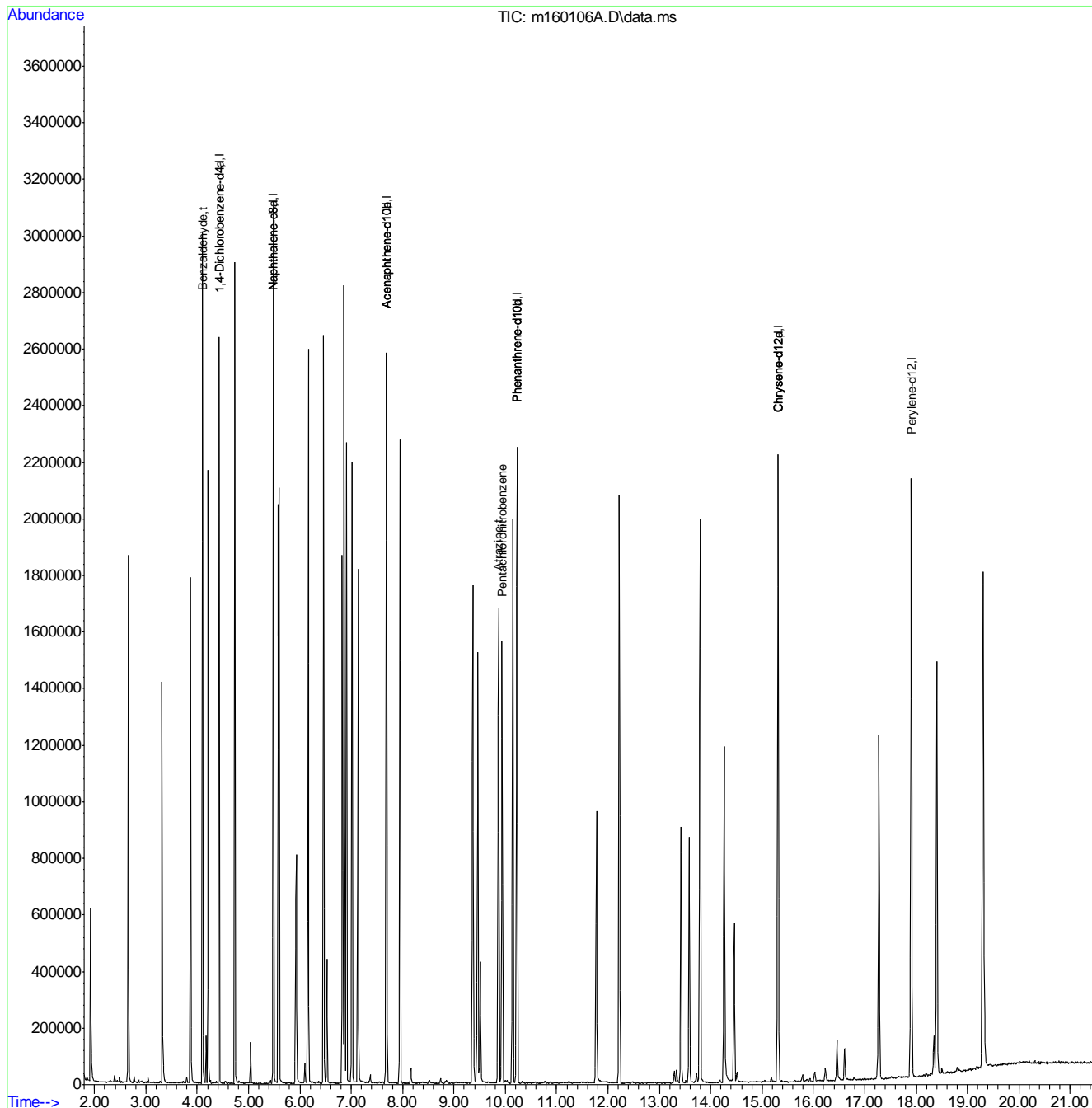
(#) = qualifier out of range (m) = manual integration (+) = signals summed

9.681
9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6773\
 Data File : m160106A.D
 Acq On : 4 Oct 2019 4:21 am
 Operator : hennys
 Sample : icv6772-50
 Misc : op21044,em6773,1000,,,1,1
 ALS Vial : 33 Sample Multiplier: 1

Quant Time: Oct 04 13:22:22 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MM6771.M
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30m x 0.25mm x 0.25um
 QLast Update : Fri Oct 04 13:18:02 2019
 Response via : Initial Calibration



9.6:8.1
 9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6773\
 Data File : m160106.D
 Acq On : 4 Oct 2019 4:21 am
 Operator : hennys
 Sample : icv6773-50
 Misc : op21044,em6773,1000,,,1,1
 ALS Vial : 33 Sample Multiplier: 1

Quant Time: Oct 04 13:23:42 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MM6771.M
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 QLast Update : Fri Oct 04 13:18:02 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.424	152	314875	40.00	ppm	0.00
24) Naphthalene-d8	5.482	136	1139730	40.00	ppm	0.00
47) Acenaphthene-d10	7.683	164	681524	40.00	ppm	0.00
69) Phenanthrene-d10	10.226	188	1148474	40.00	ppm	0.00
83) Chrysene-d12	15.311	240	1200770	40.00	ppm	-0.01
91) Perylene-d12	17.908	264	1226350	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.424	152	314875	40.00	ppm	0.00
103) Acenaphthene-d10a	7.683	164	681524	40.00	ppm	0.00
105) Acenaphthene-d10b	7.683	164	681524	40.00	ppm	0.00
107) Chrysene-d12a	15.311	240	1200770	40.00	ppm	0.00
110) Phenanthrene-d10a	10.226	188	1148474	40.00	ppm	0.00
112) Phenanthrene-d10b	10.226	188	1148474	40.00	ppm	0.00
114) Naphthalene-d8a	5.482	136	1139730	40.00	ppm	0.00
116) Chrysene-d12c	15.311	240	1200770	40.00	ppm	-0.01
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
109) 1-chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
113) o-terphenyl	0.000	230	0	0.00	ppm	
Target Compounds						
106) 1,2,4,5-Tetrachloroben...	6.459	216	494572	44.44	ppm	Qvalue 100

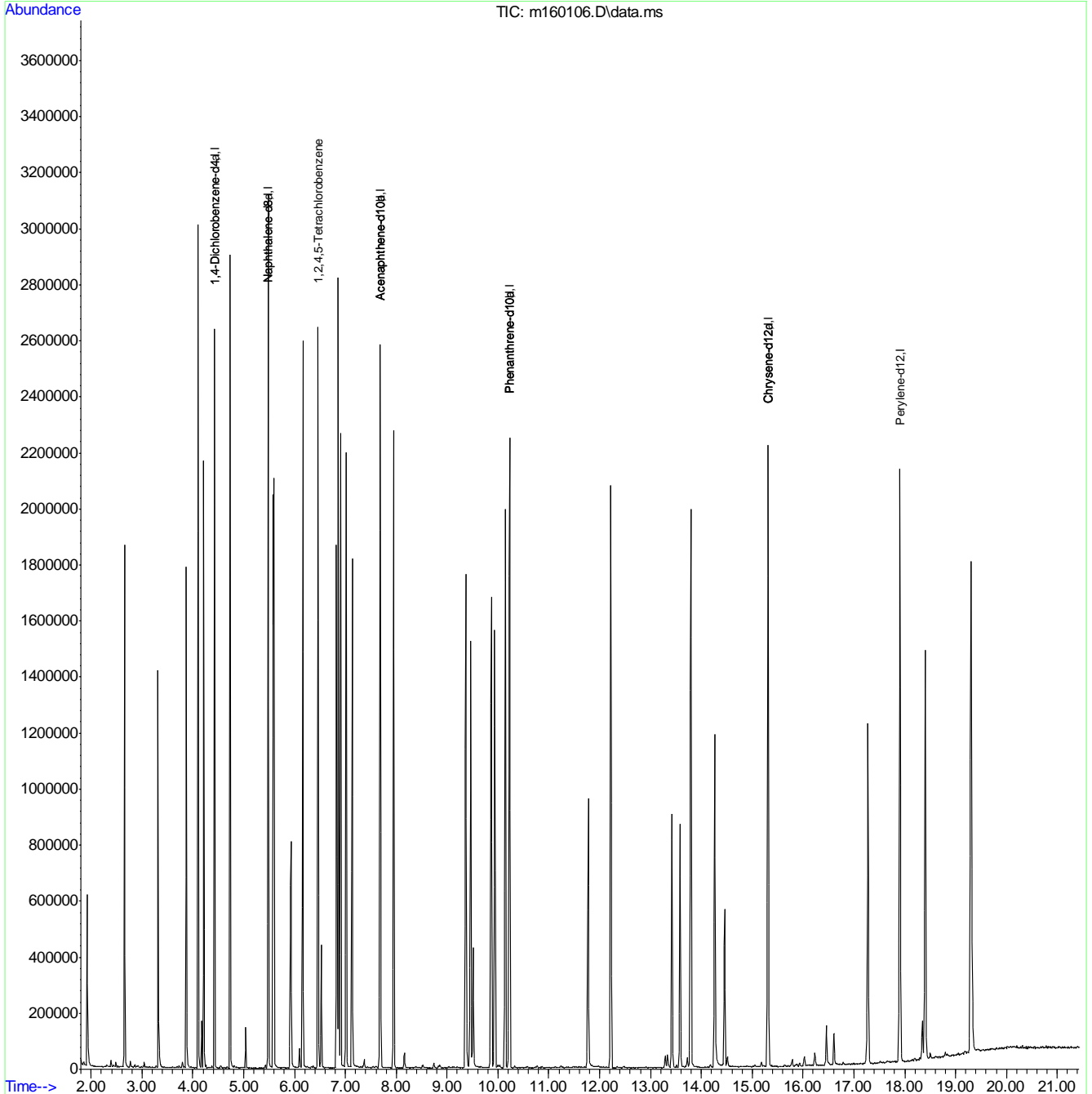
(#) = qualifier out of range (m) = manual integration (+) = signals summed

9.6.82
9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6773\
 Data File : m160106.D
 Acq On : 4 Oct 2019 4:21 am
 Operator : hennys
 Sample : icv6773-50
 Misc : op21044,em6773,1000,,,1,1
 ALS Vial : 33 Sample Multiplier: 1

Quant Time: Oct 04 13:23:42 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MM6771.M
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30m x 0.25mm x 0.25um
 QLast Update : Fri Oct 04 13:18:02 2019
 Response via : Initial Calibration



9.6.82
 9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6773\
 Data File : ml60107.D
 Acq On : 4 Oct 2019 4:49 am
 Operator : hennys
 Sample : icv6773-50
 Misc : op21044,em6773,1000,,,1,1
 ALS Vial : 34 Sample Multiplier: 1

Quant Time: Oct 04 13:24:28 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MM6771.M
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 QLast Update : Fri Oct 04 13:19:40 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.421	152	348374	40.00	ppm	0.00
24) Naphthalene-d8	5.479	136	1166548	40.00	ppm	0.00
47) Acenaphthene-d10	7.680	164	702175	40.00	ppm	0.00
69) Phenanthrene-d10	10.223	188	1279773	40.00	ppm	0.00
83) Chrysene-d12	15.314	240	1152877	40.00	ppm	-0.01
91) Perylene-d12	17.905	264	1153664	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.421	152	348374	40.00	ppm	0.00
103) Acenaphthene-d10a	7.680	164	702175	40.00	ppm	0.00
105) Acenaphthene-d10b	7.680	164	702175	40.00	ppm	0.00
107) Chrysene-d12a	15.314	240	1152877	40.00	ppm	0.00
110) Phenanthrene-d10a	10.223	188	1279773	40.00	ppm	0.00
112) Phenanthrene-d10b	10.223	188	1279773	40.00	ppm	0.00
114) Naphthalene-d8a	5.479	136	1166548	40.00	ppm	0.00
116) Chrysene-d12c	15.314	240	1152877	40.00	ppm	-0.01
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
109) 1-chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
113) o-terphenyl	0.000	230	0	0.00	ppm	
Target Compounds						
115) Hydroquinone	5.971	110	510181	52.11	ppm	Qvalue 98

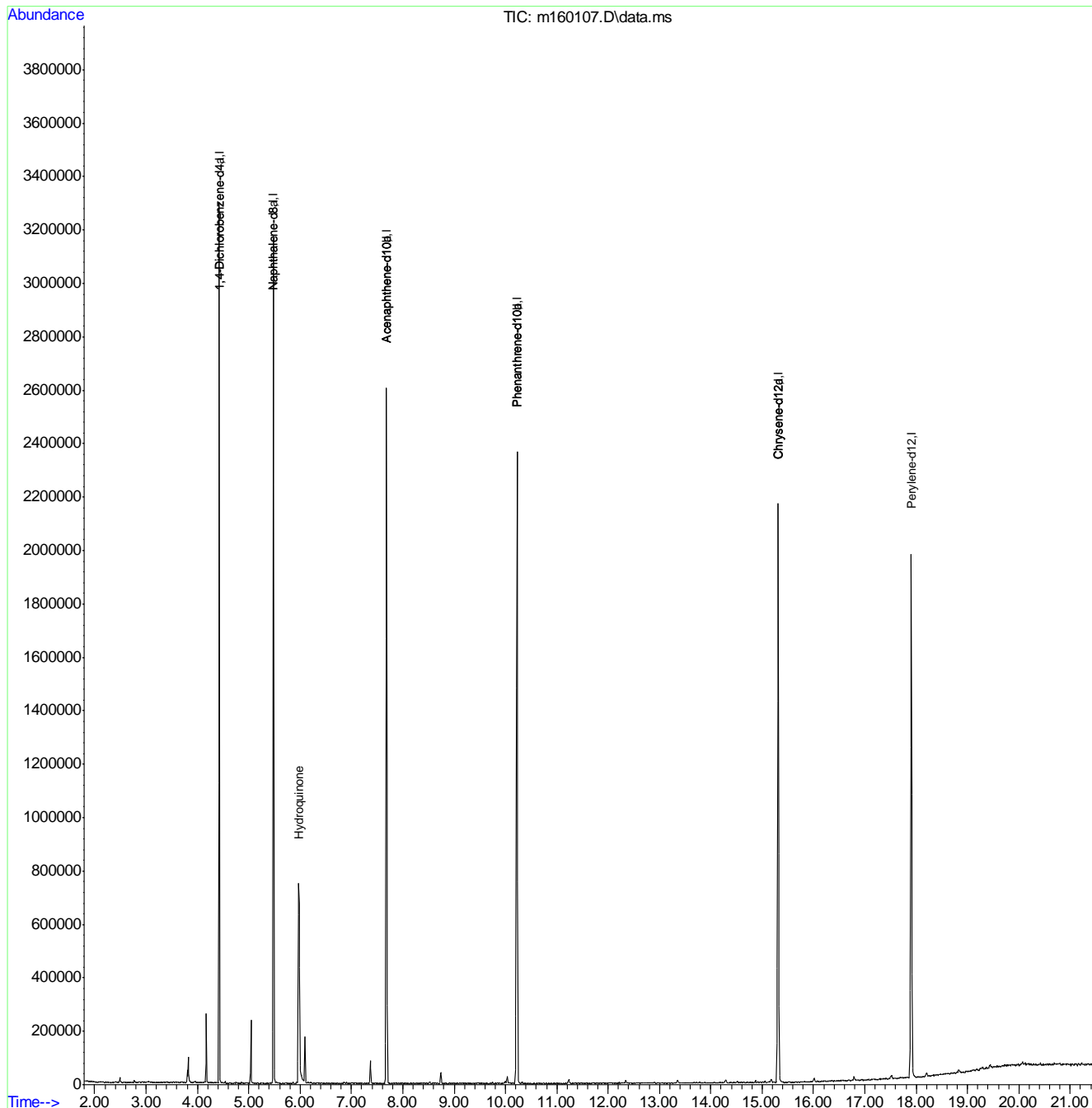
(#) = qualifier out of range (m) = manual integration (+) = signals summed

9.683
9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6773\
 Data File : m160107.D
 Acq On : 4 Oct 2019 4:49 am
 Operator : hennys
 Sample : icv6773-50
 Misc : op21044,em6773,1000,,,1,1
 ALS Vial : 34 Sample Multiplier: 1

Quant Time: Oct 04 13:24:28 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MM6771.M
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30m x 0.25mm x 0.25um
 QLast Update : Fri Oct 04 13:19:40 2019
 Response via : Initial Calibration



9.6.83
6

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6773\
 Data File : ml60108.D
 Acq On : 4 Oct 2019 5:17 am
 Operator : hennys
 Sample : icv6773-50
 Misc : op21044,em6773,1000,,,1,1
 ALS Vial : 35 Sample Multiplier: 1

Quant Time: Oct 04 13:25:32 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MM6771.M
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 QLast Update : Fri Oct 04 13:19:40 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.422	152	397306	40.00	ppm	0.00
24) Naphthalene-d8	5.480	136	1301255	40.00	ppm	0.00
47) Acenaphthene-d10	7.681	164	795457	40.00	ppm	0.00
69) Phenanthrene-d10	10.224	188	1442311	40.00	ppm	0.00
83) Chrysene-d12	15.315	240	1309316	40.00	ppm	-0.01
91) Perylene-d12	17.906	264	1358206	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.422	152	397306	40.00	ppm	0.00
103) Acenaphthene-d10a	7.681	164	795457	40.00	ppm	0.00
105) Acenaphthene-d10b	7.681	164	795457	40.00	ppm	0.00
107) Chrysene-d12a	15.315	240	1309316	40.00	ppm	0.00
110) Phenanthrene-d10a	10.224	188	1442311	40.00	ppm	0.00
112) Phenanthrene-d10b	10.224	188	1442311	40.00	ppm	0.00
114) Naphthalene-d8a	5.480	136	1301255	40.00	ppm	0.00
116) Chrysene-d12c	15.315	240	1309316	40.00	ppm	-0.01
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
109) 1-chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
113) o-terphenyl	0.000	230	0	0.00	ppm	
Target Compounds						
108) Benzidine	12.906	184	1305628	56.88	ppm	Qvalue 99

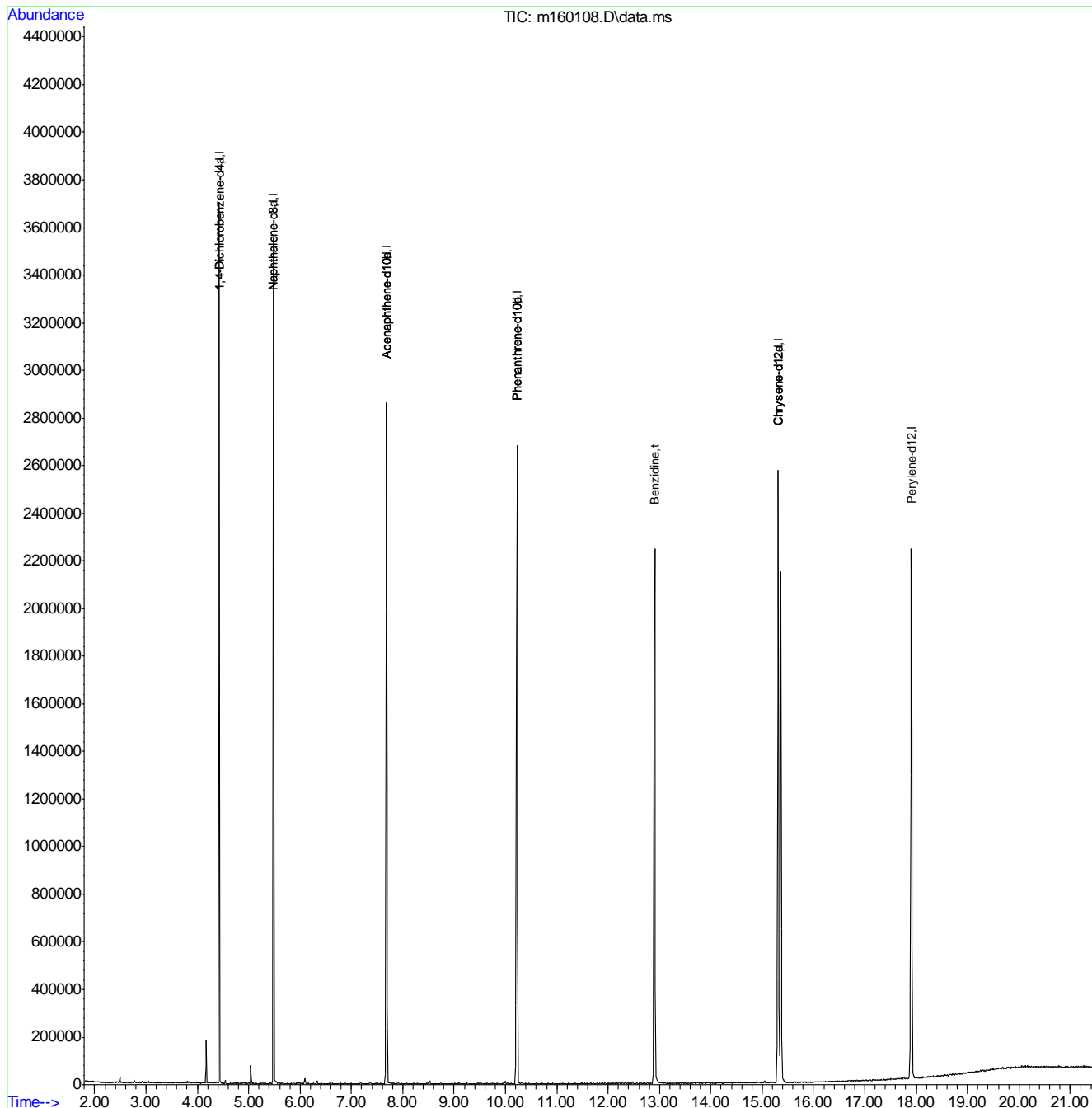
(#) = qualifier out of range (m) = manual integration (+) = signals summed

9.6.84
9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6773\
 Data File : m160108.D
 Acq On : 4 Oct 2019 5:17 am
 Operator : hennys
 Sample : icv6773-50
 Misc : op21044,em6773,1000,,,1,1
 ALS Vial : 35 Sample Multiplier: 1

Quant Time: Oct 04 13:25:32 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MM6771.M
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 QLast Update : Fri Oct 04 13:19:40 2019
 Response via : Initial Calibration



9.6.84
 9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6777\
 Data File : m160138.D
 Acq On : 7 Oct 2019 10:07 am
 Operator : hennys
 Sample : ic6777-25
 Misc : op21044,em6777,1000,,,1,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Oct 07 12:35:10 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MM6777.M
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 QLast Update : Mon Oct 07 12:32:18 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.389	152	267573	40.00	ppm	0.00
24) Naphthalene-d8	5.442	136	885673	40.00	ppm	0.00
47) Acenaphthene-d10	7.632	164	554460	40.00	ppm	0.00
69) Phenanthrene-d10	10.164	188	968634	40.00	ppm	0.00
83) Chrysene-d12	15.255	240	896965	40.00	ppm	0.00
91) Perylene-d12	17.846	264	1049547	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.389	152	267573	40.00	ppm	0.00
103) Acenaphthene-d10a	7.632	164	554460	40.00	ppm	0.00
105) Acenaphthene-d10b	7.632	164	554460	40.00	ppm	0.00
107) Chrysene-d12a	15.255	240	896965	40.00	ppm	0.00
110) Phenanthrene-d10a	10.164	188	968634	40.00	ppm	0.00
112) Phenanthrene-d10b	10.164	188	968634	40.00	ppm	0.00
114) Naphthalene-d8a	5.442	136	885673	40.00	ppm	0.00
116) Chrysene-d12c	15.255	240	896965	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	3.428	112	304388	25.39	ppm	0.00
Spiked Amount	50.000		Recovery	=	50.78%	
8) Phenol-d5	4.165	99	334974	25.68	ppm	0.00
Spiked Amount	50.000		Recovery	=	51.36%	
25) Nitrobenzene-d5	4.822	82	281368	25.44	ppm	0.00
Spiked Amount	50.000		Recovery	=	50.88%	
51) 2-Fluorobiphenyl	6.681	172	519056	26.98	ppm	0.00
Spiked Amount	50.000		Recovery	=	53.96%	
73) 2,4,6-Tribromophenol	8.935	330	104647	26.57	ppm	0.00
Spiked Amount	50.000		Recovery	=	53.14%	
85) Terphenyl-d14	13.300	244	613757	25.65	ppm	0.00
Spiked Amount	50.000		Recovery	=	51.30%	
109) 1-chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
113) o-terphenyl	0.000	230	0	0.00	ppm	
Target Compounds						
2) 1,4-Dioxane	1.868	88	174652	26.14	ppm	99
3) Pyridine	2.215	79	368493	24.76	ppm	97
4) N-Nitrosodimethylamine	2.183	42	154799	23.73	ppm	98
6) Indene	4.582	116	386710	25.86	ppm	100
7) Cumene	3.791	105	690458	26.26	ppm	99
9) Phenol	4.176	94	360687	25.20	ppm	96
10) Aniline	4.160	93	348939	24.63	ppm	99
11) bis(2-Chloroethyl)ether	4.202	93	255483	25.73	ppm	97
12) 2-Chlorophenol	4.250	128	263575	26.13	ppm	91
13) Decane	4.272	43	226015	26.55	ppm	99
14) 1,3-Dichlorobenzene	4.346	146	285298	26.44	ppm	97
15) 1,4-Dichlorobenzene	4.405	146	262732	26.47	ppm	97
16) Benzyl alcohol	4.512	108	150943	26.51	ppm	97
17) 1,2-Dichlorobenzene	4.517	146	263852	26.57	ppm	98
18) Acetophenone	4.699	105	350813	25.46	ppm	98
19) 2-Methylphenol	4.614	108	212610	25.70	ppm	96

9.6.85
9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6777\
 Data File : ml60138.D
 Acq On : 7 Oct 2019 10:07 am
 Operator : hennys
 Sample : ic6777-25
 Misc : op21044,em6777,1000,,,1,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Oct 07 12:35:10 2019

Quant Method : C:\MSDCHEM\1\METHODS\MM6777.M

Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um

QLast Update : Mon Oct 07 12:32:18 2019

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
20) 2,2'-oxybis(1-Chloropr...	4.603	121	67408	26.16	ppm	# 80
21) 3&4-Methylphenol	4.731	108	220864	24.91	ppm	92
22) n-Nitroso-di-n-propyla...	4.704	70	192999	25.09	ppm	97
23) Hexachloroethane	4.774	201	107268	26.06	ppm	96
26) Nitrobenzene	4.838	77	285072	26.14	ppm	95
27) Quinoline	5.816	129	491151	25.86	ppm	96
28) Isophorone	5.030	82	514619	25.81	ppm	98
29) 2-Nitrophenol	5.100	139	132070	26.98	ppm	95
30) 2,4-Dimethylphenol	5.159	107	222454	25.31	ppm	100
31) Benzoic acid	5.281	105	184580	25.09	ppm	98
32) bis(2-Chloroethoxy)met...	5.223	93	308255	25.90	ppm	98
33) 2,4-Dichlorophenol	5.324	162	215076	26.87	ppm	97
34) 2,6-Dichlorophenol	5.538	162	195986	26.80	ppm	99
35) 1,3,5-Trichlorobenzene	5.100	180	242038	27.07	ppm	98
36) 1,2,4-Trichlorobenzene	5.388	180	235375	27.15	ppm	98
37) 1,2,3-Trichlorobenzene	5.607	180	211276	26.85	ppm	98
38) Naphthalene	5.463	128	611427	26.50	ppm	99
39) 4-Chloroaniline	5.538	127	270881	26.45	ppm	97
40) 2,3-Dichloroaniline	6.580	161	260641	26.56	ppm	95
41) Caprolactam	5.896	55	114348	24.67	ppm	98
42) Hexachlorobutadiene	5.591	225	133357	26.27	ppm	98
43) 4-Chloro-3-methylphenol	6.088	107	237461	25.84	ppm	95
44) 2-Methylnaphthalene	6.206	141	381760	26.90	ppm	97
45) 1-Methylnaphthalene	6.323	142	474166	26.31	ppm	99
46) Dimethylnaphthalene	7.023	156	399040	26.71	ppm	99
48) Hexachlorocyclopentadiene	6.409	237	296022	53.17	ppm	99
49) 2,4,6-Trichlorophenol	6.585	196	158307	27.06	ppm	97
50) 2,4,5-Trichlorophenol	6.638	196	164281	26.18	ppm	99
52) 2-Chloronaphthalene	6.825	162	439857	27.18	ppm	97
53) Biphenyl	6.809	154	578117	26.84	ppm	99
54) 2-Nitroaniline	7.007	65	148229	25.52	ppm	97
55) Dimethylphthalate	7.285	163	583689	26.31	ppm	99
56) Acenaphthylene	7.413	152	705440	26.91	ppm	99
57) 2,6-Dinitrotoluene	7.359	165	124667	25.80	ppm	96
58) 3-Nitroaniline	7.627	138	131056	25.80	ppm	99
59) Acenaphthene	7.680	153	423659	26.36	ppm	94
60) 2,4-Dinitrophenol	7.776	184	129854	50.78	ppm	92
61) 4-Nitrophenol	7.995	109	77396	25.82	ppm	85
62) Dibenzofuran	7.958	168	673136	26.65	ppm	100
63) 2,4-Dinitrotoluene	7.984	165	165266	26.57	ppm	95
64) 2,3,4,6-Tetrachlorophenol	8.193	232	143343	26.31	ppm	97
65) Diethylphthalate	8.428	149	579361	26.03	ppm	99
66) Fluorene	8.513	166	524309	26.53	ppm	98
67) 4-Chlorophenyl-phenyle...	8.556	204	253374	26.73	ppm	98
68) 4-Nitroaniline	8.636	138	130391	24.97	ppm	97
70) 4,6-Dinitro-2-methylph...	8.663	198	94836	25.79	ppm	98
71) n-Nitrosodiphenylamine	8.775	169	383049	26.61	ppm	97
72) 1,2-Diphenylhydrazine	8.823	77	576282	25.77	ppm	99
74) 4-Bromophenyl-phenylether	9.406	248	179457	26.34	ppm	99
75) Hexachlorobenzene	9.475	284	193980	26.74	ppm	96

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6777\
 Data File : ml60138.D
 Acq On : 7 Oct 2019 10:07 am
 Operator : hennys
 Sample : ic6777-25
 Misc : op21044,em6777,1000,,,1,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Oct 07 12:35:10 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MM6777.M
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 QLast Update : Mon Oct 07 12:32:18 2019
 Response via : Initial Calibration

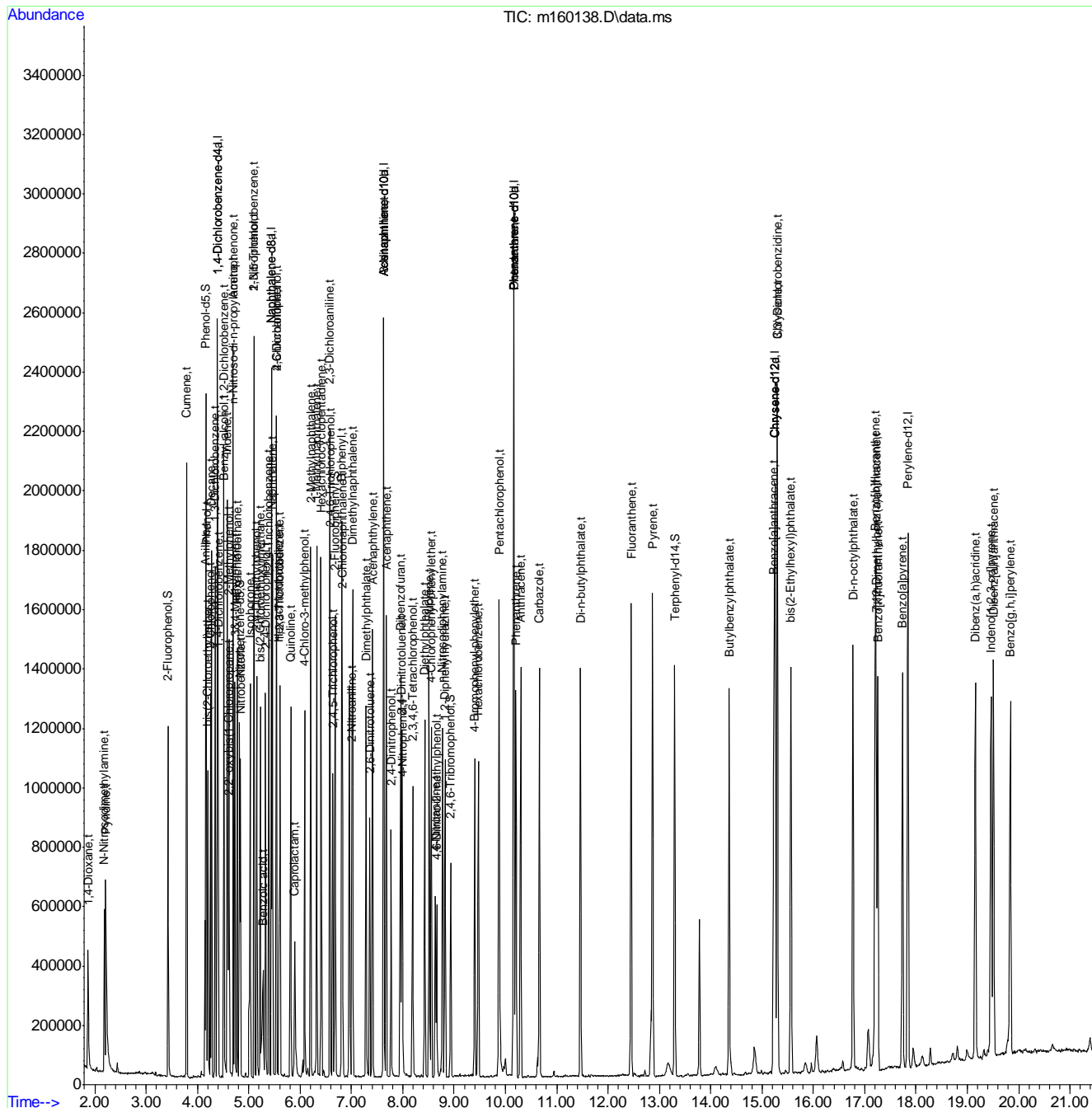
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
76) Pentachlorophenol	9.876	266	255029	53.41	ppm	98
77) Phenanthrene	10.207	178	675246	26.35	ppm	100
78) Anthracene	10.298	178	719771	26.48	ppm	99
79) Carbazole	10.666	167	783144	26.30	ppm	97
80) Di-n-butylphthalate	11.462	149	1048152	25.86	ppm	99
81) Fluoranthene	12.451	202	923210	26.00	ppm	99
82) Octadecane	10.164	57	294817	25.28	ppm	97
84) Pyrene	12.867	202	940759	26.83	ppm	99
86) Butylbenzylphthalate	14.363	149	480771	25.67	ppm	94
87) Benzo[a]anthracene	15.234	228	846297	25.69	ppm	99
88) 3,3'-Dichlorobenzidine	15.298	252	292600	25.64	ppm	98
89) Chrysene	15.298	228	698507	26.39	ppm	99
90) bis(2-Ethylhexyl)phtha...	15.560	149	620281	26.21	ppm	99
92) Di-n-octylphthalate	16.772	149	1123612	26.13	ppm	99
93) Benzo[b]fluoranthene	17.205	252	891373	25.92	ppm	99
94) Benzo[k]fluoranthene	17.258	252	758224	26.63	ppm	100
95) Benzo[a]pyrene	17.739	252	806769	26.36	ppm	100
96) Indeno[1,2,3-cd]pyrene	19.465	276	806387	26.42	ppm	98
97) Dibenz(a,h)acridine	19.160	279	761841	26.35	ppm	87
98) Dibenz[a,h]anthracene	19.507	278	784540	26.44	ppm	98
99) 7,12-Dimethylbenz(a)an...	17.221	256	348983	26.18	ppm	98
100) Benzo[g,h,i]perylene	19.839	276	798911	26.80	ppm	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6777\
 Data File : ml60138.D
 Acq On : 7 Oct 2019 10:07 am
 Operator : hennys
 Sample : ic6777-25
 Misc : op21044,em6777,1000,,,1,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Oct 07 12:35:10 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MM6777.M
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 QLast Update : Mon Oct 07 12:32:18 2019
 Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6777\
 Data File : m160139.D
 Acq On : 7 Oct 2019 10:35 am
 Operator : hennys
 Sample : ic6777-100
 Misc : op21044,em6777,1000,,,1,1
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Oct 11 13:03:08 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MM6777.M
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 QLast Update : Mon Oct 07 12:32:18 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.392	152	199086	40.00	ppm	0.00
24) Naphthalene-d8	5.445	136	683989	40.00	ppm	0.00
47) Acenaphthene-d10	7.635	164	431680	40.00	ppm	0.00
69) Phenanthrene-d10	10.167	188	729786	40.00	ppm	0.00
83) Chrysene-d12	15.269	240	669921	40.00	ppm	0.01
91) Perylene-d12	17.849	264	837374	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.392	152	199086	40.00	ppm	0.00
103) Acenaphthene-d10a	7.635	164	431680	40.00	ppm	0.00
105) Acenaphthene-d10b	7.635	164	431680	40.00	ppm	0.00
107) Chrysene-d12a	15.269	240	669921	40.00	ppm	0.01
110) Phenanthrene-d10a	10.167	188	729786	40.00	ppm	0.00
112) Phenanthrene-d10b	10.167	188	729786	40.00	ppm	0.00
114) Naphthalene-d8a	5.445	136	683989	40.00	ppm	0.00
116) Chrysene-d12c	15.269	240	669921	40.00	ppm	0.01
System Monitoring Compounds						
5) 2-Fluorophenol	3.431	112	875214	98.13	ppm	0.00
Spiked Amount	50.000		Recovery	=	196.26%	
8) Phenol-d5	4.173	99	906285	93.36	ppm	0.00
Spiked Amount	50.000		Recovery	=	186.72%	
25) Nitrobenzene-d5	4.825	82	816449	95.58	ppm	0.00
Spiked Amount	50.000		Recovery	=	191.16%	
51) 2-Fluorobiphenyl	6.690	172	1343041	89.66	ppm	0.00
Spiked Amount	50.000		Recovery	=	179.32%	
73) 2,4,6-Tribromophenol	8.949	330	296456	99.89	ppm	0.00
Spiked Amount	50.000		Recovery	=	199.78%	
85) Terphenyl-d14	13.309	244	1711856	95.79	ppm	0.00
Spiked Amount	50.000		Recovery	=	191.58%	
109) 1-chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
113) o-terphenyl	0.000	230	0	0.00	ppm	
Target Compounds						
2) 1,4-Dioxane	1.866	88	505850	101.75	ppm	98
3) Pyridine	2.208	79	1033765	93.36	ppm	99
4) N-Nitrosodimethylamine	2.181	42	484781	99.88	ppm	98
6) Indene	4.585	116	1045152	93.93	ppm	97
7) Cumene	3.789	105	1799664	91.99	ppm	98
9) Phenol	4.184	94	965123	90.63	ppm	97
10) Aniline	4.163	93	979308	92.91	ppm	92
11) bis(2-Chloroethyl)ether	4.206	93	682109	92.34	ppm	100
12) 2-Chlorophenol	4.254	128	709795	94.58	ppm	93
13) Decane	4.275	43	562917	88.86	ppm	97
14) 1,3-Dichlorobenzene	4.350	146	745843	92.90	ppm	99
15) 1,4-Dichlorobenzene	4.403	146	699736	94.74	ppm	99
16) Benzyl alcohol	4.515	108	402637	95.04	ppm	94
17) 1,2-Dichlorobenzene	4.521	146	684044	92.59	ppm	99
18) Acetophenone	4.708	105	952556	92.93	ppm	97
19) 2-Methylphenol	4.617	108	566819	92.10	ppm	96

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6777\
 Data File : ml60139.D
 Acq On : 7 Oct 2019 10:35 am
 Operator : hennys
 Sample : ic6777-100
 Misc : op21044,em6777,1000,,,1,1
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Oct 11 13:03:08 2019

Quant Method : C:\MSDCHEM\1\METHODS\MM6777.M

Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um

QLast Update : Mon Oct 07 12:32:18 2019

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
20) 2,2'-oxybis(1-Chloropr...	4.601	121	180122	93.93	ppm	92
21) 3&4-Methylphenol	4.734	108	624497	94.65	ppm	96
22) n-Nitroso-di-n-propyla...	4.713	70	516019	90.16	ppm	99
23) Hexachloroethane	4.777	201	289791	94.61	ppm	98
26) Nitrobenzene	4.841	77	767409	91.12	ppm	97
27) Quinoline	5.840	129	1398172	95.33	ppm	98
28) Isophorone	5.039	82	1432908	93.07	ppm	98
29) 2-Nitrophenol	5.108	139	343987	91.01	ppm	86
30) 2,4-Dimethylphenol	5.167	107	666799	98.22	ppm	97
31) Benzoic acid	5.327	105	596662	105.00	ppm	99
32) bis(2-Chloroethoxy)met...	5.231	93	851167	92.60	ppm	98
33) 2,4-Dichlorophenol	5.333	162	563801	91.22	ppm	98
34) 2,6-Dichlorophenol	5.546	162	526722	93.27	ppm	96
35) 1,3,5-Trichlorobenzene	5.103	180	622753	90.19	ppm	100
36) 1,2,4-Trichlorobenzene	5.391	180	611282	91.30	ppm	99
37) 1,2,3-Trichlorobenzene	5.616	180	552778	90.95	ppm	98
38) Naphthalene	5.466	128	1666693	93.53	ppm	99
39) 4-Chloroaniline	5.546	127	717835	90.75	ppm	97
40) 2,3-Dichloroaniline	6.583	161	695951	91.85	ppm	99
41) Caprolactam	5.942	55	347712m	97.12	ppm	
42) Hexachlorobutadiene	5.600	225	364861	93.06	ppm	98
43) 4-Chloro-3-methylphenol	6.102	107	663228	93.45	ppm	94
44) 2-Methylnaphthalene	6.209	141	988437	90.20	ppm	99
45) 1-Methylnaphthalene	6.332	142	1273279	91.50	ppm	100
46) Dimethylnaphthalene	7.032	156	1034965	89.70	ppm	98
48) Hexachlorocyclopentadiene	6.417	237	814749	187.97	ppm	98
49) 2,4,6-Trichlorophenol	6.593	196	409770	89.98	ppm	98
50) 2,4,5-Trichlorophenol	6.647	196	454562	93.03	ppm	99
52) 2-Chloronaphthalene	6.834	162	1118127	88.74	ppm	100
53) Biphenyl	6.818	154	1508191	89.94	ppm	99
54) 2-Nitroaniline	7.021	65	416130	92.01	ppm	99
55) Dimethylphthalate	7.299	163	1594532	92.33	ppm	100
56) Acenaphthylene	7.421	152	1817946	89.06	ppm	99
57) 2,6-Dinitrotoluene	7.373	165	357802	95.11	ppm	99
58) 3-Nitroaniline	7.646	138	384464	97.20	ppm	93
59) Acenaphthene	7.689	153	1149675	91.89	ppm	96
60) 2,4-Dinitrophenol	7.795	184	423995	212.97	ppm	93
61) 4-Nitrophenol	8.014	109	221860	95.08	ppm	88
62) Dibenzofuran	7.966	168	1779402	90.50	ppm	99
63) 2,4-Dinitrotoluene	8.004	165	454116	93.76	ppm	96
64) 2,3,4,6-Tetrachlorophenol	8.201	232	404311	95.31	ppm	100
65) Diethylphthalate	8.442	149	1573058	90.76	ppm	99
66) Fluorene	8.527	166	1394512	90.62	ppm	99
67) 4-Chlorophenyl-phenyle...	8.565	204	660107	89.44	ppm	97
68) 4-Nitroaniline	8.672	138	395511	97.30	ppm	97
70) 4,6-Dinitro-2-methylph...	8.688	198	288465	104.13	ppm	97
71) n-Nitrosodiphenylamine	8.789	169	1034766	95.40	ppm	100
72) 1,2-Diphenylhydrazine	8.837	77	1583894	94.00	ppm	98
74) 4-Bromophenyl-phenylether	9.414	248	489098	95.29	ppm	99
75) Hexachlorobenzene	9.484	284	515686	94.35	ppm	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6777\
 Data File : ml60139.D
 Acq On : 7 Oct 2019 10:35 am
 Operator : hennys
 Sample : ic6777-100
 Misc : op21044,em6777,1000,,,1,1
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Oct 11 13:03:08 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MM6777.M
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 QLast Update : Mon Oct 07 12:32:18 2019
 Response via : Initial Calibration

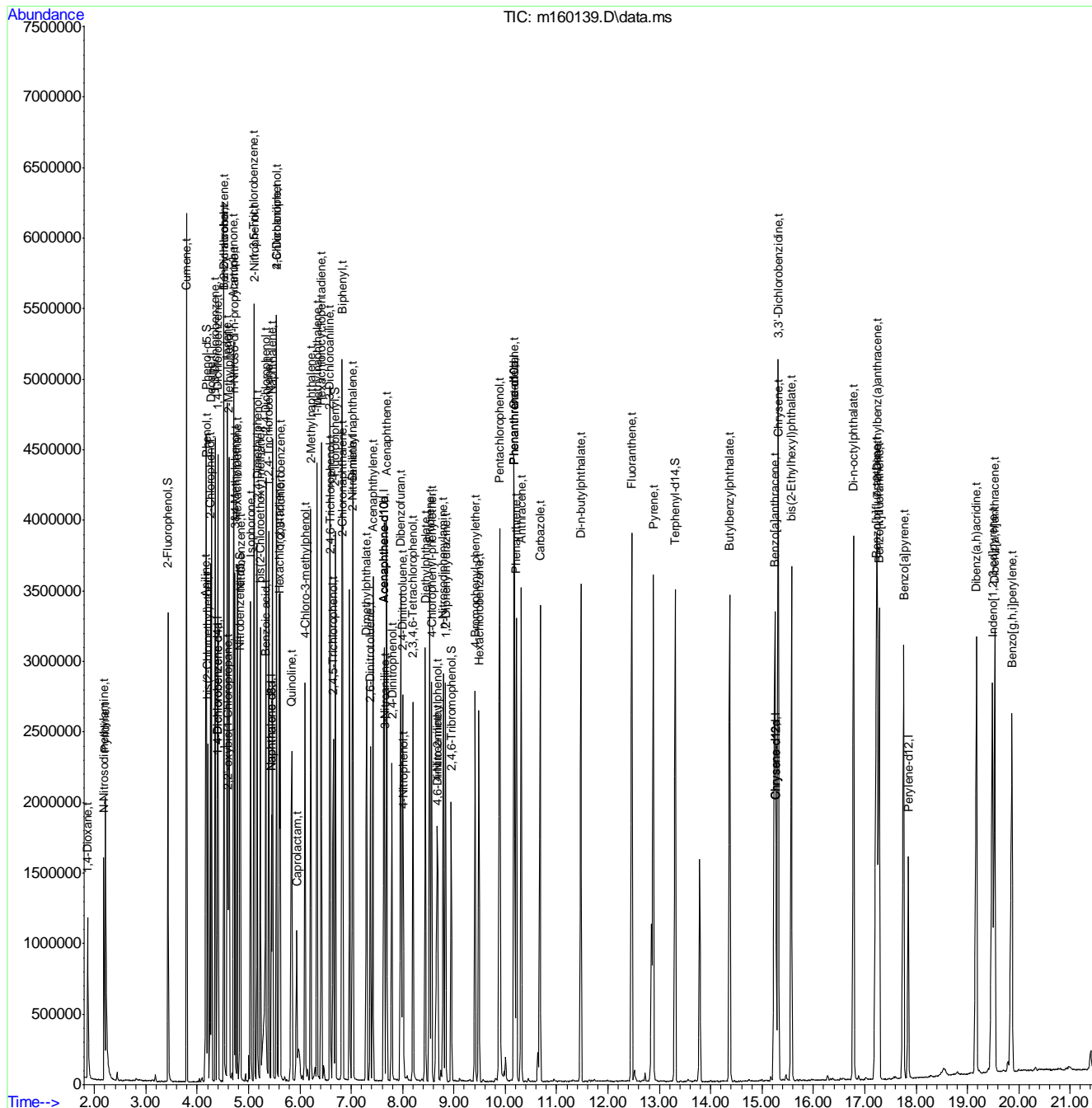
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
76) Pentachlorophenol	9.890	266	723881	201.21	ppm	100
77) Phenanthrene	10.215	178	1830893	94.85	ppm	98
78) Anthracene	10.312	178	1933901	94.42	ppm	100
79) Carbazole	10.680	167	2105390	93.85	ppm	99
80) Di-n-butylphthalate	11.471	149	2906783	95.18	ppm	100
81) Fluoranthene	12.464	202	2526737	94.45	ppm	99
82) Octadecane	10.173	57	864684	98.42	ppm	98
84) Pyrene	12.886	202	2434269	92.94	ppm	99
86) Butylbenzylphthalate	14.372	149	1378172	98.54	ppm	99
87) Benzo[a]anthracene	15.248	228	2390258	97.16	ppm	99
88) 3,3'-Dichlorobenzidine	15.312	252	855306	100.36	ppm	99
89) Chrysene	15.323	228	1882942	95.26	ppm	100
90) bis(2-Ethylhexyl)phtha...	15.574	149	1719490	97.27	ppm	98
92) Di-n-octylphthalate	16.781	149	3203494	93.38	ppm	99
93) Benzo[b]fluoranthene	17.230	252	2561274	93.36	ppm	99
94) Benzo[k]fluoranthene	17.288	252	1995881	87.85	ppm	98
95) Benzo[a]pyrene	17.759	252	2264126	92.72	ppm	98
96) Indeno[1,2,3-cd]pyrene	19.489	276	2330902	95.72	ppm	99
97) Dibenz(a,h)acridine	19.180	279	2185974	94.78	ppm	85
98) Dibenz[a,h]anthracene	19.532	278	2218053	93.70	ppm	98
99) 7,12-Dimethylbenz(a)an...	17.246	256	1030059	96.86	ppm	99
100) Benzo[g,h,i]perylene	19.869	276	2257504	94.92	ppm	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6777\
 Data File : m160139.D
 Acq On : 7 Oct 2019 10:35 am
 Operator : hennys
 Sample : ic6777-100
 Misc : op21044,em6777,1000,,,1,1
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Oct 11 13:03:08 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MM6777.M
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 QLast Update : Mon Oct 07 12:32:18 2019
 Response via : Initial Calibration



Manual Integration Approval Summary

Sample Number: EM6777-IC6777 Method: SW846 8270D
Lab FileID: M160139.D Analyst approved: 10/11/19 13:10 Kristi Schollenberger
Injection Time: 10/07/19 10:35 Supervisor approved: 10/11/19 13:24 Kristi Schollenberger

Parameter	CAS	Sig#	R.T. (min.)	Reason
Caprolactam	105-60-2		5.94	Split peak

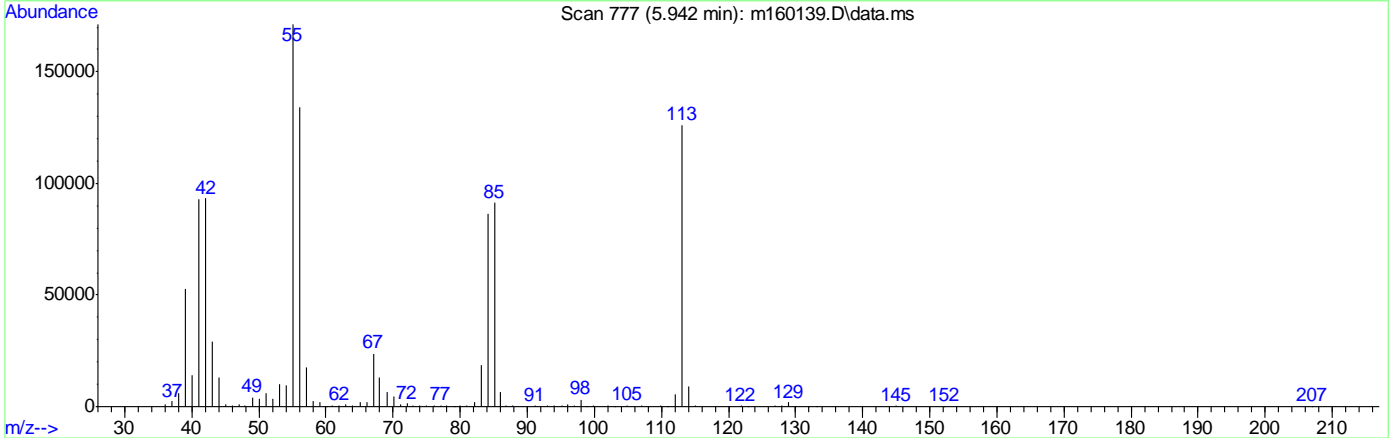
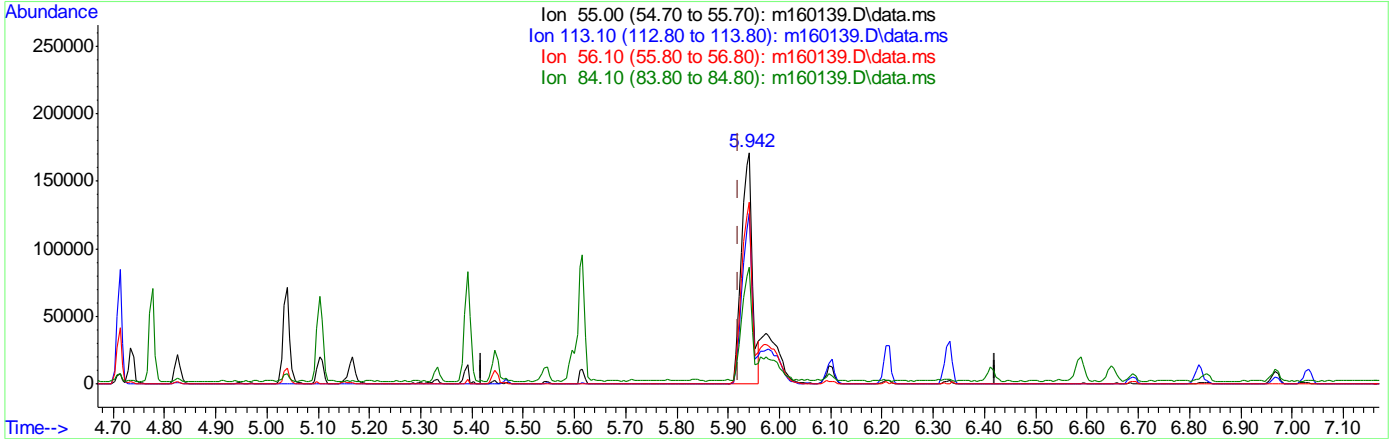
9.6.86.1

9

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EM6777\
 Data File : m160139.D
 Acq On : 7 Oct 2019 10:35 am
 Operator : hennys
 Sample : ic6777-100
 Misc : op21044,em6777,1000,,,1,1
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Oct 07 12:35:39 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MM6777.M
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 QLast Update : Mon Oct 07 12:32:18 2019
 Response via : Initial Calibration



TIC: m160139.D\data.ms

(41) Caprolactam (t)
 5.942min (+0.022) 70.16ppm
 response 251162

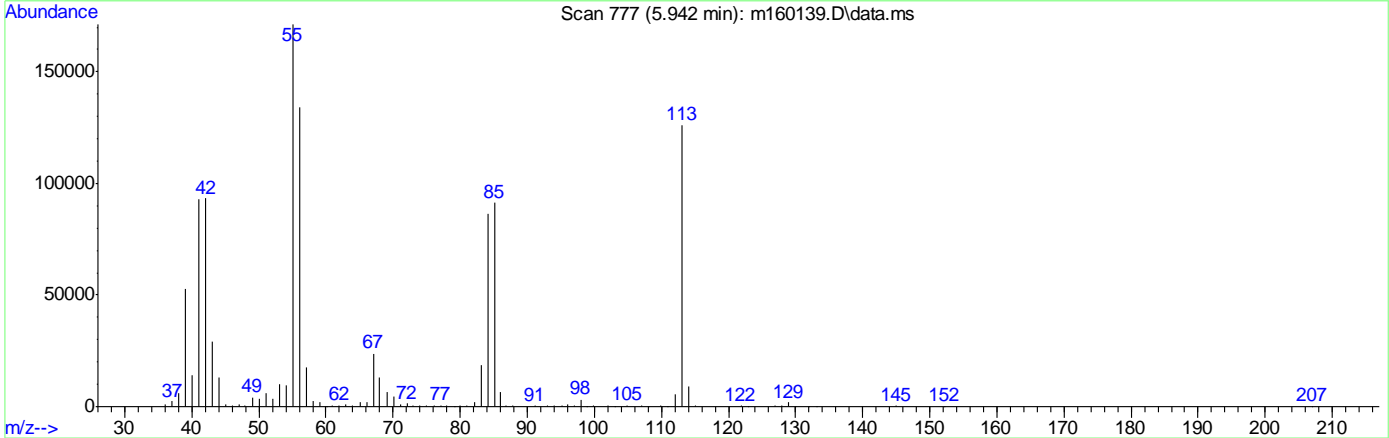
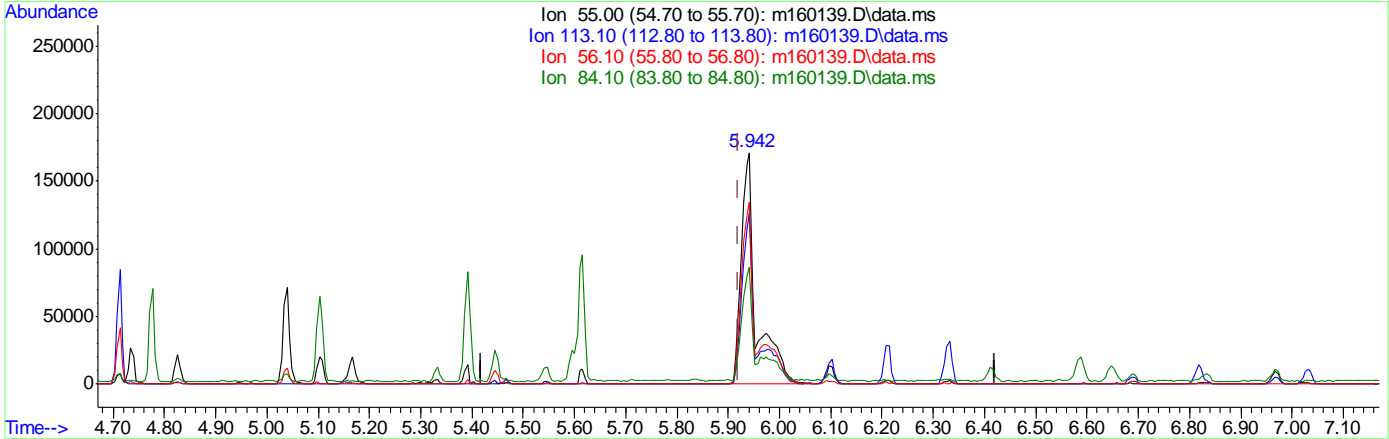
Ion	Exp%	Act%
55.00	100	100
113.10	70.10	74.21
56.10	79.60	78.84
84.10	46.30	49.50

9.6.86.2
 9

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EM6777\
 Data File : m160139.D
 Acq On : 7 Oct 2019 10:35 am
 Operator : hennys
 Sample : ic6777-100
 Misc : op21044,em6777,1000,,,1,1
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Oct 07 12:35:39 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MM6777.M
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 QLast Update : Mon Oct 07 12:32:18 2019
 Response via : Initial Calibration



TIC: m160139.D\data.ms

(41) Caprolactam (t)
 5.942min (+0.022) 97.12ppm m
 response 347712

Ion	Exp%	Act%
55.00	100	100
113.10	70.10	73.62
56.10	79.60	78.44
84.10	46.30	50.44

9.6.86.3
 9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6777\
 Data File : m160140.D
 Acq On : 7 Oct 2019 11:04 am
 Operator : hennys
 Sample : ic6777-80
 Misc : op21044,em6777,1000,,,1,1
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 11 13:04:18 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MM6777.M
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 QLast Update : Mon Oct 07 12:32:18 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.390	152	209903	40.00	ppm	0.00
24) Naphthalene-d8	5.448	136	726478	40.00	ppm	0.00
47) Acenaphthene-d10	7.633	164	459538	40.00	ppm	0.00
69) Phenanthrene-d10	10.165	188	803431	40.00	ppm	0.00
83) Chrysene-d12	15.261	240	739707	40.00	ppm	0.00
91) Perylene-d12	17.847	264	901553	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.390	152	209903	40.00	ppm	0.00
103) Acenaphthene-d10a	7.633	164	459538	40.00	ppm	0.00
105) Acenaphthene-d10b	7.633	164	459538	40.00	ppm	0.00
107) Chrysene-d12a	15.261	240	739707	40.00	ppm	0.00
110) Phenanthrene-d10a	10.165	188	803431	40.00	ppm	0.00
112) Phenanthrene-d10b	10.165	188	803431	40.00	ppm	0.00
114) Naphthalene-d8a	5.448	136	726478	40.00	ppm	0.00
116) Chrysene-d12c	15.261	240	739707	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	3.428	112	744301	79.15	ppm	0.00
Spiked Amount	50.000		Recovery	=	158.30%	
8) Phenol-d5	4.171	99	780199	76.23	ppm	0.00
Spiked Amount	50.000		Recovery	=	152.46%	
25) Nitrobenzene-d5	4.828	82	699728	77.13	ppm	0.00
Spiked Amount	50.000		Recovery	=	154.26%	
51) 2-Fluorobiphenyl	6.687	172	1155936	72.49	ppm	0.00
Spiked Amount	50.000		Recovery	=	144.98%	
73) 2,4,6-Tribromophenol	8.947	330	248940	76.19	ppm	0.00
Spiked Amount	50.000		Recovery	=	152.38%	
85) Terphenyl-d14	13.306	244	1504181	76.23	ppm	0.00
Spiked Amount	50.000		Recovery	=	152.46%	
109) 1-chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
113) o-terphenyl	0.000	230	0	0.00	ppm	
Target Compounds						
2) 1,4-Dioxane	1.863	88	421370	80.39	ppm	97
3) Pyridine	2.205	79	913643	78.26	ppm	99
4) N-Nitrosodimethylamine	2.178	42	418313	81.74	ppm	98
6) Indene	4.582	116	892192	76.05	ppm	97
7) Cumene	3.786	105	1543857	74.85	ppm	99
9) Phenol	4.182	94	845897	75.34	ppm	99
10) Aniline	4.166	93	853904	76.83	ppm	99
11) bis(2-Chloroethyl)ether	4.208	93	580134	74.49	ppm	97
12) 2-Chlorophenol	4.251	128	596382	75.37	ppm	96
13) Decane	4.273	43	487351	72.97	ppm	98
14) 1,3-Dichlorobenzene	4.353	146	632059	74.67	ppm	98
15) 1,4-Dichlorobenzene	4.406	146	590304	75.81	ppm	98
16) Benzyl alcohol	4.518	108	359408	80.46	ppm	99
17) 1,2-Dichlorobenzene	4.518	146	574692	73.78	ppm	98
18) Acetophenone	4.705	105	828447	76.66	ppm	100
19) 2-Methylphenol	4.614	108	490739	75.63	ppm	97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6777\
 Data File : ml60140.D
 Acq On : 7 Oct 2019 11:04 am
 Operator : hennys
 Sample : ic6777-80
 Misc : op21044,em6777,1000,,,1,1
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 11 13:04:18 2019

Quant Method : C:\MSDCHEM\1\METHODS\MM6777.M

Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um

QLast Update : Mon Oct 07 12:32:18 2019

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
20) 2,2'-oxybis(1-Chloropr...	4.604	121	153825	76.09	ppm	89
21) 3&4-Methylphenol	4.737	108	541882	77.89	ppm	92
22) n-Nitroso-di-n-propyla...	4.711	70	457387	75.80	ppm	98
23) Hexachloroethane	4.775	201	241765	74.87	ppm	94
26) Nitrobenzene	4.839	77	673683	75.31	ppm	95
27) Quinoline	5.832	129	1188627	76.30	ppm	100
28) Isophorone	5.036	82	1246416	76.22	ppm	98
29) 2-Nitrophenol	5.106	139	301518	75.11	ppm	92
30) 2,4-Dimethylphenol	5.165	107	580012	80.44	ppm	99
31) Benzoic acid	5.325	105	515284	85.38	ppm	99
32) bis(2-Chloroethoxy)met...	5.229	93	736557	75.45	ppm	99
33) 2,4-Dichlorophenol	5.330	162	487970	74.33	ppm	96
34) 2,6-Dichlorophenol	5.544	162	450743	75.15	ppm	98
35) 1,3,5-Trichlorobenzene	5.106	180	535212	72.98	ppm	98
36) 1,2,4-Trichlorobenzene	5.394	180	519327	73.03	ppm	98
37) 1,2,3-Trichlorobenzene	5.613	180	474735	73.54	ppm	97
38) Naphthalene	5.469	128	1440690	76.12	ppm	100
39) 4-Chloroaniline	5.544	127	624298	74.31	ppm	98
40) 2,3-Dichloroaniline	6.586	161	597351	74.22	ppm	99
41) Caprolactam	5.934	55	302404m	79.53	ppm	
42) Hexachlorobutadiene	5.597	225	313064	75.18	ppm	99
43) 4-Chloro-3-methylphenol	6.100	107	580442	77.00	ppm	94
44) 2-Methylnaphthalene	6.212	141	855360	73.49	ppm	100
45) 1-Methylnaphthalene	6.329	142	1106160	74.84	ppm	99
46) Dimethylnaphthalene	7.029	156	906068	73.94	ppm	98
48) Hexachlorocyclopentadiene	6.415	237	698213	151.32	ppm	99
49) 2,4,6-Trichlorophenol	6.591	196	359427	74.14	ppm	98
50) 2,4,5-Trichlorophenol	6.650	196	396870	76.30	ppm	99
52) 2-Chloronaphthalene	6.831	162	973577	72.58	ppm	99
53) Biphenyl	6.821	154	1310545	73.41	ppm	100
54) 2-Nitroaniline	7.018	65	371103	77.08	ppm	99
55) Dimethylphthalate	7.296	163	1380176	75.08	ppm	100
56) Acenaphthylene	7.419	152	1586847	73.02	ppm	99
57) 2,6-Dinitrotoluene	7.371	165	313234	78.21	ppm	99
58) 3-Nitroaniline	7.638	138	327648	77.81	ppm	99
59) Acenaphthene	7.686	153	1006435	75.56	ppm	95
60) 2,4-Dinitrophenol	7.793	184	360509	170.10	ppm	95
61) 4-Nitrophenol	8.012	109	192258	77.40	ppm	# 79
62) Dibenzofuran	7.964	168	1550075	74.06	ppm	99
63) 2,4-Dinitrotoluene	8.001	165	392948	76.21	ppm	97
64) 2,3,4,6-Tetrachlorophenol	8.199	232	347499	76.95	ppm	99
65) Diethylphthalate	8.439	149	1393722	75.54	ppm	99
66) Fluorene	8.525	166	1204987	73.56	ppm	98
67) 4-Chlorophenyl-phenyle...	8.562	204	565380	71.96	ppm	100
68) 4-Nitroaniline	8.664	138	341125	78.83	ppm	97
70) 4,6-Dinitro-2-methylph...	8.685	198	245633	80.54	ppm	97
71) n-Nitrosodiphenylamine	8.792	169	898839	75.27	ppm	99
72) 1,2-Diphenylhydrazine	8.835	77	1408823	75.95	ppm	99
74) 4-Bromophenyl-phenylether	9.412	248	422158	74.71	ppm	97
75) Hexachlorobenzene	9.486	284	439402	73.02	ppm	97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6777\
 Data File : ml60140.D
 Acq On : 7 Oct 2019 11:04 am
 Operator : hennys
 Sample : ic6777-80
 Misc : op21044,em6777,1000,,,1,1
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 11 13:04:18 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MM6777.M
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 QLast Update : Mon Oct 07 12:32:18 2019
 Response via : Initial Calibration

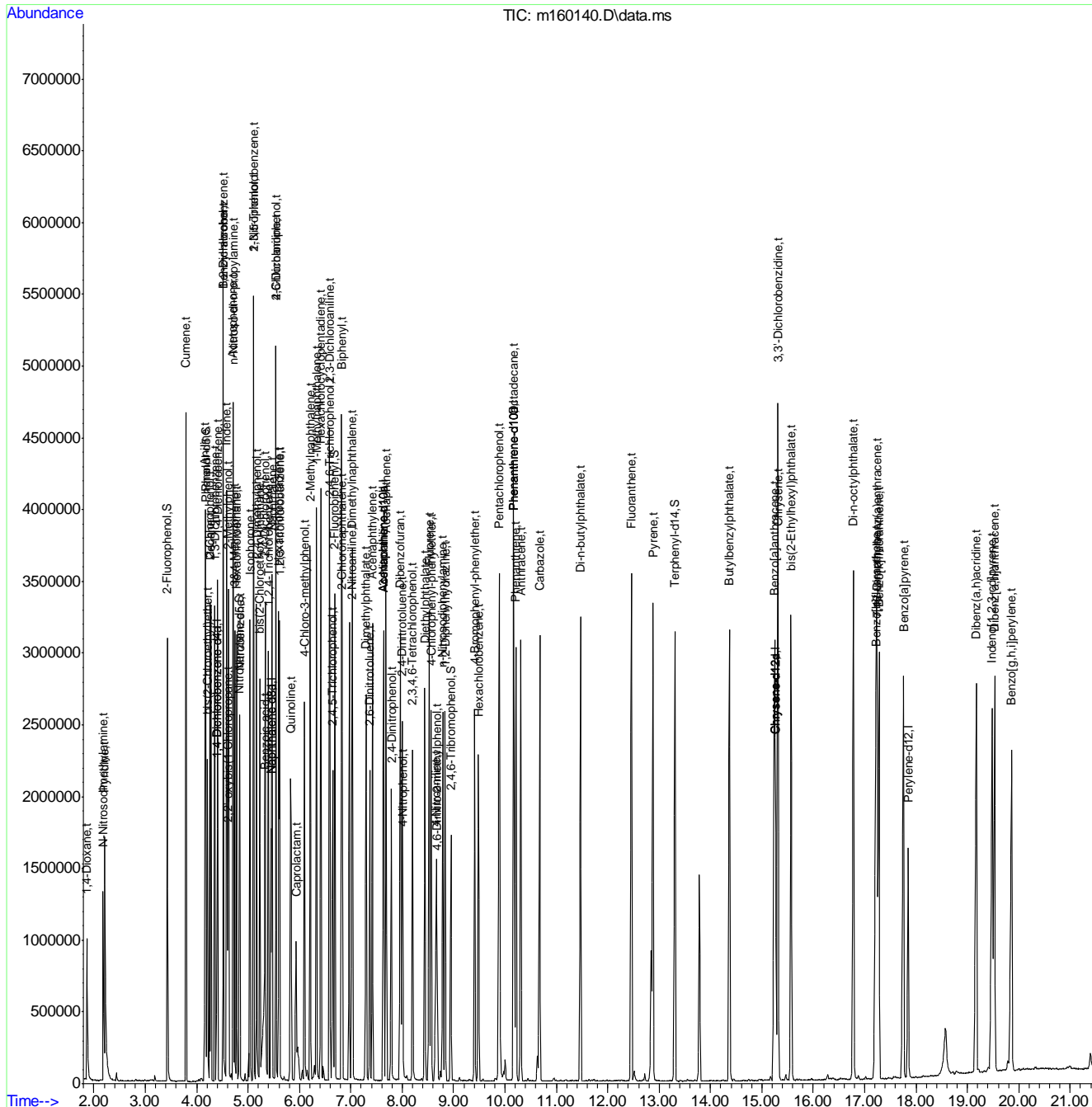
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
76) Pentachlorophenol	9.887	266	613933	155.00	ppm	100
77) Phenanthrene	10.213	178	1595049	75.05	ppm	99
78) Anthracene	10.309	178	1688587	74.89	ppm	100
79) Carbazole	10.678	167	1867301	75.61	ppm	99
80) Di-n-butylphthalate	11.468	149	2565947	76.32	ppm	99
81) Fluoranthene	12.462	202	2203532	74.82	ppm	98
82) Octadecane	10.170	57	762280	78.81	ppm	98
84) Pyrene	12.879	202	2126653	73.53	ppm	100
86) Butylbenzylphthalate	14.369	149	1212741	78.53	ppm	99
87) Benzo[a]anthracene	15.245	228	2101430	77.36	ppm	98
88) 3,3'-Dichlorobenzidine	15.309	252	741637	78.81	ppm	99
89) Chrysene	15.320	228	1658008	75.96	ppm	99
90) bis(2-Ethylhexyl)phtha...	15.566	149	1523838	78.07	ppm	99
92) Di-n-octylphthalate	16.778	149	2817163	76.27	ppm	100
93) Benzo[b]fluoranthene	17.217	252	2174575	73.62	ppm	99
94) Benzo[k]fluoranthene	17.281	252	1764215	72.12	ppm	98
95) Benzo[a]pyrene	17.756	252	1961228	74.60	ppm	97
96) Indeno[1,2,3-cd]pyrene	19.482	276	1958253	74.69	ppm	98
97) Dibenz(a,h)acridine	19.172	279	1868295	75.24	ppm	85
98) Dibenz[a,h]anthracene	19.530	278	1887846	74.07	ppm	99
99) 7,12-Dimethylbenz(a)an...	17.243	256	889454	77.69	ppm	99
100) Benzo[g,h,i]perylene	19.861	276	1907412	74.49	ppm	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6777\
Data File : ml60140.D
Acq On : 7 Oct 2019 11:04 am
Operator : hennys
Sample : ic6777-80
Misc : op21044,em6777,1000,,,1,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 11 13:04:18 2019
Quant Method : C:\MSDCHEM\1\METHODS\MM6777.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30m x 0.25mm x 0.25um
QLast Update : Mon Oct 07 12:32:18 2019
Response via : Initial Calibration



6 7896

Manual Integration Approval Summary

Sample Number: EM6777-IC6777 Method: SW846 8270D
Lab FileID: M160140.D Analyst approved: 10/11/19 13:10 Kristi Schollenberger
Injection Time: 10/07/19 11:04 Supervisor approved: 10/11/19 13:24 Kristi Schollenberger

Parameter	CAS	Sig#	R.T. (min.)	Reason
Caprolactam	105-60-2		5.93	Split peak

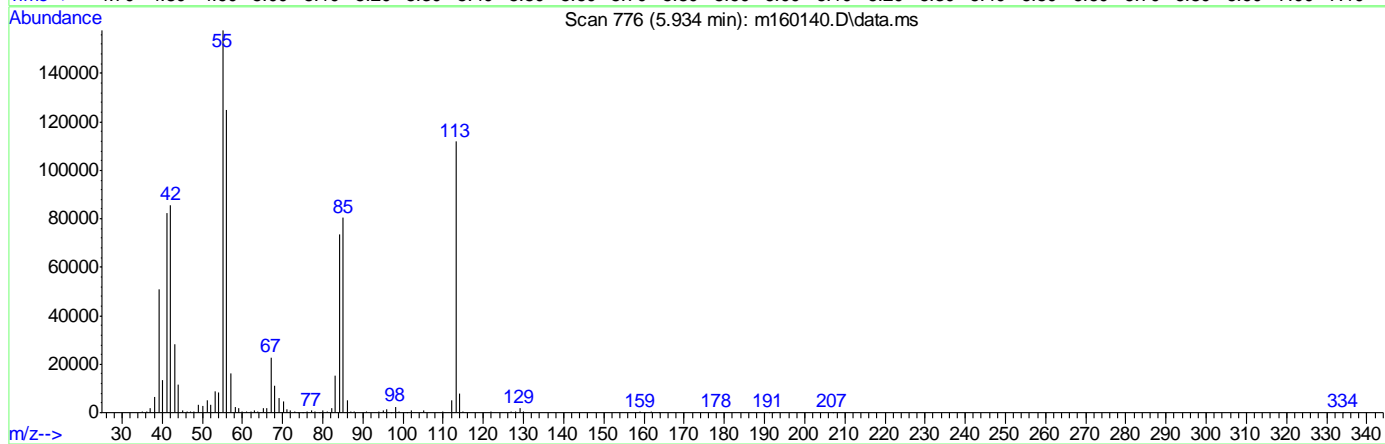
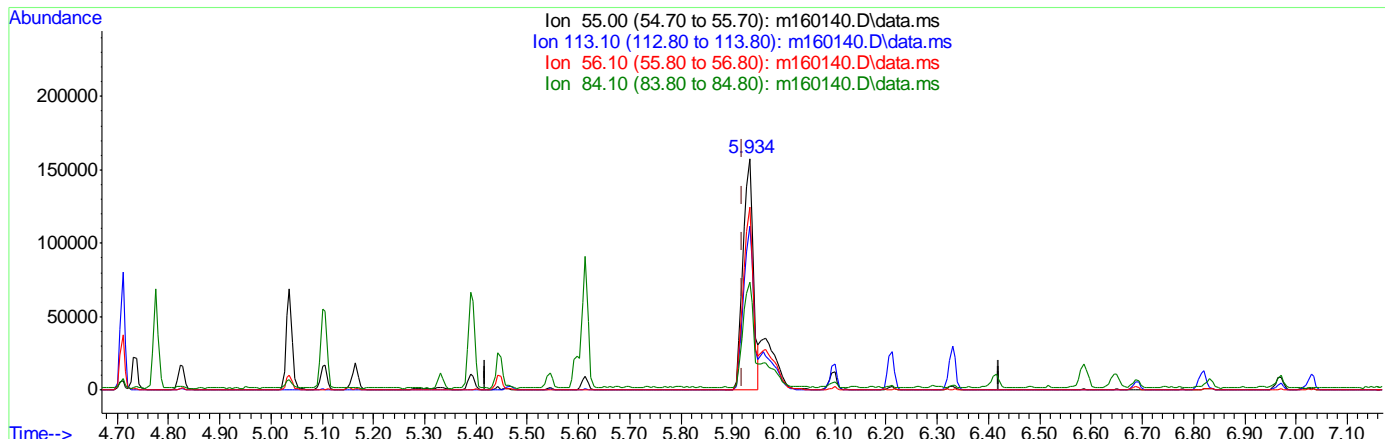
9.6.87.1

9

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EM6777\
 Data File : m160140.D
 Acq On : 7 Oct 2019 11:04 am
 Operator : hennys
 Sample : ic6777-80
 Misc : op21044,em6777,1000,,,1,1
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 07 12:36:03 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MM6777.M
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 QLast Update : Mon Oct 07 12:32:18 2019
 Response via : Initial Calibration



(41) Caprolactam (t)
 5.934min (+0.014) 59.28ppm
 response 225409

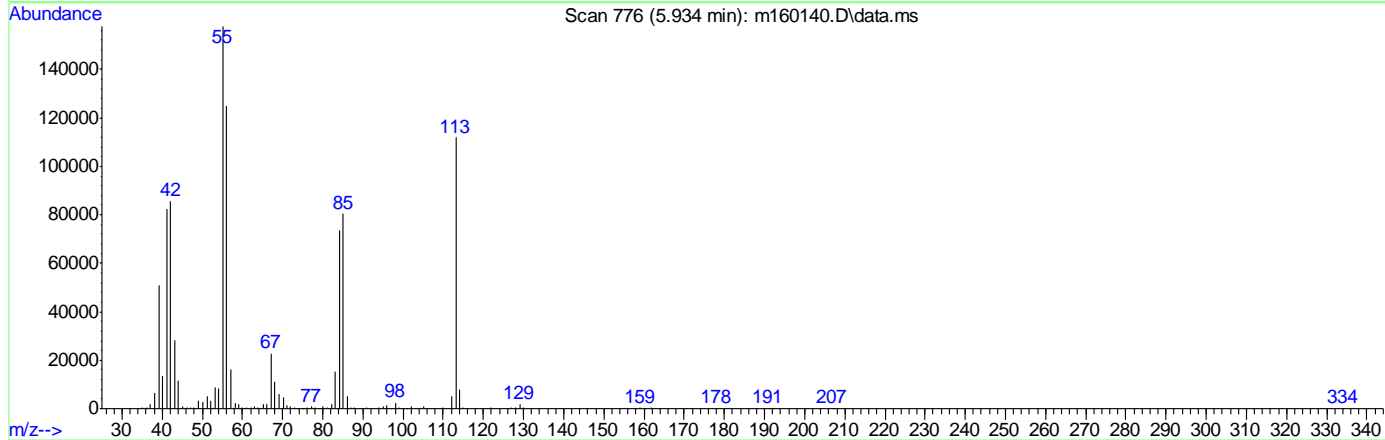
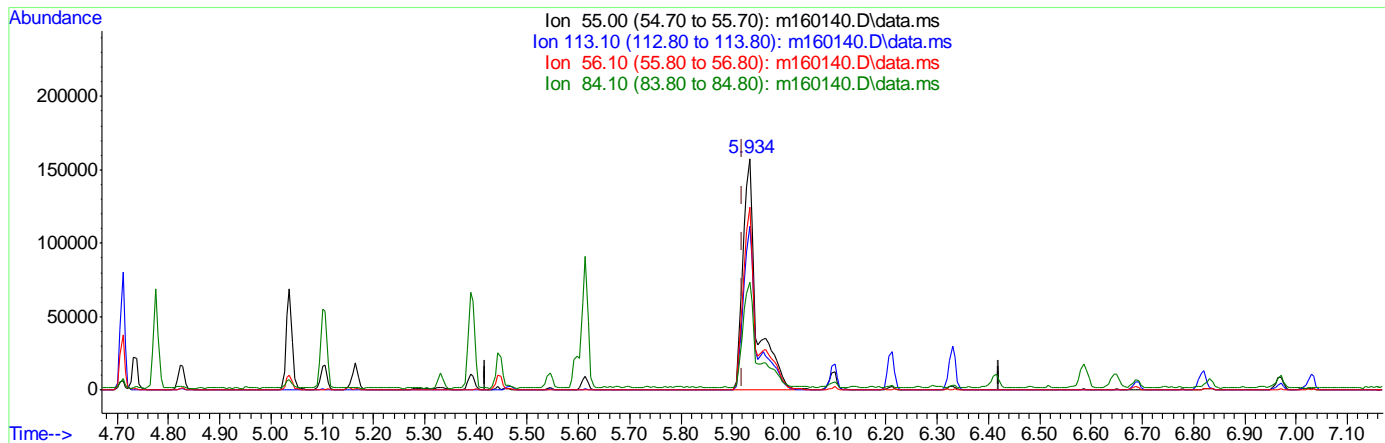
Ion	Exp%	Act%
55.00	100	100
113.10	70.10	71.41
56.10	79.60	79.53
84.10	46.30	44.57

9.6.87.2
 9

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EM6777\
 Data File : m160140.D
 Acq On : 7 Oct 2019 11:04 am
 Operator : hennys
 Sample : ic6777-80
 Misc : op21044,em6777,1000,,,1,1
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 07 12:36:03 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MM6777.M
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 QLast Update : Mon Oct 07 12:32:18 2019
 Response via : Initial Calibration



(41) Caprolactam (t)

5.934min (+0.014) 79.53ppm m

response 302404

Ion	Exp%	Act%
55.00	100	100
113.10	70.10	70.94
56.10	79.60	79.12
84.10	46.30	46.57

9.6.87.3
9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6777\
 Data File : ml60141.D
 Acq On : 7 Oct 2019 11:33 am
 Operator : hennys
 Sample : icc6777-50
 Misc : op21044,em6777,1000,,,1,1
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Oct 07 12:38:17 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MM6777.M
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 QLast Update : Mon Oct 07 12:37:49 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.392	152	237656	40.00	ppm	0.00
24) Naphthalene-d8	5.445	136	825547	40.00	ppm	0.00
47) Acenaphthene-d10	7.635	164	527739	40.00	ppm	0.00
69) Phenanthrene-d10	10.167	188	913416	40.00	ppm	0.00
83) Chrysene-d12	15.258	240	848861	40.00	ppm	0.00
91) Perylene-d12	17.849	264	1003340	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.392	152	237656	40.00	ppm	0.00
103) Acenaphthene-d10a	7.635	164	527739	40.00	ppm	0.00
105) Acenaphthene-d10b	7.635	164	527739	40.00	ppm	0.00
107) Chrysene-d12a	15.258	240	848861	40.00	ppm	0.00
110) Phenanthrene-d10a	10.167	188	913416	40.00	ppm	0.00
112) Phenanthrene-d10b	10.167	188	913416	40.00	ppm	0.00
114) Naphthalene-d8a	5.445	136	825547	40.00	ppm	0.00
116) Chrysene-d12c	15.258	240	848861	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	3.425	112	533148	50.30	ppm	0.00
Spiked Amount 50.000			Recovery =	100.60%		
8) Phenol-d5	4.168	99	565704	50.27	ppm	0.00
Spiked Amount 50.000			Recovery =	100.54%		
25) Nitrobenzene-d5	4.825	82	501663	49.70	ppm	0.00
Spiked Amount 50.000			Recovery =	99.40%		
51) 2-Fluorobiphenyl	6.689	172	861985	49.00	ppm	0.00
Spiked Amount 50.000			Recovery =	98.00%		
73) 2,4,6-Tribromophenol	8.944	330	180613	48.40	ppm	0.00
Spiked Amount 50.000			Recovery =	96.80%		
85) Terphenyl-d14	13.303	244	1114268	50.27	ppm	0.00
Spiked Amount 50.000			Recovery =	100.54%		
109) 1-chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
113) o-terphenyl	0.000	230	0	0.00	ppm	
Target Compounds						
2) 1,4-Dioxane	1.865	88	287404	47.36	ppm	100
3) Pyridine	2.213	79	683742	53.47	ppm	100
4) N-Nitrosodimethylamine	2.181	42	278774	48.60	ppm	100
6) Indene	4.585	116	647305	49.99	ppm	100
7) Cumene	3.789	105	1150900	50.88	ppm	100
9) Phenol	4.179	94	622714	51.45	ppm	100
10) Aniline	4.163	93	595872	49.42	ppm	100
11) bis(2-Chloroethyl)ether	4.205	93	430135	50.74	ppm	100
12) 2-Chlorophenol	4.248	128	435565	49.73	ppm	100
13) Decane	4.275	43	365868	50.70	ppm	100
14) 1,3-Dichlorobenzene	4.350	146	462422	49.57	ppm	100
15) 1,4-Dichlorobenzene	4.403	146	431416	49.70	ppm	100
16) Benzyl alcohol	4.515	108	257413	50.62	ppm	100
17) 1,2-Dichlorobenzene	4.521	146	423098	49.44	ppm	100
18) Acetophenone	4.702	105	598248	50.47	ppm	100
19) 2-Methylphenol	4.617	108	354469	50.01	ppm	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6777\
 Data File : ml60141.D
 Acq On : 7 Oct 2019 11:33 am
 Operator : hennys
 Sample : icc6777-50
 Misc : op21044,em6777,1000,,,1,1
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Oct 07 12:38:17 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MM6777.M
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 QLast Update : Mon Oct 07 12:37:49 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
20) 2,2'-oxybis(1-Chloropr...	4.601	121	110992	49.53	ppm	100
21) 3&4-Methylphenol	4.734	108	387357	50.59	ppm	100
22) n-Nitroso-di-n-propyla...	4.708	70	338347	52.08	ppm	100
23) Hexachloroethane	4.777	201	176957	49.65	ppm	100
26) Nitrobenzene	4.841	77	492080	50.11	ppm	100
27) Quinoline	5.819	129	868909	50.06	ppm	100
28) Isophorone	5.033	82	911817	50.48	ppm	100
29) 2-Nitrophenol	5.103	139	220683	49.56	ppm	100
30) 2,4-Dimethylphenol	5.162	107	407806	49.77	ppm	100
31) Benzoic acid	5.306	105	347332	48.68	ppm	100
32) bis(2-Chloroethoxy)met...	5.226	93	539027	50.17	ppm	100
33) 2,4-Dichlorophenol	5.333	162	355994	49.09	ppm	100
34) 2,6-Dichlorophenol	5.541	162	328964	49.18	ppm	100
35) 1,3,5-Trichlorobenzene	5.103	180	392009	48.71	ppm	100
36) 1,2,4-Trichlorobenzene	5.391	180	380756	48.54	ppm	100
37) 1,2,3-Trichlorobenzene	5.610	180	349362	49.22	ppm	100
38) Naphthalene	5.466	128	1039064	49.18	ppm	100
39) 4-Chloroaniline	5.541	127	451032	48.97	ppm	100
40) 2,3-Dichloroaniline	6.583	161	438774	49.48	ppm	100
41) Caprolactam	5.920	55	215088	61.47	ppm	100
42) Hexachlorobutadiene	5.594	225	229071	49.72	ppm	100
43) 4-Chloro-3-methylphenol	6.091	107	425595	50.86	ppm	100
44) 2-Methylnaphthalene	6.209	141	640749	50.17	ppm	100
45) 1-Methylnaphthalene	6.326	142	815984	50.20	ppm	100
46) Dimethylnaphthalene	7.026	156	658860	49.12	ppm	100
48) Hexachlorocyclopentadiene	6.412	237	507865	97.50	ppm	100
49) 2,4,6-Trichlorophenol	6.588	196	267310	49.51	ppm	100
50) 2,4,5-Trichlorophenol	6.641	196	285810	48.97	ppm	100
52) 2-Chloronaphthalene	6.828	162	719200	48.60	ppm	100
53) Biphenyl	6.818	154	971695	49.19	ppm	100
54) 2-Nitroaniline	7.015	65	271744	50.77	ppm	100
55) Dimethylphthalate	7.293	163	1022474	49.85	ppm	100
56) Acenaphthylene	7.416	152	1188413	49.61	ppm	100
57) 2,6-Dinitrotoluene	7.368	165	221647	48.83	ppm	100
58) 3-Nitroaniline	7.635	138	230606	48.07	ppm	100
59) Acenaphthene	7.683	153	740975	49.81	ppm	100
60) 2,4-Dinitrophenol	7.785	184	247471	97.03	ppm	100
61) 4-Nitrophenol	8.004	109	140638	50.12	ppm	100
62) Dibenzofuran	7.961	168	1143735	49.28	ppm	100
63) 2,4-Dinitrotoluene	7.993	165	284577	48.83	ppm	100
64) 2,3,4,6-Tetrachlorophenol	8.196	232	247429	48.24	ppm	100
65) Diethylphthalate	8.436	149	1027850	50.31	ppm	100
66) Fluorene	8.522	166	891490	49.25	ppm	100
67) 4-Chlorophenyl-phenyle...	8.559	204	424113	49.25	ppm	100
68) 4-Nitroaniline	8.650	138	245410	50.10	ppm	100
70) 4,6-Dinitro-2-methylph...	8.677	198	178925	50.27	ppm	100
71) n-Nitrosodiphenylamine	8.784	169	661345	49.39	ppm	100
72) 1,2-Diphenylhydrazine	8.832	77	1031807	50.26	ppm	100
74) 4-Bromophenyl-phenylether	9.409	248	315070	50.04	ppm	100
75) Hexachlorobenzene	9.478	284	328648	49.26	ppm	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6777\
 Data File : ml60141.D
 Acq On : 7 Oct 2019 11:33 am
 Operator : hennys
 Sample : icc6777-50
 Misc : op21044,em6777,1000,,,1,1
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Oct 07 12:38:17 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MM6777.M
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 QLast Update : Mon Oct 07 12:37:49 2019
 Response via : Initial Calibration

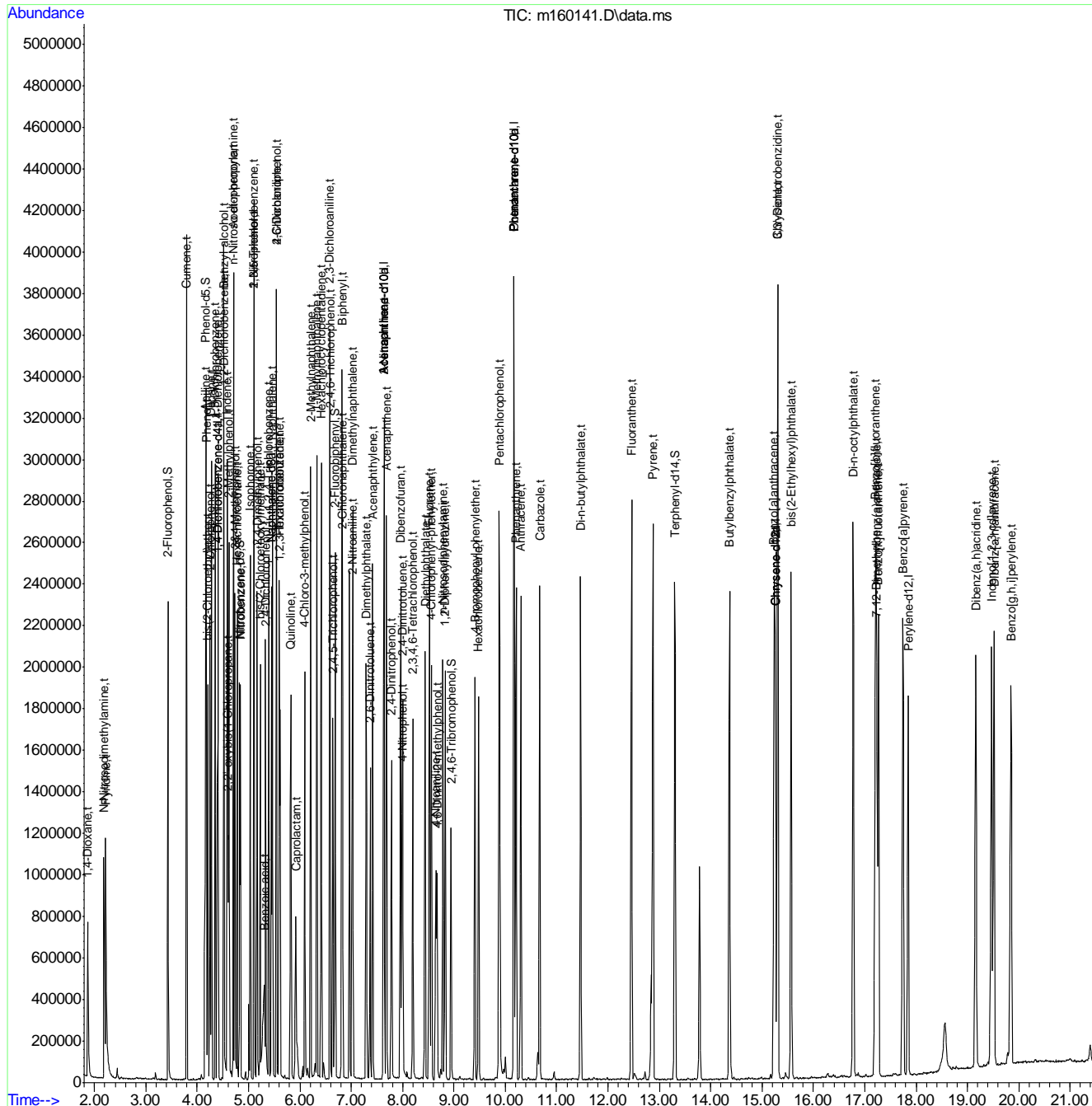
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
76) Pentachlorophenol	9.884	266	447016	97.87	ppm	100
77) Phenanthrene	10.210	178	1174490	49.59	ppm	100
78) Anthracene	10.301	178	1252637	49.87	ppm	100
79) Carbazole	10.669	167	1369078	49.83	ppm	100
80) Di-n-butylphthalate	11.465	149	1897632	50.66	ppm	100
81) Fluoranthene	12.459	202	1648800	50.60	ppm	100
82) Octadecane	10.167	57	549679	50.31	ppm	100
84) Pyrene	12.876	202	1610980	49.84	ppm	100
86) Butylbenzylphthalate	14.366	149	882458	49.90	ppm	100
87) Benzo[a]anthracene	15.237	228	1546346	50.17	ppm	100
88) 3,3'-Dichlorobenzidine	15.306	252	532949	49.12	ppm	100
89) Chrysene	15.306	228	1211694	49.07	ppm	100
90) bis(2-Ethylhexyl)phtha...	15.568	149	1124196	50.24	ppm	100
92) Di-n-octylphthalate	16.775	149	2073425	51.60	ppm	100
93) Benzo[b]fluoranthene	17.213	252	1605706	50.69	ppm	100
94) Benzo[k]fluoranthene	17.272	252	1298450	50.29	ppm	100
95) Benzo[a]pyrene	17.748	252	1425537	50.16	ppm	100
96) Indeno[1,2,3-cd]pyrene	19.473	276	1412013	49.25	ppm	100
97) Dibenz(a,h)acridine	19.163	279	1353152	49.92	ppm	100
98) Dibenz[a,h]anthracene	19.521	278	1388446	50.28	ppm	100
99) 7,12-Dimethylbenz(a)an...	17.235	256	621817	49.01	ppm	100
100) Benzo[g,h,i]perylene	19.852	276	1377447	49.12	ppm	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6777\
 Data File : ml60141.D
 Acq On : 7 Oct 2019 11:33 am
 Operator : hennys
 Sample : icc6777-50
 Misc : op21044,em6777,1000,,,1,1
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Oct 07 12:38:17 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MM6777.M
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 QLast Update : Mon Oct 07 12:37:49 2019
 Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6777\
 Data File : ml60142.D
 Acq On : 7 Oct 2019 12:01 pm
 Operator : hennys
 Sample : ic6777-10
 Misc : op21044,em6777,1000,,,1,1
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Oct 07 13:33:34 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MM6777.M
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 QLast Update : Mon Oct 07 13:32:12 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.389	152	304249	40.00	ppm	0.00
24) Naphthalene-d8	5.442	136	1033170	40.00	ppm	0.00
47) Acenaphthene-d10	7.632	164	655310	40.00	ppm	0.00
69) Phenanthrene-d10	10.164	188	1209140	40.00	ppm	0.00
83) Chrysene-d12	15.255	240	1152841	40.00	ppm	0.00
91) Perylene-d12	17.846	264	1275291	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.389	152	304249	40.00	ppm	0.00
103) Acenaphthene-d10a	7.632	164	655310	40.00	ppm	0.00
105) Acenaphthene-d10b	7.632	164	655310	40.00	ppm	0.00
107) Chrysene-d12a	15.255	240	1152841	40.00	ppm	0.00
110) Phenanthrene-d10a	10.164	188	1209140	40.00	ppm	0.00
112) Phenanthrene-d10b	10.164	188	1209140	40.00	ppm	0.00
114) Naphthalene-d8a	5.442	136	1033170	40.00	ppm	0.00
116) Chrysene-d12c	15.255	240	1152841	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	3.428	112	137926	10.12	ppm	0.00
Spiked Amount	50.000		Recovery	=	20.24%	
8) Phenol-d5	4.165	99	164665	10.70	ppm	0.00
Spiked Amount	50.000		Recovery	=	21.40%	
25) Nitrobenzene-d5	4.822	82	140545	10.56	ppm	0.00
Spiked Amount	50.000		Recovery	=	21.12%	
51) 2-Fluorobiphenyl	6.681	172	267574	10.78	ppm	0.00
Spiked Amount	50.000		Recovery	=	21.56%	
73) 2,4,6-Tribromophenol	8.935	330	49844	10.22	ppm	0.00
Spiked Amount	50.000		Recovery	=	20.44%	
85) Terphenyl-d14	13.300	244	331787	10.39	ppm	0.00
Spiked Amount	50.000		Recovery	=	20.78%	
109) 1-chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
113) o-terphenyl	0.000	230	0	0.00	ppm	
Target Compounds						
2) 1,4-Dioxane	1.873	88	73211	9.81	ppm	96
3) Pyridine	2.226	79	179942	10.58	ppm	97
4) N-Nitrosodimethylamine	2.188	42	79217	10.44	ppm	83
6) Indene	4.581	116	187216	10.51	ppm	99
7) Cumene	3.791	105	331351	10.53	ppm	99
9) Phenol	4.175	94	189473	10.92	ppm	98
10) Aniline	4.165	93	189797	10.93	ppm	97
11) bis(2-Chloroethyl)ether	4.202	93	128777	10.71	ppm	98
12) 2-Chlorophenol	4.250	128	125512	10.38	ppm	92
13) Decane	4.272	43	113259	10.74	ppm	95
14) 1,3-Dichlorobenzene	4.346	146	136825	10.42	ppm	100
15) 1,4-Dichlorobenzene	4.405	146	120491	10.16	ppm	98
16) Benzyl alcohol	4.512	108	62521	9.58	ppm	90
17) 1,2-Dichlorobenzene	4.517	146	127541	10.69	ppm	97
18) Acetophenone	4.699	105	174837	10.63	ppm	99
19) 2-Methylphenol	4.614	108	107292	10.89	ppm	97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6777\
 Data File : ml60142.D
 Acq On : 7 Oct 2019 12:01 pm
 Operator : hennys
 Sample : ic6777-10
 Misc : op21044,em6777,1000,,,1,1
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Oct 07 13:33:34 2019

Quant Method : C:\MSDCHEM\1\METHODS\MM6777.M

Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um

QLast Update : Mon Oct 07 13:32:12 2019

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
20) 2,2'-oxybis(1-Chloropr...	4.603	121	32046	10.18	ppm	98
21) 3&4-Methylphenol	4.731	108	111863	10.57	ppm	97
22) n-Nitroso-di-n-propyla...	4.699	70	101182	10.93	ppm	93
23) Hexachloroethane	4.774	201	51855	10.52	ppm	88
26) Nitrobenzene	4.838	77	144215	10.76	ppm	99
27) Quinoline	5.810	129	238540	10.42	ppm	99
28) Isophorone	5.025	82	256478	10.67	ppm	95
29) 2-Nitrophenol	5.105	139	63044	10.82	ppm	88
30) 2,4-Dimethylphenol	5.158	107	103003	10.32	ppm	93
31) Benzoic acid	5.260	105	74377	9.71	ppm	97
32) bis(2-Chloroethoxy)met...	5.223	93	155931	10.70	ppm	99
33) 2,4-Dichlorophenol	5.324	162	105435	10.80	ppm	95
34) 2,6-Dichlorophenol	5.538	162	93021	10.54	ppm	97
35) 1,3,5-Trichlorobenzene	5.100	180	121220	10.84	ppm	97
36) 1,2,4-Trichlorobenzene	5.388	180	115890	10.73	ppm	97
37) 1,2,3-Trichlorobenzene	5.607	180	105098	10.64	ppm	99
38) Naphthalene	5.463	128	292575	10.40	ppm	99
39) 4-Chloroaniline	5.538	127	138710	10.86	ppm	97
40) 2,3-Dichloroaniline	6.579	161	129519	10.65	ppm	98
41) Caprolactam	5.885	55	56721	11.45	ppm	96
42) Hexachlorobutadiene	5.596	225	65795	10.51	ppm	99
43) 4-Chloro-3-methylphenol	6.083	107	115307	10.60	ppm	99
44) 2-Methylnaphthalene	6.205	141	187796	10.66	ppm	96
45) 1-Methylnaphthalene	6.323	142	236543	10.57	ppm	98
46) Dimethylnaphthalene	7.023	156	202879	10.70	ppm	97
48) Hexachlorocyclopentadiene	6.414	237	143788	21.34	ppm	98
49) 2,4,6-Trichlorophenol	6.579	196	78178	10.82	ppm	98
50) 2,4,5-Trichlorophenol	6.633	196	82487	10.70	ppm	95
52) 2-Chloronaphthalene	6.825	162	226570	10.73	ppm	99
53) Biphenyl	6.809	154	295640	10.77	ppm	99
54) 2-Nitroaniline	7.007	65	76412	10.85	ppm	97
55) Dimethylphthalate	7.285	163	292841	10.60	ppm	100
56) Acenaphthylene	7.413	152	361918	10.89	ppm	98
57) 2,6-Dinitrotoluene	7.359	165	61422	10.89	ppm	99
58) 3-Nitroaniline	7.621	138	64240	10.72	ppm	96
59) Acenaphthene	7.680	153	211442	10.58	ppm	96
60) 2,4-Dinitrophenol	7.771	184	50748	19.04	ppm	96
61) 4-Nitrophenol	7.990	109	37642	10.87	ppm	93
62) Dibenzofuran	7.958	168	343690	10.81	ppm	99
63) 2,4-Dinitrotoluene	7.984	165	79828	10.96	ppm	91
64) 2,3,4,6-Tetrachlorophenol	8.193	232	69453	10.69	ppm	96
65) Diethylphthalate	8.428	149	299102	10.85	ppm	100
66) Fluorene	8.513	166	272231	10.87	ppm	100
67) 4-Chlorophenyl-phenyle...	8.556	204	134081	10.95	ppm	98
68) 4-Nitroaniline	8.631	138	65103	10.56	ppm	98
70) 4,6-Dinitro-2-methylph...	8.658	198	40757	9.69	ppm	94
71) n-Nitrosodiphenylamine	8.775	169	191696	10.20	ppm	99
72) 1,2-Diphenylhydrazine	8.823	77	307485	10.50	ppm	99
74) 4-Bromophenyl-phenylether	9.400	248	91725	10.42	ppm	97
75) Hexachlorobenzene	9.475	284	100831	10.54	ppm	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6777\
 Data File : ml60142.D
 Acq On : 7 Oct 2019 12:01 pm
 Operator : hennys
 Sample : ic6777-10
 Misc : op21044,em6777,1000,,,1,1
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Oct 07 13:33:34 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MM6777.M
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 QLast Update : Mon Oct 07 13:32:12 2019
 Response via : Initial Calibration

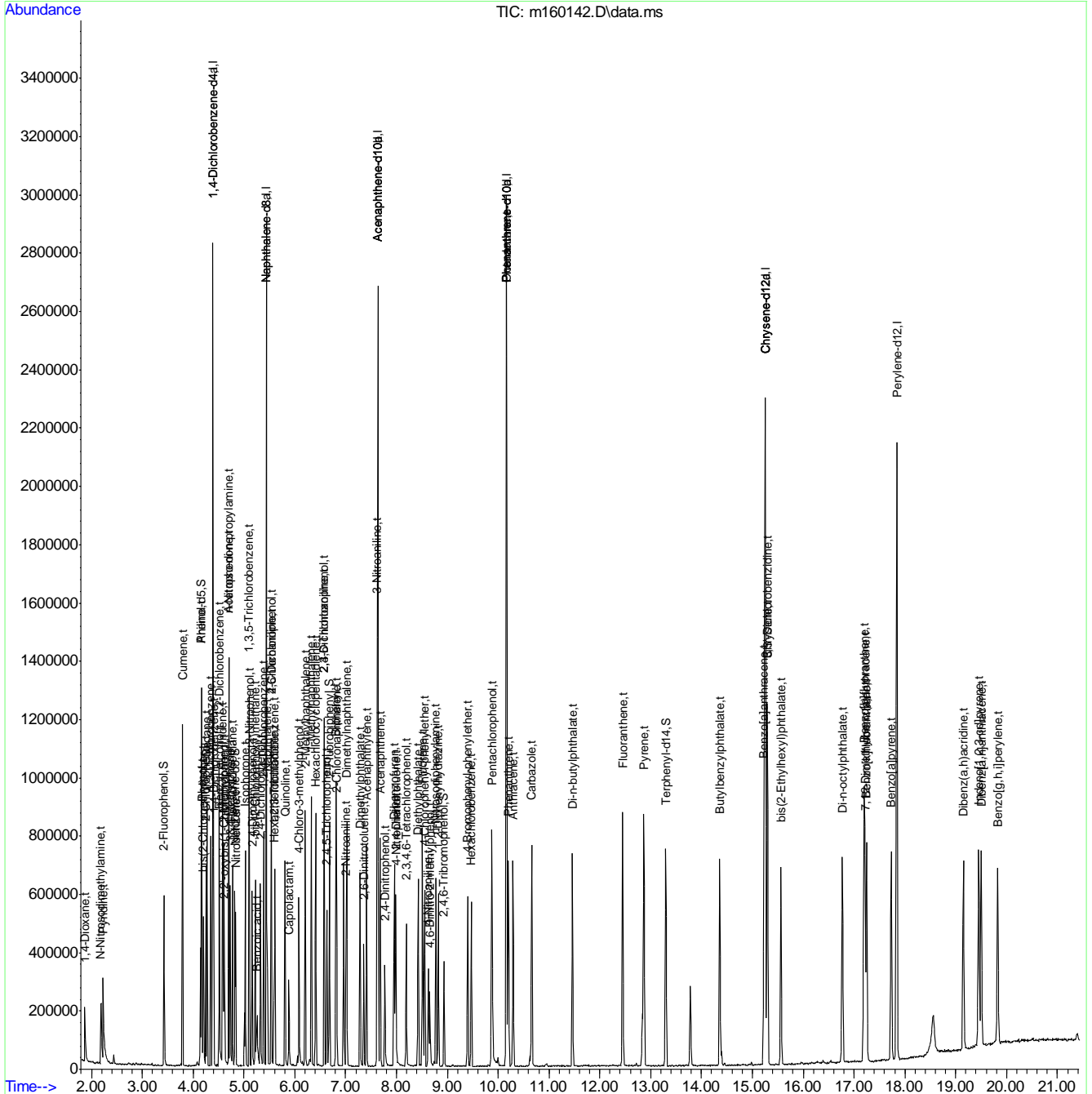
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
76) Pentachlorophenol	9.876	266	114967	20.36	ppm	100
77) Phenanthrene	10.201	178	347653	10.40	ppm	99
78) Anthracene	10.298	178	367660	10.41	ppm	99
79) Carbazole	10.661	167	404761	10.43	ppm	99
80) Di-n-butylphthalate	11.462	149	539950	10.64	ppm	100
81) Fluoranthene	12.450	202	485509	10.58	ppm	99
82) Octadecane	10.164	57	148452	10.14	ppm	95
84) Pyrene	12.867	202	499273	10.48	ppm	99
86) Butylbenzylphthalate	14.358	149	243159	10.41	ppm	99
87) Benzo[a]anthracene	15.228	228	440879	10.24	ppm	98
88) 3,3'-Dichlorobenzidine	15.298	252	146414	10.13	ppm	96
89) Chrysene	15.298	228	365552	10.26	ppm	99
90) bis(2-Ethylhexyl)phtha...	15.560	149	304003	10.31	ppm	99
92) Di-n-octylphthalate	16.767	149	553165	10.91	ppm	100
93) Benzo[b]fluoranthene	17.200	252	473052	10.81	ppm	99
94) Benzo[k]fluoranthene	17.248	252	415553	10.93	ppm	100
95) Benzo[a]pyrene	17.734	252	413326	10.65	ppm	99
96) Indeno[1,2,3-cd]pyrene	19.454	276	402254	12.00	ppm	98
97) Dibenz(a,h)acridine	19.149	279	378808	10.61	ppm	99
98) Dibenz[a,h]anthracene	19.502	278	396703	10.63	ppm	99
99) 7,12-Dimethylbenz(a)an...	17.216	256	167941	10.72	ppm	97
100) Benzo[g,h,i]perylene	19.828	276	391564	10.41	ppm	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6777\
Data File : ml60142.D
Acq On : 7 Oct 2019 12:01 pm
Operator : hennys
Sample : ic6777-10
Misc : op21044,em6777,1000,,,1,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Oct 07 13:33:34 2019
Quant Method : C:\MSDCHEM\1\METHODS\MM6777.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30m x 0.25mm x 0.25um
QLast Update : Mon Oct 07 13:32:12 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6777\
 Data File : ml60143.D
 Acq On : 7 Oct 2019 12:30 pm
 Operator : hennys
 Sample : ic6777-5
 Misc : op21044,em6777,1000,,,1,1
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Oct 07 13:05:26 2019

Quant Method : C:\MSDCHEM\1\METHODS\MM6777.M

Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um

QLast Update : Mon Oct 07 12:39:14 2019

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.391	152	283345	40.00	ppm	0.00
24) Naphthalene-d8	5.443	136	946966	40.00	ppm	0.00
47) Acenaphthene-d10	7.628	164	594106	40.00	ppm	0.00
69) Phenanthrene-d10	10.160	188	1086864	40.00	ppm	0.00
83) Chrysene-d12	15.251	240	1032682	40.00	ppm	0.00
91) Perylene-d12	17.842	264	1112207	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.391	152	283345	40.00	ppm	0.00
103) Acenaphthene-d10a	7.628	164	594106	40.00	ppm	0.00
105) Acenaphthene-d10b	7.628	164	594106	40.00	ppm	0.00
107) Chrysene-d12a	15.251	240	1032682	40.00	ppm	0.00
110) Phenanthrene-d10a	10.160	188	1086864	40.00	ppm	0.00
112) Phenanthrene-d10b	10.160	188	1086864	40.00	ppm	0.00
114) Naphthalene-d8a	5.443	136	946966	40.00	ppm	0.00
116) Chrysene-d12c	15.251	240	1032682	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	3.429	112	66048	5.20	ppm	0.00
Spiked Amount	50.000		Recovery	=	10.40%	
8) Phenol-d5	4.166	99	78751	5.70	ppm	0.00
Spiked Amount	50.000		Recovery	=	11.40%	
25) Nitrobenzene-d5	4.823	82	66203	5.60	ppm	0.00
Spiked Amount	50.000		Recovery	=	11.20%	
51) 2-Fluorobiphenyl	6.682	172	133737	6.49	ppm	0.00
Spiked Amount	50.000		Recovery	=	12.98%	
73) 2,4,6-Tribromophenol	8.937	330	22120	5.00	ppm	0.00
Spiked Amount	50.000		Recovery	=	10.00%	
85) Terphenyl-d14	13.296	244	154600	5.61	ppm	0.00
Spiked Amount	50.000		Recovery	=	11.22%	
109) 1-chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
113) o-terphenyl	0.000	230	0	0.00	ppm	
Target Compounds						
2) 1,4-Dioxane	1.874	88	34521	4.88	ppm	98
3) Pyridine	2.243	79	84471	5.36	ppm	98
4) N-Nitrosodimethylamine	2.195	42	38213	5.53	ppm	89
6) Indene	4.583	116	91555	5.78	ppm	95
7) Cumene	3.792	105	163776	5.88	ppm	99
9) Phenol	4.177	94	92340	6.09	ppm	99
10) Aniline	4.161	93	96179	6.41	ppm	95
11) bis(2-Chloroethyl)ether	4.204	93	64063	6.09	ppm	99
12) 2-Chlorophenol	4.252	128	62492	5.85	ppm	92
13) Decane	4.273	43	59576	6.61	ppm	95
14) 1,3-Dichlorobenzene	4.348	146	69133	6.05	ppm	99
15) 1,4-Dichlorobenzene	4.401	146	61930	5.89	ppm	95
16) Benzyl alcohol	4.513	108	32253	5.35	ppm	87
17) 1,2-Dichlorobenzene	4.519	146	63085	6.00	ppm	96
18) Acetophenone	4.700	105	85500	5.86	ppm	96
19) 2-Methylphenol	4.610	108	50679	5.79	ppm	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6777\
 Data File : ml60143.D
 Acq On : 7 Oct 2019 12:30 pm
 Operator : hennys
 Sample : ic6777-5
 Misc : op21044,em6777,1000,,,1,1
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Oct 07 13:05:26 2019

Quant Method : C:\MSDCHEM\1\METHODS\MM6777.M

Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um

QLast Update : Mon Oct 07 12:39:14 2019

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
20) 2,2'-oxybis(1-Chloropr...	4.599	121	16401	6.01	ppm	# 81
21) 3&4-Methylphenol	4.727	108	53539	5.69	ppm	93
22) n-Nitroso-di-n-propyla...	4.700	70	49304	6.05	ppm	96
23) Hexachloroethane	4.775	201	25341	5.81	ppm	98
26) Nitrobenzene	4.834	77	69958	6.00	ppm	93
27) Quinoline	5.806	129	114519	5.64	ppm	99
28) Isophorone	5.026	82	120439	5.65	ppm	98
29) 2-Nitrophenol	5.101	139	28820	5.51	ppm	95
30) 2,4-Dimethylphenol	5.160	107	44570	4.74	ppm	96
31) Benzoic acid	5.245	105	27138	3.45	ppm	100
32) bis(2-Chloroethoxy)met...	5.224	93	75121	5.90	ppm	97
33) 2,4-Dichlorophenol	5.325	162	51140	5.98	ppm	95
34) 2,6-Dichlorophenol	5.539	162	43079	5.51	ppm	93
35) 1,3,5-Trichlorobenzene	5.101	180	60193	6.30	ppm	99
36) 1,2,4-Trichlorobenzene	5.390	180	57612	6.22	ppm	93
37) 1,2,3-Trichlorobenzene	5.609	180	52035	6.18	ppm	98
38) Naphthalene	5.459	128	145107	5.88	ppm	99
39) 4-Chloroaniline	5.534	127	67239	6.14	ppm	98
40) 2,3-Dichloroaniline	6.581	161	62991	6.00	ppm	97
41) Caprolactam	5.881	55	25563	5.76	ppm	93
42) Hexachlorobutadiene	5.593	225	32553	6.00	ppm	96
43) 4-Chloro-3-methylphenol	6.084	107	53601	5.46	ppm	98
44) 2-Methylnaphthalene	6.207	141	91745	6.05	ppm	96
45) 1-Methylnaphthalene	6.324	142	118248	6.14	ppm	96
46) Dimethylnaphthalene	7.019	156	102392	6.41	ppm	97
48) Hexachlorocyclopentadiene	6.410	237	67114	11.25	ppm	99
49) 2,4,6-Trichlorophenol	6.581	196	36320	5.79	ppm	95
50) 2,4,5-Trichlorophenol	6.634	196	38021	5.65	ppm	98
52) 2-Chloronaphthalene	6.821	162	115812	6.68	ppm	99
53) Biphenyl	6.811	154	144957	6.28	ppm	98
54) 2-Nitroaniline	7.003	65	35719	5.74	ppm	98
55) Dimethylphthalate	7.281	163	137498	5.79	ppm	100
56) Acenaphthylene	7.409	152	175534	6.25	ppm	99
57) 2,6-Dinitrotoluene	7.356	165	25227	4.87	ppm	87
58) 3-Nitroaniline	7.623	138	28060	5.15	ppm	93
59) Acenaphthene	7.676	153	100899	5.86	ppm	98
60) 2,4-Dinitrophenol	7.772	184	18280	6.67	ppm	96
61) 4-Nitrophenol	7.991	109	15855	4.94	ppm	# 79
62) Dibenzofuran	7.954	168	165057	6.10	ppm	98
63) 2,4-Dinitrotoluene	7.986	165	34899	5.24	ppm	96
64) 2,3,4,6-Tetrachlorophenol	8.189	232	31310	5.36	ppm	94
65) Diethylphthalate	8.424	149	142567	5.98	ppm	96
66) Fluorene	8.515	166	131375	6.20	ppm	96
67) 4-Chlorophenyl-phenyle...	8.552	204	65540	6.45	ppm	100
68) 4-Nitroaniline	8.627	138	29361	5.25	ppm	97
70) 4,6-Dinitro-2-methylph...	8.659	198	16699	4.05	ppm	94
71) n-Nitrosodiphenylamine	8.771	169	93416	5.78	ppm	99
72) 1,2-Diphenylhydrazine	8.825	77	147495	5.88	ppm	98
74) 4-Bromophenyl-phenylether	9.402	248	42432	5.55	ppm	86
75) Hexachlorobenzene	9.471	284	49312	6.06	ppm	96

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6777\
 Data File : ml60143.D
 Acq On : 7 Oct 2019 12:30 pm
 Operator : hennys
 Sample : ic6777-5
 Misc : op21044,em6777,1000,,,1,1
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Oct 07 13:05:26 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MM6777.M
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 QLast Update : Mon Oct 07 12:39:14 2019
 Response via : Initial Calibration

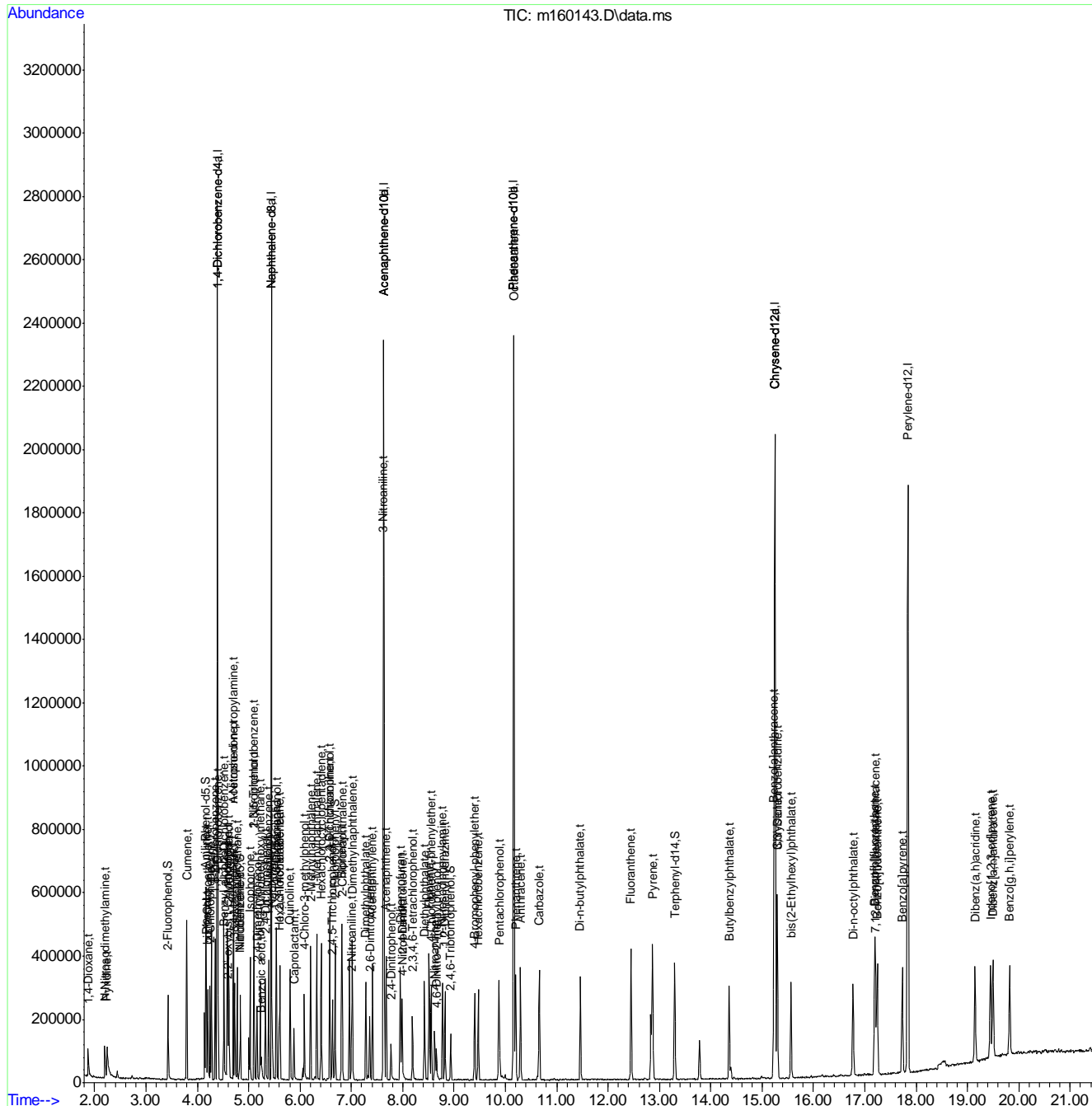
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
76) Pentachlorophenol	9.877	266	48471	9.05	ppm	90
77) Phenanthrene	10.203	178	164960	5.74	ppm	98
78) Anthracene	10.294	178	176237	5.78	ppm	99
79) Carbazole	10.662	167	193074	5.78	ppm	99
80) Di-n-butylphthalate	11.458	149	238125	5.24	ppm	100
81) Fluoranthene	12.447	202	224748	5.64	ppm	98
82) Octadecane	10.165	57	68876	5.26	ppm	98
84) Pyrene	12.863	202	236233	5.85	ppm	99
86) Butylbenzylphthalate	14.359	149	102353	4.75	ppm	93
87) Benzo[a]anthracene	15.230	228	202974	5.35	ppm	99
88) 3,3'-Dichlorobenzidine	15.294	252	66980	5.10	ppm	96
89) Chrysene	15.294	228	175452	5.76	ppm	99
90) bis(2-Ethylhexyl)phtha...	15.561	149	130495	4.79	ppm	97
92) Di-n-octylphthalate	16.768	149	225751	4.95	ppm	99
93) Benzo[b]fluoranthene	17.190	252	213679	5.86	ppm	97
94) Benzo[k]fluoranthene	17.244	252	199537	6.61	ppm	97
95) Benzo[a]pyrene	17.730	252	190992	5.89	ppm	98
96) Indeno[1,2,3-cd]pyrene	19.450	276	178348	6.63	ppm	96
97) Dibenz(a,h)acridine	19.146	279	169326	5.53	ppm	98
98) Dibenz[a,h]anthracene	19.498	278	179033	5.69	ppm	97
99) 7,12-Dimethylbenz(a)an...	17.212	256	66992	4.74	ppm	95
100) Benzo[g,h,i]perylene	19.824	276	180844	5.72	ppm	96

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6777\
Data File : ml60143.D
Acq On : 7 Oct 2019 12:30 pm
Operator : hennys
Sample : ic6777-5
Misc : op21044,em6777,1000,,,1,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Oct 07 13:05:26 2019
Quant Method : C:\MSDCHEM\1\METHODS\MM6777.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Mon Oct 07 12:39:14 2019
Response via : Initial Calibration



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Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6777\
 Data File : ml60144.D
 Acq On : 7 Oct 2019 12:59 pm
 Operator : hennys
 Sample : ic6777-2
 Misc : op21044,em6777,1000,,,1,1
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Oct 07 13:31:53 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MM6777.M
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 QLast Update : Mon Oct 07 13:05:41 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.390	152	325023	40.00	ppm	0.00
24) Naphthalene-d8	5.442	136	1110326	40.00	ppm	0.00
47) Acenaphthene-d10	7.633	164	688806	40.00	ppm	0.00
69) Phenanthrene-d10	10.165	188	1256434	40.00	ppm	0.00
83) Chrysene-d12	15.250	240	1172782	40.00	ppm	0.00
91) Perylene-d12	17.841	264	1279070	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.390	152	325023	40.00	ppm	0.00
103) Acenaphthene-d10a	7.633	164	688806	40.00	ppm	0.00
105) Acenaphthene-d10b	7.633	164	688806	40.00	ppm	0.00
107) Chrysene-d12a	15.250	240	1172782	40.00	ppm	0.00
110) Phenanthrene-d10a	10.165	188	1256434	40.00	ppm	0.00
112) Phenanthrene-d10b	10.165	188	1256434	40.00	ppm	0.00
114) Naphthalene-d8a	5.442	136	1110326	40.00	ppm	0.00
116) Chrysene-d12c	15.250	240	1172782	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	3.428	112	27904	1.90	ppm	0.00
Spiked Amount 50.000			Recovery =	3.80%		
8) Phenol-d5	4.166	99	35541	2.19	ppm	0.00
Spiked Amount 50.000			Recovery =	4.38%		
25) Nitrobenzene-d5	4.823	82	30503	2.16	ppm	0.00
Spiked Amount 50.000			Recovery =	4.32%		
51) 2-Fluorobiphenyl	6.682	172	64376	2.57	ppm	0.00
Spiked Amount 50.000			Recovery =	5.14%		
73) 2,4,6-Tribromophenol	8.936	330	9619	1.88	ppm	0.00
Spiked Amount 50.000			Recovery =	3.76%		
85) Terphenyl-d14	13.295	244	71542	2.24	ppm	0.00
Spiked Amount 50.000			Recovery =	4.48%		
109) 1-chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
113) o-terphenyl	0.000	230	0	0.00	ppm	
Target Compounds						
2) 1,4-Dioxane	1.879	88	14663	1.81	ppm	99
3) Pyridine	2.264	79	34931	1.91	ppm	96
4) N-Nitrosodimethylamine	2.205	42	16709	2.07	ppm	93
6) Indene	4.582	116	42727	2.29	ppm	97
7) Cumene	3.792	105	76289	2.32	ppm	98
9) Phenol	4.176	94	43184	2.40	ppm	96
10) Aniline	4.166	93	43459	2.41	ppm	96
11) bis(2-Chloroethyl)ether	4.208	93	29845	2.39	ppm	98
12) 2-Chlorophenol	4.251	128	29578	2.35	ppm	99
13) Decane	4.272	43	27011	2.48	ppm	97
14) 1,3-Dichlorobenzene	4.347	146	33639	2.48	ppm	97
15) 1,4-Dichlorobenzene	4.406	146	28353	2.28	ppm	95
16) Benzyl alcohol	4.513	108	13655	1.95	ppm	94
17) 1,2-Dichlorobenzene	4.518	146	28920	2.32	ppm	97
18) Acetophenone	4.700	105	39394	2.29	ppm	99
19) 2-Methylphenol	4.609	108	23672	2.30	ppm	92

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6777\
 Data File : ml60144.D
 Acq On : 7 Oct 2019 12:59 pm
 Operator : hennys
 Sample : ic6777-2
 Misc : op21044,em6777,1000,,,1,1
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Oct 07 13:31:53 2019

Quant Method : C:\MSDCHEM\1\METHODS\MM6777.M

Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um

QLast Update : Mon Oct 07 13:05:41 2019

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
20) 2,2'-oxybis(1-Chloropr...	4.604	121	8229	2.54	ppm	# 61
21) 3&4-Methylphenol	4.726	108	25814	2.34	ppm	91
22) n-Nitroso-di-n-propyla...	4.705	70	22356	2.31	ppm	98
23) Hexachloroethane	4.775	201	12068	2.35	ppm	95
26) Nitrobenzene	4.839	77	32069	2.27	ppm	97
27) Quinoline	5.811	129	52608	2.16	ppm	99
28) Isophorone	5.026	82	55147	2.16	ppm	97
29) 2-Nitrophenol	5.106	139	12766	2.05	ppm	82
30) 2,4-Dimethylphenol	5.159	107	19069	1.75	ppm	99
31) Benzoic acid	5.234	105	10303	1.18	ppm	90
32) bis(2-Chloroethoxy)met...	5.223	93	34883	2.27	ppm	99
33) 2,4-Dichlorophenol	5.325	162	22627	2.18	ppm	95
34) 2,6-Dichlorophenol	5.538	162	20903	2.24	ppm	98
35) 1,3,5-Trichlorobenzene	5.100	180	27946	2.39	ppm	91
36) 1,2,4-Trichlorobenzene	5.389	180	26814	2.37	ppm	96
37) 1,2,3-Trichlorobenzene	5.608	180	25558	2.49	ppm	96
38) Naphthalene	5.464	128	65755	2.21	ppm	99
39) 4-Chloroaniline	5.538	127	32183	2.41	ppm	94
40) 2,3-Dichloroaniline	6.580	161	30383	2.39	ppm	97
41) Caprolactam	5.875	55	10536	1.98	ppm	95
42) Hexachlorobutadiene	5.592	225	15281	2.32	ppm	97
43) 4-Chloro-3-methylphenol	6.083	107	23283	1.99	ppm	96
44) 2-Methylnaphthalene	6.206	141	44117	2.40	ppm	92
45) 1-Methylnaphthalene	6.324	142	55461	2.37	ppm	99
46) Dimethylnaphthalene	7.018	156	50035	2.55	ppm	95
48) Hexachlorocyclopentadiene	6.415	237	28812	4.08	ppm	98
49) 2,4,6-Trichlorophenol	6.580	196	16767	2.25	ppm	95
50) 2,4,5-Trichlorophenol	6.634	196	17884	2.24	ppm	98
52) 2-Chloronaphthalene	6.826	162	56079	2.64	ppm	92
53) Biphenyl	6.810	154	69107	2.48	ppm	99
54) 2-Nitroaniline	7.008	65	14934	2.02	ppm	96
55) Dimethylphthalate	7.280	163	67269	2.38	ppm	99
56) Acenaphthylene	7.414	152	81829	2.41	ppm	99
57) 2,6-Dinitrotoluene	7.355	165	11239	1.88	ppm	88
58) 3-Nitroaniline	7.622	138	12027	1.90	ppm	# 85
59) Acenaphthene	7.681	153	47633	2.32	ppm	95
60) 2,4-Dinitrophenol	7.777	184	6451	2.15	ppm	84
61) 4-Nitrophenol	7.991	109	6375	1.72	ppm	81
62) Dibenzofuran	7.953	168	77671	2.39	ppm	95
63) 2,4-Dinitrotoluene	7.985	165	13710	1.76	ppm	91
64) 2,3,4,6-Tetrachlorophenol	8.194	232	13390	1.95	ppm	98
65) Diethylphthalate	8.423	149	62932	2.20	ppm	97
66) Fluorene	8.514	166	62177	2.43	ppm	95
67) 4-Chlorophenyl-phenyle...	8.557	204	31969	2.59	ppm	93
68) 4-Nitroaniline	8.626	138	12242	1.87	ppm	95
70) 4,6-Dinitro-2-methylph...	8.658	198	5803	1.26	ppm	88
71) n-Nitrosodiphenylamine	8.776	169	43342	2.26	ppm	97
72) 1,2-Diphenylhydrazine	8.824	77	67739	2.27	ppm	98
74) 4-Bromophenyl-phenylether	9.401	248	20084	2.23	ppm	95
75) Hexachlorobenzene	9.470	284	22230	2.28	ppm	97

9.6.91
9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6777\
 Data File : ml60144.D
 Acq On : 7 Oct 2019 12:59 pm
 Operator : hennys
 Sample : ic6777-2
 Misc : op21044,em6777,1000,,,1,1
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Oct 07 13:31:53 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MM6777.M
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 QLast Update : Mon Oct 07 13:05:41 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
76) Pentachlorophenol	9.876	266	18036	2.96	ppm	95
77) Phenanthrene	10.202	178	77833	2.29	ppm	99
78) Anthracene	10.293	178	79694	2.20	ppm	98
79) Carbazole	10.662	167	89057	2.25	ppm	95
80) Di-n-butylphthalate	11.458	149	102198	1.93	ppm	99
81) Fluoranthene	12.446	202	103061	2.19	ppm	97
82) Octadecane	10.165	57	29824	1.95	ppm	96
84) Pyrene	12.863	202	112405	2.38	ppm	99
86) Butylbenzylphthalate	14.358	149	41238	1.70	ppm	91
87) Benzo[a]anthracene	15.229	228	90076	2.07	ppm	98
88) 3,3'-Dichlorobenzidine	15.293	252	26203	1.75	ppm	91
89) Chrysene	15.293	228	81931	2.31	ppm	97
90) bis(2-Ethylhexyl)phtha...	15.560	149	51321	1.67	ppm	98
92) Di-n-octylphthalate	16.768	149	84127	1.61	ppm	98
93) Benzo[b]fluoranthene	17.195	252	97021	2.25	ppm	99
94) Benzo[k]fluoranthene	17.243	252	95003	2.60	ppm	96
95) Benzo[a]pyrene	17.729	252	83870	2.18	ppm	98
96) Indeno[1,2,3-cd]pyrene	19.449	276	79211	2.43	ppm	98
97) Dibenz(a,h)acridine	19.150	279	71326	1.99	ppm	99
98) Dibenz[a,h]anthracene	19.497	278	80316	2.17	ppm	97
99) 7,12-Dimethylbenz(a)an...	17.211	256	26817	1.67	ppm	95
100) Benzo[g,h,i]perylene	19.823	276	81635	2.19	ppm	97

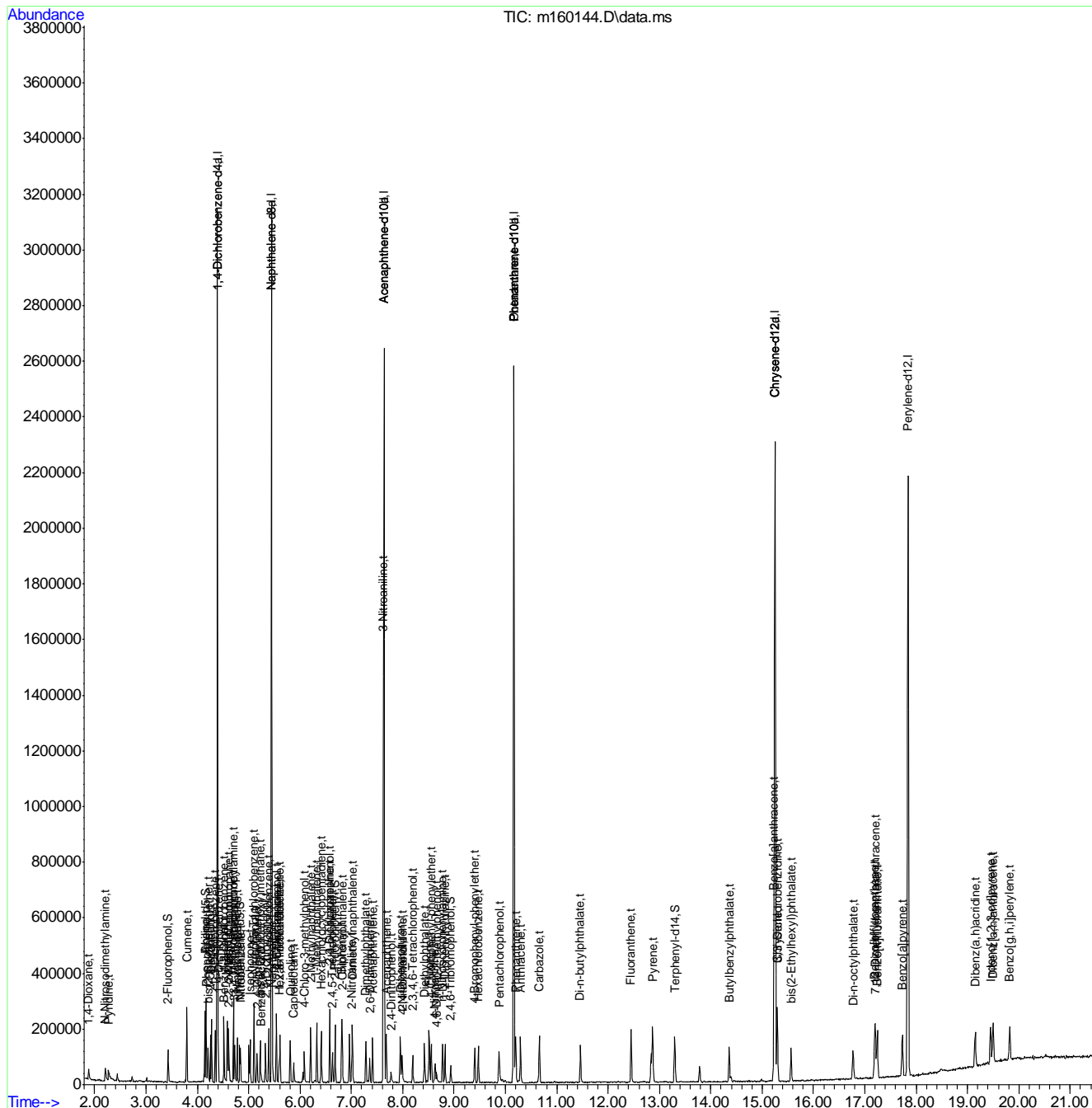
(#) = qualifier out of range (m) = manual integration (+) = signals summed

9.6.91
9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6777\
Data File : ml60144.D
Acq On : 7 Oct 2019 12:59 pm
Operator : hennys
Sample : ic6777-2
Misc : op21044,em6777,1000,,,1,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Oct 07 13:31:53 2019
Quant Method : C:\MSDCHEM\1\METHODS\MM6777.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30m x 0.25mm x 0.25um
QLast Update : Mon Oct 07 13:05:41 2019
Response via : Initial Calibration



9.6:9.6
6

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6777\
 Data File : ml60145.D
 Acq On : 7 Oct 2019 1:29 pm
 Operator : hennys
 Sample : ic6777-1
 Misc : op21044,em6777,1000,,,1,1
 ALS Vial : 9 Sample Multiplier: 1

Quant Time: Oct 07 13:53:51 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MM6777.M
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 QLast Update : Mon Oct 07 13:33:43 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.391	152	332401	40.00	ppm	0.00
24) Naphthalene-d8	5.444	136	1103943	40.00	ppm	0.00
47) Acenaphthene-d10	7.634	164	691459	40.00	ppm	0.00
69) Phenanthrene-d10	10.166	188	1237738	40.00	ppm	0.00
83) Chrysene-d12	15.252	240	1140151	40.00	ppm	0.00
91) Perylene-d12	17.843	264	1239693	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.391	152	332401	40.00	ppm	0.00
103) Acenaphthene-d10a	7.634	164	691459	40.00	ppm	0.00
105) Acenaphthene-d10b	7.634	164	691459	40.00	ppm	0.00
107) Chrysene-d12a	15.252	240	1140151	40.00	ppm	0.00
110) Phenanthrene-d10a	10.166	188	1237738	40.00	ppm	0.00
112) Phenanthrene-d10b	10.166	188	1237738	40.00	ppm	0.00
114) Naphthalene-d8a	5.444	136	1103943	40.00	ppm	0.00
116) Chrysene-d12c	15.252	240	1140151	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	3.430	112	12664	0.85	ppm	0.00
Spiked Amount	50.000		Recovery	=	1.70%	
8) Phenol-d5	4.167	99	16640	0.99	ppm	0.00
Spiked Amount	50.000		Recovery	=	1.98%	
25) Nitrobenzene-d5	4.824	82	14084	0.99	ppm	0.00
Spiked Amount	50.000		Recovery	=	1.98%	
51) 2-Fluorobiphenyl	6.683	172	31346	1.20	ppm	0.00
Spiked Amount	50.000		Recovery	=	2.40%	
73) 2,4,6-Tribromophenol	8.938	330	4018	0.80	ppm	0.00
Spiked Amount	50.000		Recovery	=	1.60%	
85) Terphenyl-d14	13.302	244	34348	1.09	ppm	0.00
Spiked Amount	50.000		Recovery	=	2.18%	
109) 1-chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
113) o-terphenyl	0.000	230	0	0.00	ppm	
Target Compounds						
2) 1,4-Dioxane	1.886	88	6752	0.83	ppm	92
3) Pyridine	2.287	79	16623	0.89	ppm	90
4) N-Nitrosodimethylamine	2.217	42	8138	0.98	ppm	80
6) Indene	4.584	116	20395	1.05	ppm	94
7) Cumene	3.793	105	36021	1.05	ppm	98
9) Phenol	4.178	94	20017	1.06	ppm	94
10) Aniline	4.167	93	21604	1.14	ppm	96
11) bis(2-Chloroethyl)ether	4.210	93	14350	1.09	ppm	91
12) 2-Chlorophenol	4.252	128	13492	1.02	ppm	96
13) Decane	4.274	43	14113	1.22	ppm	87
14) 1,3-Dichlorobenzene	4.354	146	17213	1.20	ppm	90
15) 1,4-Dichlorobenzene	4.407	146	13557	1.05	ppm	95
16) Benzyl alcohol	4.514	108	5251	0.74	ppm	85
17) 1,2-Dichlorobenzene	4.520	146	14038	1.08	ppm	97
18) Acetophenone	4.701	105	18667	1.04	ppm	89
19) 2-Methylphenol	4.610	108	11386	1.06	ppm	91

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6777\
 Data File : ml60145.D
 Acq On : 7 Oct 2019 1:29 pm
 Operator : hennys
 Sample : ic6777-1
 Misc : op21044,em6777,1000,,,1,1
 ALS Vial : 9 Sample Multiplier: 1

Quant Time: Oct 07 13:53:51 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MM6777.M
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 QLast Update : Mon Oct 07 13:33:43 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
20) 2,2'-oxybis(1-Chloropr...	4.600	121	3640	1.06	ppm	# 82
21) 3&4-Methylphenol	4.733	108	11767	1.02	ppm	99
22) n-Nitroso-di-n-propyla...	4.707	70	10831	1.07	ppm	93
23) Hexachloroethane	4.776	201	5866	1.09	ppm	82
26) Nitrobenzene	4.840	77	15823	1.11	ppm	96
27) Quinoline	5.812	129	24325	0.99	ppm	99
28) Isophorone	5.032	82	25060	0.98	ppm	93
29) 2-Nitrophenol	5.107	139	5266	0.85	ppm	96
30) 2,4-Dimethylphenol	5.161	107	9182	0.86	ppm	95
31) Benzoic acid	5.230	105	3740	0.46	ppm	# 75
32) bis(2-Chloroethoxy)met...	5.225	93	16884	1.08	ppm	94
33) 2,4-Dichlorophenol	5.326	162	11025	1.06	ppm	94
34) 2,6-Dichlorophenol	5.540	162	9808	1.04	ppm	90
35) 1,3,5-Trichlorobenzene	5.102	180	13750	1.15	ppm	97
36) 1,2,4-Trichlorobenzene	5.390	180	12340	1.07	ppm	94
37) 1,2,3-Trichlorobenzene	5.615	180	12770	1.21	ppm	91
38) Naphthalene	5.465	128	32226	1.07	ppm	98
39) 4-Chloroaniline	5.540	127	14928	1.09	ppm	95
40) 2,3-Dichloroaniline	6.582	161	14847	1.14	ppm	81
41) Caprolactam	5.876	55	5494	1.04	ppm	85
42) Hexachlorobutadiene	5.599	225	7307	1.09	ppm	92
43) 4-Chloro-3-methylphenol	6.085	107	11025	0.95	ppm	93
44) 2-Methylnaphthalene	6.208	141	20752	1.10	ppm	94
45) 1-Methylnaphthalene	6.325	142	27571	1.15	ppm	97
46) Dimethylnaphthalene	7.025	156	23842	1.18	ppm	98
48) Hexachlorocyclopentadiene	6.416	237	13818	1.94	ppm	92
49) 2,4,6-Trichlorophenol	6.582	196	7220	0.95	ppm	94
50) 2,4,5-Trichlorophenol	6.635	196	7734	0.95	ppm	88
52) 2-Chloronaphthalene	6.827	162	26765	1.20	ppm	98
53) Biphenyl	6.811	154	34585	1.19	ppm	96
54) 2-Nitroaniline	7.009	65	6731	0.91	ppm	90
55) Dimethylphthalate	7.287	163	31074	1.07	ppm	98
56) Acenaphthylene	7.415	152	36234	1.03	ppm	97
57) 2,6-Dinitrotoluene	7.356	165	4871	0.82	ppm	78
58) 3-Nitroaniline	7.623	138	5112	0.81	ppm	# 73
59) Acenaphthene	7.682	153	22536	1.07	ppm	98
60) 2,4-Dinitrophenol	7.773	184	2038	0.72	ppm	92
61) 4-Nitrophenol	7.992	109	2315	0.63	ppm	88
62) Dibenzofuran	7.955	168	35244	1.05	ppm	98
63) 2,4-Dinitrotoluene	7.987	165	5648	0.73	ppm	78
64) 2,3,4,6-Tetrachlorophenol	8.200	232	5846	0.85	ppm	84
65) Diethylphthalate	8.425	149	29633	1.02	ppm	99
66) Fluorene	8.515	166	29415	1.11	ppm	94
67) 4-Chlorophenyl-phenyle...	8.558	204	15158	1.17	ppm	93
68) 4-Nitroaniline	8.628	138	5113	0.79	ppm	89
70) 4,6-Dinitro-2-methylph...	8.660	198	2213	0.51	ppm	80
71) n-Nitrosodiphenylamine	8.777	169	21447	1.12	ppm	89
72) 1,2-Diphenylhydrazine	8.825	77	30385	1.01	ppm	98
74) 4-Bromophenyl-phenylether	9.402	248	9854	1.09	ppm	88
75) Hexachlorobenzene	9.477	284	10975	1.12	ppm	95

9.6.92
9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6777\
 Data File : ml60145.D
 Acq On : 7 Oct 2019 1:29 pm
 Operator : hennys
 Sample : ic6777-1
 Misc : op21044,em6777,1000,,,1,1
 ALS Vial : 9 Sample Multiplier: 1

Quant Time: Oct 07 13:53:51 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MM6777.M
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 QLast Update : Mon Oct 07 13:33:43 2019
 Response via : Initial Calibration

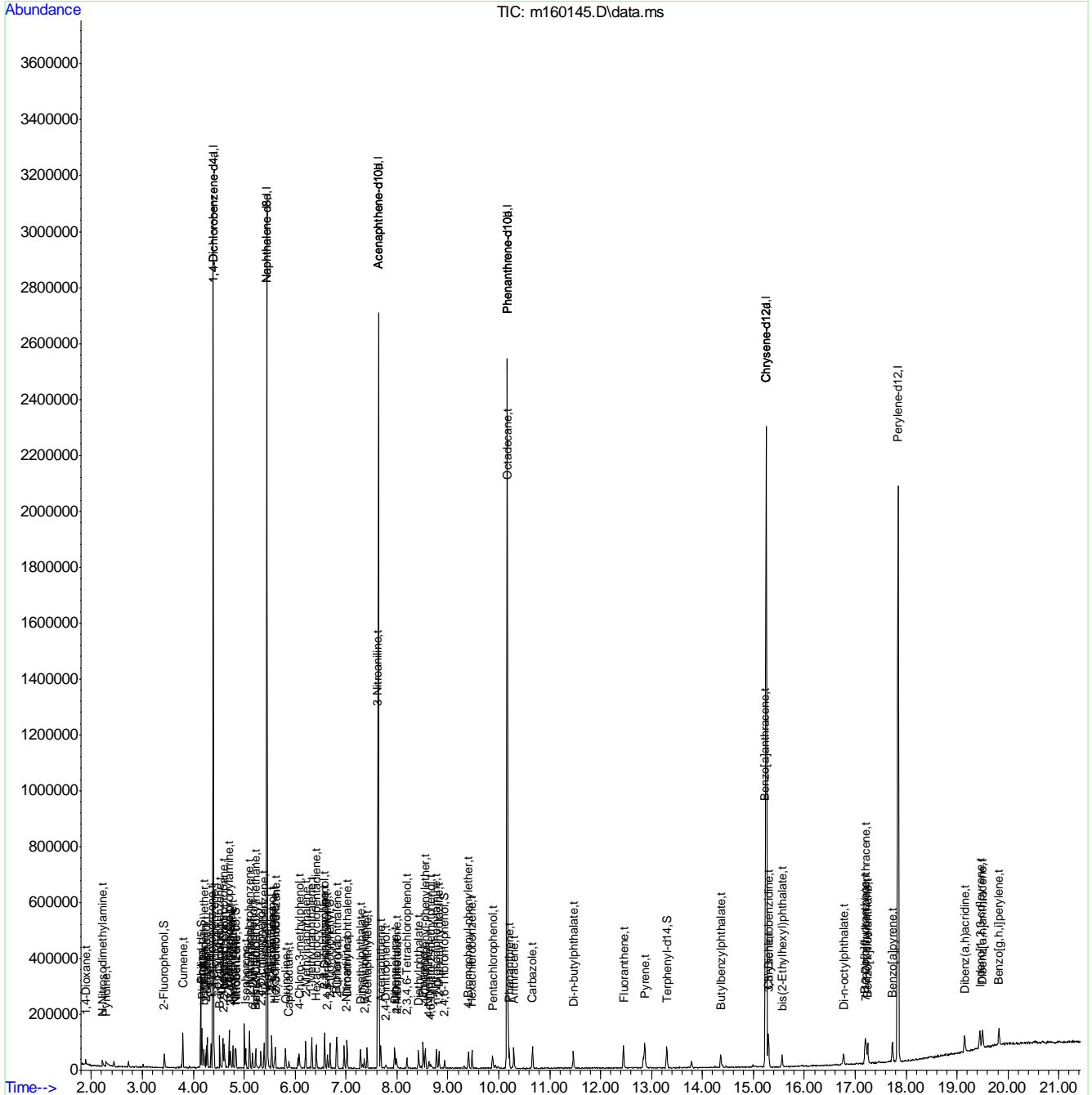
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
76) Pentachlorophenol	9.878	266	7216	1.25	ppm	97
77) Phenanthrene	10.204	178	37732	1.10	ppm	99
78) Anthracene	10.294	178	35470	0.98	ppm	96
79) Carbazole	10.663	167	40325	1.02	ppm	97
80) Di-n-butylphthalate	11.464	149	45547	0.88	ppm	96
81) Fluoranthene	12.453	202	45084	0.96	ppm	97
82) Octadecane	10.172	57	14368	0.96	ppm	88
84) Pyrene	12.864	202	49265	1.05	ppm	99
86) Butylbenzylphthalate	14.360	149	16320	0.71	ppm	90
87) Benzo[a]anthracene	15.236	228	43504	1.02	ppm	93
88) 3,3'-Dichlorobenzidine	15.300	252	11338	0.79	ppm	90
89) Chrysene	15.295	228	37393	1.06	ppm	92
90) bis(2-Ethylhexyl)phtha...	15.567	149	18916	0.65	ppm	98
92) Di-n-octylphthalate	16.769	149	30556	0.62	ppm	97
93) Benzo[b]fluoranthene	17.196	252	43330	1.02	ppm	99
94) Benzo[k]fluoranthene	17.245	252	44975	1.22	ppm	96
95) Benzo[a]pyrene	17.731	252	37051	0.98	ppm	91
96) Indeno[1,2,3-cd]pyrene	19.451	276	34733	0.94	ppm	93
97) Dibenz(a,h)acridine	19.152	279	32192	0.93	ppm	97
98) Dibenz[a,h]anthracene	19.499	278	38110	1.05	ppm	94
99) 7,12-Dimethylbenz(a)an...	17.212	256	12226	0.80	ppm	92
100) Benzo[g,h,i]perylene	19.825	276	36728	1.00	ppm	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6777\
Data File : ml60145.D
Acq On : 7 Oct 2019 1:29 pm
Operator : hennys
Sample : ic6777-1
Misc : op21044,em6777,1000,,1,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Oct 07 13:53:51 2019
Quant Method : C:\MSDCHEM\1\METHODS\MM6777.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30m x 0.25mm x 0.25um
QLast Update : Mon Oct 07 13:33:43 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6777\
 Data File : ml60146.D
 Acq On : 7 Oct 2019 1:57 pm
 Operator : hennys
 Sample : icv6777-50
 Misc : op21044,em6777,1000,,,1,1
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Oct 11 19:38:26 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MM6777.M
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 QLast Update : Tue Oct 08 15:55:00 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.390	152	227965	40.00	ppm	0.00
24) Naphthalene-d8	5.443	136	739653	40.00	ppm	0.00
47) Acenaphthene-d10	7.633	164	476285	40.00	ppm	0.00
69) Phenanthrene-d10	10.165	188	917873	40.00	ppm	0.00
83) Chrysene-d12	15.256	240	720993	40.00	ppm	0.00
91) Perylene-d12	17.842	264	832911	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.390	152	227965	40.00	ppm	-0.03
103) Acenaphthene-d10a	7.633	164	476285	40.00	ppm	-0.05
105) Acenaphthene-d10b	7.633	164	476285	40.00	ppm	-0.05
107) Chrysene-d12a	15.256	240	720993	40.00	ppm	-0.06
110) Phenanthrene-d10a	10.165	188	917873	40.00	ppm	-0.06
112) Phenanthrene-d10b	10.165	188	917873	40.00	ppm	-0.06
114) Naphthalene-d8a	5.443	136	739653	40.00	ppm	-0.04
116) Chrysene-d12c	15.256	240	720993	40.00	ppm	0.00

System Monitoring Compounds

5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
25) Nitrobenzene-d5	0.000	82	0d	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
109) 1-chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
113) o-terphenyl	0.000	230	0	0.00	ppm	

Target Compounds

Compound	R.T.	QIon	Response	Conc	Units	Qvalue
4) N-Nitrosodimethylamine	2.189	42	252406	44.50	ppm	98
11) bis(2-Chloroethyl)ether	4.203	93	503391	55.23	ppm	100
14) 1,3-Dichlorobenzene	4.353	146	469049	46.50	ppm	98
15) 1,4-Dichlorobenzene	4.406	146	412105	46.12	ppm	98
17) 1,2-Dichlorobenzene	4.518	146	412876	45.74	ppm	97
20) 2,2'-oxybis(1-Chloropr...	4.599	121	129761m	54.64	ppm	
22) n-Nitroso-di-n-propyla...	4.700	70	328706	46.98	ppm	98
23) Hexachloroethane	4.775	201	166548	44.61	ppm	95
26) Nitrobenzene	4.839	77	439508	45.22	ppm	97
28) Isophorone	5.026	82	820108	47.81	ppm	99
32) bis(2-Chloroethoxy)met...	5.224	93	517152	49.04	ppm	99
36) 1,2,4-Trichlorobenzene	5.389	180	366186	46.95	ppm	98
38) Naphthalene	5.464	128	978643	48.18	ppm	100
42) Hexachlorobutadiene	5.598	225	216119	47.67	ppm	99
48) Hexachlorocyclopentadiene	6.415	237	237442	48.67	ppm	100
52) 2-Chloronaphthalene	6.826	162	764995	48.61	ppm	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6777\
 Data File : ml60146.D
 Acq On : 7 Oct 2019 1:57 pm
 Operator : hennys
 Sample : icv6777-50
 Misc : op21044,em6777,1000,,,1,1
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Oct 11 19:38:26 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MM6777.M
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 QLast Update : Tue Oct 08 15:55:00 2019
 Response via : Initial Calibration

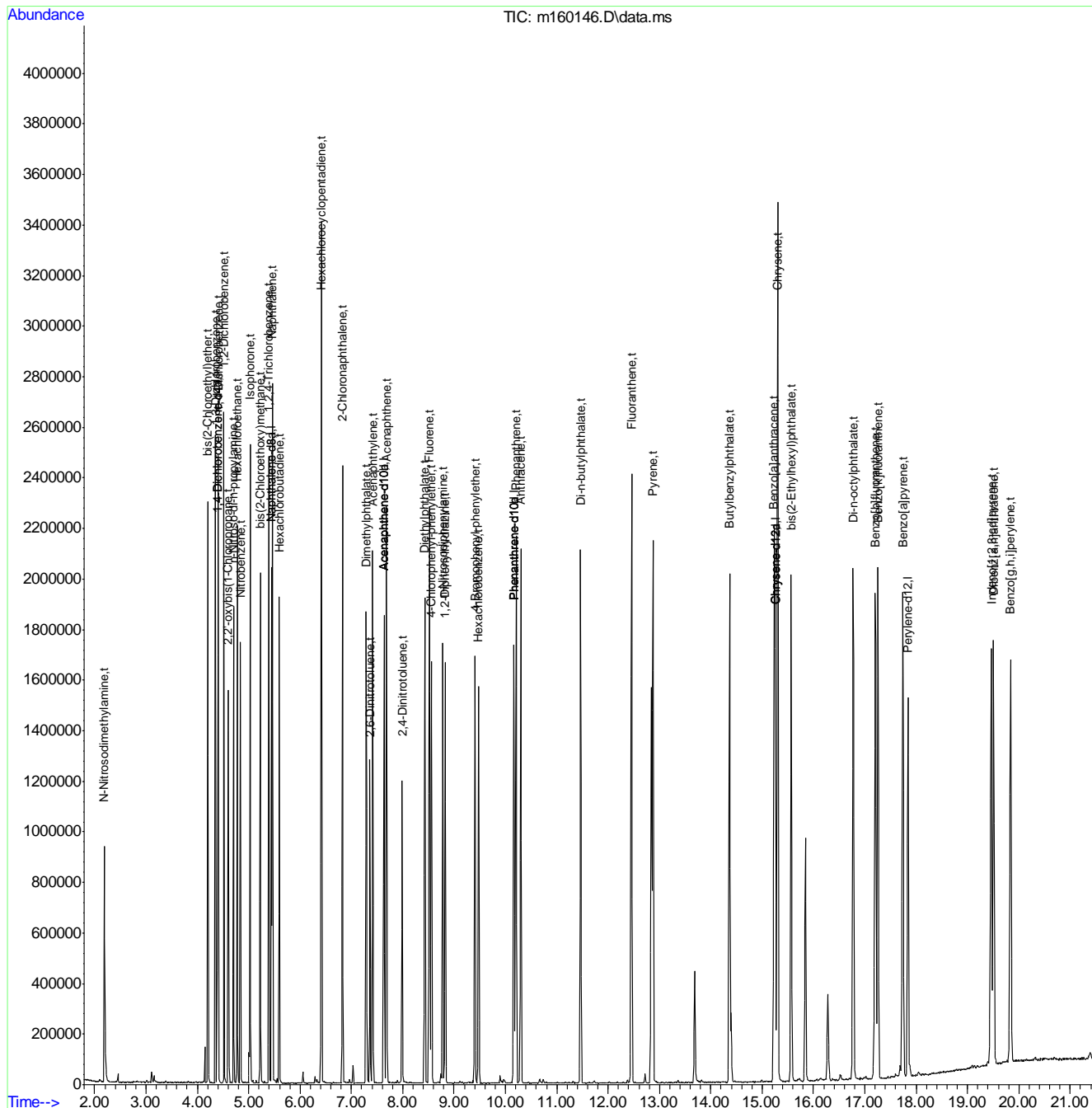
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
55) Dimethylphthalate	7.291	163	901875	44.54	ppm	100
56) Acenaphthylene	7.414	152	1059169	43.68	ppm	100
57) 2,6-Dinitrotoluene	7.366	165	182411	45.55	ppm	92
59) Acenaphthene	7.681	153	629572	42.98	ppm	95
63) 2,4-Dinitrotoluene	7.991	165	251373	49.11	ppm	84
65) Diethylphthalate	8.429	149	896459	44.64	ppm	99
66) Fluorene	8.520	166	804963	43.60	ppm	99
67) 4-Chlorophenyl-phenyle...	8.557	204	372458	40.98	ppm	98
71) n-Nitrosodiphenylamine	8.781	169	592536	40.96	ppm	100
72) 1,2-Diphenylhydrazine	8.830	77	886822	39.82	ppm	97
74) 4-Bromophenyl-phenylether	9.407	248	275298	40.72	ppm	99
75) Hexachlorobenzene	9.476	284	288992	39.21	ppm	99
77) Phenanthrene	10.208	178	1092976	42.51	ppm	99
78) Anthracene	10.299	178	1101087	41.17	ppm	100
80) Di-n-butylphthalate	11.463	149	1583264	41.75	ppm	99
81) Fluoranthene	12.457	202	1422947	41.06	ppm	99
84) Pyrene	12.874	202	1308945	43.70	ppm	99
86) Butylbenzylphthalate	14.364	149	726141	51.61	ppm	98
87) Benzo[a]anthracene	15.235	228	1283767	47.56	ppm	99
89) Chrysene	15.304	228	1010875	45.00	ppm	100
90) bis(2-Ethylhexyl)phtha...	15.566	149	880869	49.95	ppm	99
92) Di-n-octylphthalate	16.773	149	1608535	48.57	ppm	99
93) Benzo[b]fluoranthene	17.206	252	1253502	43.76	ppm	100
94) Benzo[k]fluoranthene	17.254	252	1150868	45.13	ppm	97
95) Benzo[a]pyrene	17.740	252	1188724	47.02	ppm	98
96) Indeno[1,2,3-cd]pyrene	19.466	276	1142322	46.40	ppm	98
98) Dibenz[a,h]anthracene	19.508	278	1070353	43.62	ppm	98
100) Benzo[g,h,i]perylene	19.840	276	1129713	45.96	ppm	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6777\
 Data File : ml60146.D
 Acq On : 7 Oct 2019 1:57 pm
 Operator : hennys
 Sample : icv6777-50
 Misc : op21044,em6777,1000,,,1,1
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Oct 11 19:38:26 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MM6777.M
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 QLast Update : Tue Oct 08 15:55:00 2019
 Response via : Initial Calibration



Manual Integration Approval Summary

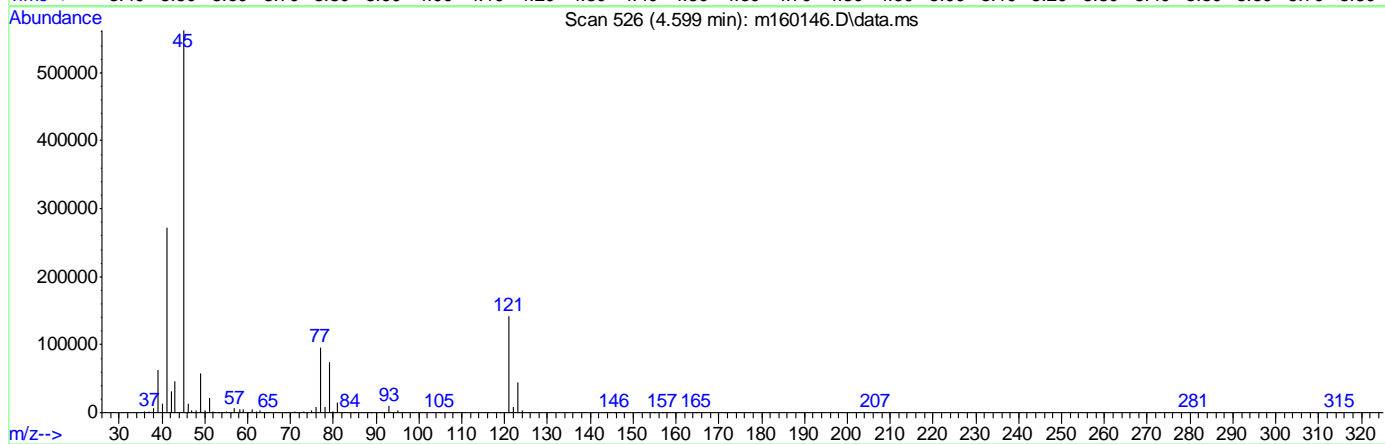
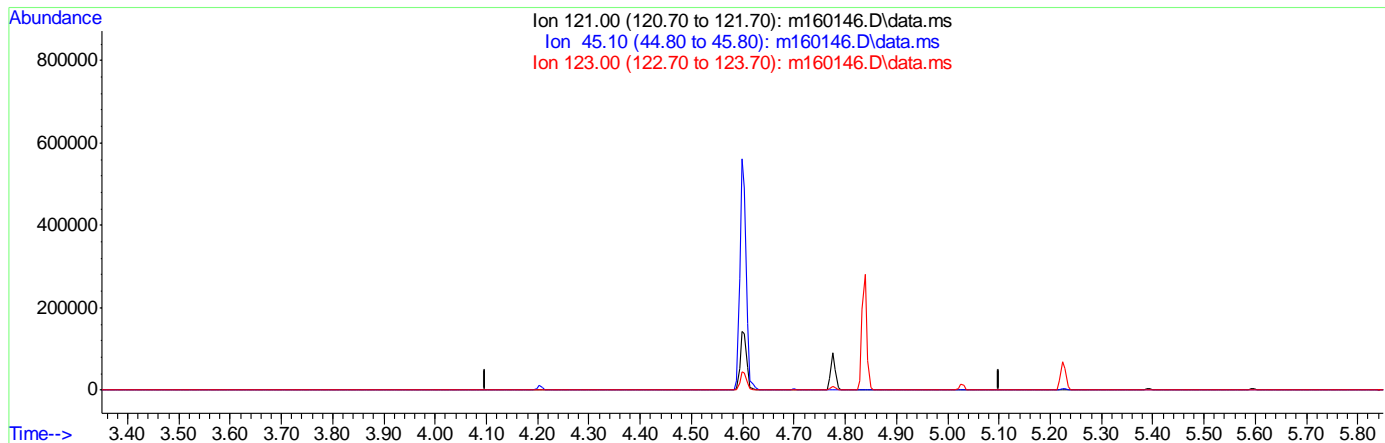
Sample Number: EM6777-ICV6777 Method: SW846 8270D
Lab FileID: M160146.D Analyst approved: 10/11/19 19:43 Kristi Schollenberger
Injection Time: 10/07/19 13:57 Supervisor approved: 10/11/19 19:43 Kristi Schollenberger

Parameter	CAS	Sig#	R.T. (min.)	Reason
2,2'-Oxybis(1-chloropropane)	108-60-1		4.60	Missed peak

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EM6777\
 Data File : m160146.D
 Acq On : 7 Oct 2019 1:57 pm
 Operator : hennys
 Sample : icv6777-50
 Misc : op21044,em6777,1000,,,1,1
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Oct 08 16:01:14 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MM6777.M
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30m x 0.25mm x 0.25um
 QLast Update : Tue Oct 08 15:55:00 2019
 Response via : Initial Calibration



(20) 2,2'-oxybis(1-Chloropropane (t))

4.600min 0.00ppm d

response 0

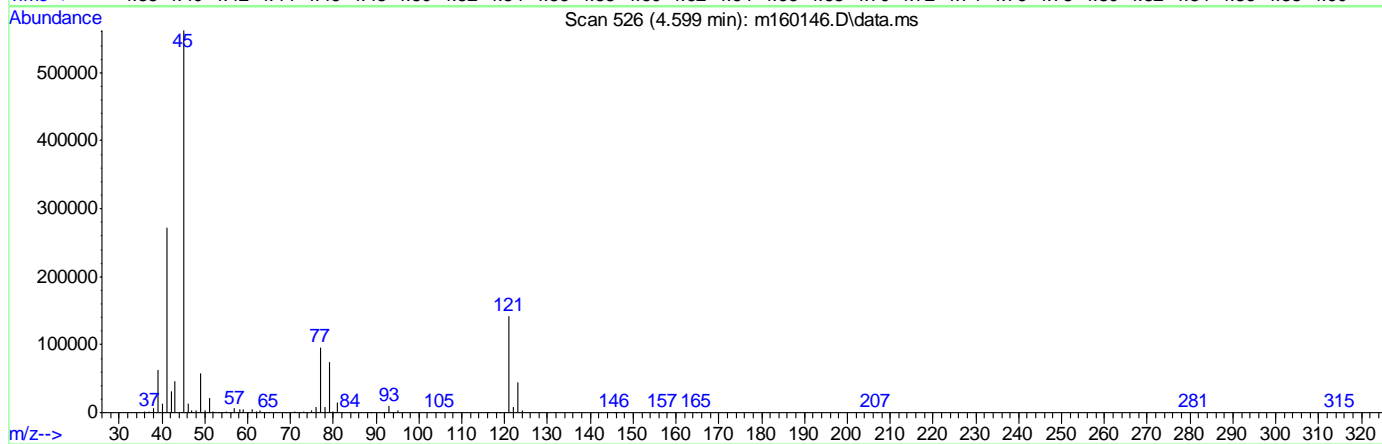
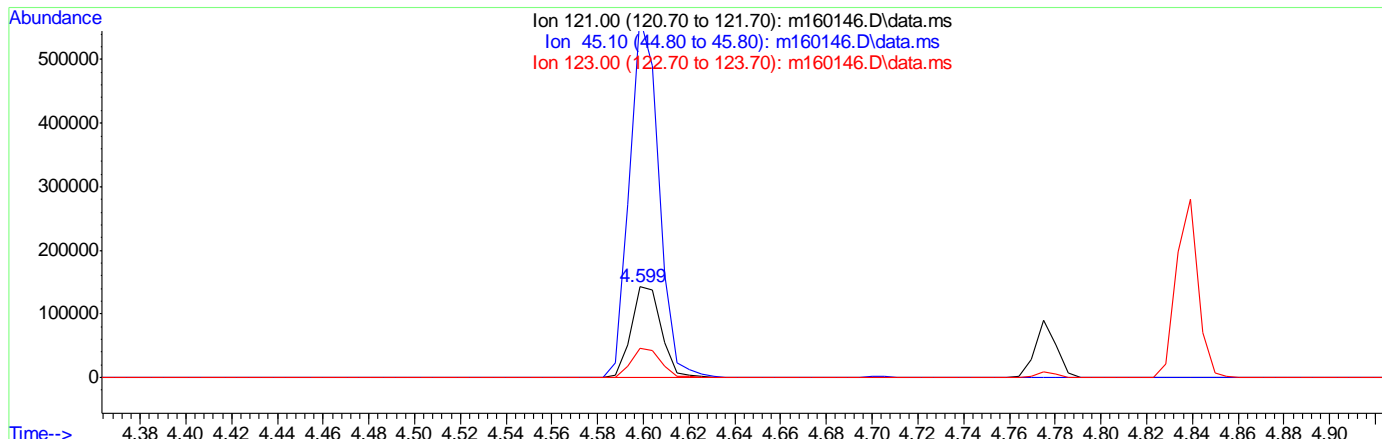
Ion	Exp%	Act%
121.00	100	0.00
45.10	404.00	0.00
123.00	33.40	0.00
0.00	0.00	0.00

9.6.93.2
9

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EM6777\
 Data File : m160146.D
 Acq On : 7 Oct 2019 1:57 pm
 Operator : hennys
 Sample : icv6777-50
 Misc : op21044,em6777,1000,,,1,1
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Oct 08 16:01:14 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MM6777.M
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 QLast Update : Tue Oct 08 15:55:00 2019
 Response via : Initial Calibration



(20) 2,2'-oxybis(1-Chloropropane (t))

4.599min (-0.001) 54.64ppm m

response 129761

Ion	Exp%	Act%
121.00	100	100
45.10	404.00	394.92
123.00	33.40	31.87
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6777\
 Data File : ml60147.D
 Acq On : 7 Oct 2019 2:26 pm
 Operator : hennys
 Sample : icv6777-50
 Misc : op21044,em6777,1000,,,1,1
 ALS Vial : 11 Sample Multiplier: 1

Quant Time: Oct 11 14:04:26 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MM6777.M
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 QLast Update : Fri Oct 11 13:05:55 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.389	152	225821	40.00	ppm	0.02
24) Naphthalene-d8	5.442	136	839623	40.00	ppm	0.02
47) Acenaphthene-d10	7.632	164	505635	40.00	ppm	0.03
69) Phenanthrene-d10	10.164	188	839884	40.00	ppm	0.03
83) Chrysene-d12	15.245	240	848372	40.00	ppm	0.00
91) Perylene-d12	17.836	264	857892	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.389	152	225821	40.00	ppm	0.02
103) Acenaphthene-d10a	7.632	164	505635	40.00	ppm	0.03
105) Acenaphthene-d10b	7.632	164	505635	40.00	ppm	0.03
107) Chrysene-d12a	15.245	240	848372	40.00	ppm	0.00
110) Phenanthrene-d10a	10.164	188	839884	40.00	ppm	0.03
112) Phenanthrene-d10b	10.164	188	839884	40.00	ppm	0.03
114) Naphthalene-d8a	5.442	136	839623	40.00	ppm	0.02
116) Chrysene-d12c	15.245	240	848372	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
25) Nitrobenzene-d5	0.000	82	0d	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
109) 1-chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
113) o-terphenyl	0.000	230	0	0.00	ppm	
Target Compounds						
2) 1,4-Dioxane	1.879	88	247584	45.66	ppm	97
6) Indene	4.582	116	710361	53.41	ppm	97
7) Cumene	3.791	105	1075368	45.75	ppm	99
13) Decane	4.272	43	377904	46.95	ppm	97
18) Acetophenone	4.699	105	566016	46.14	ppm	98
27) Quinoline	5.805	129	801548	43.12	ppm	99
40) 2,3-Dichloroaniline	6.580	161	394986	39.27	ppm	99
41) Caprolactam	5.885	55	170857	39.44	ppm	98
45) 1-Methylnaphthalene	6.329	142	752570	40.59	ppm	99
46) Dimethylnaphthalene	7.023	156	676744	41.80	ppm	98
48) Hexachlorocyclopentadiene	6.414	237	250948	48.45	ppm	99
53) Biphenyl	6.809	154	921356	41.38	ppm	98
82) Octadecane	10.170	57	490911	48.53	ppm	99
99) 7,12-Dimethylbenz(a)an...	17.216	256	631227	61.39	ppm	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6777\
Data File : ml60147.D
Acq On : 7 Oct 2019 2:26 pm
Operator : hennys
Sample : icv6777-50
Misc : op21044,em6777,1000,,,1,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Oct 11 14:04:26 2019
Quant Method : C:\MSDCHEM\1\METHODS\MM6777.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Fri Oct 11 13:05:55 2019
Response via : Initial Calibration

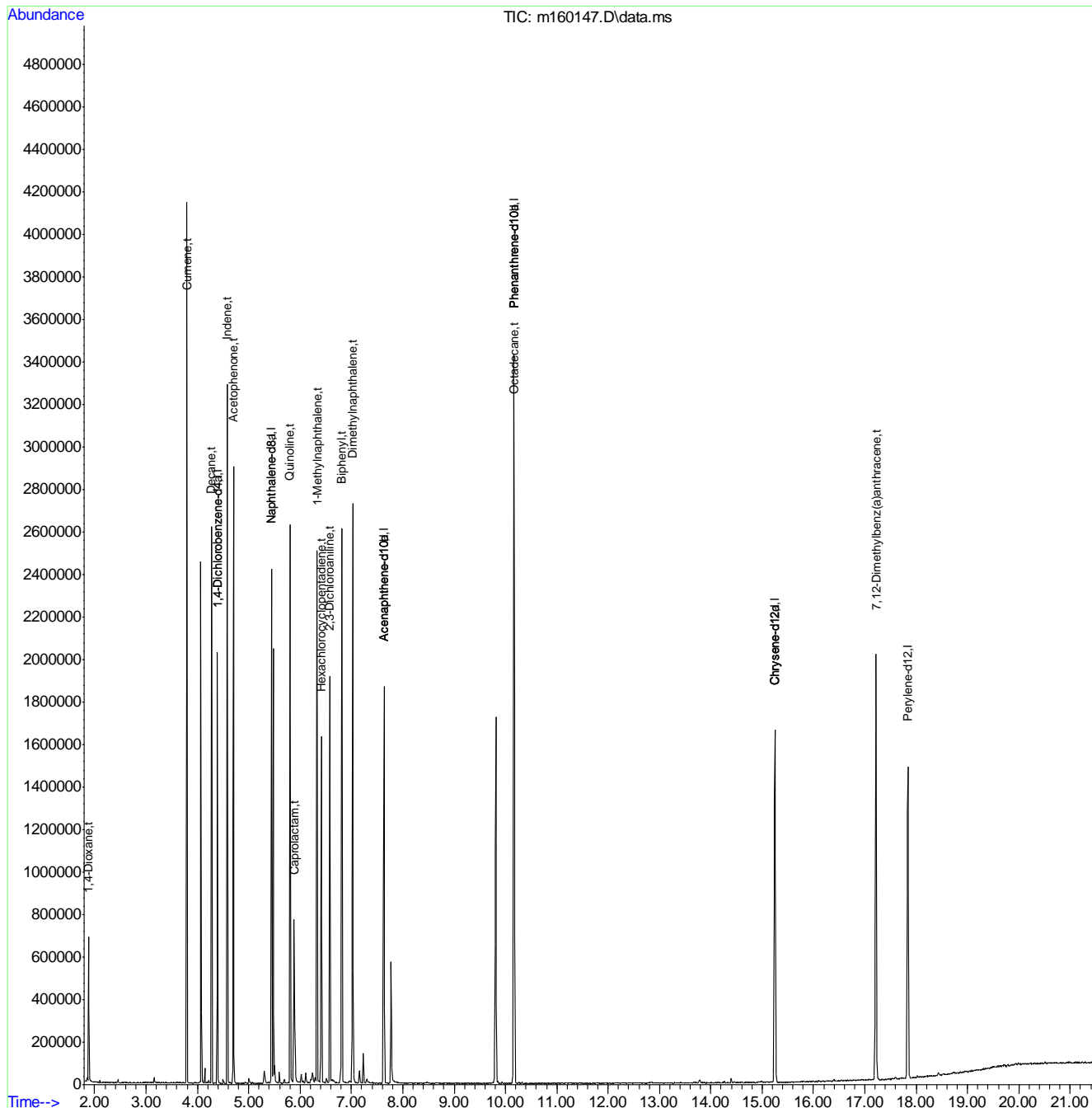
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

(#) = qualifier out of range (m) = manual integration (+) = signals summed						

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6777\
 Data File : m160147.D
 Acq On : 7 Oct 2019 2:26 pm
 Operator : hennys
 Sample : icv6777-50
 Misc : op21044,em6777,1000,,,1,1
 ALS Vial : 11 Sample Multiplier: 1

Quant Time: Oct 11 14:04:26 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MM6777.M
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30m x 0.25mm x 0.25um
 QLast Update : Fri Oct 11 13:05:55 2019
 Response via : Initial Calibration



9.6-9.4
9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6777\
 Data File : ml60148.D
 Acq On : 7 Oct 2019 2:55 pm
 Operator : hennys
 Sample : icv6777-50
 Misc : op21044,em6777,1000,,,1,1
 ALS Vial : 12 Sample Multiplier: 1

Quant Time: Oct 07 15:32:53 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MM6777.M
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 QLast Update : Mon Oct 07 14:07:25 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.392	152	233505	40.00	ppm	0.00
24) Naphthalene-d8	5.445	136	845333	40.00	ppm	0.00
47) Acenaphthene-d10	7.630	164	486848	40.00	ppm	0.00
69) Phenanthrene-d10	10.162	188	912541	40.00	ppm	0.00
83) Chrysene-d12	15.247	240	875289	40.00	ppm	0.00
91) Perylene-d12	17.838	264	913252	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.392	152	233505	40.00	ppm	0.00
103) Acenaphthene-d10a	7.630	164	486848	40.00	ppm	0.00
105) Acenaphthene-d10b	7.630	164	486848	40.00	ppm	0.00
107) Chrysene-d12a	15.247	240	875289	40.00	ppm	0.00
110) Phenanthrene-d10a	10.162	188	912541	40.00	ppm	0.00
112) Phenanthrene-d10b	10.162	188	912541	40.00	ppm	0.00
114) Naphthalene-d8a	5.445	136	845333	40.00	ppm	0.00
116) Chrysene-d12c	15.247	240	875289	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
109) 1-chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
113) o-terphenyl	0.000	230	0	0.00	ppm	
Target Compounds						
3) Pyridine	2.303	79	641552	49.79	ppm	99
10) Aniline	4.168	93	765586	56.47	ppm	98
16) Benzyl alcohol	4.515	108	277365	57.25	ppm	94
39) 4-Chloroaniline	5.535	127	504060	47.68	ppm	97
44) 2-Methylnaphthalene	6.209	141	646846	44.31	ppm	98
54) 2-Nitroaniline	7.010	65	272877	52.76	ppm	94
58) 3-Nitroaniline	7.630	138	225037	51.80	ppm	97
62) Dibenzofuran	7.955	168	1131172	47.58	ppm	99
68) 4-Nitroaniline	8.634	138	253197	56.80	ppm	99
79) Carbazole	10.669	167	1330486	45.34	ppm	98

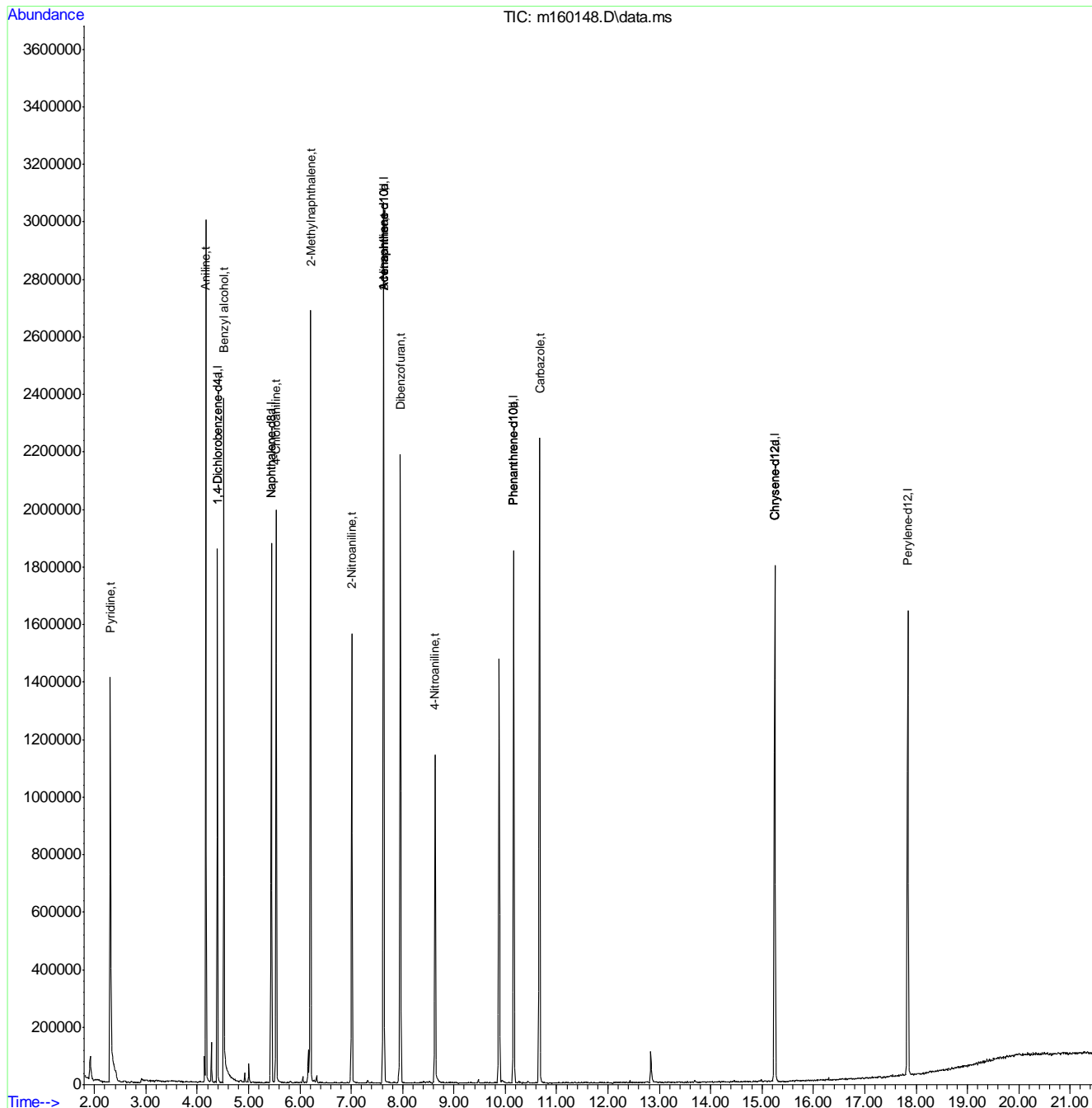
(#) = qualifier out of range (m) = manual integration (+) = signals summed

9.6.95
9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6777\
 Data File : m160148.D
 Acq On : 7 Oct 2019 2:55 pm
 Operator : hennys
 Sample : icv6777-50
 Misc : op21044,em6777,1000,,,1,1
 ALS Vial : 12 Sample Multiplier: 1

Quant Time: Oct 07 15:32:53 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MM6777.M
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30m x 0.25mm x 0.25um
 QLast Update : Mon Oct 07 14:07:25 2019
 Response via : Initial Calibration



9696
6

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6777\
 Data File : ml60149.D
 Acq On : 7 Oct 2019 3:23 pm
 Operator : hennys
 Sample : icv6777-50
 Misc : op21044,em6777,1000,,,1,1
 ALS Vial : 13 Sample Multiplier: 1

Quant Time: Oct 08 11:18:42 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MM6777.M
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 QLast Update : Mon Oct 07 14:07:25 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.389	152	261716	40.00	ppm	0.00
24) Naphthalene-d8	5.441	136	839256	40.00	ppm	0.00
47) Acenaphthene-d10	7.632	164	577511	40.00	ppm	0.00
69) Phenanthrene-d10	10.164	188	990631	40.00	ppm	0.00
83) Chrysene-d12	15.250	240	936439	40.00	ppm	0.00
91) Perylene-d12	17.835	264	979634	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.389	152	261716	40.00	ppm	0.00
103) Acenaphthene-d10a	7.632	164	577511	40.00	ppm	0.00
105) Acenaphthene-d10b	7.632	164	577511	40.00	ppm	0.00
107) Chrysene-d12a	15.250	240	936439	40.00	ppm	0.00
110) Phenanthrene-d10a	10.164	188	990631	40.00	ppm	0.00
112) Phenanthrene-d10b	10.164	188	990631	40.00	ppm	0.00
114) Naphthalene-d8a	5.441	136	839256	40.00	ppm	0.00
116) Chrysene-d12c	15.250	240	936439	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
25) Nitrobenzene-d5	0.000	82	0d	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
109) 1-chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
113) o-terphenyl	0.000	230	0	0.00	ppm	
Target Compounds						
9) Phenol	4.175	94	648455	43.16	ppm	97
12) 2-Chlorophenol	4.250	128	449767	43.14	ppm	93
19) 2-Methylphenol	4.608	108	408298	47.82	ppm	94
21) 3&4-Methylphenol	4.731	108	412005	45.15	ppm	95
29) 2-Nitrophenol	5.105	139	233704	50.36	ppm	# 64
30) 2,4-Dimethylphenol	5.158	107	403629	50.66	ppm	99
31) Benzoic acid	5.292	105	146223	21.31	ppm	97
33) 2,4-Dichlorophenol	5.324	162	348023	43.56	ppm	98
34) 2,6-Dichlorophenol	5.538	162	342805	47.58	ppm	97
43) 4-Chloro-3-methylphenol	6.083	107	403530	45.97	ppm	95
49) 2,4,6-Trichlorophenol	6.579	196	279667	44.23	ppm	96
50) 2,4,5-Trichlorophenol	6.633	196	270682	40.08	ppm	100
60) 2,4-Dinitrophenol	7.776	184	96551	37.53	ppm	96
61) 4-Nitrophenol	7.995	109	139174	45.60	ppm	# 72
64) 2,3,4,6-Tetrachlorophenol	8.193	232	237895	42.33	ppm	99
70) 4,6-Dinitro-2-methylph...	8.657	198	161655	44.40	ppm	98

9696

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6777\
Data File : ml60149.D
Acq On : 7 Oct 2019 3:23 pm
Operator : hennys
Sample : icv6777-50
Misc : op21044,em6777,1000,,,1,1
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Oct 08 11:18:42 2019
Quant Method : C:\MSDCHEM\1\METHODS\MM6777.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Mon Oct 07 14:07:25 2019
Response via : Initial Calibration

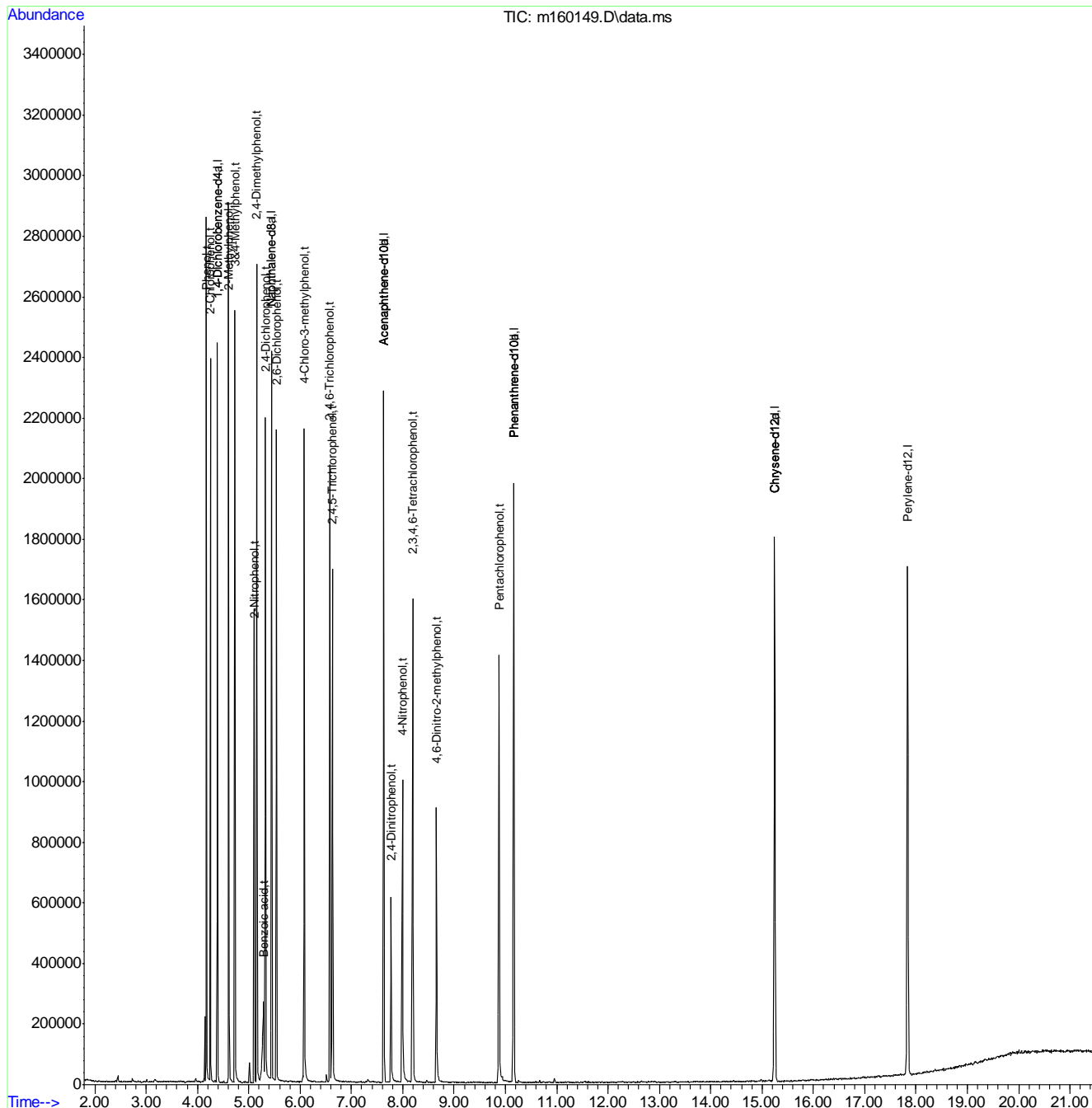
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
76) Pentachlorophenol	9.875	266	215413	46.55	ppm	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6777\
 Data File : ml60149.D
 Acq On : 7 Oct 2019 3:23 pm
 Operator : hennys
 Sample : icv6777-50
 Misc : op21044,em6777,1000,,,1,1
 ALS Vial : 13 Sample Multiplier: 1

Quant Time: Oct 08 11:18:42 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MM6777.M
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 QLast Update : Mon Oct 07 14:07:25 2019
 Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6777\
 Data File : ml60150a.D
 Acq On : 7 Oct 2019 3:55 pm
 Operator : hennys
 Sample : icv6777-50
 Misc : op21044,em6777,1000,,,1,1
 ALS Vial : 14 Sample Multiplier: 1

Quant Time: Oct 08 04:15:00 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MM6777.M
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 QLast Update : Mon Oct 07 17:22:56 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.389	152	298728	40.00	ppm	0.00
24) Naphthalene-d8	5.442	136	1044391	40.00	ppm	0.00
47) Acenaphthene-d10	7.632	164	631192	40.00	ppm	0.00
69) Phenanthrene-d10	10.159	188	1118631	40.00	ppm	0.00
83) Chrysene-d12	15.245	240	976075	40.00	ppm	0.00
91) Perylene-d12	17.836	264	1048147	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.389	152	298728	40.00	ppm	0.00
103) Acenaphthene-d10a	7.632	164	631192	40.00	ppm	0.00
105) Acenaphthene-d10b	7.632	164	631192	40.00	ppm	0.00
107) Chrysene-d12a	15.245	240	976075	40.00	ppm	0.00
110) Phenanthrene-d10a	10.159	188	1118631	40.00	ppm	0.00
112) Phenanthrene-d10b	10.159	188	1118631	40.00	ppm	0.00
114) Naphthalene-d8a	5.442	136	1044391	40.00	ppm	0.00
116) Chrysene-d12c	15.245	240	976075	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	3.428	112	531536	40.48	ppm	0.00
Spiked Amount	50.000		Recovery	=	80.96%	
8) Phenol-d5	4.165	99	611382	40.52	ppm	0.00
Spiked Amount	50.000		Recovery	=	81.04%	
25) Nitrobenzene-d5	4.822	82	553064	41.16	ppm	0.00
Spiked Amount	50.000		Recovery	=	82.32%	
51) 2-Fluorobiphenyl	6.686	172	975388	44.53	ppm	0.00
Spiked Amount	50.000		Recovery	=	89.06%	
73) 2,4,6-Tribromophenol	8.936	330	172732	39.24	ppm	0.00
Spiked Amount	50.000		Recovery	=	78.48%	
85) Terphenyl-d14	13.300	244	1086041	40.88	ppm	0.00
Spiked Amount	50.000		Recovery	=	81.76%	
109) 1-chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
113) o-terphenyl	0.000	230	0	0.00	ppm	

Target Compounds Qvalue

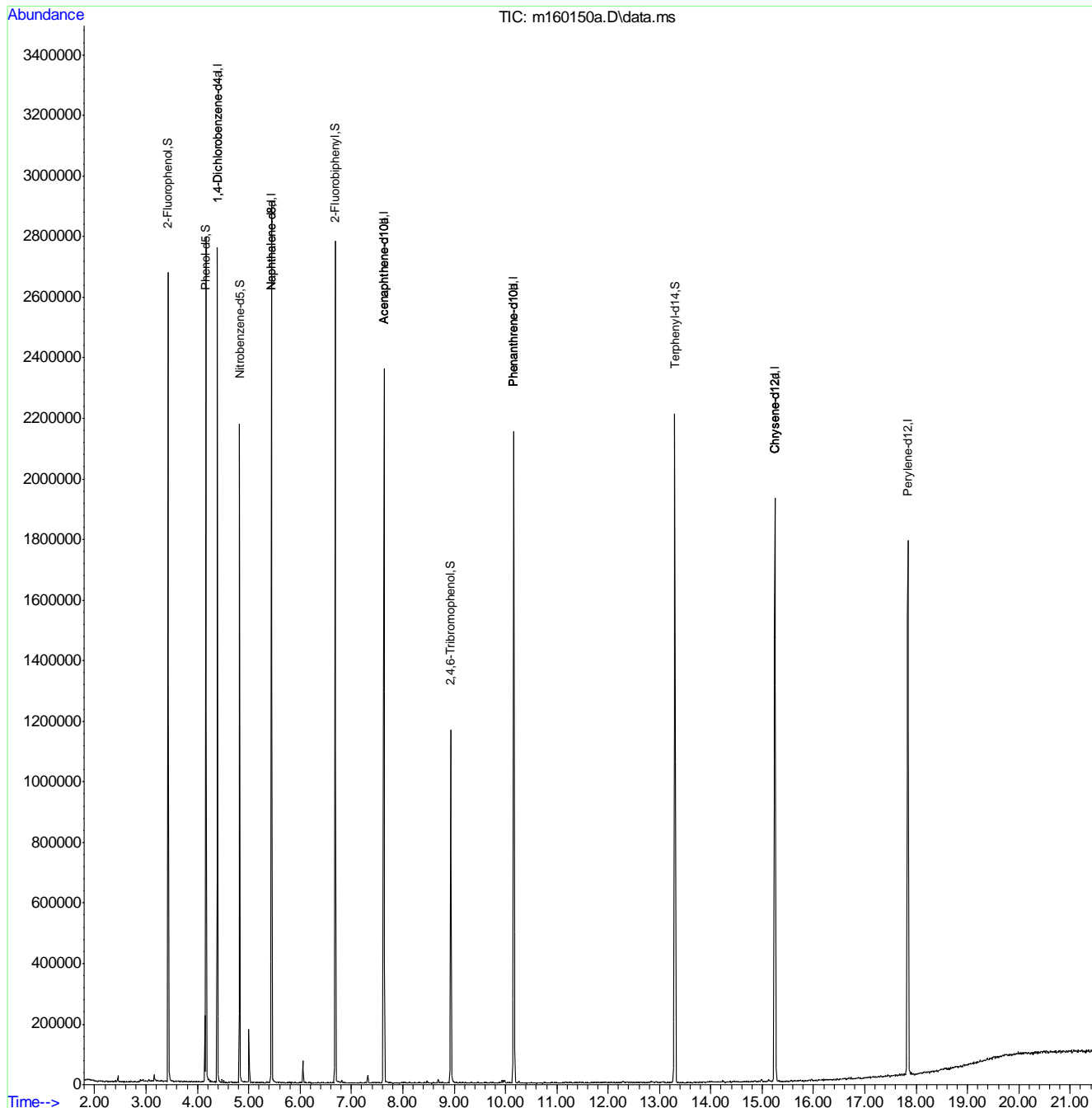
(#) = qualifier out of range (m) = manual integration (+) = signals summed

9.6.97
9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6777\
 Data File : m160150a.D
 Acq On : 7 Oct 2019 3:55 pm
 Operator : hennys
 Sample : icv6777-50
 Misc : op21044,em6777,1000,,,1,1
 ALS Vial : 14 Sample Multiplier: 1

Quant Time: Oct 08 04:15:00 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MM6777.M
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 QLast Update : Mon Oct 07 17:22:56 2019
 Response via : Initial Calibration



6 76'9"6

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6777\
 Data File : ml60151.D
 Acq On : 7 Oct 2019 4:24 pm
 Operator : hennys
 Sample : icv6777-50
 Misc : op21044,em6777,1000,,,1,1
 ALS Vial : 15 Sample Multiplier: 1

Quant Time: Oct 07 17:26:01 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MM6777.M
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 QLast Update : Mon Oct 07 17:22:56 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.392	152	291808	40.00	ppm	0.00
24) Naphthalene-d8	5.444	136	976786	40.00	ppm	0.00
47) Acenaphthene-d10	7.629	164	586514	40.00	ppm	0.00
69) Phenanthrene-d10	10.161	188	1069087	40.00	ppm	0.00
83) Chrysene-d12	15.247	240	976913	40.00	ppm	0.00
91) Perylene-d12	17.838	264	1059351	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.392	152	291808	40.00	ppm	0.00
103) Acenaphthene-d10a	7.629	164	586514	40.00	ppm	0.00
105) Acenaphthene-d10b	7.629	164	586514	40.00	ppm	0.00
107) Chrysene-d12a	15.247	240	976913	40.00	ppm	0.00
110) Phenanthrene-d10a	10.161	188	1069087	40.00	ppm	0.00
112) Phenanthrene-d10b	10.161	188	1069087	40.00	ppm	0.00
114) Naphthalene-d8a	5.444	136	976786	40.00	ppm	0.00
116) Chrysene-d12c	15.247	240	976913	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
109) 1-chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
113) o-terphenyl	0.000	230	0	0.00	ppm	
Target Compounds						
88) 3,3'-Dichlorobenzidine	15.300	252	543580	45.57	ppm	Qvalue 100

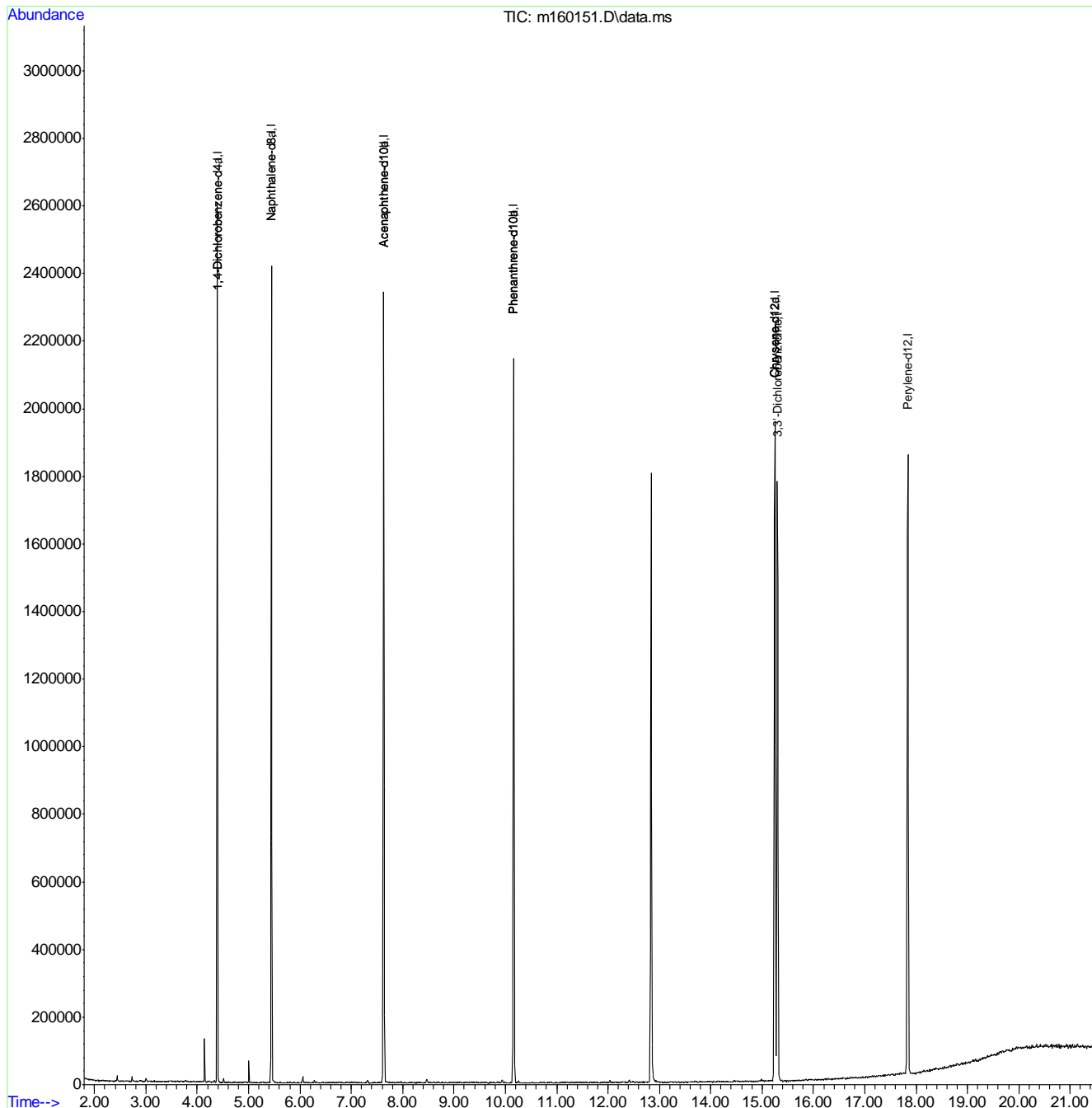
(#) = qualifier out of range (m) = manual integration (+) = signals summed

6 869.9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6777\
 Data File : m160151.D
 Acq On : 7 Oct 2019 4:24 pm
 Operator : hennys
 Sample : icv6777-50
 Misc : op21044,em6777,1000,,,1,1
 ALS Vial : 15 Sample Multiplier: 1

Quant Time: Oct 07 17:26:01 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MM6777.M
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30m x 0.25mm x 0.25um
 QLast Update : Mon Oct 07 17:22:56 2019
 Response via : Initial Calibration



6 86'9'6

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6780\
 Data File : m160199.D
 Acq On : 10 Oct 2019 9:03 am
 Operator : hennys
 Sample : cc6777-50
 Misc : op21044,em6780,1000,,,1,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Oct 11 14:35:36 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MM6777.M
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 QLast Update : Fri Oct 11 14:33:58 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.372	152	211949	40.00	ppm	0.00
24) Naphthalene-d8	5.424	136	747463	40.00	ppm	0.00
47) Acenaphthene-d10	7.604	164	487696	40.00	ppm	0.00
69) Phenanthrene-d10	10.136	188	836878	40.00	ppm	0.00
83) Chrysene-d12	15.238	240	736560	40.00	ppm	0.00
91) Perylene-d12	17.829	264	833408	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.372	152	211949	40.00	ppm	0.00
103) Acenaphthene-d10a	7.604	164	487696	40.00	ppm	0.00
105) Acenaphthene-d10b	7.604	164	487696	40.00	ppm	0.00
107) Chrysene-d12a	15.238	240	736560	40.00	ppm	0.00
110) Phenanthrene-d10a	10.136	188	836878	40.00	ppm	0.00
112) Phenanthrene-d10b	10.136	188	836878	40.00	ppm	0.00
114) Naphthalene-d8a	5.424	136	747463	40.00	ppm	0.00
116) Chrysene-d12c	15.238	240	736560	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	3.416	112	491919	52.80	ppm	0.00
Spiked Amount 50.000			Recovery =	105.60%		
8) Phenol-d5	4.158	99	531784	49.67	ppm	0.00
Spiked Amount 50.000			Recovery =	99.34%		
25) Nitrobenzene-d5	4.805	82	485462	50.49	ppm	0.00
Spiked Amount 50.000			Recovery =	100.98%		
51) 2-Fluorobiphenyl	6.658	172	837937	49.51	ppm	0.00
Spiked Amount 50.000			Recovery =	99.02%		
73) 2,4,6-Tribromophenol	8.918	330	187852	57.05	ppm	0.00
Spiked Amount 50.000			Recovery =	114.10%		
85) Terphenyl-d14	13.277	244	1036091	51.68	ppm	0.00
Spiked Amount 50.000			Recovery =	103.36%		
109) 1-chlorooctadecane	0.000	57	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
113) o-terphenyl	0.000	230	0	0.00	ppm	
Target Compounds						
2) 1,4-Dioxane	1.850	88	255402	50.18	ppm	98
3) Pyridine	2.198	79	609759	52.13	ppm	97
4) N-Nitrosodimethylamine	2.160	42	270167	51.23	ppm	91
6) Indene	4.564	116	626013	50.15	ppm	99
7) Cumene	3.773	105	1081511	49.03	ppm	99
9) Phenol	4.169	94	601273	49.41	ppm	95
10) Aniline	4.147	93	714014	58.02	ppm	94
11) bis(2-Chloroethyl)ether	4.190	93	402358	47.48	ppm	99
12) 2-Chlorophenol	4.233	128	418594	49.58	ppm	99
13) Decane	4.254	43	357205	47.28	ppm	96
14) 1,3-Dichlorobenzene	4.334	146	450706	48.06	ppm	98
15) 1,4-Dichlorobenzene	4.388	146	417254	50.22	ppm	98
16) Benzyl alcohol	4.500	108	253474	57.64	ppm	95
17) 1,2-Dichlorobenzene	4.500	146	407264	48.52	ppm	97
18) Acetophenone	4.687	105	568424	49.37	ppm	95
19) 2-Methylphenol	4.601	108	352453	50.97	ppm	96

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6780\
 Data File : m160199.D
 Acq On : 10 Oct 2019 9:03 am
 Operator : hennys
 Sample : cc6777-50
 Misc : op21044,em6780,1000,,,1,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Oct 11 14:35:36 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MM6777.M
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 QLast Update : Fri Oct 11 14:33:58 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
20) 2,2'-oxybis(1-Chloropr...	4.585	121	108614	49.19	ppm	100
21) 3&4-Methylphenol	4.719	108	377588	51.10	ppm	95
22) n-Nitroso-di-n-propyla...	4.687	70	318154	48.91	ppm	94
23) Hexachloroethane	4.756	201	171941	49.53	ppm	98
26) Nitrobenzene	4.821	77	472132	48.07	ppm	100
27) Quinoline	5.798	129	840329	50.78	ppm	98
28) Isophorone	5.013	82	903528	52.12	ppm	99
29) 2-Nitrophenol	5.088	139	225439	54.54	ppm	86
30) 2,4-Dimethylphenol	5.146	107	419951	59.19	ppm	98
31) Benzoic acid	5.291	105	371466	57.66	ppm	100
32) bis(2-Chloroethoxy)met...	5.205	93	522490	49.03	ppm	99
33) 2,4-Dichlorophenol	5.312	162	351489	49.40	ppm	99
34) 2,6-Dichlorophenol	5.520	162	320965	50.02	ppm	98
35) 1,3,5-Trichlorobenzene	5.082	180	384143	46.60	ppm	98
36) 1,2,4-Trichlorobenzene	5.371	180	374409	47.50	ppm	98
37) 1,2,3-Trichlorobenzene	5.590	180	339036	46.23	ppm	97
38) Naphthalene	5.446	128	1028604	50.11	ppm	99
39) 4-Chloroaniline	5.520	127	475836	50.91	ppm	98
40) 2,3-Dichloroaniline	6.557	161	432507	48.31	ppm	98
41) Caprolactam	5.900	55	207681	53.86	ppm	99
42) Hexachlorobutadiene	5.574	225	224746	49.05	ppm	99
43) 4-Chloro-3-methylphenol	6.076	107	414230	52.99	ppm	98
44) 2-Methylnaphthalene	6.183	141	617653	47.85	ppm	99
45) 1-Methylnaphthalene	6.300	142	790683	47.91	ppm	99
46) Dimethylnaphthalene	7.000	156	648036	44.97	ppm	98
48) Hexachlorocyclopentadiene	6.386	237	509194	101.92	ppm	98
49) 2,4,6-Trichlorophenol	6.562	196	263127	49.28	ppm	100
50) 2,4,5-Trichlorophenol	6.621	196	286625	50.25	ppm	98
52) 2-Chloronaphthalene	6.802	162	708897	43.99	ppm	99
53) Biphenyl	6.786	154	950459	44.25	ppm	99
54) 2-Nitroaniline	6.989	65	265431	51.23	ppm	97
55) Dimethylphthalate	7.262	163	989938	47.75	ppm	100
56) Acenaphthylene	7.390	152	1168102	47.04	ppm	100
57) 2,6-Dinitrotoluene	7.342	165	227067	55.37	ppm	94
58) 3-Nitroaniline	7.609	138	226345	52.01	ppm	99
59) Acenaphthene	7.657	153	711128	47.41	ppm	95
60) 2,4-Dinitrophenol	7.759	184	257551	110.53	ppm	99
61) 4-Nitrophenol	7.988	109	133118	51.65	ppm	# 74
62) Dibenzofuran	7.935	168	1127544	47.35	ppm	97
63) 2,4-Dinitrotoluene	7.967	165	286999	54.76	ppm	90
64) 2,3,4,6-Tetrachlorophenol	8.170	232	253701	53.46	ppm	97
65) Diethylphthalate	8.405	149	998324	48.55	ppm	100
66) Fluorene	8.491	166	873113	46.18	ppm	99
67) 4-Chlorophenyl-phenyle...	8.528	204	419909	45.12	ppm	99
68) 4-Nitroaniline	8.624	138	229436	51.38	ppm	100
70) 4,6-Dinitro-2-methylph...	8.651	198	179171	58.25	ppm	99
71) n-Nitrosodiphenylamine	8.758	169	638205	48.39	ppm	98
72) 1,2-Diphenylhydrazine	8.800	77	1002306	49.37	ppm	99
74) 4-Bromophenyl-phenylether	9.377	248	309603	50.22	ppm	98
75) Hexachlorobenzene	9.452	284	321743	47.88	ppm	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6780\
 Data File : m160199.D
 Acq On : 10 Oct 2019 9:03 am
 Operator : hennys
 Sample : cc6777-50
 Misc : op21044,em6780,1000,,,1,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Oct 11 14:35:36 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MM6777.M
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 QLast Update : Fri Oct 11 14:33:58 2019
 Response via : Initial Calibration

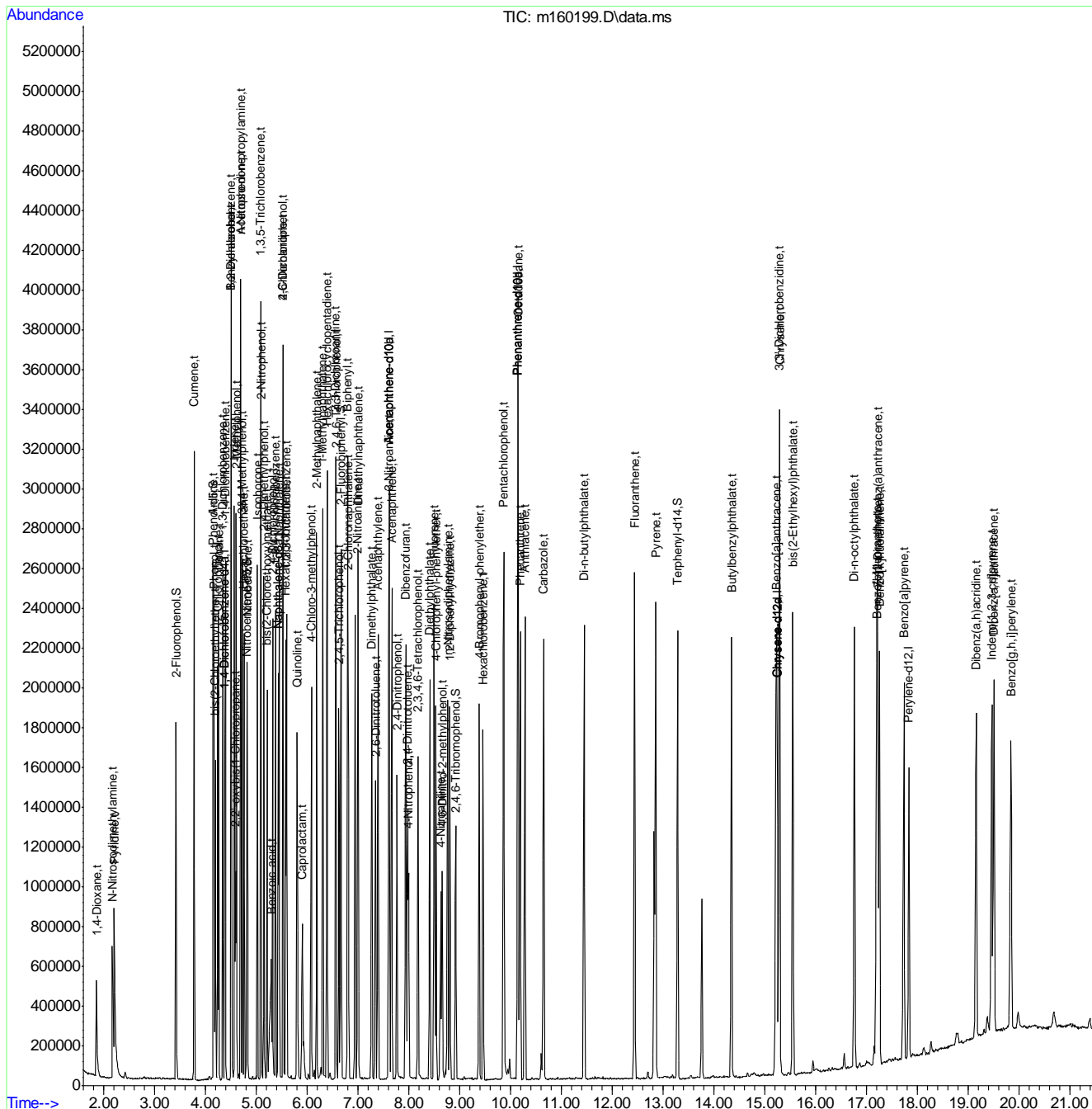
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
76) Pentachlorophenol	9.858	266	439081	112.32	ppm	99
77) Phenanthrene	10.184	178	1152536	49.17	ppm	99
78) Anthracene	10.275	178	1238874	50.80	ppm	100
79) Carbazole	10.643	167	1290873	47.97	ppm	98
80) Di-n-butylphthalate	11.439	149	1802014	52.12	ppm	100
81) Fluoranthene	12.433	202	1553386	49.16	ppm	99
82) Octadecane	10.141	57	535649	53.15	ppm	99
84) Pyrene	12.850	202	1476721	48.26	ppm	99
86) Butylbenzylphthalate	14.340	149	820894	57.11	ppm	97
87) Benzo[a]anthracene	15.216	228	1394897	50.59	ppm	99
88) 3,3'-Dichlorobenzidine	15.280	252	497851	55.35	ppm	98
89) Chrysene	15.286	228	1123351	48.95	ppm	99
90) bis(2-Ethylhexyl)phtha...	15.542	149	1056879	58.66	ppm	99
92) Di-n-octylphthalate	16.755	149	1808492	54.58	ppm	100
93) Benzo[b]fluoranthene	17.193	252	1389161	48.47	ppm	99
94) Benzo[k]fluoranthene	17.252	252	1155050	45.26	ppm	99
95) Benzo[a]pyrene	17.732	252	1219421	48.21	ppm	100
96) Indeno[1,2,3-cd]pyrene	19.458	276	1092649	44.36	ppm	100
97) Dibenz(a,h)acridine	19.153	279	1052239	45.49	ppm	88
98) Dibenz[a,h]anthracene	19.501	278	1116213	45.46	ppm	97
99) 7,12-Dimethylbenz(a)an...	17.214	256	593347	59.40	ppm	98
100) Benzo[g,h,i]perylene	19.837	276	1066713	43.37	ppm	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6780\
Data File : ml60199.D
Acq On : 10 Oct 2019 9:03 am
Operator : hennys
Sample : cc6777-50
Misc : op21044,em6780,1000,,,1,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Oct 11 14:35:36 2019
Quant Method : C:\MSDCHEM\1\METHODS\MM6777.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30m x 0.25mm x 0.25um
QLast Update : Fri Oct 11 14:33:58 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6780\
 Data File : m160200.D
 Acq On : 10 Oct 2019 9:31 am
 Operator : hennys
 Sample : cc6772-50
 Misc : op21044,em6780,1000,,,1,1
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Oct 10 16:39:46 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MM6777.M
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 QLast Update : Tue Oct 08 15:55:00 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.374	152	273774	40.00	ppm	-0.02
24) Naphthalene-d8	5.421	136	938800	40.00	ppm	-0.02
47) Acenaphthene-d10	7.601	164	582415	40.00	ppm	-0.03
69) Phenanthrene-d10	10.138	188	997443	40.00	ppm	-0.03
83) Chrysene-d12	15.229	240	923062	40.00	ppm	-0.02
91) Perylene-d12	17.826	264	922895	40.00	ppm	-0.02
101) 1,4-Dichlorobenzene-d4a	4.374	152	273774	40.00	ppm	-0.05
103) Acenaphthene-d10a	7.601	164	582415	40.00	ppm	-0.08
105) Acenaphthene-d10b	7.601	164	582415	40.00	ppm	-0.08
107) Chrysene-d12a	15.229	240	923062	40.00	ppm	-0.09
110) Phenanthrene-d10a	10.138	188	997443	40.00	ppm	-0.09
112) Phenanthrene-d10b	10.138	188	997443	40.00	ppm	-0.09
114) Naphthalene-d8a	5.421	136	938800	40.00	ppm	-0.06
116) Chrysene-d12c	15.229	240	923062	40.00	ppm	-0.02
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
25) Nitrobenzene-d5	0.000	82	0d	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
51) 2-Fluorobiphenyl	0.000	172	0d	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
85) Terphenyl-d14	0.000	244	0d	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
109) 1-chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
113) o-terphenyl	0.000	230	0	0.00	ppm	
Target Compounds						
102) Benzaldehyde	4.053	105	382124	51.73	ppm	97
104) Atrazine	9.791	215	147140	56.95	ppm	96
111) Pentachloronitrobenzene	9.855	295	68412	57.50	ppm	98

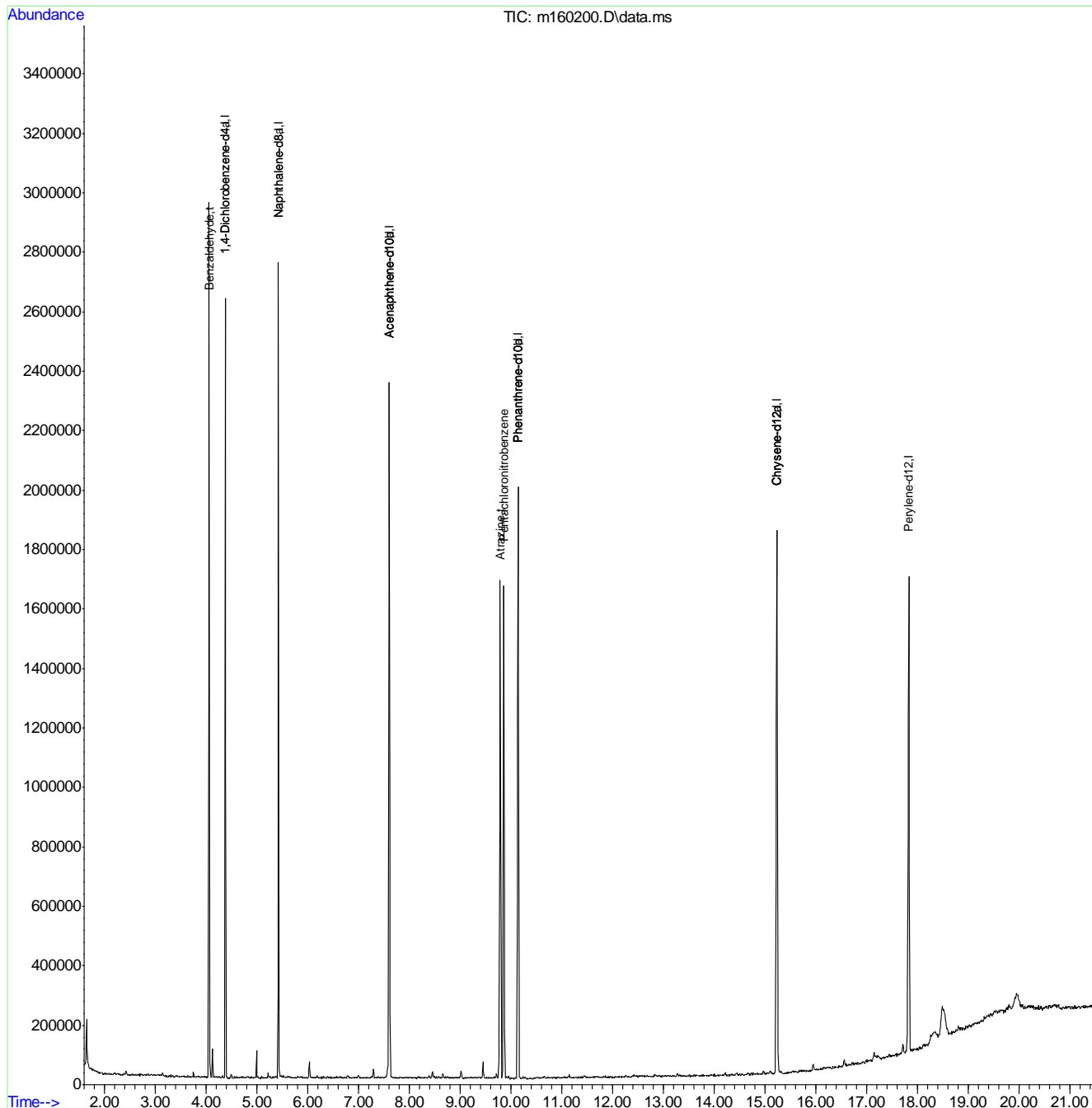
(#) = qualifier out of range (m) = manual integration (+) = signals summed

9.6:100
9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6780\
 Data File : m160200.D
 Acq On : 10 Oct 2019 9:31 am
 Operator : hennys
 Sample : cc6772-50
 Misc : op21044,em6780,1000,,,1,1
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Oct 10 16:39:46 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MM6777.M
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 QLast Update : Tue Oct 08 15:55:00 2019
 Response via : Initial Calibration



9.6.100
 9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6780\
 Data File : m160201.D
 Acq On : 10 Oct 2019 9:59 am
 Operator : hennys
 Sample : cc6773-50
 Misc : op21044,em6780,1000,,,1,1
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 10 16:40:31 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MM6777.M
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 QLast Update : Tue Oct 08 15:55:00 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.374	152	265626	40.00	ppm	-0.02
24) Naphthalene-d8	5.421	136	913180	40.00	ppm	-0.02
47) Acenaphthene-d10	7.601	164	566565	40.00	ppm	-0.03
69) Phenanthrene-d10	10.133	188	1041275	40.00	ppm	-0.03
83) Chrysene-d12	15.229	240	906487	40.00	ppm	-0.02
91) Perylene-d12	17.820	264	935663	40.00	ppm	-0.02
101) 1,4-Dichlorobenzene-d4a	4.374	152	265626	40.00	ppm	-0.05
103) Acenaphthene-d10a	7.601	164	566565	40.00	ppm	-0.08
105) Acenaphthene-d10b	7.601	164	566565	40.00	ppm	-0.08
107) Chrysene-d12a	15.229	240	906487	40.00	ppm	-0.09
110) Phenanthrene-d10a	10.133	188	1041275	40.00	ppm	-0.09
112) Phenanthrene-d10b	10.133	188	1041275	40.00	ppm	-0.09
114) Naphthalene-d8a	5.421	136	913180	40.00	ppm	-0.06
116) Chrysene-d12c	15.229	240	906487	40.00	ppm	-0.02
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
109) 1-chlorooctadecane	12.446	57	411084	67.42	ppm	-0.07
Spiked Amount	50.000		Recovery	=	134.84%	
113) o-terphenyl	10.950	230	689475	48.25	ppm	-0.08
Target Compounds						
106) 1,2,4,5-Tetrachloroben...	6.394	216	405510	43.83	ppm	100
108) Benzidine	12.815	184	867992	54.62	ppm	99
115) Hydroquinone	5.913	110	505284	65.93	ppm	97

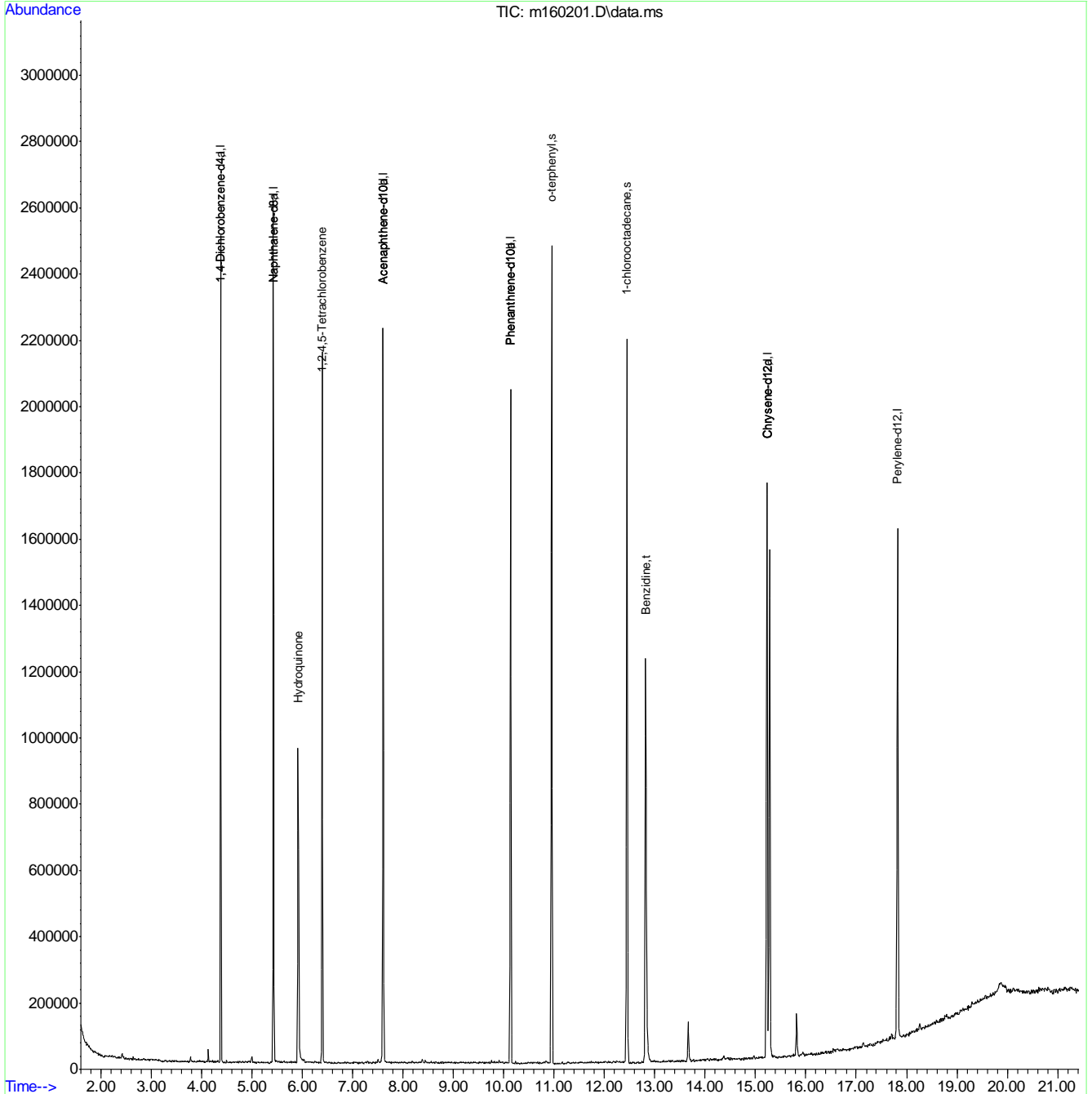
(#) = qualifier out of range (m) = manual integration (+) = signals summed

9.6.101
9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6780\
 Data File : m160201.D
 Acq On : 10 Oct 2019 9:59 am
 Operator : hennys
 Sample : cc6773-50
 Misc : op21044,em6780,1000,,,1,1
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 10 16:40:31 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MM6777.M
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 QLast Update : Tue Oct 08 15:55:00 2019
 Response via : Initial Calibration



9.6.101
 9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\jeryllr\em6781\
 Data File : ml60231.d
 Acq On : 11 Oct 2019 11:19 am
 Operator : hennys
 Sample : cc6777-25 Inst : MSM
 Misc : op21044,em6781,1000,,,1,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MM6777.M
 Quant Results File: MM6777.RES
 Quant Time: Oct 14 04:48:57 2019
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 QLast Update : Fri Oct 11 13:05:55 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.364	152	240506	40.00	ppm	0.00
24) Naphthalene-d8	5.406	136	801395	40.00	ppm	-0.02
47) Acenaphthene-d10	7.580	164	505116	40.00	ppm	-0.02
69) Phenanthrene-d10	10.107	188	906472	40.00	ppm	-0.03
83) Chrysene-d12	15.198	240	786457	40.00	ppm	-0.04
91) Perylene-d12	17.789	264	879467	40.00	ppm	-0.04
101) 1,4-Dichlorobenzene-d4a	4.364	152	240506	40.00	ppm	0.00
103) Acenaphthene-d10a	7.580	164	505116	40.00	ppm	-0.02
105) Acenaphthene-d10b	7.580	164	505116	40.00	ppm	-0.02
107) Chrysene-d12a	15.198	240	786457	40.00	ppm	-0.04
110) Phenanthrene-d10a	10.107	188	906472	40.00	ppm	-0.03
112) Phenanthrene-d10b	10.107	188	906472	40.00	ppm	#-0.03
114) Naphthalene-d8a	5.406	136	801395	40.00	ppm	-0.02
116) Chrysene-d12c	15.198	240	786457	40.00	ppm	-0.04
System Monitoring Compounds						
5) 2-Fluorophenol	3.397	112	269489	25.49	ppm	-0.02
Spiked Amount 50.000			Recovery =	50.98%		
8) Phenol-d5	4.140	99	300756	24.76	ppm	-0.02
Spiked Amount 50.000			Recovery =	49.52%		
25) Nitrobenzene-d5	4.791	82	260622	25.28	ppm	-0.01
Spiked Amount 50.000			Recovery =	50.56%		
51) 2-Fluorobiphenyl	6.640	172	467718	26.68	ppm	-0.02
Spiked Amount 50.000			Recovery =	53.36%		
73) 2,4,6-Tribromophenol	8.883	330	94381	26.46	ppm	-0.03
Spiked Amount 50.000			Recovery =	52.92%		
85) Terphenyl-d14	13.243	244	544308	25.43	ppm	-0.03
Spiked Amount 50.000			Recovery =	50.86%		
109) 1-chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
113) o-terphenyl	0.000	230	0	0.00	ppm	
Target Compounds						
2) 1,4-Dioxane	1.832	88	143023	24.77	ppm	99
3) Pyridine	2.179	79	336872	25.38	ppm	100
4) N-Nitrosodimethylamine	2.147	42	144752	24.19	ppm	95
6) Indene	4.551	116	348736	24.62	ppm	98
7) Cumene	3.760	105	630876	25.20	ppm	99
9) Phenol	4.150	94	342162	24.78	ppm	99
10) Aniline	4.134	93	394694	28.27	ppm	99
11) bis(2-Chloroethyl)ether	4.177	93	236315	24.58	ppm	98
12) 2-Chlorophenol	4.220	128	236808	24.72	ppm	96
13) Decane	4.246	43	214755	25.05	ppm	99
14) 1,3-Dichlorobenzene	4.321	146	257599	24.21	ppm	98
15) 1,4-Dichlorobenzene	4.375	146	236135	25.05	ppm	98
16) Benzyl alcohol	4.482	108	136651	27.39	ppm	86
17) 1,2-Dichlorobenzene	4.492	146	237372	24.92	ppm	95
18) Acetophenone	4.668	105	319268	24.44	ppm	98
19) 2-Methylphenol	4.583	108	195195	24.88	ppm	95
20) 2,2'-oxybis(1-Chloropr...	4.572	121	59730	23.84	ppm	97
21) 3&4-Methylphenol	4.701	108	205352	24.49	ppm	91
22) n-Nitroso-di-n-propyla...	4.674	70	180363	24.44	ppm	99
23) Hexachloroethane	4.743	201	96115	24.40	ppm	95
26) Nitrobenzene	4.807	77	260602	24.75	ppm	98
27) Quinoline	5.774	129	436082	24.58	ppm	98
28) Isophorone	4.994	82	474350	25.52	ppm	97

9.6.102
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Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\jeryllr\em6781\
 Data File : ml60231.d
 Acq On : 11 Oct 2019 11:19 am
 Operator : hennys
 Sample : cc6777-25 Inst : MSM
 Misc : op21044,em6781,1000,,,1,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MM6777.M
 Quant Results File: MM6777.RES
 Quant Time: Oct 14 04:48:57 2019
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 QLast Update : Fri Oct 11 13:05:55 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
29) 2-Nitrophenol	5.069	139	123468	27.86	ppm	97
30) 2,4-Dimethylphenol	5.128	107	228646	30.06	ppm	98
31) Benzoic acid	5.245	105	176127	26.47	ppm	98
32) bis(2-Chloroethoxy)met...	5.192	93	280956	24.59	ppm	99
33) 2,4-Dichlorophenol	5.294	162	194419	25.48	ppm	99
34) 2,6-Dichlorophenol	5.502	162	176222	25.62	ppm	99
35) 1,3,5-Trichlorobenzene	5.069	180	218732	24.75	ppm	98
36) 1,2,4-Trichlorobenzene	5.352	180	209431	24.78	ppm	99
37) 1,2,3-Trichlorobenzene	5.571	180	186523	23.72	ppm	99
38) Naphthalene	5.427	128	552140	25.09	ppm	100
39) 4-Chloroaniline	5.502	127	258889	25.83	ppm	96
40) 2,3-Dichloroaniline	6.533	161	233202	24.29	ppm	99
41) Caprolactam	5.860	55	103453	25.02	ppm	95
42) Hexachlorobutadiene	5.555	225	122301	24.90	ppm	99
43) 4-Chloro-3-methylphenol	6.047	107	216188	25.79	ppm	96
44) 2-Methylnaphthalene	6.164	141	339480	24.53	ppm	99
45) 1-Methylnaphthalene	6.282	142	431618	24.39	ppm	99
46) Dimethylnaphthalene	6.976	156	362526	23.46	ppm	99
48) Hexachlorocyclopentadiene	6.367	237	278489	53.82	ppm	97
49) 2,4,6-Trichlorophenol	6.538	196	143553	25.96	ppm	100
50) 2,4,5-Trichlorophenol	6.597	196	147871	25.03	ppm	98
52) 2-Chloronaphthalene	6.779	162	397704	23.83	ppm	99
53) Biphenyl	6.768	154	515754	23.19	ppm	99
54) 2-Nitroaniline	6.960	65	139295	25.96	ppm	98
55) Dimethylphthalate	7.238	163	523601	24.38	ppm	98
56) Acenaphthylene	7.361	152	631293	24.55	ppm	99
57) 2,6-Dinitrotoluene	7.313	165	115476	27.19	ppm	98
58) 3-Nitroaniline	7.580	138	116062	25.75	ppm	94
59) Acenaphthene	7.628	153	378260	24.35	ppm	96
60) 2,4-Dinitrophenol	7.730	184	124556	53.77	ppm	96
61) 4-Nitrophenol	7.954	109	68437	25.64	ppm	# 71
62) Dibenzofuran	7.906	168	603642	24.47	ppm	99
63) 2,4-Dinitrotoluene	7.938	165	145577	26.82	ppm	92
64) 2,3,4,6-Tetrachlorophenol	8.146	232	129025	26.25	ppm	96
65) Diethylphthalate	8.381	149	524083	24.61	ppm	98
66) Fluorene	8.461	166	478198	24.42	ppm	99
67) 4-Chlorophenyl-phenyle...	8.504	204	224345	23.27	ppm	97
68) 4-Nitroaniline	8.584	138	118891	25.71	ppm	98
70) 4,6-Dinitro-2-methylph...	8.611	198	87970	26.40	ppm	96
71) n-Nitrosodiphenylamine	8.723	169	338542	23.70	ppm	96
72) 1,2-Diphenylhydrazine	8.771	77	538236	24.47	ppm	99
74) 4-Bromophenyl-phenylether	9.348	248	159772	23.93	ppm	98
75) Hexachlorobenzene	9.423	284	171600	23.58	ppm	95
76) Pentachlorophenol	9.824	266	215043	50.79	ppm	98
77) Phenanthrene	10.150	178	593700	23.38	ppm	99
78) Anthracene	10.240	178	647032	24.49	ppm	100
79) Carbazole	10.614	167	710551	24.38	ppm	98
80) Di-n-butylphthalate	11.410	149	937865	25.04	ppm	100
81) Fluoranthene	12.399	202	816411	23.85	ppm	98
82) Octadecane	10.112	57	278740	25.53	ppm	96
84) Pyrene	12.815	202	787664	24.11	ppm	98
86) Butylbenzylphthalate	14.306	149	416113	27.11	ppm	98
87) Benzo[a]anthracene	15.176	228	725644	24.65	ppm	98
88) 3,3'-Dichlorobenzidine	15.246	252	248194	25.84	ppm	97
89) Chrysene	15.246	228	602424	24.59	ppm	100
90) bis(2-Ethylhexyl)phtha...	15.513	149	524423	27.26	ppm	98
92) Di-n-octylphthalate	16.720	149	950060	27.17	ppm	99

9.6.102
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Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\jeryllr\em6781\
 Data File : m160231.d
 Acq On : 11 Oct 2019 11:19 am
 Operator : hennys
 Sample : cc6777-25 Inst : MSM
 Misc : op21044,em6781,1000,,,1,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MM6777.M
 Quant Results File: MM6777.RES
 Quant Time: Oct 14 04:48:57 2019
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 QLast Update : Fri Oct 11 13:05:55 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
93) Benzo[b]fluoranthene	17.148	252	758971	25.09	ppm	100
94) Benzo[k]fluoranthene	17.201	252	640664	23.79	ppm	99
95) Benzo[a]pyrene	17.682	252	682376	25.56	ppm	98
96) Indeno[1,2,3-cd]pyrene	19.407	276	637681	24.53	ppm	98
97) Dibenz(a,h)acridine	19.103	279	603291	24.72	ppm	99
98) Dibenz[a,h]anthracene	19.450	278	608594	23.49	ppm	98
99) 7,12-Dimethylbenz(a)an...	17.169	256	324457	30.78	ppm	99
100) Benzo[g,h,i]perylene	19.776	276	620176	23.90	ppm	99

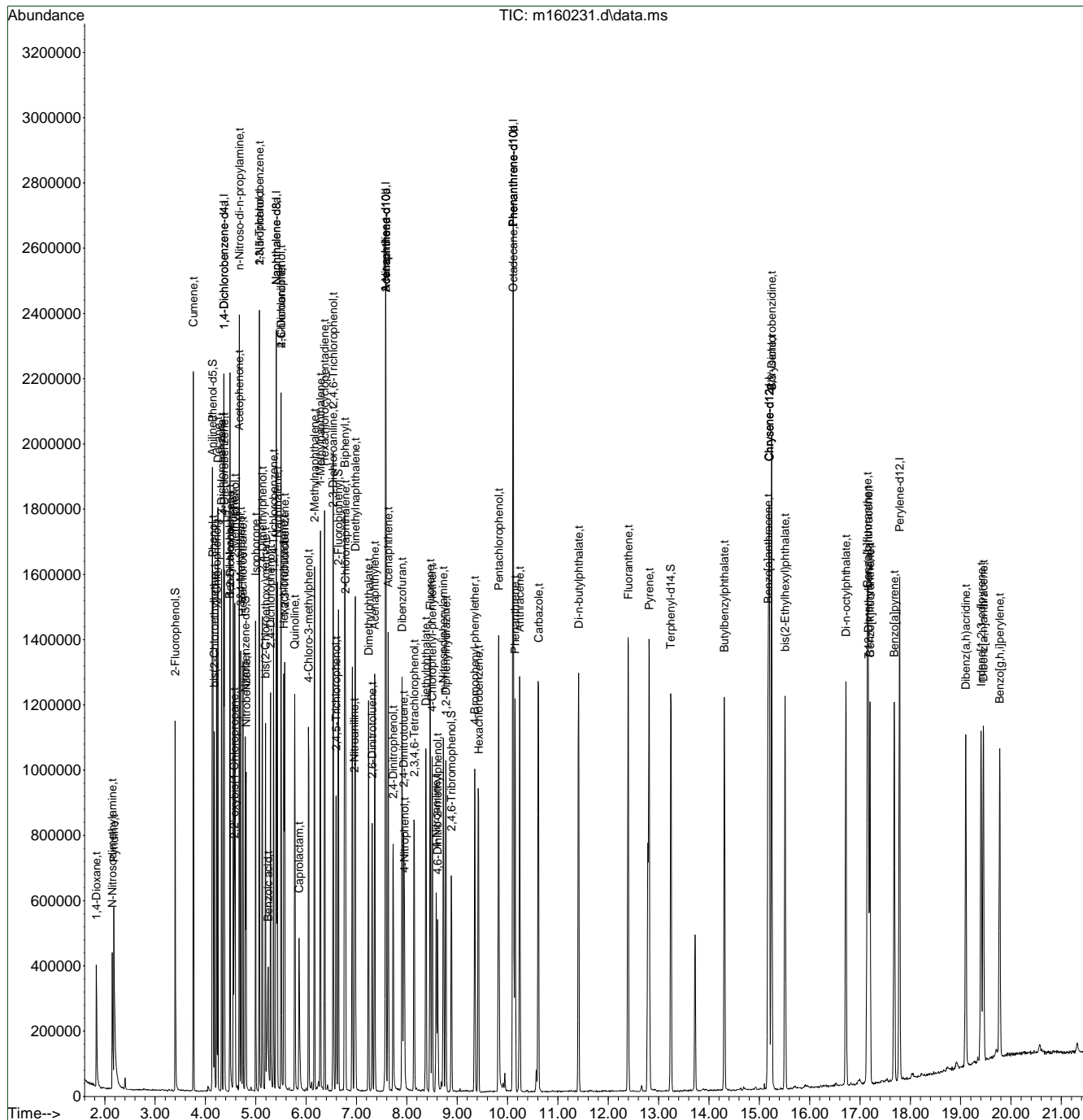
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\jeryllr\em6781\
 Data File : ml60231.d
 Acq On : 11 Oct 2019 11:19 am
 Operator : hennys
 Sample : cc6777-25
 Misc : op21044,em6781,1000,,,1,1
 ALS Vial : 2 Sample Multiplier: 1

Inst : MSM

Quant Method : C:\MSDCHEM\1\METHODS\MM6777.M
 Quant Results File: MM6777.RES
 Quant Time: Oct 14 04:48:57 2019
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 QLast Update : Fri Oct 11 13:05:55 2019
 Response via : Initial Calibration



9.6.102
9



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\jeryllr\em6781\
 Data File : ml60232.d
 Acq On : 11 Oct 2019 11:48 am
 Operator : hennys
 Sample : cc6772-25 Inst : MSM
 Misc : op21044,em6781,1000,,,1,1
 ALS Vial : 3 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MM6777.M
 Quant Results File: MM6777.RES
 Quant Time: Oct 14 04:52:16 2019
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 QLast Update : Fri Oct 11 13:05:55 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.361	152	298933	40.00	ppm	-0.01
24) Naphthalene-d8	5.402	136	1004188	40.00	ppm	-0.02
47) Acenaphthene-d10	7.577	164	608381	40.00	ppm	-0.03
69) Phenanthrene-d10	10.109	188	995256	40.00	ppm	-0.03
83) Chrysene-d12	15.195	240	926332	40.00	ppm	-0.04
91) Perylene-d12	17.785	264	981941	40.00	ppm	-0.04
101) 1,4-Dichlorobenzene-d4a	4.361	152	298933	40.00	ppm	-0.01
103) Acenaphthene-d10a	7.577	164	608381	40.00	ppm	-0.03
105) Acenaphthene-d10b	7.577	164	608381	40.00	ppm	-0.03
107) Chrysene-d12a	15.195	240	926332	40.00	ppm	-0.04
110) Phenanthrene-d10a	10.109	188	995256	40.00	ppm	-0.03
112) Phenanthrene-d10b	10.109	188	995256	40.00	ppm	-0.03
114) Naphthalene-d8a	5.402	136	1004188	40.00	ppm	-0.02
116) Chrysene-d12c	15.195	240	926332	40.00	ppm	-0.04
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
8) Phenol-d5	0.000	99	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
109) 1-chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
113) o-terphenyl	0.000	230	0	0.00	ppm	
Target Compounds						
102) Benzaldehyde	4.040	105	217409	26.96	ppm	93
104) Atrazine	9.756	215	75442	27.95	ppm	93
111) Pentachloronitrobenzene	9.826	295	36085	30.40	ppm	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

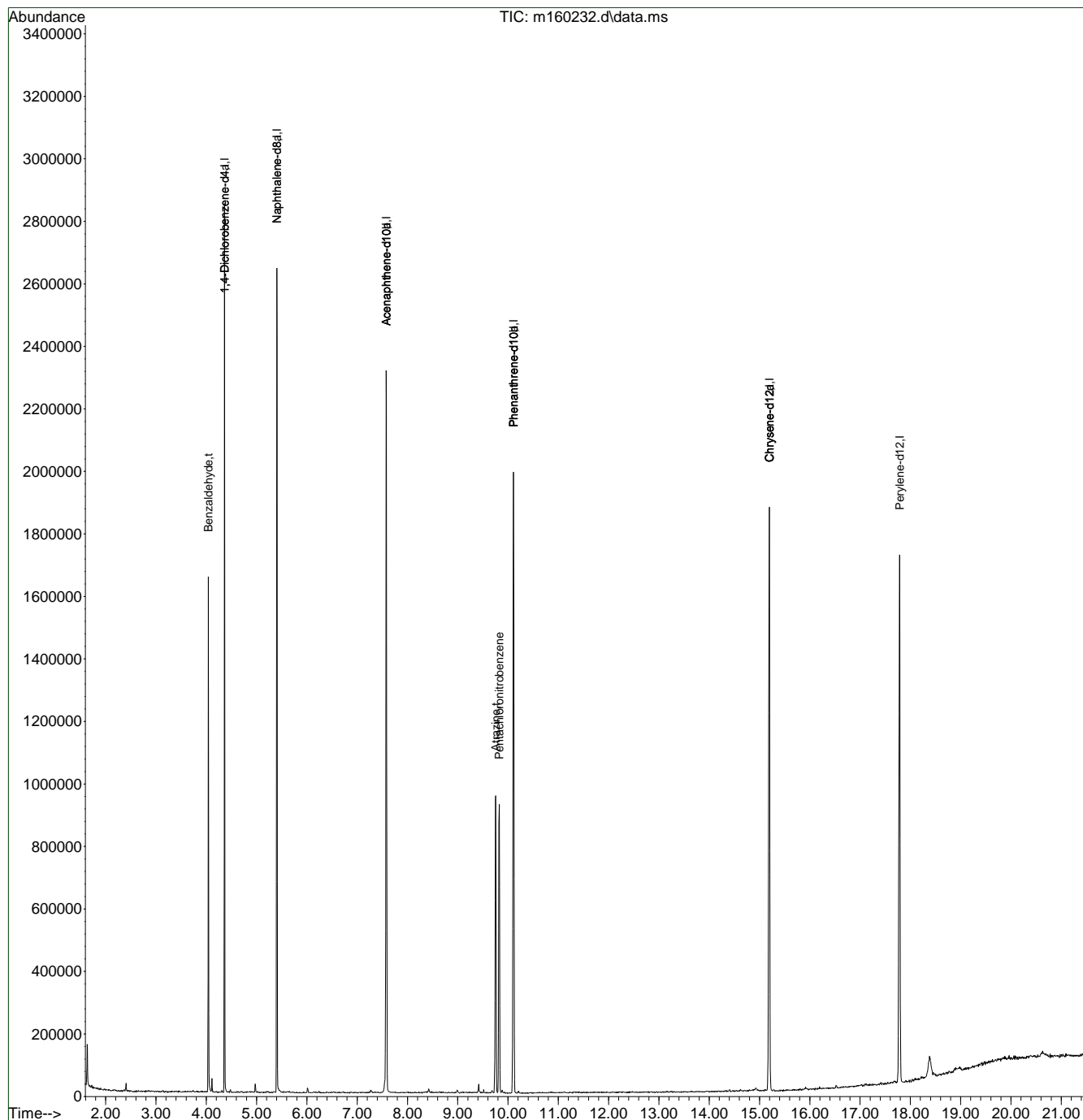
9.6.103
9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\jeryllr\em6781\
 Data File : m160232.d
 Acq On : 11 Oct 2019 11:48 am
 Operator : hennys
 Sample : cc6772-25
 Misc : op21044,em6781,1000,,,1,1
 ALS Vial : 3 Sample Multiplier: 1

Inst : MSM

Quant Method : C:\MSDCHEM\1\METHODS\MM6777.M
 Quant Results File: MM6777.RES
 Quant Time: Oct 14 04:52:16 2019
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 QLast Update : Fri Oct 11 13:05:55 2019
 Response via : Initial Calibration



9.6.103
9



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\jeryllr\em6781\
 Data File : ml60233.d
 Acq On : 11 Oct 2019 12:16 pm
 Operator : hennys
 Sample : cc6773-25 Inst : MSM
 Misc : op21044,em6781,1000,,,1,1
 ALS Vial : 4 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MM6777.M
 Quant Results File: MM6777.RES
 Quant Time: Oct 14 04:53:42 2019
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 QLast Update : Fri Oct 11 13:05:55 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.361	152	285746	40.00	ppm	-0.01
24) Naphthalene-d8	5.403	136	941516	40.00	ppm	-0.02
47) Acenaphthene-d10	7.577	164	561104	40.00	ppm	-0.03
69) Phenanthrene-d10	10.104	188	1008975	40.00	ppm	-0.03
83) Chrysene-d12	15.195	240	892729	40.00	ppm	-0.04
91) Perylene-d12	17.786	264	941996	40.00	ppm	-0.04
101) 1,4-Dichlorobenzene-d4a	4.361	152	285746	40.00	ppm	-0.01
103) Acenaphthene-d10a	7.577	164	561104	40.00	ppm	-0.03
105) Acenaphthene-d10b	7.577	164	561104	40.00	ppm	-0.03
107) Chrysene-d12a	15.195	240	892729	40.00	ppm	-0.04
110) Phenanthrene-d10a	10.104	188	1008975	40.00	ppm	-0.03
112) Phenanthrene-d10b	10.104	188	1008975	40.00	ppm	-0.03
114) Naphthalene-d8a	5.403	136	941516	40.00	ppm	-0.02
116) Chrysene-d12c	15.195	240	892729	40.00	ppm	-0.04
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
8) Phenol-d5	0.000	99	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
109) 1-chlorooctadecane	12.417	57	223885	37.29	ppm	-0.10
Spiked Amount 50.000			Recovery =	74.58%		
113) o-terphenyl	10.922	230	371608	26.84	ppm	-0.11
Target Compounds						
106) 1,2,4,5-Tetrachloroben...	6.370	216	235054	25.65	ppm	99
108) Benzidine	12.786	184	412779	26.38	ppm	99
115) Hydroquinone	5.889	110	247798	31.36	ppm	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

9.6.104
9

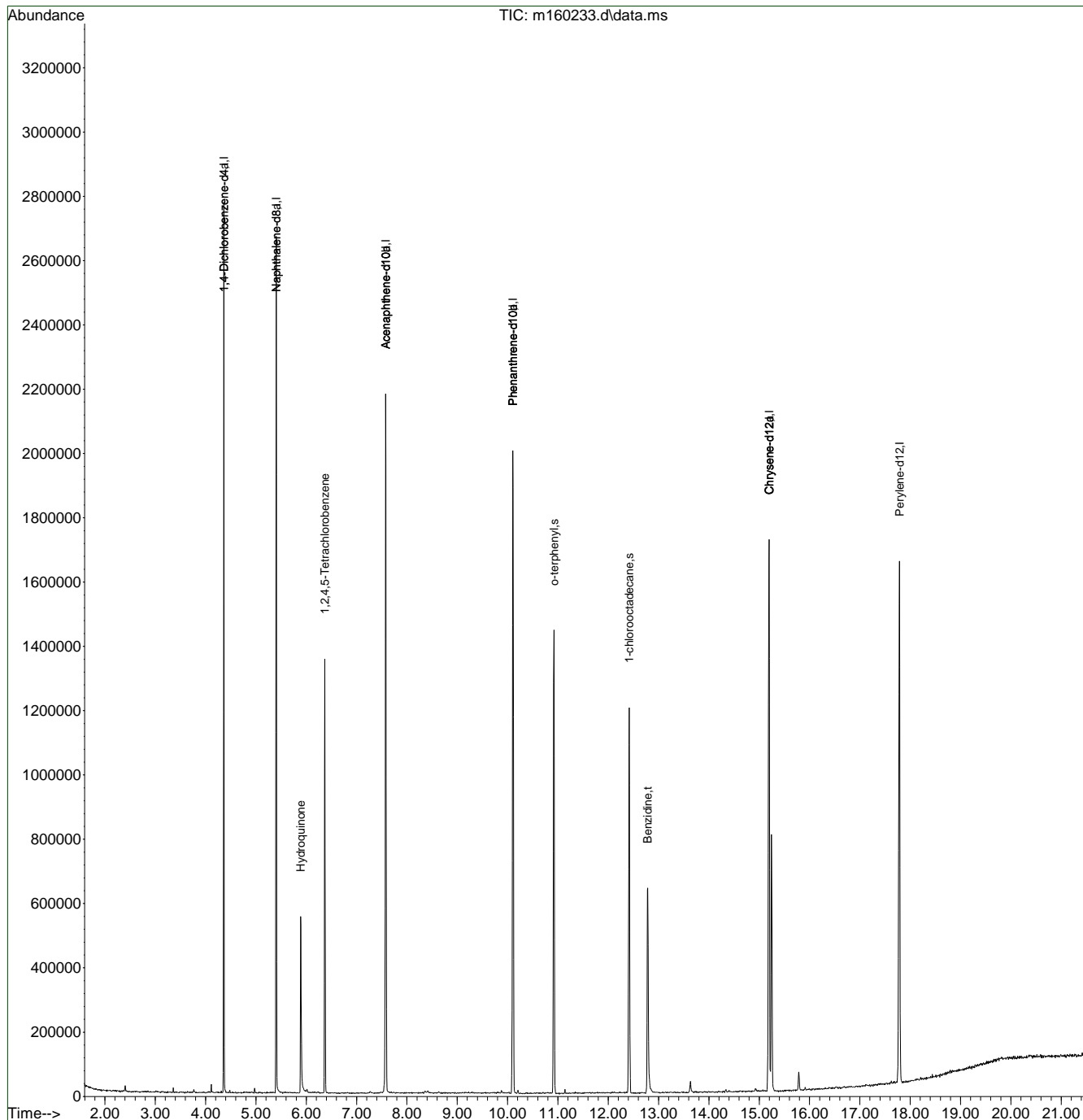


Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\jeryllr\em6781\
 Data File : m160233.d
 Acq On : 11 Oct 2019 12:16 pm
 Operator : hennys
 Sample : cc6773-25
 Misc : op21044,em6781,1000,,,1,1
 ALS Vial : 4 Sample Multiplier: 1

Inst : MSM

Quant Method : C:\MSDCHEM\1\METHODS\MM6777.M
 Quant Results File: MM6777.RES
 Quant Time: Oct 14 04:53:42 2019
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 QLast Update : Fri Oct 11 13:05:55 2019
 Response via : Initial Calibration



9.6.104
9



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\altheam\em6782\
 Data File : ml60258.d
 Acq On : 12 Oct 2019 3:15 pm
 Operator : jamescl
 Sample : cc6777-50 Inst : MSM
 Misc : op21044,em6782,1000,,,1,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MM6777.M
 Quant Results File: MM6777.RES
 Quant Time: Oct 14 03:10:04 2019
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 QLast Update : Fri Oct 11 13:05:55 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.340	152	247559	40.00	ppm	-0.03
24) Naphthalene-d8	5.382	136	857596	40.00	ppm	-0.04
47) Acenaphthene-d10	7.545	164	564021	40.00	ppm	-0.06
69) Phenanthrene-d10	10.067	188	1005553	40.00	ppm	-0.07
83) Chrysene-d12	15.158	240	846955	40.00	ppm	-0.08
91) Perylene-d12	17.738	264	994233	40.00	ppm	-0.09
101) 1,4-Dichlorobenzene-d4a	4.340	152	247559	40.00	ppm	-0.03
103) Acenaphthene-d10a	7.545	164	564021	40.00	ppm	-0.06
105) Acenaphthene-d10b	7.545	164	564021	40.00	ppm	-0.06
107) Chrysene-d12a	15.158	240	846955	40.00	ppm	-0.08
110) Phenanthrene-d10a	10.067	188	1005553	40.00	ppm	-0.07
112) Phenanthrene-d10b	10.067	188	1005553	40.00	ppm	#-0.07
114) Naphthalene-d8a	5.382	136	857596	40.00	ppm	-0.04
116) Chrysene-d12c	15.158	240	846955	40.00	ppm	-0.08
System Monitoring Compounds						
5) 2-Fluorophenol	3.384	112	532456	48.93	ppm	-0.03
Spiked Amount 50.000			Recovery =	97.86%		
8) Phenol-d5	4.126	99	556238	44.48	ppm	-0.03
Spiked Amount 50.000			Recovery =	88.96%		
25) Nitrobenzene-d5	4.773	82	511830	46.39	ppm	-0.03
Spiked Amount 50.000			Recovery =	92.78%		
51) 2-Fluorobiphenyl	6.610	172	855843	43.73	ppm	-0.05
Spiked Amount 50.000			Recovery =	87.46%		
73) 2,4,6-Tribromophenol	8.849	330	199683	50.47	ppm	-0.07
Spiked Amount 50.000			Recovery =	100.94%		
85) Terphenyl-d14	13.203	244	1097886	47.62	ppm	-0.07
Spiked Amount 50.000			Recovery =	95.24%		
109) 1-chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
113) o-terphenyl	0.000	230	0	0.00	ppm	
Target Compounds						
2) 1,4-Dioxane	1.819	88	278517	46.85	ppm	97
3) Pyridine	2.160	79	606978	44.43	ppm	99
4) N-Nitrosodimethylamine	2.128	42	287267	46.64	ppm	96
6) Indene	4.532	116	649796	44.57	ppm	98
7) Cumene	3.742	105	1150239	44.64	ppm	99
9) Phenol	4.137	94	624377	43.93	ppm	96
10) Aniline	4.116	93	724680	50.42	ppm	94
11) bis(2-Chloroethyl)ether	4.158	93	430177	43.47	ppm	100
12) 2-Chlorophenol	4.201	128	437545	44.37	ppm	99
13) Decane	4.228	43	373630	42.34	ppm	98
14) 1,3-Dichlorobenzene	4.303	146	474086	43.28	ppm	99
15) 1,4-Dichlorobenzene	4.356	146	429733	44.28	ppm	97
16) Benzyl alcohol	4.468	108	262360	51.08	ppm	94
17) 1,2-Dichlorobenzene	4.468	146	429944	43.86	ppm	98
18) Acetophenone	4.650	105	600380	44.65	ppm	97
19) 2-Methylphenol	4.570	108	359077	44.46	ppm	97
20) 2,2'-oxybis(1-Chloropr...	4.554	121	111733	43.32	ppm	93
21) 3&4-Methylphenol	4.687	108	395525	45.82	ppm	99
22) n-Nitroso-di-n-propyla...	4.655	70	337679	44.45	ppm	97
23) Hexachloroethane	4.725	201	179097	44.17	ppm	92
26) Nitrobenzene	4.783	77	493602	43.80	ppm	95
27) Quinoline	5.756	129	875496	46.11	ppm	98
28) Isophorone	4.976	82	943790	47.46	ppm	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\altheam\em6782\
 Data File : ml60258.d
 Acq On : 12 Oct 2019 3:15 pm
 Operator : jamescl
 Sample : cc6777-50 Inst : MSM
 Misc : op21044,em6782,1000,,,1,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MM6777.M
 Quant Results File: MM6777.RES
 Quant Time: Oct 14 03:10:04 2019
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 QLast Update : Fri Oct 11 13:05:55 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
29) 2-Nitrophenol	5.045	139	229381	48.37	ppm	95
30) 2,4-Dimethylphenol	5.109	107	426163	52.35	ppm	99
31) Benzoic acid	5.248	105	387805	52.65	ppm	100
32) bis(2-Chloroethoxy)met...	5.168	93	549864	44.97	ppm	99
33) 2,4-Dichlorophenol	5.270	162	365043	44.71	ppm	97
34) 2,6-Dichlorophenol	5.483	162	337644	45.86	ppm	97
35) 1,3,5-Trichlorobenzene	5.045	180	406292	42.96	ppm	98
36) 1,2,4-Trichlorobenzene	5.328	180	392136	43.36	ppm	98
37) 1,2,3-Trichlorobenzene	5.547	180	351413	41.76	ppm	97
38) Naphthalene	5.403	128	1048782	44.53	ppm	100
39) 4-Chloroaniline	5.478	127	491933	45.87	ppm	99
40) 2,3-Dichloroaniline	6.509	161	453367	44.13	ppm	98
41) Caprolactam	5.863	55	217567	49.17	ppm	98
42) Hexachlorobutadiene	5.531	225	232620	44.25	ppm	97
43) 4-Chloro-3-methylphenol	6.028	107	427924	47.71	ppm	# 67
44) 2-Methylnaphthalene	6.135	141	646754	43.67	ppm	98
45) 1-Methylnaphthalene	6.253	142	826727	43.66	ppm	100
46) Dimethylnaphthalene	6.947	156	676644	40.92	ppm	99
48) Hexachlorocyclopentadiene	6.338	237	535790	92.73	ppm	100
49) 2,4,6-Trichlorophenol	6.514	196	271933	44.04	ppm	99
50) 2,4,5-Trichlorophenol	6.568	196	297306	45.07	ppm	95
52) 2-Chloronaphthalene	6.749	162	737178	39.55	ppm	99
53) Biphenyl	6.739	154	992526	39.96	ppm	99
54) 2-Nitroaniline	6.936	65	277748	46.36	ppm	98
55) Dimethylphthalate	7.214	163	1034539	43.15	ppm	100
56) Acenaphthylene	7.332	152	1209517	42.12	ppm	99
57) 2,6-Dinitrotoluene	7.284	165	233684	49.27	ppm	97
58) 3-Nitroaniline	7.551	138	237138	47.12	ppm	97
59) Acenaphthene	7.599	153	749452	43.20	ppm	95
60) 2,4-Dinitrophenol	7.700	184	279948	104.19	ppm	100
61) 4-Nitrophenol	7.930	109	145039	48.66	ppm	# 77
62) Dibenzofuran	7.877	168	1182710	42.94	ppm	99
63) 2,4-Dinitrotoluene	7.909	165	304386	50.22	ppm	90
64) 2,3,4,6-Tetrachlorophenol	8.112	232	270162	49.22	ppm	96
65) Diethylphthalate	8.347	149	1047375	44.05	ppm	99
66) Fluorene	8.432	166	923007	42.21	ppm	100
67) 4-Chlorophenyl-phenyle...	8.470	204	438964	40.78	ppm	97
68) 4-Nitroaniline	8.566	138	250068	48.42	ppm	99
70) 4,6-Dinitro-2-methylph...	8.587	198	194613	52.66	ppm	97
71) n-Nitrosodiphenylamine	8.694	169	673645	42.51	ppm	99
72) 1,2-Diphenylhydrazine	8.742	77	1067139	43.74	ppm	99
74) 4-Bromophenyl-phenylether	9.314	248	326532	44.09	ppm	98
75) Hexachlorobenzene	9.383	284	345506	42.79	ppm	98
76) Pentachlorophenol	9.789	266	470281	100.12	ppm	99
77) Phenanthrene	10.115	178	1168236	41.48	ppm	99
78) Anthracene	10.206	178	1268277	43.28	ppm	99
79) Carbazole	10.580	167	1391712	43.04	ppm	98
80) Di-n-butylphthalate	11.370	149	1910728	45.99	ppm	99
81) Fluoranthene	12.359	202	1635791	43.08	ppm	100
82) Octadecane	10.077	57	547544	45.21	ppm	99
84) Pyrene	12.775	202	1557111	44.25	ppm	100
86) Butylbenzylphthalate	14.266	149	874718	52.93	ppm	99
87) Benzo[a]anthracene	15.136	228	1468199	46.31	ppm	99
88) 3,3'-Dichlorobenzidine	15.206	252	520390	50.31	ppm	99
89) Chrysene	15.206	228	1179720	44.71	ppm	99
90) bis(2-Ethylhexyl)phtha...	15.468	149	1102550	53.22	ppm	100
92) Di-n-octylphthalate	16.675	149	1997934	50.54	ppm	99

9.6.105
9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\altheam\em6782\
 Data File : ml60258.d
 Acq On : 12 Oct 2019 3:15 pm
 Operator : jamescl
 Sample : cc6777-50 Inst : MSM
 Misc : op21044,em6782,1000,,,1,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MM6777.M
 Quant Results File: MM6777.RES
 Quant Time: Oct 14 03:10:04 2019
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 QLast Update : Fri Oct 11 13:05:55 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
93) Benzo[b]fluoranthene	17.108	252	1487009	43.49	ppm	99
94) Benzo[k]fluoranthene	17.161	252	1232809	40.50	ppm	99
95) Benzo[a]pyrene	17.642	252	1339682	44.39	ppm	99
96) Indeno[1,2,3-cd]pyrene	19.362	276	1286154	43.77	ppm	99
97) Dibenz(a,h)acridine	19.058	279	1213443	43.98	ppm	100
98) Dibenz[a,h]anthracene	19.410	278	1273321	43.47	ppm	99
99) 7,12-Dimethylbenz(a)an...	17.124	256	628491	52.74	ppm	98
100) Benzo[g,h,i]perylene	19.736	276	1234215	42.07	ppm	98

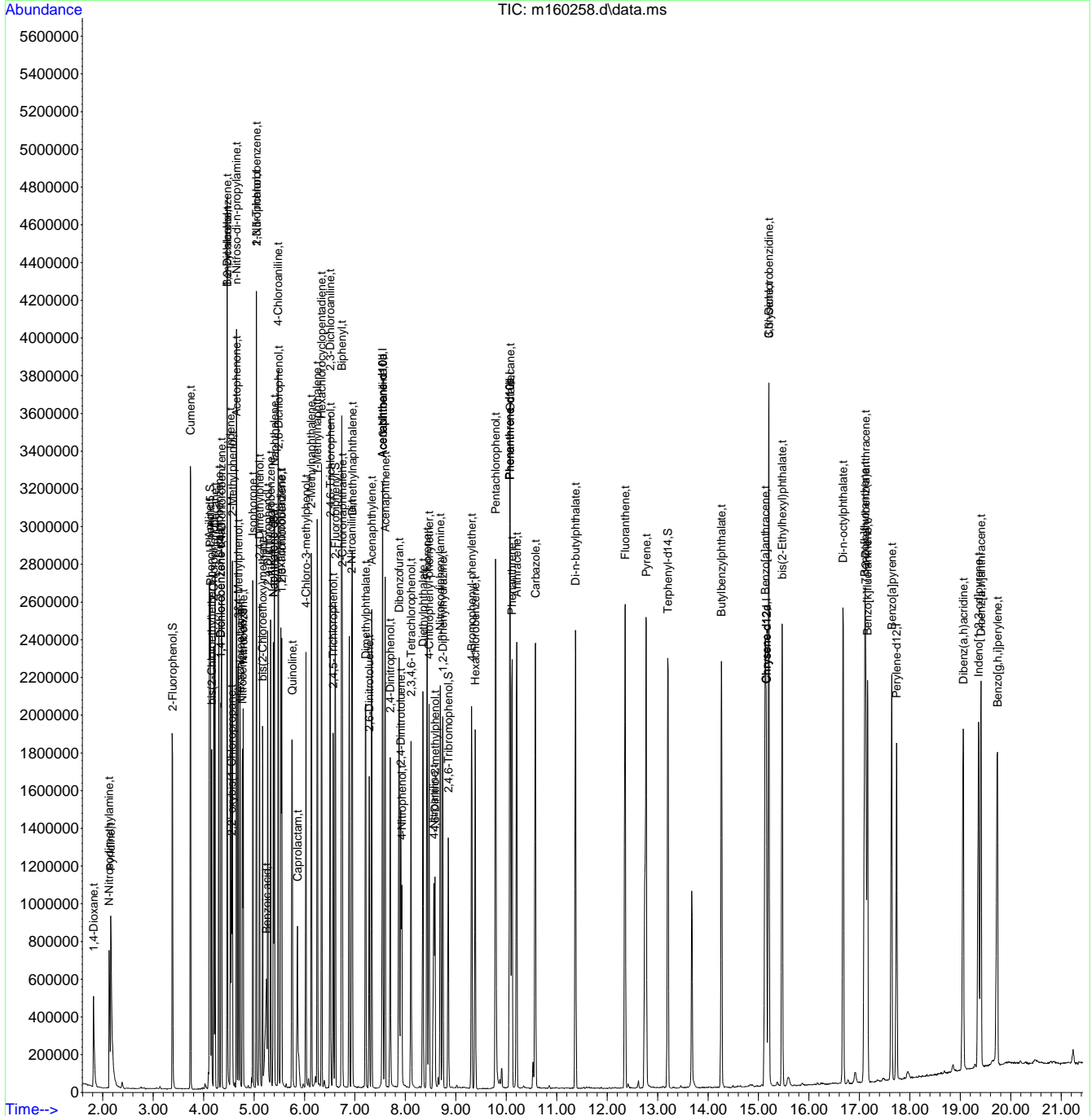
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\altheam\em6782\
Data File : m160258.d
Acq On : 12 Oct 2019 3:15 pm
Operator : jamescl
Sample : cc6777-50
Misc : op21044,em6782,1000,,,1,1
ALS Vial : 2 Sample Multiplier: 1

Inst : MSM

Quant Method : C:\MSDCHEM\1\METHODS\MM6777.M
Quant Results File: MM6777.RES
Quant Time: Oct 14 03:10:04 2019
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Fri Oct 11 13:05:55 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : X:\svoa-gcms\completed\10_oct\10-14-2019\altheam\em6782\
 Data File : ml60259.d
 Acq On : 12 Oct 2019 3:45 pm
 Operator : jamescl
 Sample : cc6772-50 Inst : MSM
 Misc : op21044,em6782,1000,,,1,1
 ALS Vial : 3 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MM6777.M
 Quant Results File: MM6777.RES
 Quant Time: Oct 16 23:14:50 2019
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 QLast Update : Tue Oct 15 01:29:03 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.341	152	272982	40.00	ppm	-0.03
24) Naphthalene-d8	5.377	136	964028	40.00	ppm	-0.05
47) Acenaphthene-d10	7.546	164	622310	40.00	ppm	-0.06
69) Phenanthrene-d10	10.068	188	1033680	40.00	ppm	-0.07
83) Chrysene-d12	15.148	240	977559	40.00	ppm	-0.09
91) Perylene-d12	17.734	264	1040911	40.00	ppm	-0.09
101) 1,4-Dichlorobenzene-d4a	4.341	152	272982	40.00	ppm	-0.03
103) Acenaphthene-d10a	7.546	164	622310	40.00	ppm	-0.06
105) Acenaphthene-d10b	7.546	164	622310	40.00	ppm	-0.06
107) Chrysene-d12a	15.148	240	977559	40.00	ppm	-0.09
110) Phenanthrene-d10a	10.068	188	1033680	40.00	ppm	-0.07
112) Phenanthrene-d10b	10.068	188	1033680	40.00	ppm	#-0.07
114) Naphthalene-d8a	5.377	136	964028	40.00	ppm	-0.05
116) Chrysene-d12c	15.148	240	977559	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
8) Phenol-d5	0.000	99	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
109) 1-chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
113) o-terphenyl	0.000	230	0	0.00	ppm	
Target Compounds						
102) Benzaldehyde	4.021	105	409266	55.57	ppm	95
104) Atrazine	9.726	215	153644	55.65	ppm	93
111) Pentachloronitrobenzene	9.785	295	74138	60.13	ppm	97

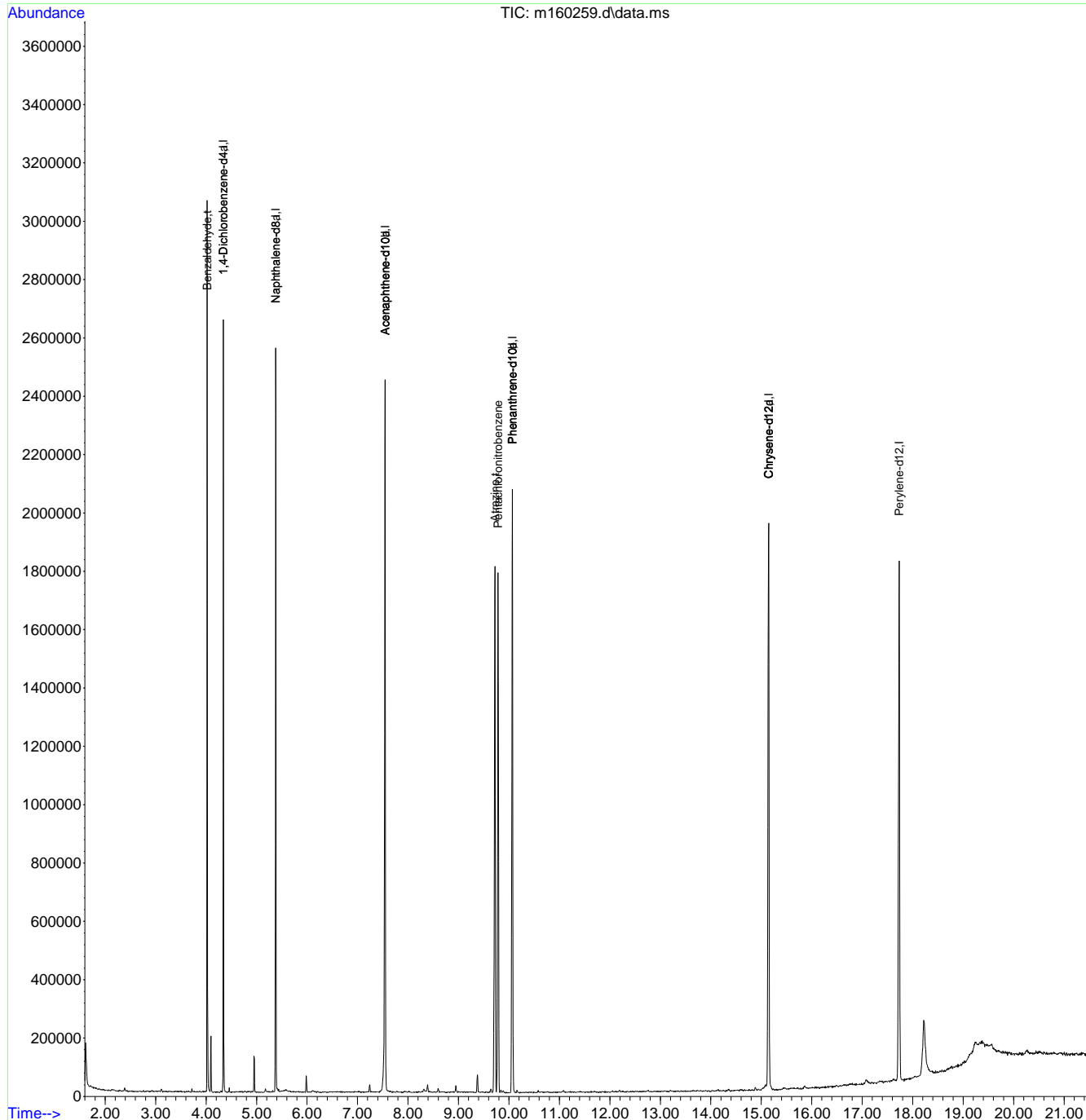
(#) = qualifier out of range (m) = manual integration (+) = signals summed

9.6.106
9

Quantitation Report (QT Reviewed)

Data Path : X:\svoa-gcms\completed\10_oct\10-14-2019\altheam\em6782\
 Data File : m160259.d
 Acq On : 12 Oct 2019 3:45 pm
 Operator : jamescl
 Sample : cc6772-50 Inst : MSM
 Misc : op21044,em6782,1000,,,1,1
 ALS Vial : 3 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MM6777.M
 Quant Results File: MM6777.RES
 Quant Time: Oct 16 23:14:50 2019
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 QLast Update : Tue Oct 15 01:29:03 2019
 Response via : Initial Calibration



9.6.106
9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\altheam\em6782\
 Data File : ml60260.d
 Acq On : 12 Oct 2019 4:13 pm
 Operator : jamescl
 Sample : cc6773-50 Inst : MSM
 Misc : op21044,em6782,1000,,,1,1
 ALS Vial : 4 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MM6777.M
 Quant Results File: MM6777.RES
 Quant Time: Oct 14 03:16:21 2019
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 QLast Update : Fri Oct 11 13:05:55 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.342	152	280000	40.00	ppm	-0.03
24) Naphthalene-d8	5.378	136	956487	40.00	ppm	-0.05
47) Acenaphthene-d10	7.542	164	595260	40.00	ppm	-0.06
69) Phenanthrene-d10	10.063	188	1104326	40.00	ppm	-0.07
83) Chrysene-d12	15.143	240	979790	40.00	ppm	-0.09
91) Perylene-d12	17.729	264	1030780	40.00	ppm	-0.10
101) 1,4-Dichlorobenzene-d4a	4.342	152	280000	40.00	ppm	-0.03
103) Acenaphthene-d10a	7.542	164	595260	40.00	ppm	-0.06
105) Acenaphthene-d10b	7.542	164	595260	40.00	ppm	-0.06
107) Chrysene-d12a	15.143	240	979790	40.00	ppm	-0.09
110) Phenanthrene-d10a	10.063	188	1104326	40.00	ppm	-0.07
112) Phenanthrene-d10b	10.063	188	1104326	40.00	ppm	-0.07
114) Naphthalene-d8a	5.378	136	956487	40.00	ppm	-0.05
116) Chrysene-d12c	15.143	240	979790	40.00	ppm	-0.09
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
8) Phenol-d5	0.000	99	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
109) 1-chlorooctadecane	12.376	57	446401	67.74	ppm	-0.14
Spiked Amount	50.000		Recovery	=	135.48%	
113) o-terphenyl	10.880	230	743348	49.05	ppm	-0.15
Target Compounds						
106) 1,2,4,5-Tetrachloroben...	6.340	216	441868	45.46	ppm	98
108) Benzidine	12.739	184	945080	55.02	ppm	99
115) Hydroquinone	5.869	110	540663	67.35	ppm	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

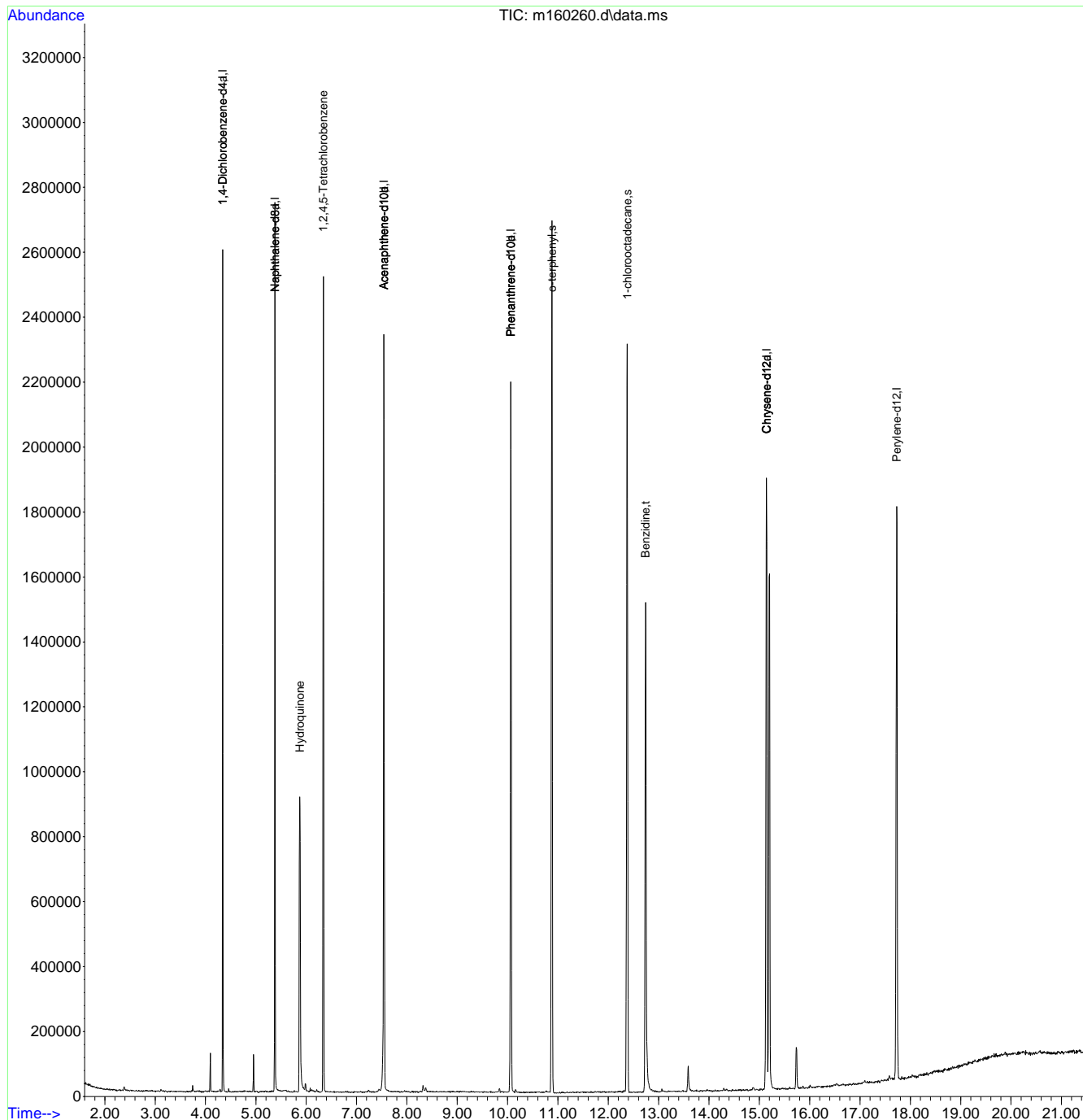
9.6.107
9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\altheam\em6782\
 Data File : m160260.d
 Acq On : 12 Oct 2019 4:13 pm
 Operator : jamescl
 Sample : cc6773-50
 Misc : op21044,em6782,1000,,,1,1
 ALS Vial : 4 Sample Multiplier: 1

Inst : MSM

Quant Method : C:\MSDCHEM\1\METHODS\MM6777.M
 Quant Results File: MM6777.RES
 Quant Time: Oct 14 03:16:21 2019
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 QLast Update : Fri Oct 11 13:05:55 2019
 Response via : Initial Calibration



9.6.107
9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\altheam\em6782\
 Data File : ml60284.d
 Acq On : 13 Oct 2019 3:25 am
 Operator : jamescl
 Sample : ecc6777-50 Inst : MSM
 Misc : op21044,em6782,1000,,,1,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MM6777.M
 Quant Results File: MM6777.RES
 Quant Time: Oct 14 04:48:10 2019
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 QLast Update : Mon Oct 14 03:17:37 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.339	152	244008	40.00	ppm	0.00
24) Naphthalene-d8	5.381	136	836034	40.00	ppm	0.00
47) Acenaphthene-d10	7.545	164	549929	40.00	ppm	0.00
69) Phenanthrene-d10	10.066	188	982804	40.00	ppm	0.00
83) Chrysene-d12	15.146	240	849171	40.00	ppm	0.00
91) Perylene-d12	17.732	264	974794	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.339	152	244008	40.00	ppm	0.00
103) Acenaphthene-d10a	7.545	164	549929	40.00	ppm	0.00
105) Acenaphthene-d10b	7.545	164	549929	40.00	ppm	0.00
107) Chrysene-d12a	15.146	240	849171	40.00	ppm	0.00
110) Phenanthrene-d10a	10.066	188	982804	40.00	ppm	0.00
112) Phenanthrene-d10b	10.066	188	982804	40.00	ppm	0.00
114) Naphthalene-d8a	5.381	136	836034	40.00	ppm	0.00
116) Chrysene-d12c	15.146	240	849171	40.00	ppm	0.06
System Monitoring Compounds						
5) 2-Fluorophenol	3.378	112	536323	50.01	ppm	0.00
Spiked Amount	50.000		Recovery	=	100.02%	
8) Phenol-d5	4.126	99	569127	46.17	ppm	0.00
Spiked Amount	50.000		Recovery	=	92.34%	
25) Nitrobenzene-d5	4.767	82	511917	47.60	ppm	0.00
Spiked Amount	50.000		Recovery	=	95.20%	
51) 2-Fluorobiphenyl	6.610	172	846950	44.38	ppm	0.00
Spiked Amount	50.000		Recovery	=	88.76%	
73) 2,4,6-Tribromophenol	8.848	330	181067	46.82	ppm	0.00
Spiked Amount	50.000		Recovery	=	93.64%	
85) Terphenyl-d14	13.197	244	1082791	46.85	ppm	0.00
Spiked Amount	50.000		Recovery	=	93.70%	
109) 1-chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
113) o-terphenyl	0.000	230	0	0.00	ppm	
Target Compounds						
2) 1,4-Dioxane	1.812	88	288136	49.18	ppm	Qvalue 95
3) Pyridine	2.154	79	615948	45.74	ppm	98
4) N-Nitrosodimethylamine	2.122	42	323842	53.34	ppm	90
6) Indene	4.532	116	649231	45.18	ppm	98
7) Cumene	3.736	105	1175222	46.28	ppm	97
9) Phenol	4.131	94	640008	45.69	ppm	91
10) Aniline	4.115	93	747084	52.73	ppm	97
11) bis(2-Chloroethyl)ether	4.158	93	428058	43.88	ppm	99
12) 2-Chlorophenol	4.200	128	431868	44.43	ppm	100
13) Decane	4.222	43	389533	44.79	ppm	93
14) 1,3-Dichlorobenzene	4.297	146	464546	43.03	ppm	97
15) 1,4-Dichlorobenzene	4.355	146	433510	45.32	ppm	98
16) Benzyl alcohol	4.462	108	260180	51.40	ppm	85
17) 1,2-Dichlorobenzene	4.468	146	421436	43.61	ppm	98
18) Acetophenone	4.649	105	607090	45.80	ppm	99
19) 2-Methylphenol	4.564	108	362113	45.48	ppm	99
20) 2,2'-oxybis(1-Chloropr...	4.548	121	112097	44.10	ppm	# 78
21) 3&4-Methylphenol	4.681	108	384719	45.22	ppm	94
22) n-Nitroso-di-n-propyla...	4.654	70	345176	46.09	ppm	99
23) Hexachloroethane	4.719	201	173471	43.41	ppm	84
26) Nitrobenzene	4.783	77	508013	46.25	ppm	100
27) Quinoline	5.750	129	858877	46.40	ppm	97
28) Isophorone	4.975	82	966278	49.84	ppm	99

9.6.108
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Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\altheam\em6782\
 Data File : ml60284.d
 Acq On : 13 Oct 2019 3:25 am
 Operator : jamescl
 Sample : ecc6777-50 Inst : MSM
 Misc : op21044,em6782,1000,,,1,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MM6777.M
 Quant Results File: MM6777.RES
 Quant Time: Oct 14 04:48:10 2019
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 QLast Update : Mon Oct 14 03:17:37 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
29) 2-Nitrophenol	5.044	139	220663	47.73	ppm	92
30) 2,4-Dimethylphenol	5.109	107	432298	54.47	ppm	99
31) Benzoic acid	5.247	105	329384	46.11	ppm	99
32) bis(2-Chloroethoxy)met...	5.167	93	541341	45.42	ppm	99
33) 2,4-Dichlorophenol	5.269	162	359145	45.12	ppm	99
34) 2,6-Dichlorophenol	5.477	162	329199	45.87	ppm	98
35) 1,3,5-Trichlorobenzene	5.044	180	404033	43.82	ppm	98
36) 1,2,4-Trichlorobenzene	5.328	180	387453	43.95	ppm	99
37) 1,2,3-Trichlorobenzene	5.547	180	342611	41.77	ppm	100
38) Naphthalene	5.402	128	1043041	45.43	ppm	99
39) 4-Chloroaniline	5.477	127	487112	46.59	ppm	99
40) 2,3-Dichloroaniline	6.503	161	445142	44.45	ppm	97
41) Caprolactam	5.856	55	222367	51.56	ppm	98
42) Hexachlorobutadiene	5.531	225	231456	45.17	ppm	98
43) 4-Chloro-3-methylphenol	6.027	107	430178	49.20	ppm	# 62
44) 2-Methylnaphthalene	6.134	141	637760	44.17	ppm	98
45) 1-Methylnaphthalene	6.252	142	826666	44.78	ppm	99
46) Dimethylnaphthalene	6.941	156	655633	40.67	ppm	99
48) Hexachlorocyclopentadiene	6.337	237	504199	89.50	ppm	99
49) 2,4,6-Trichlorophenol	6.508	196	263957	43.84	ppm	99
50) 2,4,5-Trichlorophenol	6.567	196	283118	44.02	ppm	92
52) 2-Chloronaphthalene	6.749	162	724181	39.85	ppm	99
53) Biphenyl	6.733	154	974755	40.25	ppm	98
54) 2-Nitroaniline	6.930	65	279709	47.88	ppm	95
55) Dimethylphthalate	7.208	163	1013167	43.34	ppm	100
56) Acenaphthylene	7.326	152	1175326	41.98	ppm	99
57) 2,6-Dinitrotoluene	7.283	165	221706	47.94	ppm	98
58) 3-Nitroaniline	7.550	138	231552	47.19	ppm	94
59) Acenaphthene	7.593	153	733495	43.37	ppm	99
60) 2,4-Dinitrophenol	7.694	184	241280	92.65	ppm	92
61) 4-Nitrophenol	7.924	109	143800	49.48	ppm	93
62) Dibenzofuran	7.870	168	1143677	42.59	ppm	100
63) 2,4-Dinitrotoluene	7.902	165	286334	48.45	ppm	93
64) 2,3,4,6-Tetrachlorophenol	8.105	232	249496	46.62	ppm	96
65) Diethylphthalate	8.341	149	1011994	43.65	ppm	99
66) Fluorene	8.426	166	896669	42.06	ppm	99
67) 4-Chlorophenyl-phenyle...	8.463	204	421000	40.11	ppm	97
68) 4-Nitroaniline	8.560	138	239030	47.47	ppm	91
70) 4,6-Dinitro-2-methylph...	8.581	198	167962	46.50	ppm	98
71) n-Nitrosodiphenylamine	8.688	169	658030	42.48	ppm	98
72) 1,2-Diphenylhydrazine	8.736	77	1073115	45.01	ppm	97
74) 4-Bromophenyl-phenylether	9.307	248	311560	43.04	ppm	94
75) Hexachlorobenzene	9.377	284	332591	42.15	ppm	97
76) Pentachlorophenol	9.783	266	416731	90.78	ppm	96
77) Phenanthrene	10.109	178	1129870	41.05	ppm	99
78) Anthracene	10.200	178	1233558	43.07	ppm	99
79) Carbazole	10.574	167	1372134	43.42	ppm	99
80) Di-n-butylphthalate	11.370	149	1891252	46.58	ppm	100
81) Fluoranthene	12.347	202	1625781	43.81	ppm	98
82) Octadecane	10.071	57	566565	47.87	ppm	98
84) Pyrene	12.769	202	1504921	42.66	ppm	100
86) Butylbenzylphthalate	14.260	149	869065	52.45	ppm	96
87) Benzo[a]anthracene	15.125	228	1480505	46.57	ppm	99
88) 3,3'-Dichlorobenzidine	15.200	252	515139	49.68	ppm	97
89) Chrysene	15.200	228	1153702	43.61	ppm	100
90) bis(2-Ethylhexyl)phtha...	15.462	149	1089772	52.47	ppm	99
92) Di-n-octylphthalate	16.669	149	1986877	51.26	ppm	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\altheam\em6782\
 Data File : m160284.d
 Acq On : 13 Oct 2019 3:25 am
 Operator : jamescl
 Sample : ecc6777-50 Inst : MSM
 Misc : op21044,em6782,1000,,,1,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MM6777.M
 Quant Results File: MM6777.RES
 Quant Time: Oct 14 04:48:10 2019
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 QLast Update : Mon Oct 14 03:17:37 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
93) Benzo[b]fluoranthene	17.096	252	1519233	45.32	ppm	100
94) Benzo[k]fluoranthene	17.155	252	1198338	40.15	ppm	99
95) Benzo[a]pyrene	17.631	252	1336477	45.17	ppm	100
96) Indeno[1,2,3-cd]pyrene	19.356	276	1261917	43.80	ppm	99
97) Dibenz(a,h)acridine	19.052	279	1222865	45.20	ppm	98
98) Dibenz[a,h]anthracene	19.404	278	1245973	43.39	ppm	98
99) 7,12-Dimethylbenz(a)an...	17.118	256	627313	53.69	ppm	99
100) Benzo[g,h,i]perylene	19.725	276	1218259	42.35	ppm	100

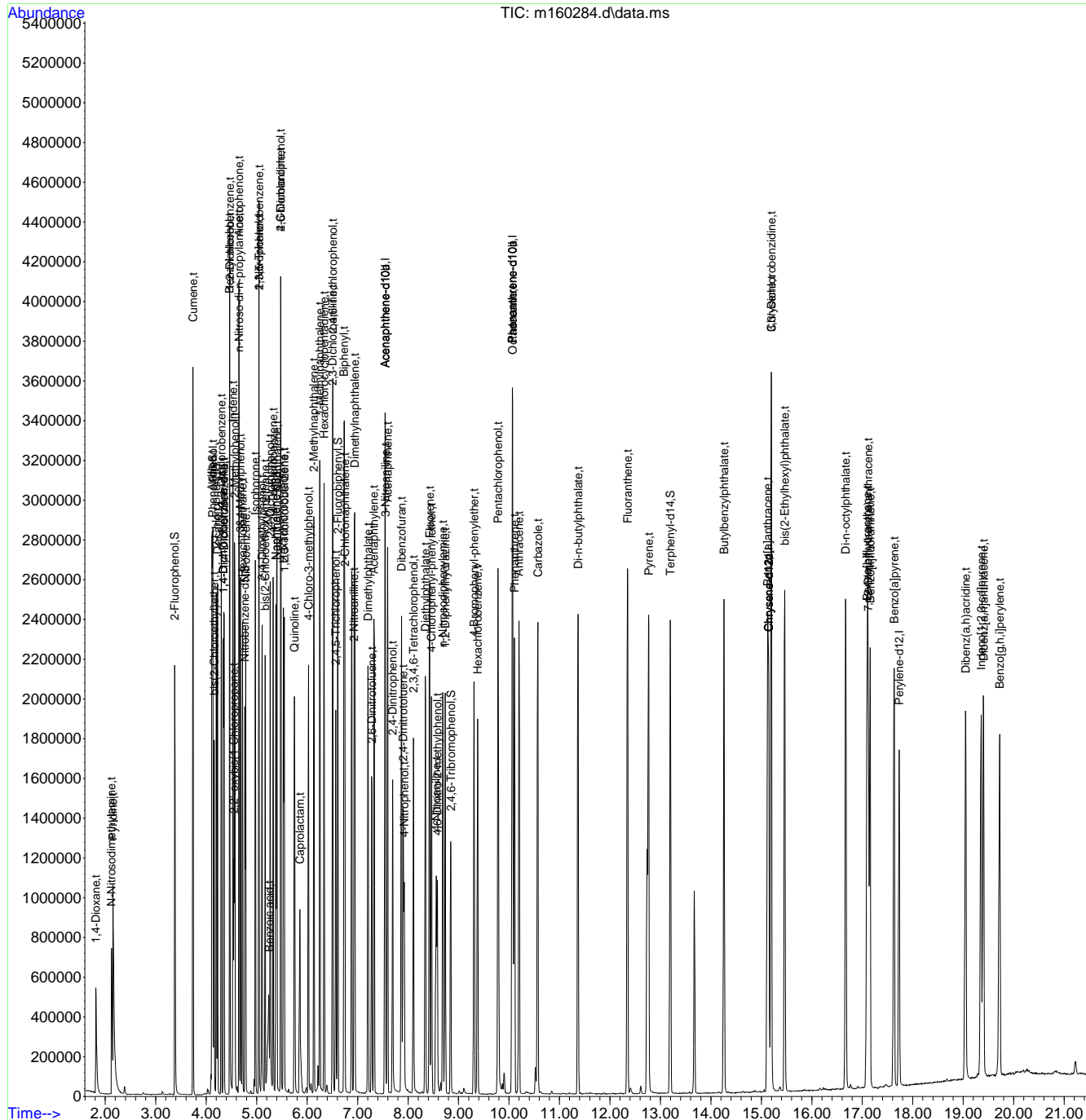
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\altheam\em6782\
 Data File : ml60284.d
 Acq On : 13 Oct 2019 3:25 am
 Operator : jamescl
 Sample : ecc6777-50
 Misc : op21044,em6782,1000,,,1,1
 ALS Vial : 2 Sample Multiplier: 1

Inst : MSM

Quant Method : C:\MSDCHEM\1\METHODS\MM6777.M
 Quant Results File: MM6777.RES
 Quant Time: Oct 14 04:48:10 2019
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 QLast Update : Mon Oct 14 03:17:37 2019
 Response via : Initial Calibration



9.6.108
9



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\altheam\em6782\
 Data File : ml60285.d
 Acq On : 13 Oct 2019 3:53 am
 Operator : jamescl
 Sample : ecc6772-50 Inst : MSM
 Misc : op21044,em6782,1000,,,1,1
 ALS Vial : 3 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MM6777.M
 Quant Results File: MM6777.RES
 Quant Time: Oct 14 04:49:11 2019
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 QLast Update : Mon Oct 14 03:17:37 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.340	152	282355	40.00	ppm	0.00
24) Naphthalene-d8	5.376	136	992841	40.00	ppm	0.00
47) Acenaphthene-d10	7.540	164	644376	40.00	ppm	0.00
69) Phenanthrene-d10	10.061	188	1042807	40.00	ppm	0.00
83) Chrysene-d12	15.136	240	1017808	40.00	ppm	-0.01
91) Perylene-d12	17.727	264	1068225	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.340	152	282355	40.00	ppm	0.00
103) Acenaphthene-d10a	7.540	164	644376	40.00	ppm	0.00
105) Acenaphthene-d10b	7.540	164	644376	40.00	ppm	0.00
107) Chrysene-d12a	15.136	240	1017808	40.00	ppm	-0.01
110) Phenanthrene-d10a	10.061	188	1042807	40.00	ppm	0.00
112) Phenanthrene-d10b	10.061	188	1042807	40.00	ppm	0.00
114) Naphthalene-d8a	5.376	136	992841	40.00	ppm	0.00
116) Chrysene-d12c	15.136	240	1017808	40.00	ppm	0.05
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
8) Phenol-d5	0.000	99	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
109) 1-chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
113) o-terphenyl	0.000	230	0	0.00	ppm	
Target Compounds						
102) Benzaldehyde	4.019	105	425576	55.86	ppm	99
104) Atrazine	9.719	215	155596	54.43	ppm	98
111) Pentachloronitrobenzene	9.778	295	75019	60.31	ppm	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

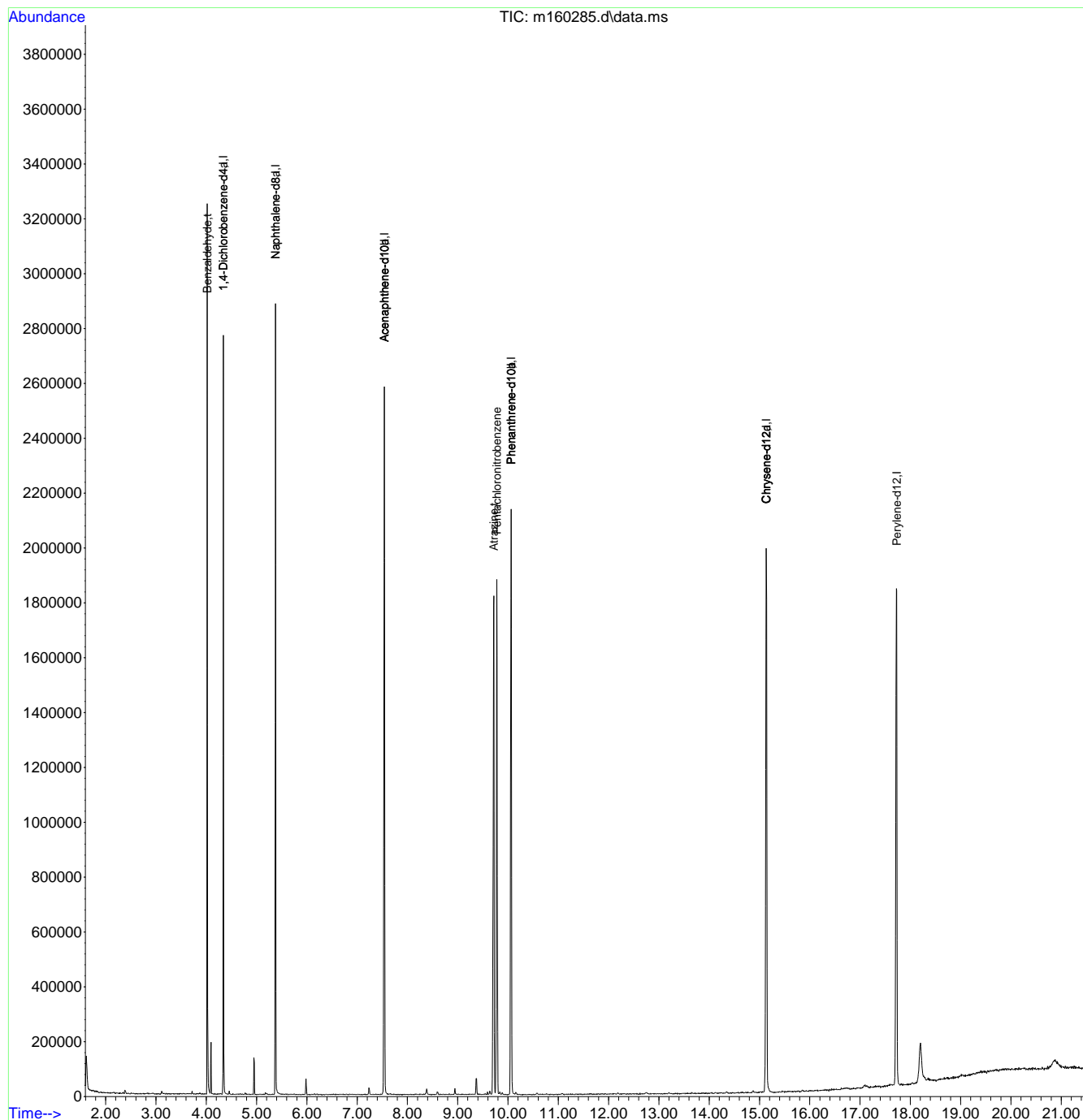
9.6.109
9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\altheam\em6782\
 Data File : m160285.d
 Acq On : 13 Oct 2019 3:53 am
 Operator : jamescl
 Sample : ecc6772-50
 Misc : op21044,em6782,1000,,,1,1
 ALS Vial : 3 Sample Multiplier: 1

Inst : MSM

Quant Method : C:\MSDCHEM\1\METHODS\MM6777.M
 Quant Results File: MM6777.RES
 Quant Time: Oct 14 04:49:11 2019
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 QLast Update : Mon Oct 14 03:17:37 2019
 Response via : Initial Calibration



9.6.109
 9



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\altheam\em6782\
 Data File : ml60286.d
 Acq On : 13 Oct 2019 4:21 am
 Operator : jamescl
 Sample : ecc6773-50 Inst : MSM
 Misc : op21044,em6782,1000,,,1,1
 ALS Vial : 4 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MM6777.M
 Quant Results File: MM6777.RES
 Quant Time: Oct 14 04:50:19 2019
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 QLast Update : Mon Oct 14 03:17:37 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.341	152	289290	40.00	ppm	0.00
24) Naphthalene-d8	5.377	136	981820	40.00	ppm	0.00
47) Acenaphthene-d10	7.541	164	605729	40.00	ppm	0.00
69) Phenanthrene-d10	10.057	188	1110819	40.00	ppm	-0.01
83) Chrysene-d12	15.137	240	983029	40.00	ppm	-0.01
91) Perylene-d12	17.723	264	1022930	40.00	ppm	-0.01
101) 1,4-Dichlorobenzene-d4a	4.341	152	289290	40.00	ppm	0.00
103) Acenaphthene-d10a	7.541	164	605729	40.00	ppm	0.00
105) Acenaphthene-d10b	7.541	164	605729	40.00	ppm	0.00
107) Chrysene-d12a	15.137	240	983029	40.00	ppm	-0.01
110) Phenanthrene-d10a	10.057	188	1110819	40.00	ppm	-0.01
112) Phenanthrene-d10b	10.057	188	1110819	40.00	ppm	-0.01
114) Naphthalene-d8a	5.377	136	981820	40.00	ppm	0.00
116) Chrysene-d12c	15.137	240	983029	40.00	ppm	0.05
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
8) Phenol-d5	0.000	99	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
109) 1-chlorooctadecane	12.370	57	451702	68.32	ppm	0.00
Spiked Amount	50.000		Recovery	=	136.64%	
113) o-terphenyl	10.874	230	744125	48.82	ppm	0.00
Target Compounds						
106) 1,2,4,5-Tetrachloroben...	6.339	216	435659	44.05	ppm	98
108) Benzidine	12.739	184	983946	57.10	ppm	99
115) Hydroquinone	5.869	110	519220	63.01	ppm	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

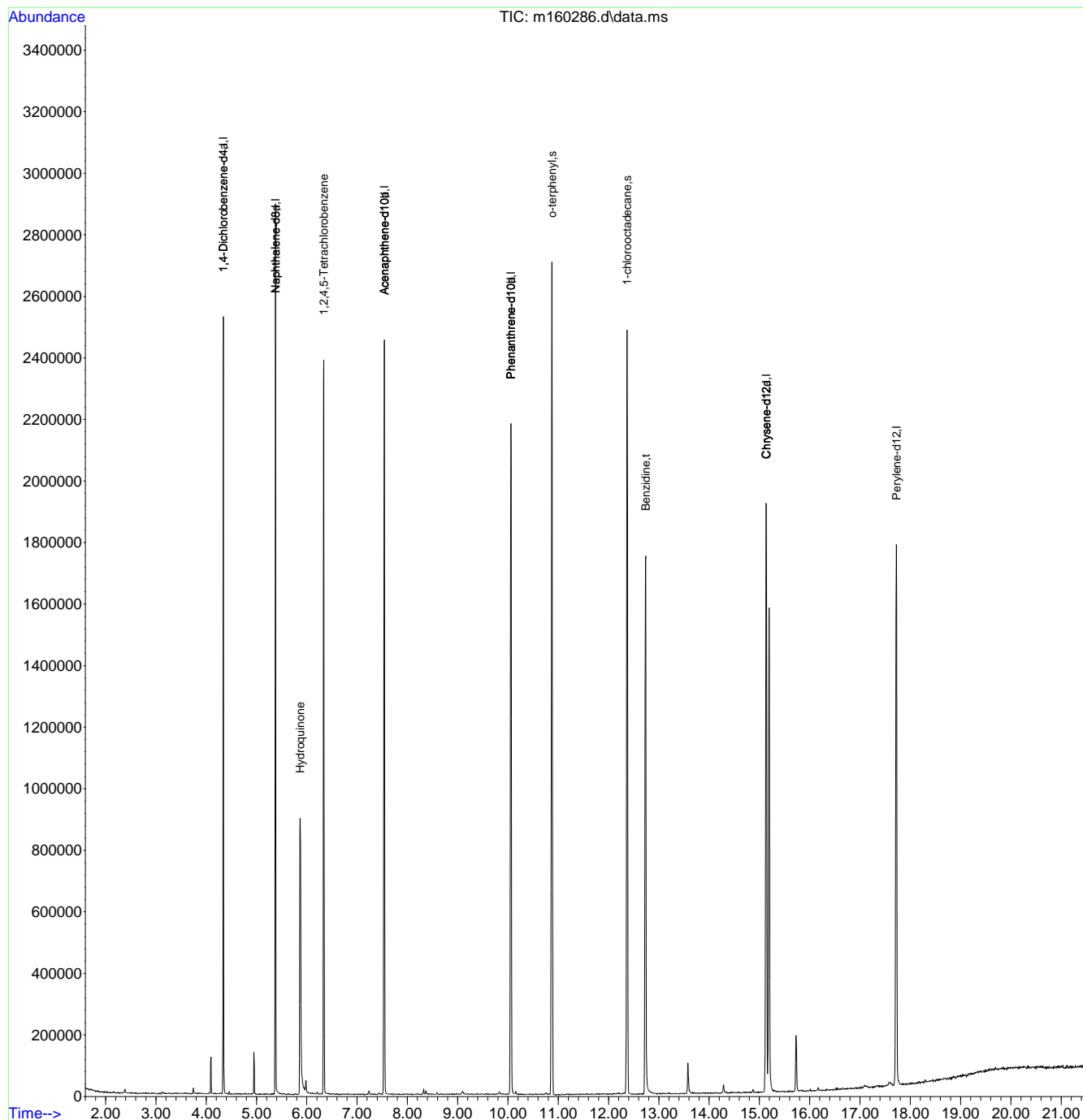
9.6.110
9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\altheam\em6782\
 Data File : m160286.d
 Acq On : 13 Oct 2019 4:21 am
 Operator : jamescl
 Sample : ecc6773-50
 Misc : op21044,em6782,1000,,,1,1
 ALS Vial : 4 Sample Multiplier: 1

Inst : MSM

Quant Method : C:\MSDCHEM\1\METHODS\MM6777.M
 Quant Results File: MM6777.RES
 Quant Time: Oct 14 04:50:19 2019
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 QLast Update : Mon Oct 14 03:17:37 2019
 Response via : Initial Calibration



9.6.110
9



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\jonkm\101519\em6783\
 Data File : ml60288.d
 Acq On : 13 Oct 2019 9:32 am
 Operator : hennys
 Sample : cc6777-25 Inst : MSM
 Misc : op21044,em6783,1000,,,1,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MM6777.M
 Quant Results File: MM6777.RES
 Quant Time: Oct 14 23:26:31 2019
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 QLast Update : Fri Oct 11 13:05:55 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.330	152	169623	40.00	ppm	-0.04
24) Naphthalene-d8	5.372	136	579549	40.00	ppm	-0.05
47) Acenaphthene-d10	7.530	164	356619	40.00	ppm	-0.07
69) Phenanthrene-d10	10.051	188	644062	40.00	ppm	-0.08
83) Chrysene-d12	15.126	240	569727	40.00	ppm	-0.11
91) Perylene-d12	17.712	264	636350	40.00	ppm	-0.12
101) 1,4-Dichlorobenzene-d4a	4.330	152	169623	40.00	ppm	-0.04
103) Acenaphthene-d10a	7.530	164	356619	40.00	ppm	-0.07
105) Acenaphthene-d10b	7.530	164	356619	40.00	ppm	-0.07
107) Chrysene-d12a	15.126	240	569727	40.00	ppm	-0.11
110) Phenanthrene-d10a	10.051	188	644062	40.00	ppm	-0.08
112) Phenanthrene-d10b	10.051	188	644062	40.00	ppm	-0.08
114) Naphthalene-d8a	5.372	136	579549	40.00	ppm	-0.05
116) Chrysene-d12c	15.126	240	569727	40.00	ppm	-0.11
System Monitoring Compounds						
5) 2-Fluorophenol	3.368	112	186770	25.05	ppm	-0.05
Spiked Amount	50.000		Recovery	=	50.10%	
8) Phenol-d5	4.111	99	213694	24.94	ppm	-0.05
Spiked Amount	50.000		Recovery	=	49.88%	
25) Nitrobenzene-d5	4.757	82	188236	25.25	ppm	-0.05
Spiked Amount	50.000		Recovery	=	50.50%	
51) 2-Fluorobiphenyl	6.595	172	336577	27.20	ppm	-0.06
Spiked Amount	50.000		Recovery	=	54.40%	
73) 2,4,6-Tribromophenol	8.833	330	63995	25.25	ppm	-0.08
Spiked Amount	50.000		Recovery	=	50.50%	
85) Terphenyl-d14	13.182	244	383577	24.73	ppm	-0.10
Spiked Amount	50.000		Recovery	=	49.46%	
109) 1-chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
113) o-terphenyl	0.000	230	0	0.00	ppm	
Target Compounds						
2) 1,4-Dioxane	1.792	88	103619	25.44	ppm	96
3) Pyridine	2.140	79	240497	25.69	ppm	95
4) N-Nitrosodimethylamine	2.108	42	98997	23.46	ppm	91
6) Indene	4.522	116	250321	25.06	ppm	98
7) Cumene	3.726	105	448214	25.39	ppm	98
9) Phenol	4.122	94	251871	25.86	ppm	99
10) Aniline	4.106	93	278690	28.30	ppm	99
11) bis(2-Chloroethyl)ether	4.148	93	167873	24.76	ppm	99
12) 2-Chlorophenol	4.191	128	167422	24.78	ppm	97
13) Decane	4.218	43	164246	27.16	ppm	95
14) 1,3-Dichlorobenzene	4.293	146	184162	24.54	ppm	99
15) 1,4-Dichlorobenzene	4.346	146	170661	25.67	ppm	98
16) Benzyl alcohol	4.453	108	94593	26.88	ppm	86
17) 1,2-Dichlorobenzene	4.458	146	169440	25.23	ppm	96
18) Acetophenone	4.640	105	222822	24.18	ppm	100
19) 2-Methylphenol	4.554	108	140926	25.46	ppm	94
20) 2,2'-oxybis(1-Chloropr...	4.544	121	43865	24.82	ppm	98
21) 3&4-Methylphenol	4.672	108	141107	23.86	ppm	94
22) n-Nitroso-di-n-propyla...	4.640	70	131317	25.23	ppm	89
23) Hexachloroethane	4.715	201	68907	24.80	ppm	93
26) Nitrobenzene	4.773	77	185745	24.39	ppm	98
27) Quinoline	5.735	129	308730	24.06	ppm	98
28) Isophorone	4.960	82	345323	25.69	ppm	96

9.6.111
9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\jonkm\101519\em6783\
 Data File : ml60288.d
 Acq On : 13 Oct 2019 9:32 am
 Operator : hennys
 Sample : cc6777-25 Inst : MSM
 Misc : op21044,em6783,1000,,,1,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MM6777.M
 Quant Results File: MM6777.RES
 Quant Time: Oct 14 23:26:31 2019
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 QLast Update : Fri Oct 11 13:05:55 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
29) 2-Nitrophenol	5.035	139	84416	26.34	ppm	95
30) 2,4-Dimethylphenol	5.094	107	161683	29.39	ppm	97
31) Benzoic acid	5.206	105	122498	25.52	ppm	99
32) bis(2-Chloroethoxy)met...	5.158	93	203244	24.60	ppm	100
33) 2,4-Dichlorophenol	5.259	162	134890	24.45	ppm	98
34) 2,6-Dichlorophenol	5.468	162	124808	25.09	ppm	98
35) 1,3,5-Trichlorobenzene	5.035	180	157802	24.69	ppm	99
36) 1,2,4-Trichlorobenzene	5.318	180	148833	24.35	ppm	96
37) 1,2,3-Trichlorobenzene	5.537	180	135155	23.77	ppm	97
38) Naphthalene	5.388	128	403968	25.38	ppm	99
39) 4-Chloroaniline	5.462	127	185065	25.54	ppm	97
40) 2,3-Dichloroaniline	6.493	161	165058	23.78	ppm	97
41) Caprolactam	5.810	55	72135	24.13	ppm	97
42) Hexachlorobutadiene	5.521	225	85934	24.19	ppm	99
43) 4-Chloro-3-methylphenol	6.013	107	146032	24.09	ppm	91
44) 2-Methylnaphthalene	6.125	141	239090	23.89	ppm	99
45) 1-Methylnaphthalene	6.242	142	308187	24.08	ppm	98
46) Dimethylnaphthalene	6.932	156	255428	22.86	ppm	99
48) Hexachlorocyclopentadiene	6.328	237	199013	54.48	ppm	99
49) 2,4,6-Trichlorophenol	6.499	196	100772	25.81	ppm	100
50) 2,4,5-Trichlorophenol	6.552	196	105197	25.22	ppm	97
52) 2-Chloronaphthalene	6.734	162	284063	24.11	ppm	98
53) Biphenyl	6.723	154	365904	23.30	ppm	98
54) 2-Nitroaniline	6.916	65	98274	25.94	ppm	96
55) Dimethylphthalate	7.193	163	368835	24.33	ppm	98
56) Acenaphthylene	7.316	152	446372	24.58	ppm	100
57) 2,6-Dinitrotoluene	7.263	165	78053	26.03	ppm	97
58) 3-Nitroaniline	7.530	138	79159	24.88	ppm	98
59) Acenaphthene	7.578	153	271985	24.80	ppm	97
60) 2,4-Dinitrophenol	7.679	184	79262	48.81	ppm	98
61) 4-Nitrophenol	7.904	109	49422	26.22	ppm #	80
62) Dibenzofuran	7.856	168	424786	24.39	ppm	99
63) 2,4-Dinitrotoluene	7.888	165	102634	26.78	ppm	77
64) 2,3,4,6-Tetrachlorophenol	8.091	232	86219	24.84	ppm	94
65) Diethylphthalate	8.326	149	367525	24.44	ppm	98
66) Fluorene	8.411	166	339914	24.59	ppm	98
67) 4-Chlorophenyl-phenyle...	8.454	204	160790	23.63	ppm	96
68) 4-Nitroaniline	8.529	138	83602	25.60	ppm	98
70) 4,6-Dinitro-2-methylph...	8.556	198	56614	23.92	ppm	91
71) n-Nitrosodiphenylamine	8.673	169	236239	23.27	ppm	99
72) 1,2-Diphenylhydrazine	8.721	77	388768	24.88	ppm	99
74) 4-Bromophenyl-phenylether	9.293	248	110716	23.34	ppm	96
75) Hexachlorobenzene	9.362	284	121889	23.57	ppm	98
76) Pentachlorophenol	9.768	266	137914	45.84	ppm	99
77) Phenanthrene	10.089	178	432640	23.98	ppm	99
78) Anthracene	10.180	178	462038	24.62	ppm	99
79) Carbazole	10.554	167	494286	23.87	ppm	97
80) Di-n-butylphthalate	11.355	149	642731	24.15	ppm	100
81) Fluoranthene	12.332	202	564216	23.20	ppm	99
82) Octadecane	10.062	57	203394	26.22	ppm	96
84) Pyrene	12.749	202	556723	23.52	ppm	99
86) Butylbenzylphthalate	14.245	149	286521	25.77	ppm	98
87) Benzo[a]anthracene	15.110	228	512996	24.05	ppm	98
88) 3,3'-Dichlorobenzidine	15.180	252	179222	25.76	ppm	99
89) Chrysene	15.174	228	450358	25.37	ppm	100
90) bis(2-Ethylhexyl)phtha...	15.452	149	363157	26.06	ppm	99
92) Di-n-octylphthalate	16.654	149	645280	25.50	ppm	99

9.6.111
9



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\jonkm\101519\em6783\
 Data File : m160288.d
 Acq On : 13 Oct 2019 9:32 am
 Operator : hennys
 Sample : cc6777-25 Inst : MSM
 Misc : op21044,em6783,1000,,,1,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MM6777.M
 Quant Results File: MM6777.RES
 Quant Time: Oct 14 23:26:31 2019
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 QLast Update : Fri Oct 11 13:05:55 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
93) Benzo[b]fluoranthene	17.071	252	538864	24.62	ppm	98
94) Benzo[k]fluoranthene	17.124	252	472469	24.25	ppm	99
95) Benzo[a]pyrene	17.610	252	485252	25.12	ppm	99
96) Indeno[1,2,3-cd]pyrene	19.325	276	453502	24.11	ppm	99
97) Dibenz(a,h)acridine	19.026	279	436167	24.70	ppm	98
98) Dibenz[a,h]anthracene	19.373	278	460812	24.58	ppm	99
99) 7,12-Dimethylbenz(a)an...	17.092	256	233890	30.66	ppm	98
100) Benzo[g,h,i]perylene	19.694	276	465167	24.77	ppm	98

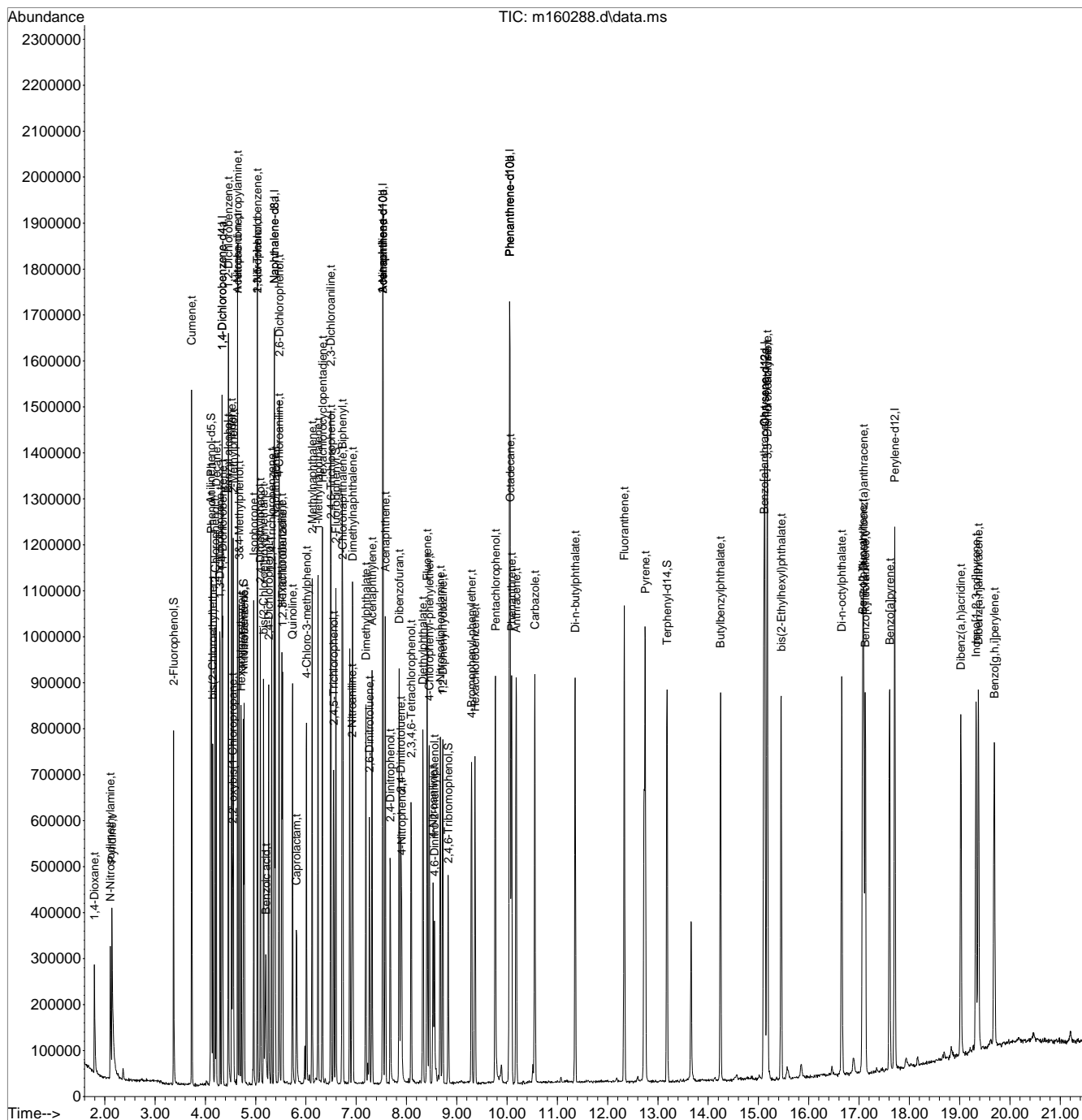
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\jonkm\101519\em6783\
 Data File : m160288.d
 Acq On : 13 Oct 2019 9:32 am
 Operator : hennys
 Sample : cc6777-25
 Misc : op21044,em6783,1000,,1,1
 ALS Vial : 2 Sample Multiplier: 1

Inst : MSM

Quant Method : C:\MSDCHEM\1\METHODS\MM6777.M
 Quant Results File: MM6777.RE5
 Quant Time: Oct 14 23:26:31 2019
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 QLast Update : Fri Oct 11 13:05:55 2019
 Response via : Initial Calibration



9.6.111
9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\jonkm\101519\em6783\
 Data File : ml60289.d
 Acq On : 13 Oct 2019 10:00 am
 Operator : hennys
 Sample : cc6772-25 Inst : MSM
 Misc : op21044,em6783,1000,,,1,1
 ALS Vial : 3 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MM6777.M
 Quant Results File: MM6777.RES
 Quant Time: Oct 14 23:21:35 2019
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 QLast Update : Fri Oct 11 13:05:55 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.334	152	179778	40.00	ppm	-0.04
24) Naphthalene-d8	5.371	136	605383	40.00	ppm	-0.05
47) Acenaphthene-d10	7.529	164	364926	40.00	ppm	-0.07
69) Phenanthrene-d10	10.050	188	615254	40.00	ppm	-0.09
83) Chrysene-d12	15.125	240	575381	40.00	ppm	-0.11
91) Perylene-d12	17.711	264	635424	40.00	ppm	-0.12
101) 1,4-Dichlorobenzene-d4a	4.334	152	179778	40.00	ppm	-0.04
103) Acenaphthene-d10a	7.529	164	364926	40.00	ppm	-0.07
105) Acenaphthene-d10b	7.529	164	364926	40.00	ppm	-0.07
107) Chrysene-d12a	15.125	240	575381	40.00	ppm	-0.11
110) Phenanthrene-d10a	10.050	188	615254	40.00	ppm	-0.09
112) Phenanthrene-d10b	10.050	188	615254	40.00	ppm	#-0.09
114) Naphthalene-d8a	5.371	136	605383	40.00	ppm	-0.05
116) Chrysene-d12c	15.125	240	575381	40.00	ppm	-0.11
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
8) Phenol-d5	0.000	99	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
109) 1-chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
113) o-terphenyl	0.000	230	0	0.00	ppm	
Target Compounds						
102) Benzaldehyde	4.014	105	127918	26.37	ppm	97
104) Atrazine	9.698	215	43118	26.63	ppm	89
111) Pentachloronitrobenzene	9.767	295	21916	29.86	ppm	97

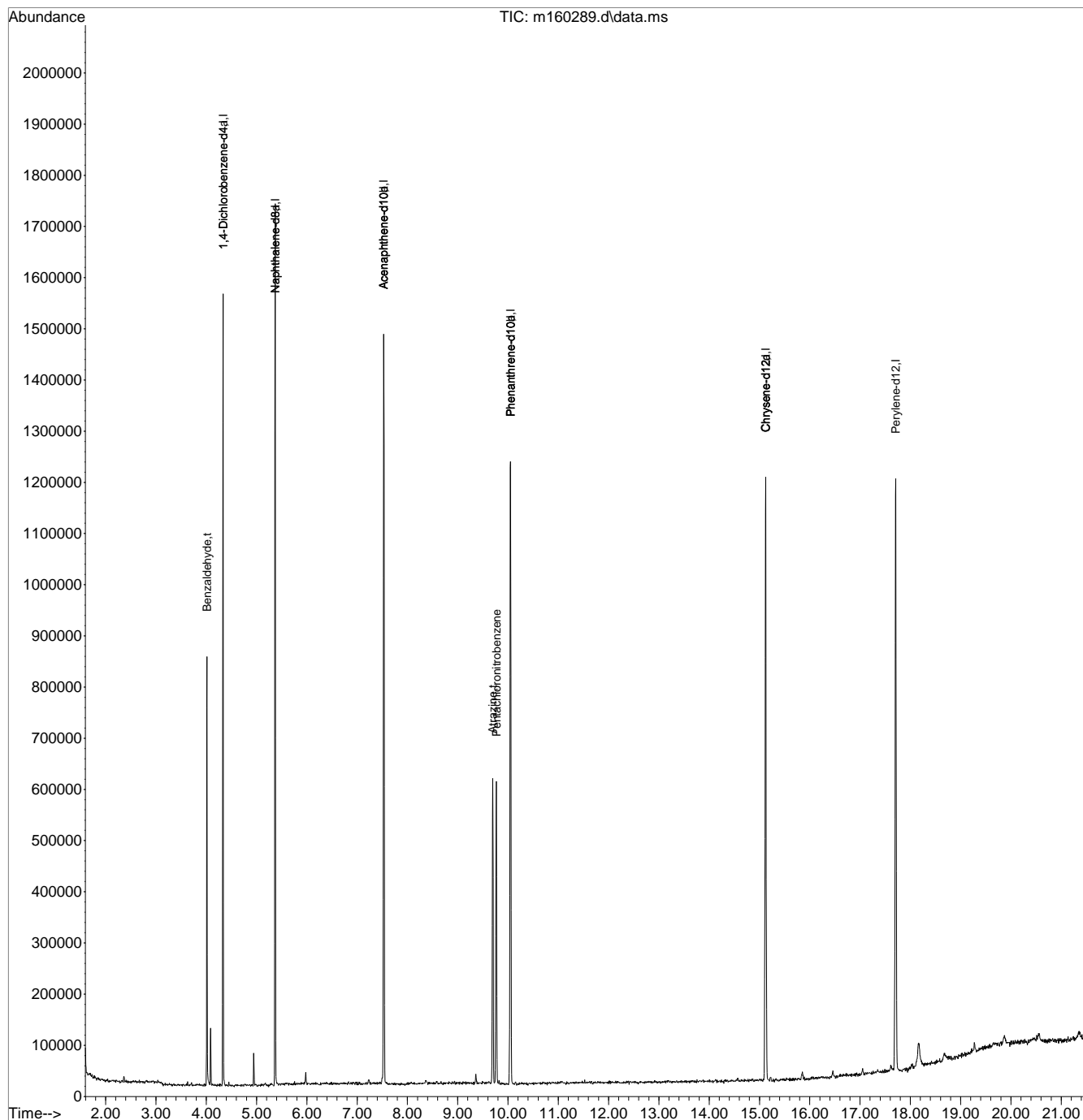
(#) = qualifier out of range (m) = manual integration (+) = signals summed

9.6.112
9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\jonkm\101519\em6783\
 Data File : m160289.d
 Acq On : 13 Oct 2019 10:00 am
 Operator : hennys
 Sample : cc6772-25 Inst : MSM
 Misc : op21044,em6783,1000,,,1,1
 ALS Vial : 3 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MM6777.M
 Quant Results File: MM6777.RES
 Quant Time: Oct 14 23:21:35 2019
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 QLast Update : Fri Oct 11 13:05:55 2019
 Response via : Initial Calibration



9.6.112
9



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\jonkm\101519\em6783\
 Data File : ml60290.d
 Acq On : 13 Oct 2019 10:27 am
 Operator : hennys
 Sample : cc6773-25 Inst : MSM
 Misc : op21044,em6783,1000,,,1,1
 ALS Vial : 4 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MM6777.M
 Quant Results File: MM6777.RES
 Quant Time: Oct 14 23:20:43 2019
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 QLast Update : Fri Oct 11 13:05:55 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.335	152	204590	40.00	ppm	-0.04
24) Naphthalene-d8	5.371	136	697013	40.00	ppm	-0.05
47) Acenaphthene-d10	7.529	164	410129	40.00	ppm	-0.07
69) Phenanthrene-d10	10.046	188	731833	40.00	ppm	-0.09
83) Chrysene-d12	15.126	240	676025	40.00	ppm	-0.11
91) Perylene-d12	17.712	264	734973	40.00	ppm	-0.12
101) 1,4-Dichlorobenzene-d4a	4.335	152	204590	40.00	ppm	-0.04
103) Acenaphthene-d10a	7.529	164	410129	40.00	ppm	-0.07
105) Acenaphthene-d10b	7.529	164	410129	40.00	ppm	-0.07
107) Chrysene-d12a	15.126	240	676025	40.00	ppm	-0.11
110) Phenanthrene-d10a	10.046	188	731833	40.00	ppm	-0.09
112) Phenanthrene-d10b	10.046	188	731833	40.00	ppm	-0.09
114) Naphthalene-d8a	5.371	136	697013	40.00	ppm	-0.05
116) Chrysene-d12c	15.126	240	676025	40.00	ppm	-0.11
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
8) Phenol-d5	0.000	99	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
109) 1-chlorooctadecane	12.359	57	162011	35.63	ppm	-0.16
Spiked Amount 50.000			Recovery	=	71.26%	
113) o-terphenyl	10.863	230	270907	26.98	ppm	-0.17
Target Compounds						
106) 1,2,4,5-Tetrachloroben...	6.327	216	169316	25.28	ppm	99
108) Benzidine	12.722	184	314521	26.54	ppm	99
115) Hydroquinone	5.857	110	182056	31.12	ppm	95

(#) = qualifier out of range (m) = manual integration (+) = signals summed

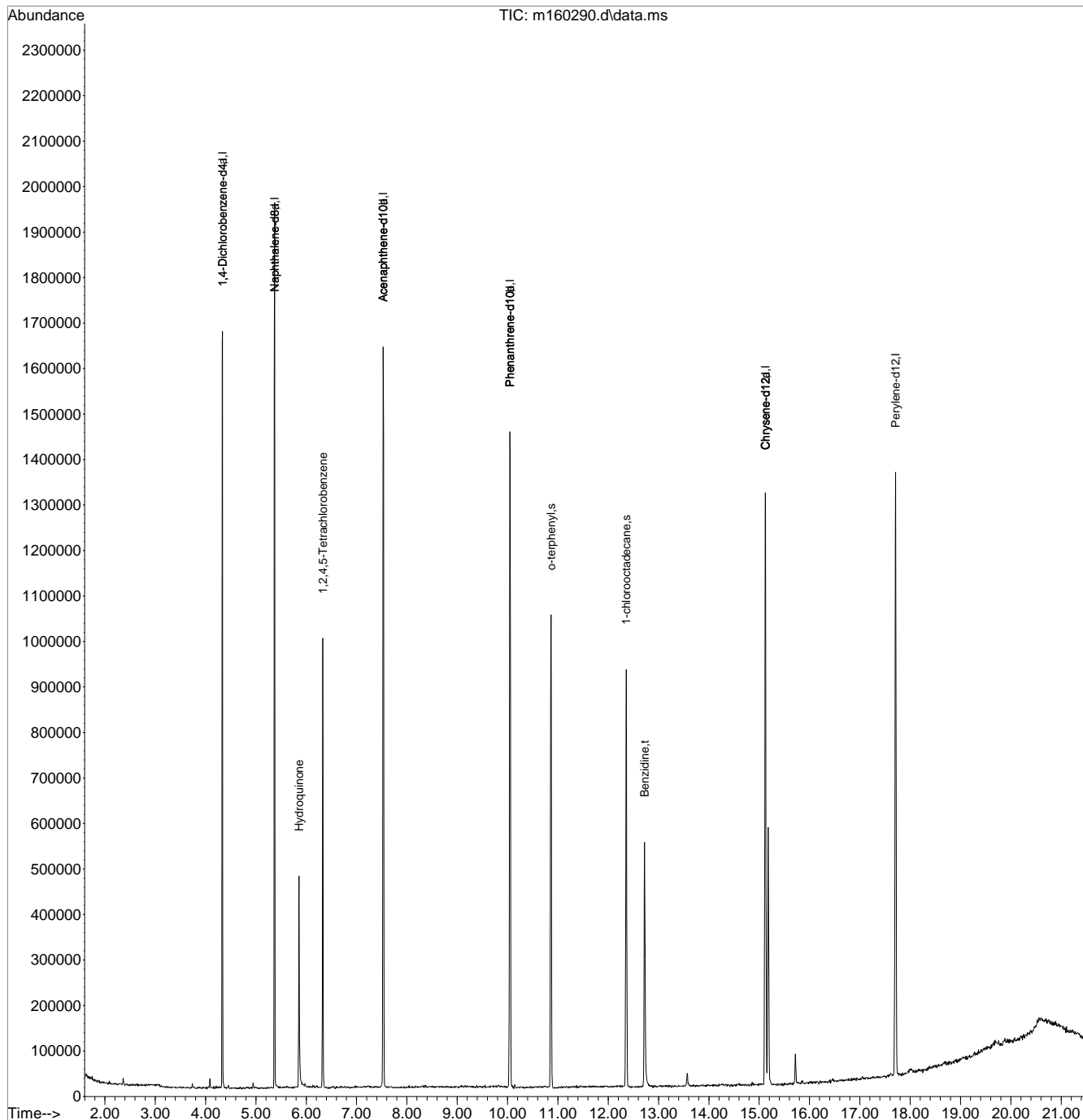
9.6.113
9



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\jonkm\101519\em6783\
 Data File : m160290.d
 Acq On : 13 Oct 2019 10:27 am
 Operator : hennys
 Sample : cc6773-25 Inst : MSM
 Misc : op21044,em6783,1000,,,1,1
 ALS Vial : 4 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MM6777.M
 Quant Results File: MM6777.RES
 Quant Time: Oct 14 23:20:43 2019
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 QLast Update : Fri Oct 11 13:05:55 2019
 Response via : Initial Calibration



9.6.113
9



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6787\
 Data File : ml60401.D
 Acq On : 16 Oct 2019 10:53 am
 Operator : hennys
 Sample : cc6777-25
 Misc : op21044,em6787,1000,,,1,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Oct 16 12:29:25 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MM6777.M
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 QLast Update : Tue Oct 15 07:52:46 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.302	152	246281	40.00	ppm	-0.02
24) Naphthalene-d8	5.328	136	842761	40.00	ppm	-0.03
47) Acenaphthene-d10	7.475	164	538107	40.00	ppm	-0.03
69) Phenanthrene-d10	9.991	188	995836	40.00	ppm	-0.03
83) Chrysene-d12	15.072	240	845244	40.00	ppm	-0.03
91) Perylene-d12	17.657	264	944310	40.00	ppm	-0.03
101) 1,4-Dichlorobenzene-d4a	4.302	152	246281	40.00	ppm	-0.02
103) Acenaphthene-d10a	7.475	164	538107	40.00	ppm	-0.03
105) Acenaphthene-d10b	7.475	164	538107	40.00	ppm	-0.03
107) Chrysene-d12a	15.072	240	845244	40.00	ppm	-0.03
110) Phenanthrene-d10a	9.991	188	995836	40.00	ppm	-0.03
112) Phenanthrene-d10b	9.991	188	995836	40.00	ppm	-0.03
114) Naphthalene-d8a	5.328	136	842761	40.00	ppm	-0.03
116) Chrysene-d12c	15.072	240	845244	40.00	ppm	-0.03
System Monitoring Compounds						
5) 2-Fluorophenol	3.335	112	278568	25.73	ppm	-0.02
Spiked Amount	50.000		Recovery	=	51.46%	
8) Phenol-d5	4.083	99	308529	24.80	ppm	-0.02
Spiked Amount	50.000		Recovery	=	49.60%	
25) Nitrobenzene-d5	4.724	82	278202	25.66	ppm	-0.02
Spiked Amount	50.000		Recovery	=	51.32%	
51) 2-Fluorobiphenyl	6.546	172	503320	26.96	ppm	-0.03
Spiked Amount	50.000		Recovery	=	53.92%	
73) 2,4,6-Tribromophenol	8.773	330	100186	25.57	ppm	-0.03
Spiked Amount	50.000		Recovery	=	51.14%	
85) Terphenyl-d14	13.122	244	593525	25.80	ppm	-0.03
Spiked Amount	50.000		Recovery	=	51.60%	
109) 1-chlorooctadecane	0.000	57	0d	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
113) o-terphenyl	0.000	230	0	0.00	ppm	
Target Compounds						
2) 1,4-Dioxane	1.754	88	157012	26.55	ppm	94
3) Pyridine	2.090	79	336794	24.78	ppm	96
4) N-Nitrosodimethylamine	2.058	42	165498	27.01	ppm	86
6) Indene	4.489	116	360632	24.86	ppm	97
7) Cumene	3.693	105	657177	25.64	ppm	97
9) Phenol	4.094	94	356339	25.20	ppm	96
10) Aniline	4.072	93	407876	28.53	ppm	92
11) bis(2-Chloroethyl)ether	4.115	93	243688	24.75	ppm	98
12) 2-Chlorophenol	4.158	128	237745	24.23	ppm	100
13) Decane	4.184	43	216387	24.65	ppm	99
14) 1,3-Dichlorobenzene	4.259	146	264989	24.32	ppm	99
15) 1,4-Dichlorobenzene	4.313	146	244574	25.33	ppm	99
16) Benzyl alcohol	4.425	108	139689	27.34	ppm	95
17) 1,2-Dichlorobenzene	4.430	146	252768	25.92	ppm	97
18) Acetophenone	4.606	105	330121	24.68	ppm	100
19) 2-Methylphenol	4.526	108	202419	25.19	ppm	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6787\
 Data File : m160401.D
 Acq On : 16 Oct 2019 10:53 am
 Operator : hennys
 Sample : cc6777-25
 Misc : op21044,em6787,1000,,,1,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Oct 16 12:29:25 2019

Quant Method : C:\MSDCHEM\1\METHODS\MM6777.M

Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um

QLast Update : Tue Oct 15 07:52:46 2019

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
20) 2,2'-oxybis(1-Chloropr...	4.510	121	62628	24.41	ppm	96
21) 3&4-Methylphenol	4.638	108	217035	25.28	ppm	94
22) n-Nitroso-di-n-propyla...	4.612	70	189257	25.04	ppm	98
23) Hexachloroethane	4.676	201	101992	25.29	ppm	88
26) Nitrobenzene	4.740	77	272301	24.59	ppm	98
27) Quinoline	5.691	129	465399	24.94	ppm	98
28) Isophorone	4.927	82	512495	26.22	ppm	99
29) 2-Nitrophenol	5.002	139	130217	27.94	ppm	90
30) 2,4-Dimethylphenol	5.060	107	236466	29.56	ppm	98
31) Benzoic acid	5.173	105	187994	26.84	ppm	96
32) bis(2-Chloroethoxy)met...	5.119	93	296728	24.70	ppm	98
33) 2,4-Dichlorophenol	5.221	162	204614	25.50	ppm	98
34) 2,6-Dichlorophenol	5.429	162	181971	25.15	ppm	98
35) 1,3,5-Trichlorobenzene	4.996	180	233748	25.15	ppm	96
36) 1,2,4-Trichlorobenzene	5.279	180	222270	25.01	ppm	100
37) 1,2,3-Trichlorobenzene	5.493	180	203252	24.58	ppm	99
38) Naphthalene	5.349	128	583324	25.20	ppm	100
39) 4-Chloroaniline	5.424	127	271005	25.72	ppm	99
40) 2,3-Dichloroaniline	6.444	161	254368	25.20	ppm	96
41) Caprolactam	5.776	55	111073	25.55	ppm	98
42) Hexachlorobutadiene	5.477	225	131306	25.42	ppm	100
43) 4-Chloro-3-methylphenol	5.969	107	229379	26.02	ppm	96
44) 2-Methylnaphthalene	6.081	141	358724	24.65	ppm	99
45) 1-Methylnaphthalene	6.193	142	458945	24.66	ppm	99
46) Dimethylnaphthalene	6.882	156	377939	23.26	ppm	99
48) Hexachlorocyclopentadiene	6.278	237	273836	49.68	ppm	96
49) 2,4,6-Trichlorophenol	6.449	196	155717	26.43	ppm	97
50) 2,4,5-Trichlorophenol	6.508	196	159904	25.41	ppm	99
52) 2-Chloronaphthalene	6.684	162	417981	23.51	ppm	97
53) Biphenyl	6.674	154	555307	23.43	ppm	99
54) 2-Nitroaniline	6.866	65	152203	26.63	ppm	98
55) Dimethylphthalate	7.139	163	568469	24.85	ppm	98
56) Acenaphthylene	7.261	152	671803	24.52	ppm	99
57) 2,6-Dinitrotoluene	7.213	165	122340	27.04	ppm	95
58) 3-Nitroaniline	7.475	138	124065	25.84	ppm	98
59) Acenaphthene	7.529	153	408374	24.67	ppm	99
60) 2,4-Dinitrophenol	7.630	184	133572	54.11	ppm	99
61) 4-Nitrophenol	7.854	109	78613	27.65	ppm #	78
62) Dibenzofuran	7.801	168	651972	24.81	ppm	99
63) 2,4-Dinitrotoluene	7.838	165	161747	27.97	ppm	77
64) 2,3,4,6-Tetrachlorophenol	8.041	232	137784	26.31	ppm	97
65) Diethylphthalate	8.271	149	572649	25.24	ppm	98
66) Fluorene	8.357	166	516249	24.75	ppm	98
67) 4-Chlorophenyl-phenyle...	8.399	204	240077	23.38	ppm	96
68) 4-Nitroaniline	8.479	138	129382	26.26	ppm	97
70) 4,6-Dinitro-2-methylph...	8.511	198	99628	27.22	ppm	97
71) n-Nitrosodiphenylamine	8.618	169	367350	23.41	ppm	97
72) 1,2-Diphenylhydrazine	8.661	77	587755	24.33	ppm	96
74) 4-Bromophenyl-phenylether	9.238	248	169416	23.10	ppm	97
75) Hexachlorobenzene	9.307	284	184384	23.06	ppm	100

9.6.114

9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6787\
 Data File : m160401.D
 Acq On : 16 Oct 2019 10:53 am
 Operator : hennys
 Sample : cc6777-25
 Misc : op21044,em6787,1000,,,1,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Oct 16 12:29:25 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MM6777.M
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 QLast Update : Tue Oct 15 07:52:46 2019
 Response via : Initial Calibration

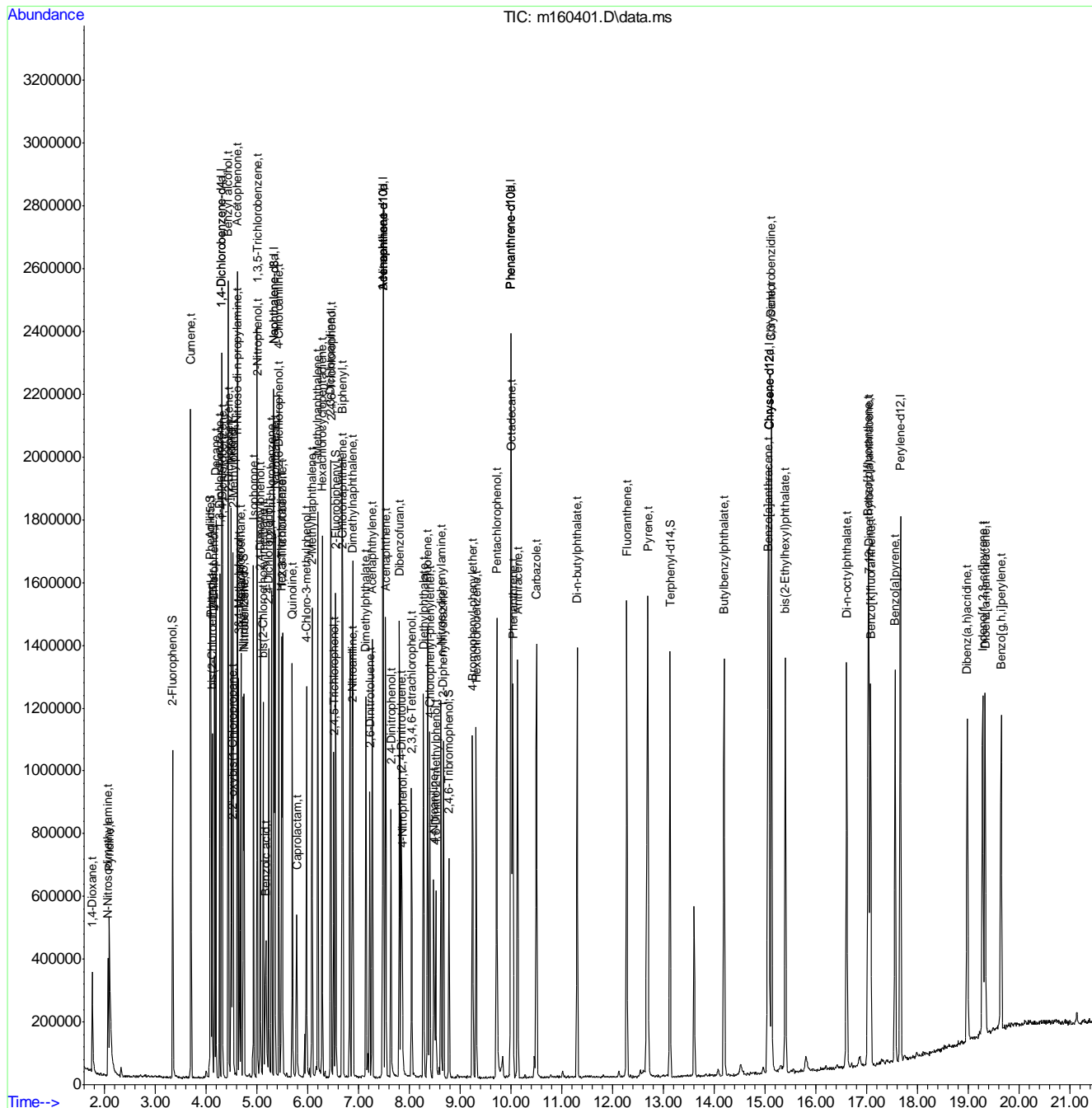
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
76) Pentachlorophenol	9.713	266	243402	52.33	ppm	97
77) Phenanthrene	10.034	178	647630	23.22	ppm	99
78) Anthracene	10.125	178	704387	24.27	ppm	100
79) Carbazole	10.493	167	755333	23.59	ppm	99
80) Di-n-butylphthalate	11.295	149	1045476	25.41	ppm	99
81) Fluoranthene	12.272	202	889603	23.66	ppm	99
82) Octadecane	10.002	57	288448	24.05	ppm	98
84) Pyrene	12.689	202	873794	24.88	ppm	99
86) Butylbenzylphthalate	14.185	149	471025	28.56	ppm	97
87) Benzo[a]anthracene	15.050	228	797690	25.21	ppm	98
88) 3,3'-Dichlorobenzidine	15.120	252	282827	27.40	ppm	97
89) Chrysene	15.120	228	668609	25.39	ppm	99
90) bis(2-Ethylhexyl)phtha...	15.392	149	601080	29.07	ppm	100
92) Di-n-octylphthalate	16.599	149	1060507	28.25	ppm	99
93) Benzo[b]fluoranthene	17.022	252	816660	25.15	ppm	99
94) Benzo[k]fluoranthene	17.070	252	688259	23.80	ppm	99
95) Benzo[a]pyrene	17.556	252	728480	25.42	ppm	98
96) Indeno[1,2,3-cd]pyrene	19.276	276	659985	23.65	ppm	100
97) Dibenz(a,h)acridine	18.971	279	632037	24.12	ppm	99
98) Dibenz[a,h]anthracene	19.324	278	654209	23.52	ppm	99
99) 7,12-Dimethylbenz(a)an...	17.038	256	342786	30.29	ppm	99
100) Benzo[g,h,i]perylene	19.639	276	649627	23.31	ppm	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6787\
 Data File : ml60401.D
 Acq On : 16 Oct 2019 10:53 am
 Operator : hennys
 Sample : cc6777-25
 Misc : op21044,em6787,1000,,,1,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Oct 16 12:29:25 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MM6777.M
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 QLast Update : Tue Oct 15 07:52:46 2019
 Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6787\
 Data File : m160402.D
 Acq On : 16 Oct 2019 11:21 am
 Operator : hennys
 Sample : cc6772-25
 Misc : op21044,em6787,1000,,,1,1
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Oct 16 12:30:27 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MM6777.M
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 QLast Update : Tue Oct 15 07:52:46 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.299	152	308158	40.00	ppm	-0.02
24) Naphthalene-d8	5.330	136	1036786	40.00	ppm	-0.02
47) Acenaphthene-d10	7.477	164	640068	40.00	ppm	-0.03
69) Phenanthrene-d10	9.988	188	1072763	40.00	ppm	-0.04
83) Chrysene-d12	15.063	240	1000661	40.00	ppm	-0.04
91) Perylene-d12	17.654	264	1049531	40.00	ppm	-0.04
101) 1,4-Dichlorobenzene-d4a	4.299	152	308158	40.00	ppm	-0.02
103) Acenaphthene-d10a	7.477	164	640068	40.00	ppm	-0.03
105) Acenaphthene-d10b	7.477	164	640068	40.00	ppm	-0.03
107) Chrysene-d12a	15.063	240	1000661	40.00	ppm	-0.04
110) Phenanthrene-d10a	9.988	188	1072763	40.00	ppm	-0.04
112) Phenanthrene-d10b	9.988	188	1072763	40.00	ppm	-0.04
114) Naphthalene-d8a	5.330	136	1036786	40.00	ppm	-0.02
116) Chrysene-d12c	15.063	240	1000661	40.00	ppm	-0.04
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
109) 1-chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
113) o-terphenyl	0.000	230	0	0.00	ppm	
Target Compounds						
102) Benzaldehyde	3.978	105	229717	27.63	ppm	96
104) Atrazine	9.641	215	83698	29.48	ppm	95
111) Pentachloronitrobenzene	9.710	295	41241	32.23	ppm	94

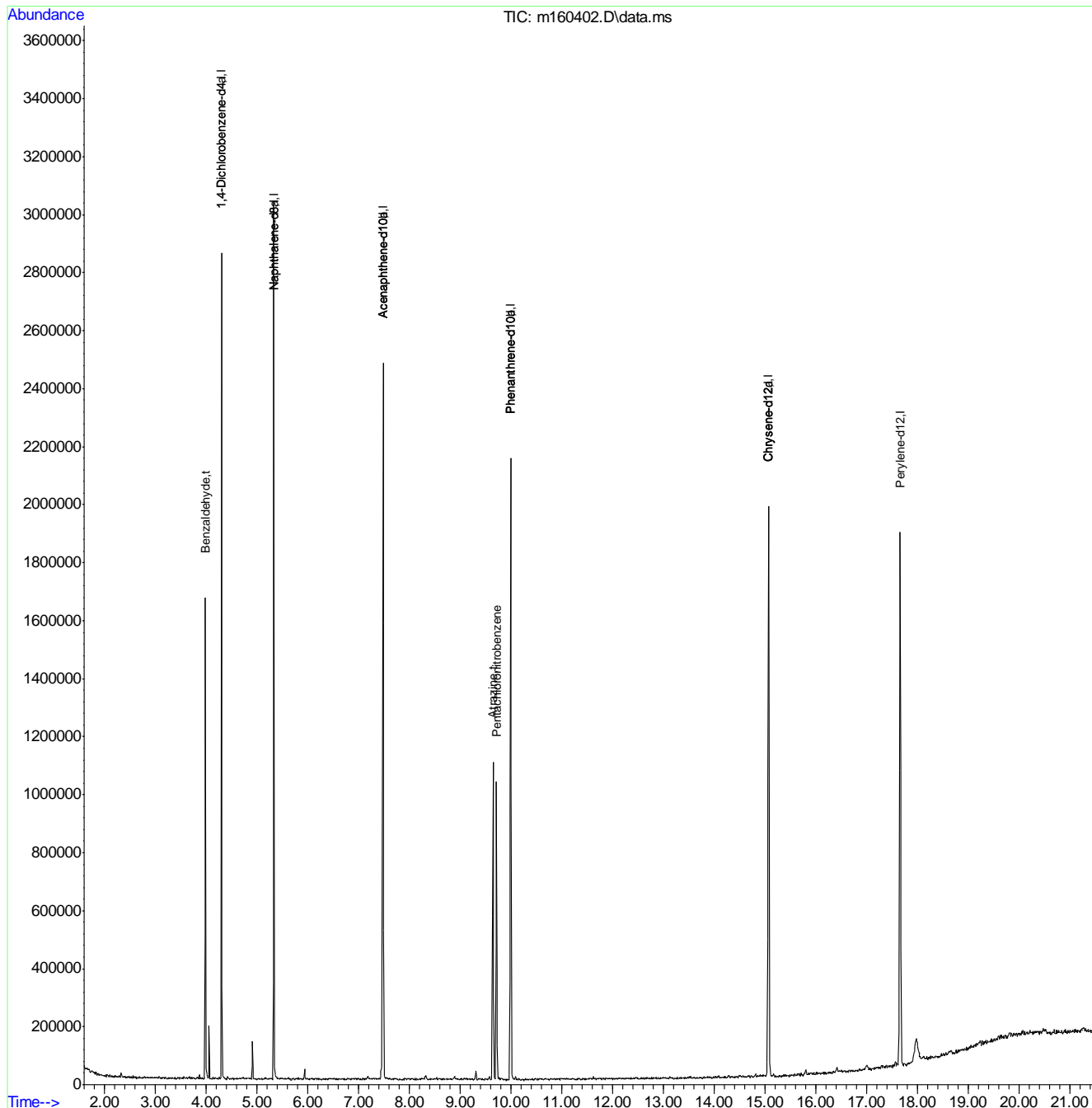
(#) = qualifier out of range (m) = manual integration (+) = signals summed

9.6.115
9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6787\
 Data File : m160402.D
 Acq On : 16 Oct 2019 11:21 am
 Operator : hennys
 Sample : cc6772-25
 Misc : op21044,em6787,1000,,,1,1
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Oct 16 12:30:27 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MM6777.M
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30m x 0.25mm x 0.25um
 QLast Update : Tue Oct 15 07:52:46 2019
 Response via : Initial Calibration



9.6.115
 9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6787\
 Data File : m160403.D
 Acq On : 16 Oct 2019 11:49 am
 Operator : hennys
 Sample : cc6773-25
 Misc : op21044,em6787,1000,,,1,1
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 16 12:31:24 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MM6777.M
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 QLast Update : Tue Oct 15 07:52:46 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.304	152	316962	40.00	ppm	-0.01
24) Naphthalene-d8	5.330	136	1051672	40.00	ppm	-0.02
47) Acenaphthene-d10	7.477	164	629150	40.00	ppm	-0.03
69) Phenanthrene-d10	9.988	188	1123453	40.00	ppm	-0.04
83) Chrysene-d12	15.063	240	1015827	40.00	ppm	-0.04
91) Perylene-d12	17.654	264	1073178	40.00	ppm	-0.04
101) 1,4-Dichlorobenzene-d4a	4.304	152	316962	40.00	ppm	-0.01
103) Acenaphthene-d10a	7.477	164	629150	40.00	ppm	-0.03
105) Acenaphthene-d10b	7.477	164	629150	40.00	ppm	-0.03
107) Chrysene-d12a	15.063	240	1015827	40.00	ppm	-0.04
110) Phenanthrene-d10a	9.988	188	1123453	40.00	ppm	-0.04
112) Phenanthrene-d10b	9.988	188	1123453	40.00	ppm	-0.04
114) Naphthalene-d8a	5.330	136	1051672	40.00	ppm	-0.02
116) Chrysene-d12c	15.063	240	1015827	40.00	ppm	-0.04
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
109) 1-chlorooctadecane	12.301	57	250847	36.71	ppm	-0.22
Spiked Amount	50.000		Recovery	=	73.42%	
113) o-terphenyl	10.800	230	422637	27.42	ppm	-0.23
Target Compounds						
106) 1,2,4,5-Tetrachloroben...	6.280	216	261765	25.48	ppm	99
108) Benzidine	12.664	184	499797	28.07	ppm	100
115) Hydroquinone	5.816	110	275961	31.27	ppm	95

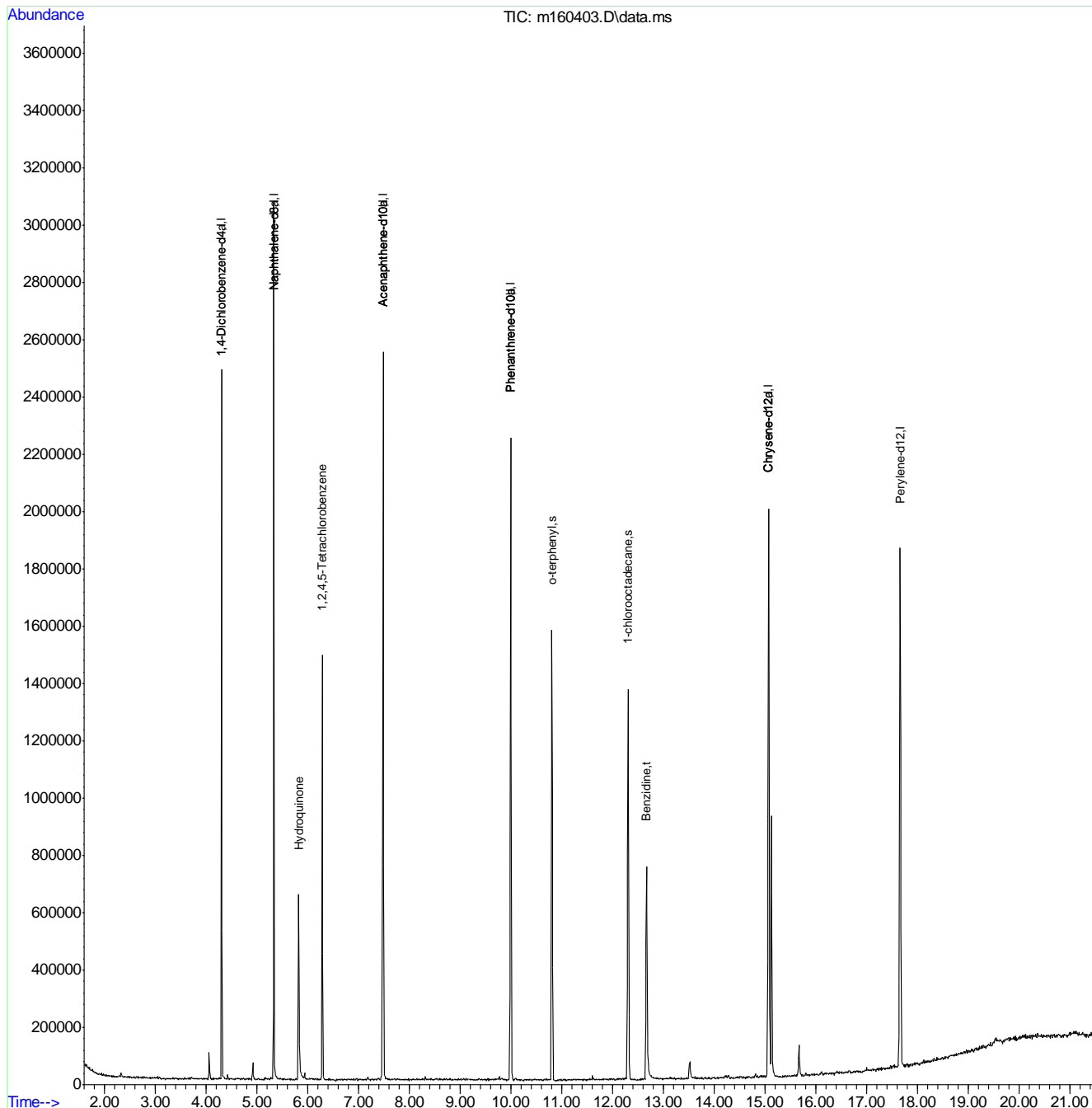
(#) = qualifier out of range (m) = manual integration (+) = signals summed

9.6.116
9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6787\
 Data File : m160403.D
 Acq On : 16 Oct 2019 11:49 am
 Operator : hennys
 Sample : cc6773-25
 Misc : op21044,em6787,1000,,,1,1
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 16 12:31:24 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MM6777.M
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30m x 0.25mm x 0.25um
 QLast Update : Tue Oct 15 07:52:46 2019
 Response via : Initial Calibration



9.6.116
9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\jeryllr\em6787\
 Data File : ml60430.d
 Acq On : 16 Oct 2019 8:46 pm
 Operator : hennys
 Sample : ecc6777-25 Inst : MSM
 Misc : op21044,em6787,1000,,,1,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MM6777.M
 Quant Results File: MM6777.RES
 Quant Time: Oct 17 05:35:07 2019
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 QLast Update : Thu Oct 17 05:34:42 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.304	152	255772	40.00	ppm	0.00
24) Naphthalene-d8	5.335	136	842785	40.00	ppm	0.00
47) Acenaphthene-d10	7.482	164	562049	40.00	ppm	0.00
69) Phenanthrene-d10	9.998	188	999852	40.00	ppm	0.01
83) Chrysene-d12	15.079	240	824854	40.00	ppm	0.02
91) Perylene-d12	17.670	264	923219	40.00	ppm	0.02
101) 1,4-Dichlorobenzene-d4a	4.304	152	255772	40.00	ppm	0.00
103) Acenaphthene-d10a	7.482	164	562049	40.00	ppm	0.00
105) Acenaphthene-d10b	7.482	164	562049	40.00	ppm	0.00
107) Chrysene-d12a	15.079	240	824854	40.00	ppm	0.02
110) Phenanthrene-d10a	9.998	188	999852	40.00	ppm	0.01
112) Phenanthrene-d10b	9.998	188	999852	40.00	ppm	0.01
114) Naphthalene-d8a	5.335	136	842785	40.00	ppm	0.00
116) Chrysene-d12c	15.079	240	824854	40.00	ppm	0.02
System Monitoring Compounds						
5) 2-Fluorophenol	3.358	112	285273	25.37	ppm	0.02
Spiked Amount	50.000		Recovery	=	50.74%	
8) Phenol-d5	4.111	99	315085	24.39	ppm	0.03
Spiked Amount	50.000		Recovery	=	48.78%	
25) Nitrobenzene-d5	4.726	82	290108	26.76	ppm	0.00
Spiked Amount	50.000		Recovery	=	53.52%	
51) 2-Fluorobiphenyl	6.553	172	501218	25.70	ppm	0.00
Spiked Amount	50.000		Recovery	=	51.40%	
73) 2,4,6-Tribromophenol	8.786	330	101220	25.73	ppm	0.01
Spiked Amount	50.000		Recovery	=	51.46%	
85) Terphenyl-d14	13.129	244	597709	26.62	ppm	0.00
Spiked Amount	50.000		Recovery	=	53.24%	
109) 1-chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
113) o-terphenyl	0.000	230	0	0.00	ppm	
Target Compounds						
2) 1,4-Dioxane	1.755	88	150680	24.53	ppm	Qvalue 89
3) Pyridine	2.097	79	351633	24.91	ppm	98
4) N-Nitrosodimethylamine	2.065	42	163114	25.63	ppm	98
6) Indene	4.491	116	379028	25.16	ppm	98
7) Cumene	3.695	105	674915	25.35	ppm	98
9) Phenol	4.117	94	331020	22.54	ppm	73
10) Aniline	4.079	93	414868	27.94	ppm	93
11) bis(2-Chloroethyl)ether	4.117	93	248413	24.29	ppm	89
12) 2-Chlorophenol	4.170	128	250622	24.60	ppm	99
13) Decane	4.186	43	229805	25.21	ppm	95
14) 1,3-Dichlorobenzene	4.261	146	274593	24.26	ppm	99
15) 1,4-Dichlorobenzene	4.314	146	249147	24.85	ppm	99
16) Benzyl alcohol	4.432	108	143766	27.09	ppm	97
17) 1,2-Dichlorobenzene	4.432	146	258511	25.52	ppm	98
18) Acetophenone	4.608	105	345047	24.84	ppm	98
19) 2-Methylphenol	4.544	108	210820	25.26	ppm	93
20) 2,2'-oxybis(1-Chloropr...	4.512	121	64618	24.25	ppm	96
21) 3&4-Methylphenol	4.662	108	226037	25.35	ppm	# 96
22) n-Nitroso-di-n-propyla...	4.613	70	198796	25.33	ppm	97
23) Hexachloroethane	4.678	201	102120	24.38	ppm	99
26) Nitrobenzene	4.742	77	284117	25.66	ppm	96
27) Quinoline	5.693	129	475551	25.49	ppm	99
28) Isophorone	4.929	82	534103	27.33	ppm	95

9.6.117
9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\jeryllr\em6787\
 Data File : ml60430.d
 Acq On : 16 Oct 2019 8:46 pm
 Operator : hennys
 Sample : ecc6777-25 Inst : MSM
 Misc : op21044,em6787,1000,,,1,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MM6777.M
 Quant Results File: MM6777.RES
 Quant Time: Oct 17 05:35:07 2019
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 QLast Update : Thu Oct 17 05:34:42 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
29) 2-Nitrophenol	5.003	139	128915	27.66	ppm	91
30) 2,4-Dimethylphenol	5.078	107	246543	30.82	ppm	98
31) Benzoic acid	5.196	105	171319	24.60	ppm	96
32) bis(2-Chloroethoxy)met...	5.126	93	296510	24.68	ppm	98
33) 2,4-Dichlorophenol	5.238	162	210176	26.20	ppm	99
34) 2,6-Dichlorophenol	5.436	162	188133	26.00	ppm	96
35) 1,3,5-Trichlorobenzene	5.003	180	238211	25.63	ppm	96
36) 1,2,4-Trichlorobenzene	5.281	180	227248	25.57	ppm	98
37) 1,2,3-Trichlorobenzene	5.500	180	200846	24.29	ppm	97
38) Naphthalene	5.356	128	594828	25.70	ppm	99
39) 4-Chloroaniline	5.431	127	280343	26.60	ppm	99
40) 2,3-Dichloroaniline	6.451	161	265057	26.26	ppm	98
41) Caprolactam	5.789	55	118689	27.30	ppm	94
42) Hexachlorobutadiene	5.479	225	137552	26.63	ppm	98
43) 4-Chloro-3-methylphenol	5.997	107	239611	27.18	ppm	97
44) 2-Methylnaphthalene	6.083	141	363033	24.94	ppm	99
45) 1-Methylnaphthalene	6.200	142	450461	24.21	ppm	96
46) Dimethylnaphthalene	6.884	156	390158	24.01	ppm	99
48) Hexachlorocyclopentadiene	6.280	237	215787	37.48	ppm	97
49) 2,4,6-Trichlorophenol	6.467	196	154944	25.18	ppm	95
50) 2,4,5-Trichlorophenol	6.537	196	165108	25.12	ppm	99
52) 2-Chloronaphthalene	6.692	162	433196	23.33	ppm	95
53) Biphenyl	6.676	154	556806	22.50	ppm	97
54) 2-Nitroaniline	6.878	65	152488	25.54	ppm	100
55) Dimethylphthalate	7.151	163	586154	24.53	ppm	98
56) Acenaphthylene	7.268	152	693754	24.24	ppm	99
57) 2,6-Dinitrotoluene	7.226	165	124428	26.33	ppm	96
58) 3-Nitroaniline	7.493	138	124582	24.84	ppm	97
59) Acenaphthene	7.530	153	431264	24.95	ppm	99
60) 2,4-Dinitrophenol	7.642	184	48046	20.71	ppm	95
61) 4-Nitrophenol	7.915	109	81111	27.31	ppm	100
62) Dibenzofuran	7.808	168	671414	24.46	ppm	99
63) 2,4-Dinitrotoluene	7.845	165	166834	27.62	ppm	96
64) 2,3,4,6-Tetrachlorophenol	8.059	232	130774	23.91	ppm	97
65) Diethylphthalate	8.278	149	593234	25.04	ppm	98
66) Fluorene	8.364	166	520425	23.88	ppm	96
67) 4-Chlorophenyl-phenyle...	8.401	204	250172	23.32	ppm	92
68) 4-Nitroaniline	8.492	138	134989	26.23	ppm	96
70) 4,6-Dinitro-2-methylph...	8.519	198	58455	15.91	ppm	92
71) n-Nitrosodiphenylamine	8.625	169	378457	24.02	ppm	97
72) 1,2-Diphenylhydrazine	8.668	77	605300	24.95	ppm	97
74) 4-Bromophenyl-phenylether	9.245	248	177656	24.12	ppm	98
75) Hexachlorobenzene	9.315	284	188049	23.42	ppm	96
76) Pentachlorophenol	9.731	266	138138	29.58	ppm	99
77) Phenanthrene	10.041	178	660859	23.60	ppm	99
78) Anthracene	10.132	178	733484	25.17	ppm	99
79) Carbazole	10.511	167	786486	24.46	ppm	99
80) Di-n-butylphthalate	11.302	149	1076277	26.05	ppm	99
81) Fluoranthene	12.279	202	906166	24.00	ppm	99
82) Octadecane	10.009	57	311158	25.84	ppm	98
84) Pyrene	12.696	202	875987	25.56	ppm	98
86) Butylbenzylphthalate	14.197	149	478559	29.73	ppm	97
87) Benzo[a]anthracene	15.063	228	786628	25.48	ppm	98
88) 3,3'-Dichlorobenzidine	15.132	252	284788	28.27	ppm	97
89) Chrysene	15.127	228	667280	25.97	ppm	99
90) bis(2-Ethylhexyl)phtha...	15.399	149	609450	30.21	ppm	100
92) Di-n-octylphthalate	16.607	149	1050217	28.61	ppm	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\jeryllr\em6787\
 Data File : ml60430.d
 Acq On : 16 Oct 2019 8:46 pm
 Operator : hennys
 Sample : ecc6777-25 Inst : MSM
 Misc : op21044,em6787,1000,,,1,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MM6777.M
 Quant Results File: MM6777.RES
 Quant Time: Oct 17 05:35:07 2019
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 QLast Update : Thu Oct 17 05:34:42 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
93) Benzo[b]fluoranthene	17.034	252	767067	24.16	ppm	99
94) Benzo[k]fluoranthene	17.082	252	693123	24.52	ppm	99
95) Benzo[a]pyrene	17.563	252	706495	25.21	ppm	97
96) Indeno[1,2,3-cd]pyrene	19.288	276	620681	22.75	ppm	100
97) Dibenz(a,h)acridine	18.984	279	591099	23.07	ppm	99
98) Dibenz[a,h]anthracene	19.336	278	615088	22.62	ppm	99
99) 7,12-Dimethylbenz(a)an...	17.045	256	340573	30.78	ppm	97
100) Benzo[g,h,i]perylene	19.652	276	599709	22.01	ppm	98

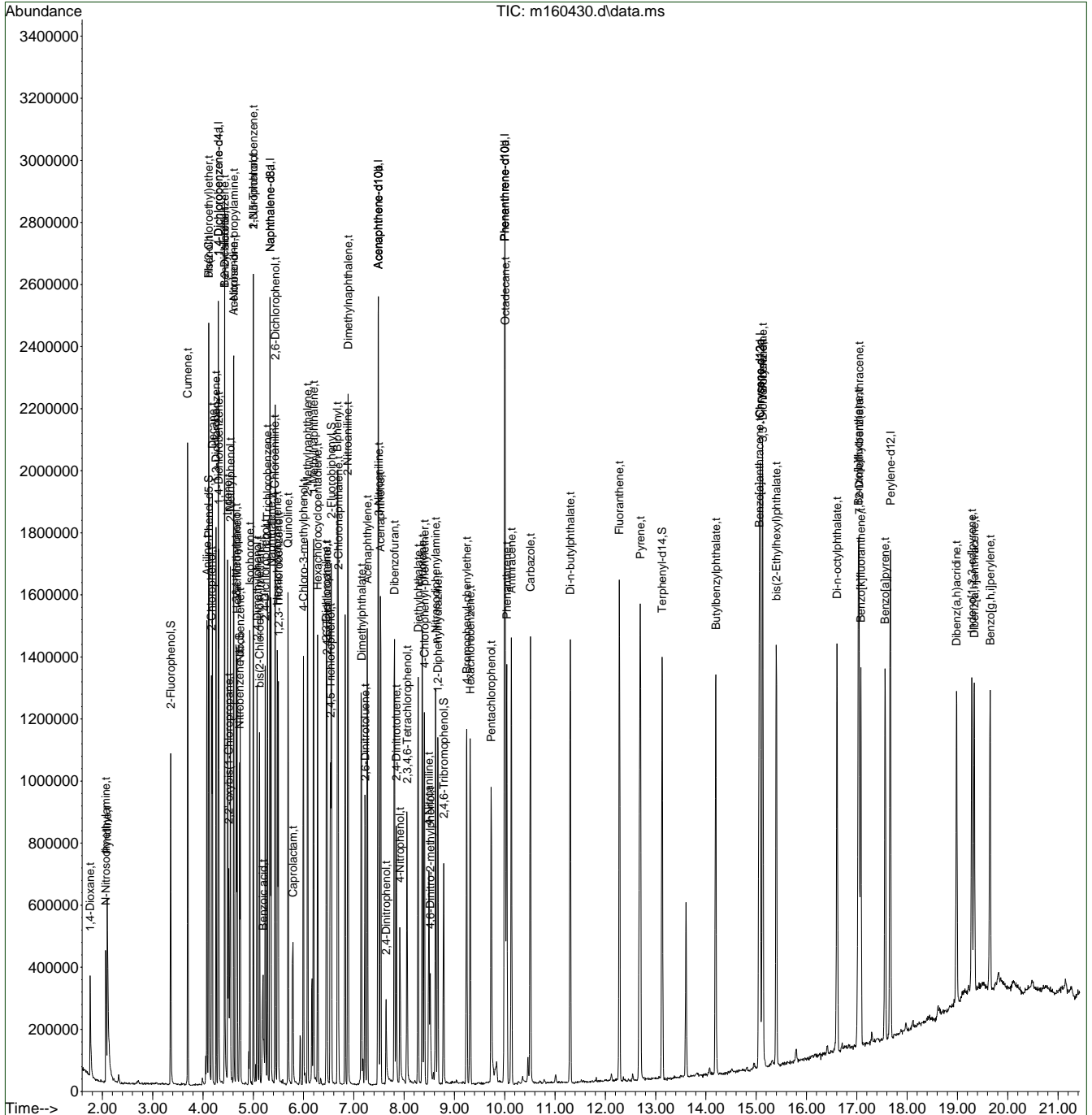
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\jeryllr\em6787\
Data File : ml60430.d
Acq On : 16 Oct 2019 8:46 pm
Operator : hennys
Sample : ecc6777-25
Misc : op21044,em6787,1000,,,1,1
ALS Vial : 2 Sample Multiplier: 1

Inst : MSM

Quant Method : C:\MSDCHEM\1\METHODS\MM6777.M
Quant Results File: MM6777.RES
Quant Time: Oct 17 05:35:07 2019
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Thu Oct 17 05:34:42 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\jeryllr\em6787\
 Data File : ml60431.d
 Acq On : 16 Oct 2019 9:15 pm
 Operator : hennys
 Sample : ecc6772-25 Inst : MSM
 Misc : op21044,em6787,1000,,,1,1
 ALS Vial : 3 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MM6777.M
 Quant Results File: MM6777.RES
 Quant Time: Oct 17 05:37:34 2019
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 QLast Update : Tue Oct 15 07:52:46 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.301	152	330151	40.00	ppm	-0.02
24) Naphthalene-d8	5.332	136	1127302	40.00	ppm	-0.02
47) Acenaphthene-d10	7.480	164	699192	40.00	ppm	-0.03
69) Phenanthrene-d10	9.996	188	1172322	40.00	ppm	-0.03
83) Chrysene-d12	15.076	240	1061554	40.00	ppm	-0.03
91) Perylene-d12	17.667	264	1086739	40.00	ppm	-0.02
101) 1,4-Dichlorobenzene-d4a	4.301	152	330151	40.00	ppm	-0.02
103) Acenaphthene-d10a	7.480	164	699192	40.00	ppm	-0.03
105) Acenaphthene-d10b	7.480	164	699192	40.00	ppm	-0.03
107) Chrysene-d12a	15.076	240	1061554	40.00	ppm	-0.03
110) Phenanthrene-d10a	9.996	188	1172322	40.00	ppm	-0.03
112) Phenanthrene-d10b	9.996	188	1172322	40.00	ppm	-0.03
114) Naphthalene-d8a	5.332	136	1127302	40.00	ppm	-0.02
116) Chrysene-d12c	15.076	240	1061554	40.00	ppm	-0.03
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
109) 1-chlorooctadecane	0.000	57	0d	0.00	ppm	
Spiked Amount 50.000			Recovery	=	0.00%	
113) o-terphenyl	0.000	230	0	0.00	ppm	
Target Compounds						
102) Benzaldehyde	3.981	105	244874	27.49	ppm	90
104) Atrazine	9.654	215	90704	29.24	ppm	90
111) Pentachloronitrobenzene	9.718	295	42812	30.62	ppm	95

(#) = qualifier out of range (m) = manual integration (+) = signals summed

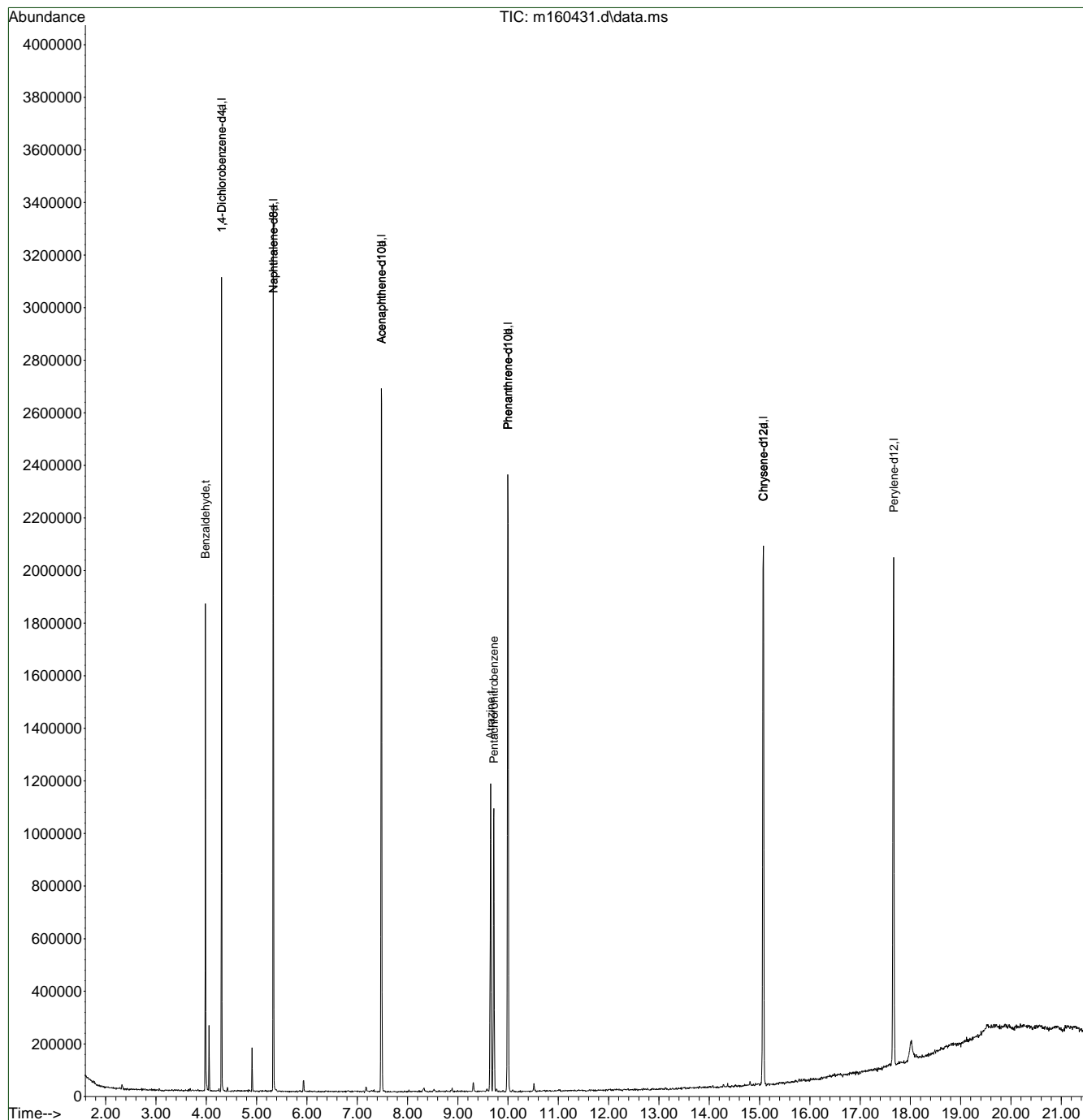
9.6.118
9



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\jeryllr\em6787\
 Data File : m160431.d
 Acq On : 16 Oct 2019 9:15 pm
 Operator : hennys
 Sample : ecc6772-25 Inst : MSM
 Misc : op21044,em6787,1000,,,1,1
 ALS Vial : 3 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MM6777.M
 Quant Results File: MM6777.RES
 Quant Time: Oct 17 05:37:34 2019
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 QLast Update : Tue Oct 15 07:52:46 2019
 Response via : Initial Calibration



9.6.118
9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\jeryllr\em6787\
 Data File : ml60432.d
 Acq On : 16 Oct 2019 9:43 pm
 Operator : hennys
 Sample : ecc6773-25 Inst : MSM
 Misc : op21044,em6787,1000,,,1,1
 ALS Vial : 4 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MM6777.M
 Quant Results File: MM6777.RES
 Quant Time: Oct 17 05:38:52 2019
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 QLast Update : Tue Oct 15 07:52:46 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.302	152	324834	40.00	ppm	-0.02
24) Naphthalene-d8	5.333	136	1071439	40.00	ppm	-0.02
47) Acenaphthene-d10	7.481	164	642918	40.00	ppm	-0.03
69) Phenanthrene-d10	9.997	188	1166567	40.00	ppm	-0.03
83) Chrysene-d12	15.072	240	1002979	40.00	ppm	-0.03
91) Perylene-d12	17.663	264	1038975	40.00	ppm	-0.03
101) 1,4-Dichlorobenzene-d4a	4.302	152	324834	40.00	ppm	-0.02
103) Acenaphthene-d10a	7.481	164	642918	40.00	ppm	-0.03
105) Acenaphthene-d10b	7.481	164	642918	40.00	ppm	-0.03
107) Chrysene-d12a	15.072	240	1002979	40.00	ppm	-0.03
110) Phenanthrene-d10a	9.997	188	1166567	40.00	ppm	-0.03
112) Phenanthrene-d10b	9.997	188	1166567	40.00	ppm	-0.03
114) Naphthalene-d8a	5.333	136	1071439	40.00	ppm	-0.02
116) Chrysene-d12c	15.072	240	1002979	40.00	ppm	-0.03
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
8) Phenol-d5	0.000	99	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
109) 1-chlorooctadecane	12.305	57	263974	39.13	ppm	-0.22
Spiked Amount	50.000		Recovery	=	78.26%	
113) o-terphenyl	10.809	230	432423	27.01	ppm	-0.22
Target Compounds						
106) 1,2,4,5-Tetrachloroben...	6.284	216	269530	25.67	ppm	99
108) Benzidine	12.673	184	499057	28.38	ppm	97
115) Hydroquinone	5.851	110	304922	33.91	ppm	95

(#) = qualifier out of range (m) = manual integration (+) = signals summed

9.6.119
9

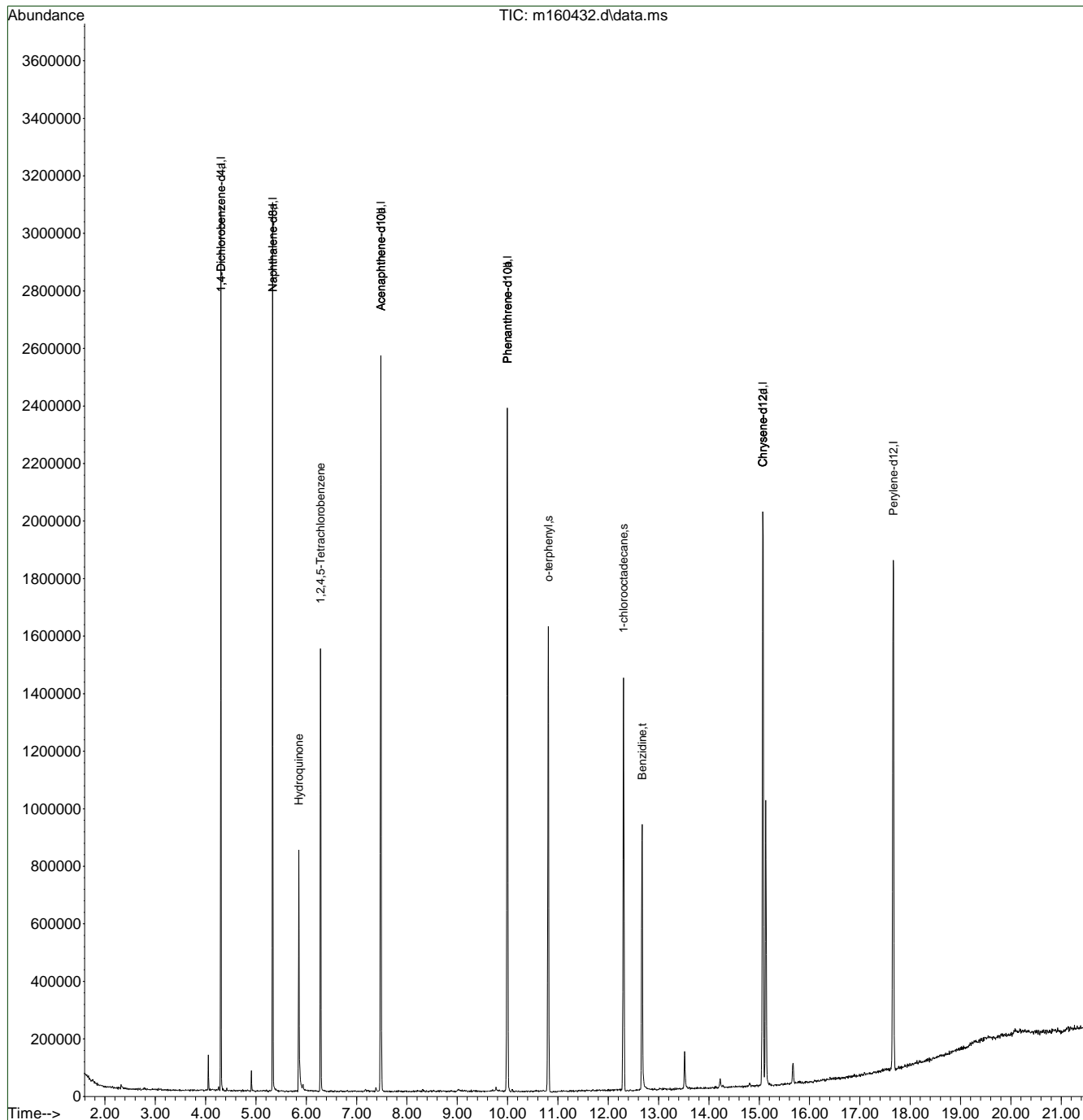


Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\jeryllr\em6787\
 Data File : m160432.d
 Acq On : 16 Oct 2019 9:43 pm
 Operator : hennys
 Sample : ecc6773-25
 Misc : op21044,em6787,1000,,,1,1
 ALS Vial : 4 Sample Multiplier: 1

Inst : MSM

Quant Method : C:\MSDCHEM\1\METHODS\MM6777.M
 Quant Results File: MM6777.RES
 Quant Time: Oct 17 05:38:52 2019
 Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
 QLast Update : Tue Oct 15 07:52:46 2019
 Response via : Initial Calibration



9.6.119
9

Instrument ID: GCMSF

SGS - Dayton

GCMS Semi Volatile Run Log

Standard / Reagent	Lot #	Concentration	Standard / Reagent	Lot #	Concentration
DFTPP	sv192604-32	50ppm	ISTD	CL13615	4000ppm
BNA	sv192604-38A	100ppm	DCM/fisher	195023	---
BNA	sv192604-38B	80ppm	BNA	sv192604-38I	1ppm
BNA	sv192604-38C	50ppm	BN1	op192397-56	50ppm
BNA	sv192604-38D	25ppm	BN2	op192397-55	50ppm
BNA	sv192604-38E	10ppm	ACID	op192397-60	50ppm
BNA	sv192604-38G	5ppm	ANILINE	sv192573-33	50ppm
BNA	sv192604-38H	2ppm	ABN SURRE	op192397-57	50ppm

Run Batch: EF8050	ACQ. Method: MF8050	Sequence Loaded By: angular
Date: 9/9/2019	Reference Method: 8270d/625	Data Processed By: kristis
Column: Rxi5silms30mx.25mmx.25um	Quant Methods: MF8050	Approved By: Ninap
Injection Volume: 1ul	Initial Calib Date: 6-20-19	Approved Date: 09/11/19

MP Missed Peak, OP Overlapping Peak SP Split Peak, PDB Poorly Defined Baselin BR Baseline Ripple PII Poor Instrument Integration

Data File	A	L	S	Sample ID	OP	Batch ID	Test / Method	MTX	DF	Manually Integrated Peaks Rational Peak #	Surr OK?	IS OK?	Run OK?	Comment
F 186994	1			DFTPP									ok	11:42am
F 186995	2			IC8050-1			BNA						not using	no good, rr
F 186996	3			IC8050-100									ok	
F 186997	4			IC8050-80									ok	
F 186998	5			ICC8050-50									ok	
F 186999	6			IC8050-25									ok	
F 187000	7			IC8050-10									ok	
F 187001	8			IC8050-5									ok	

GCMS Semi Volatile Run Log

Data File	A L S	Sample ID	OP Batch ID	Test / Method	MTX	DF	Manually Integrated Peaks Rational Peak #	L+	Surr OK?	IS OK?	Run OK?	Comment
F 187002	9	IC8050-2									ok	
F 187003	10	ICV8050-50		BN1							ok	
F 187004	11	ICV8050-50		BN2							ok	
F 187005	12	ICV8050-50		ACID							ok	
F 187006	13	ICV8050-50		ANILINE							ok	
F 187007	14	ICV8050-50		ABN SURR							ok	
F 187008	15	ICV8050-50		BZD 3rd							ok	sv192573-25 10:29pm
F 187009	2	IC8050-1									ok	ran before f187003

Standard / Reagent	Lot #	Concentration	Standard / Reagent	Lot #	Concentration
DFTPP	sv192604-32	50ppm	ISTD	CL13615	4000ppm
TCL42	sv192573-100A	100ppm	DCM/fisher	195023	---
TCL42	sv192573-100B	80ppm	TCL42	sv192573-100I	1ppm
TCL42	sv192573-100C	50ppm	AP9MIX#2	sv192573-8	50ppm
TCL42	sv192573-100D	25ppm			
TCL42	sv192573-100E	10ppm			
TCL42	sv192573-100G	5ppm			
TCL42	sv192573-100H	2ppm			

Run Batch: EF8051	ACQ. Method: MF8050	Sequence Loaded By: angular
Date: 9/9/2019	Reference Method: 8270D/625	Data Processed By: kristis
Column: Rxi5silms30mx.25mmx.25um	Quant Methods: MF8050	Approved By: Ninap
Injection Volume: 1uL	Initial Calib Date: 6-20-19	Approved Date: 09/11/19

MP Missed Peak, OP Overlapping Peak SP Split Peak, PDB Poorly Defined Baselin BR Baseline Ripple PII Poor Instrument Integration

Data File	A	L	S	Sample ID	OP	Batch ID	Test / Method	MTX	DF	Manually Integrated Peaks Rational Peak #	Surr OK?	L+	IS OK?	Run OK?	Comment
F 187010	1			DFTPP										ok	10:54pm
F 187011	16			IC8051-100			TCL42							ok	
F 187012	17			IC8051-80										ok	
F 187013	18			ICC8051-50										ok	
F 187014	19			IC8051-25										ok	
F 187015	20			IC8051-10										ok	
F 187016	21			IC8051-5										ok	
F 187017	22			IC8051-2										ok	

GCMS Semi Volatile Run Log

Data File	A L S	Sample ID	OP Batch ID	Test / Method	MTX	DF	Manually Integrated Peaks Rational Peak #	L+	Surr OK?	IS OK?	Run OK?	Comment
F 187018	23	IC8051-1									ok	
F 187019	24	ICV8050-50		AP9MIX#2							ok	2:59am

Instrument ID: GCMSF

SGS - Dayton

GCMS Semi Volatile Run Log

Standard / Reagent	Lot #	Concentration	Standard / Reagent	Lot #	Concentration
DFTPP	sv192604-32	50ppm	ISTD	CL13615	4000ppm
BZD	sv192573-101A	100ppm	DCM/fisher	195023	---
BZD	sv192573-101B	80ppm	BZD	sv192573-1011	1ppm
BZD	sv192573-101C	50ppm	AP9MIX#2	sv192573-64	50ppm
BZD	sv192573-101D	25ppm	BZD 3RD	sv192573-25	50ppm
BZD	sv192573-101E	10ppm	HQ	op192336-131	50ppm
BZD	sv192573-101G	5ppm			
BZD	sv192573-101H	2ppm			

Run Batch: EF8052	ACQ. Method: MF8050	Sequence Loaded By: angular
Date: 9/6/2019	Reference Method: 8270D/625	Data Processed By: kristis
Column: Rxi5silms30mx.25mmx.25um	Quant Methods: MF8050	Approved By: Ninap
Injection Volume: 1uL	Initial Calib Date: 6-20-19	Approved Date: 09/11/19

MP Missed Peak, OP Overlapping Peak SP Split Peak, PDB Poorly Defined Baselin BR Baseline Ripple PII Poor Instrument Integration

Data File	A	L	S	Sample ID	OP	Batch ID	Test / Method	MTX	DF	Manually Integrated Peaks Rational Peak #	Surr OK?	L+	IS OK?	Run OK?	Comment
F 187020	1			DFTPP										ok	3:24am
F 187021	25			IC8052-100			BZD							ok	
F 187022	26			IC8052-80										ok	
F 187023	27			ICC8052-50										ok	
F 187024	28			IC8052-25										ok	
F 187025	29			IC8052-10										ok	
F 187026	30			IC8052-5										ok	
F 187027	31			IC8052-2										ok	

GCMS Semi Volatile Run Log

Data File	A L S	Sample ID	OP Batch ID	Test / Method	MTX	DF	Manually Integrated Peaks Rational Peak #	L+	Surr OK?	IS OK?	Run OK?	Comment
F 187028	32	IC8052-1									ok	
F 187029	33	ICV8052-50		ap9mix#2							ok	
F 187030	34	ICV8052-50		BZD 3RD							ok	
F 187031	35	ICV8052-50		HQ							ok	8:26am

GCMS Semi Volatile Run Log **SGS - Dayton** Instrument ID: GCMSF

Standard / Reagent	Lot #	Concentration	Standard / Reagent	Lot #	Concentration
DFTPP	sv192604-32	50ppm	ISTD	CL13615	4000ppm
AP9	sv192573-89a	100ppm	DCM/fisher	195023	---
AP9	sv192573-89b	80ppm	AP9	sv192573-89j	1ppm
AP9	sv192573-89c	50ppm	AP9 Mix #1	sv192573-32	50ppm
AP9	sv192573-89d	25ppm	AP9 Mix #2	sv192573-64	50ppm
AP9	sv192573-89e	10ppm	MegaMix	sv192573-44	50ppm
AP9	sv192573-89g	5ppm	Organophos, Pest Mix	sv192573-6	50ppm
AP9	sv192573-89h	2ppm	Dinoseb 2nd	sv192573-56b	50ppm

Run Batch: EF8054	ACQ. Method: MF8050	Sequence Loaded By: chriss2
Date: 9/11/2019	Reference Method: 8270D/625	Data Processed By: kristis
Column: Rxi5silms30mx.25mmx.25um	Quant Methods: MF8050	Approved By: ninap
Injection Volume: 1uL	Initial Calib Date: 9/9/19	Approved Date: 09/13/19

MP Missed Peak, OP Overlapping Peak SP Split Peak, PDB Poorly Defined Baselin BR Baseline Ripple PII Poor Instrument Integration

Data File	A L S	Sample ID	OP Batch ID	Test / Method	MTX	DF	Manually Integrated Peaks Rational Peak #	Surr OK?	IS OK?	Run OK?	Comment
F 187053	1	DFTPP								ok	2:43am
F 187054	2	IC8054-100		AP9			ov sp			ok	
F 187055	3	IC8054-80					sp			ok	
F 187056	4	IC8054-50					sp			ok	
F 187057	5	IC8054-25					so			ok	
F 187058	6	IC8054-10					sp			ok	
F 187059	7	IC8054-5					sp			ok	
F 187060	8	IC8054-2					sp			ok	

GCMS Semi Volatile Run Log

Data File	A L S	Sample ID	OP Batch ID	Test / Method	MTX	DF	Manually Integrated Peaks Rational Peak #	L+	Surr OK?	IS OK?	Run OK?	Comment
F 187061	9	ICV8054-1					sp				ok	
F 187062	10	ICV8054-50		AP9 Mix #1							ok	
F 187063	11	ICV8054-50		AP9 Mix #2							ok	
F 187064	12	ICV8054-50		MegaMix							ok	
F 187065	13	ICV8054-50		Organophos pest mix							ok	
F 187066	14	ICV8054-50		Dinoseb 2nd							ok	9:43am

Instrument ID: GCMSF

SGS - Dayton

GCMS Semi Volatile Run Log

Standard / Reagent	Lot #	Concentration	Standard / Reagent	Lot #	Concentration
DFTPP	sv192604-32	50ppm	ISTD	CL13615	4000ppm
AP9SL	sv192604-10a	100ppm	DCM/fisher	195023	---
AP9SL	sv192604-10b	80ppm	AP9SL	sv192604-10i	1ppm
AP9SL	sv192604-10c	50ppm	2+3 CA	sv192604-41	50ppm
AP9SL	sv192604-10d	25ppm	m-Tol	sv192604-42	50ppm
AP9SL	sv192604-10e	10ppm	MegaMix	sv192573-44	50ppm
AP9SL	sv192604-10g	5ppm	PHM 2nd	sv192573-102	50ppm
AP9SL	sv192604-10h	2ppm			

Run Batch: EF8057	ACQ. Method: MF8050	Sequence Loaded By: chriss2
Date: 9/12/2019	Reference Method: 8270D/625	Data Processed By: kristis
Column: Rxi5silms30mx.25mmx.25um	Quant Methods: MF8050	Approved By: ninap
Injection Volume: 1uL	Initial Calib Date: 9/9/19	Approved Date: 09/13/19

MP Missed Peak, OP Overlapping Peak SP Split Peak, PDB Poorly Defined Baselin BR Baseline Ripple PII Poor Instrument Integration

Data File	A L S	Sample ID	OP Batch ID	Test / Method	MTX	DF	Manually Integrated Peaks Rational Peak #	Surr OK?	IS OK?	Run OK?	Comment
F 187091	1	DFTPP								ok	3:46am
F 187092	2	IC8057-100		AP9SL						ok	
F 187093	3	IC8057-80								ok	
F 187094	4	IC8057-50								ok	
F 187095	5	IC8057-25								ok	
F 187096	6	IC8057-10								ok	
F 187097	7	IC8057-5								ok	
F 187098	8	IC8057-2								ok	

GCMS Semi Volatile Run Log

Data File	A L S	Sample ID	OP Batch ID	Test / Method	MTX	DF	Manually Integrated Peaks Rational Peak #	L+	Surr OK?	IS OK?	Run OK?	Comment
F 187099	9	IC8057-1									ok	
F 187100	10	ICV8057-50		2+3 CA							not using	bias low-rerun ICV
F 187101	11	ICV8057-50		m-Tol							ok	
F 187102	12	ICV8057-50		MegaMix							ok	
F 187103	13	ICV8057-50		PHM 2nd							ok	9:31am

Instrument ID: GCMSF

SGS - Dayton

GCMS Semi Volatile Run Log

Standard / Reagent	Lot #	Concentration	Standard / Reagent	Lot #	Concentration
DFTPP	sv192604-32	50ppm	ISTD	CL13615	4000ppm
DIMeBzd	sv192604-11a	100ppm	DCM/fisher	195023	---
DIMeBzd	sv192604-44	80ppm	DIMeBzd	sv192604-11i	1ppm
DIMeBzd	sv192604-11c	50ppm	Ap9 Mix #1	sv192573-32	50ppm
DIMeBzd	sv192604-11d	25ppm	2+3 CA	sv192604-45	50ppm
DIMeBzd	sv192604-11e	10ppm			
DIMeBzd	sv192604-11g	5ppm			
DIMeBzd	sv192604-11h	2ppm			

Run Batch: EF8059	ACQ. Method: MF8050	Sequence Loaded By: chriss2
Date: 9/12/2019	Reference Method: 8270D/625	Data Processed By: ying li
Column: Rxi5silms30mx.25mmx.25um	Quant Methods: MF8050	Approved By: ninap
Injection Volume: 1uL	Initial Calib Date: 9/9/19	Approved Date: 09/13/19

MP Missed Peak, OP Overlapping Peak SP Split Peak, PDB Poorly Defined Baselin BR Baseline Ripple PII Poor Instrument Integration

Data File	A	L	S	Sample ID	OP	Batch ID	Test / Method	MTX	DF	Manually Integrated Peaks Rational Peak #	Surr OK?	IS OK?	Run OK?	Comment
F 187126	1			DFTPP									ok	11:42pm
F 187127	2			IC8059-100			DIMeBzd						ok	
F 187128	3			IC8059-80									ok	
F 187129	4			ICC8059-50									ok	
F 187130	5			IC8059-25									ok	
F 187131	6			IC8059-10									ok	
F 187132	7			IC8059-5									ok	
F 187133	8			IC8059-2									ok	

GCMS Semi Volatile Run Log

Data File	A L S	Sample ID	OP Batch ID	Test / Method	MTX	DF	Manually Integrated Peaks Rational Peak #	L+	Surr OK?	IS OK?	Run OK?	Comment
F 187134	9	IC8059-1									ok	
F 187135	10	ICV8059-50		Ap9 Mix #1							ok	
F 187136	11	ICV8057-50		2+3 CA							ok	4:20am

GCMS Semi Volatile Run Log **SGS - Dayton** Instrument ID: **GCMSF**

Standard / Reagent	Lot #	Concentration	Standard / Reagent	Lot #	Concentration
DFTPP	sv192604-32	50ppm	ISTD	CL 13615	4000ppm
BNA	sv192604-57g	25ppm	DCM/fisher	191225	---
TCL42	sv192604-56c	25ppm			
BZD	sv192604-59d	25ppm			
AP9	sv192604-64d	25ppm			
AP9SL	sv192604-10d	25ppm			

Run Batch: EF8099	ACQ. Method: MF8050	Sequence Loaded By: chriss2
Date: 10/19/2019	Reference Method: 8270D/625	Data Processed By: aimeel
Column: Rxi5silms30mx.25mmx.25um	Quant Methods: MF8050	Approved By: rinap
Injection Volume: 1uL	Initial Calib Date: 9/9/19	Approved Date: 10/23/19

MP Missed Peak, OP Overlapping Peak SP Split Peak, PDB Poorly Defined Baselin BR Baseline Ripple PII Poor Instrument Integration

Data File	A	L	S	Sample ID	OP	Batch ID	Test / Method	MTX	DF	Manually Integrated Peaks Rational Peak #	L+	Surr OK?	IS OK?	Run OK?	Comment
F 187959				DFTPP										ok	12:16am
F 187960				CC8050-25										ok	High 29,31,42,43,54,60,61,64,70,73,76,81
F 187961				CC8051-25										ok	High 104
F 187962				CC8052-25										ok	
F 187963				CC8054-25										ok	High 112,113,115,117,122,123 Low 144,154
F 187964				CC8057-25										ok	High 170
F 187965				OP23404-MB1	OP23404		AB8270NJTCL20+	AQ			X	y	y	ok	
F 187966				OP23343-MB1	OP23343		AB8270NJTCL20+	AQ			X	y	y	ok	

GCMS Semi Volatile Run Log

Data File	A L S	Sample ID	OP Batch ID	Test / Method	MTX	DF	Manually Integrated Peaks Rational Peak #	L+	Surr OK?	IS OK?	Run OK?	Comment
F 187967	9	OP23339-MB1	OP23339	AB625PPL	AQ				y	y	ok	
F 187968	10	OP23339-BS13	OP23339	AB625PPL	AQ				y	y	ok	
F 187969	11	OP23339-BS14	OP23339	AB625PPL	AQ				y	y	ok	
F 187970	12	OP23339-BS15	OP23339	AB625PPL	AQ				y	y	ok	
F 187971	13	JC96475-1	OP23404	AB8270NJTCL20+	AQ			X	y	y	ok	
F 187972	14	JC96283-5	OP23404	AB8270SL3	AQ				y	y	ok	
F 187973	15	JC96260-1	OP23404	AB8270NJTCL20+	AQ			X	y	y	ok	
F 187974	16	JC96248-6	OP23404	AB8270TCL20	AQ				y	y	ok	
F 187975	17	JC96248-7	OP23404	AB8270TCL20	AQ				y	y	ok	
F 187976	18	JC96650-1	OP23343	B8270NJTCL20+	AQ			X	y	y	ok	
F 187977	19	JC96650-2	OP23343	B8270NJTCL20+	AQ			X	y	y	N	Needs Dilution
F 187978	20	JC96637-4	OP23343	B8270NJTCL20+	AQ			X	y	y	ok	
F 187979	21	JC96637-7	OP23343	B8270NJTCL20+	AQ			X	y	y	ok	
F 187980	22	JC96637-5	OP23343	B8270NJTCL20+	AQ			X	y	y	ok	
F 187981	23	JC96411-1	OP23339	AB625SL	AQ				y	y	N	Needs Dilution
F 187982	24	JC96637-6	OP23343	B8270NJTCL20+	AQ			X	y	y	ok	11:51am
F 187983	25	JC96488-10	OP23404	B8270TICS+	AQ			X			RR	outside clocktime

GCMS Semi Volatile Run Log **SGS - Dayton** Instrument ID: GCMSM

Standard / Reagent	Lot #	Concentration	Standard / Reagent	Lot #	Concentration
DFTPP	sv192604-32	50ppm	ISTD	CL13615	4000ppm
tcl42	sv192604-48a	100ppm	DCM/Fisher	195024	---
tcl42	sv192604-48b	80ppm	tcl42	sv192604-48i	1ppm
tcl42	sv192604-48c	50ppm	AP9 Mix #2	sv192573-64	50ppm
tcl42	sv192604-48d	25ppm			
tcl42	sv192604-48e	10ppm			
tcl42	sv192604-48g	5ppm			
tcl42	sv192604-48h	2ppm			

Run Batch: EM6772	ACQ. Method: MM6771	Sequence Loaded By: hennys
Date: 10/3/2019	Reference Method: 8270D/625	Data Processed By: ying li
Column: Rxi5silms30mx.25mmx.25um	Quant Methods: MM6771	Approved By:
Injection Volume: 1uL	Initial Calib Date: 10/3/2019	Approved Date:

MP Missed Peak, OP Overlapping Peak SP Split Peak, PDB Poorly Defined Baselin BR Baseline Ripple PII Poor Instrument Integration

Data File	A L S	Sample ID	OP Batch ID	Test / Method	MTX	DF	Manually Integrated Peaks Rational Peak #	Surr OK?	IS OK?	Run OK?	Comment
M 160084	1	DFTPP								ng	51 low; 219 down
M 160085	1	DFTPP								no data	
M 160085	1	DFTPP								ok	7:56pm
M 160087	16	IC6771-100		TCL42						ok	
M 160088	17	IC6771-80		TCL42						ok	
M 160089	18	ICC6771-50		TCL42						ok	
M 160090	19	IC6771-25		TCL42						ok	
M 160091	20	IC6771-10		TCL42						ok	

GCMS Semi Volatile Run Log

Data File	A L S	Sample ID	OP Batch ID	Test / Method	MTX	DF	Manually Integrated Peaks Rational Peak #	L+	Surr OK?	IS OK?	Run OK?	Comment
M 160092	21	IC6771-5		TCL42							ok	
M 160093	22	IC6771-2		TCL42							ok	
M 160094	23	IC6771-1		TCL42							ok	software shut down, rerun
M 160095	23	IC6771-1		TCL42							ok	
M 160096	24	ICV6771-50		AP9 Mix #2							ng	rr 11:59pm

Instrument ID: GCMSM

SGS - Dayton

GCMS Semi Volatile Run Log

Standard / Reagent	Lot #	Concentration	Standard / Reagent	Lot #	Concentration
DFTPP	sv192604-32	50ppm	ISTD	CL13615	4000ppm
bzd	sv192604-49a	100ppm	DCM/Fisher	195024	---
bzd	sv192604-49b	80ppm	bzd	sv192604-49i	1ppm
bzd	sv192604-49c	50ppm	AP9 Mix #2	sv192573-64	50ppm
bzd	sv192604-49d	25ppm	HQ 2nd	sv192604-50	50ppm
bzd	sv192604-49e	10ppm	Bzd 3rd	sv192604-51	50ppm
bzd	sv192604-49g	5ppm			
bzd	sv192604-49h	2ppm			

Run Batch: EM6773	ACQ. Method: MM6771	Sequence Loaded By: hennys
Date: 10/3/2019	Reference Method: 8270D/625	Data Processed By: ying li
Column: Rxi5silms30mx.25mmx.25um	Quant Methods: MM6771	Approved By:
Injection Volume: 1uL	Initial Calib Date: 10/3/19	Approved Date:

MP Missed Peak, OP Overlapping Peak SP Split Peak, PDB Poorly Defined Baselin BR Baseline Ripple PII Poor Instrument Integration

Data File	A L S	Sample ID	OP Batch ID	Test / Method	MTX	DF	Manually Integrated Peaks Rational Peak #	Surr OK?	IS OK?	Run OK?	Comment
M 160097	1	DFTPP								ok	12:23am
M 160098	25	IC6772-100		Bzd						ok	
M 160099	26	IC6772-80		Bzd						ok	
M 160100	27	IC6772-50		Bzd						ok	
M 160101	28	IC6772-25		Bzd						ok	
M 160102	29	IC6772-10		Bzd						ok	
M 160103	30	IC6772-5		Bzd						ok	
M 160104	31	l6772-2		Bzd						ok	

GCMS Semi Volatile Run Log

Data File	A L S	Sample ID	OP Batch ID	Test / Method	MTX	DF	Manually Integrated Peaks Rational Peak #	L+	Surr OK?	IS OK?	Run OK?	Comment
M 160105	32	IC6772-1		Bzd							ok	
M 160106	33	ICV6772-50		AP9 Mix #2							ok	
M 160107	34	ICV6772-50		HQ 2nd							ok	
M 160108	35	ICV6772-50		Bzd 3rd							ok	5:17am

Instrument ID: GCMSM

SGS - Dayton

GCMS Semi Volatile Run Log

Standard / Reagent	Lot #	Concentration	Standard / Reagent	Lot #	Concentration
DFTPP	sv192604-32	50ppm	ISTD	CL13615	4000ppm
bnA	sv192604-38a	100ppm	DCM/Fisher	195024	---
bnA	sv192604-38b	80ppm	bnA	sv192604-38i	1ppm
bnA	sv192604-38c	50ppm	bn1	op192397-71	50ppm
bnA	sv192604-38d	25ppm	bn2	op192397-72	50ppm
bnA	sv192604-38e	10ppm	aniline	op192397-67	50ppm
bnA	sv192604-38f	5ppm	acid	op192397-60	50ppm
bnA	sv192604-38h	2ppm	abn surr	op192397-22	50ppm

Run Batch: EM6777	ACQ. Method: MM6771	Sequence Loaded By: hennys
Date: 10/7/2019	Reference Method: 8270d/625.1	Data Processed By: ying li
Column: Rxi5silms30mx.25mmx.25um	Quant Methods: MM6771	Approved By:
Injection Volume: 1uL	Initial Calib Date: 10/3/19	Approved Date:

MP Missed Peak, OP Overlapping Peak SP Split Peak, PDB Poorly Defined Baselin BR Baseline Ripple PII Poor Instrument Integration

Data File	A	L	S	Sample ID	OP	Batch ID	Test / Method	MTX	DF	Manually Integrated Peaks Rational Peak #	Surr OK?	L+	IS OK?	Run OK?	Comment
M 160137	1			DFTPP										ok	
M 160138	2			IC6777-25			bnA							ok	
M 160139	3			IC6777-100			bnA							ok	
M 160140	4			IC6777-80			bnA							ok	
M 160141	5			ICV6777-50			bnA							ok	
M 160142	6			IC6777-10			bnA							ok	
M 160143	7			IC6777-5			bnA							ok	
M 160144	8			IC6777-2			bnA							ok	

GCMS Semi Volatile Run Log

Data File	A L S	Sample ID	OP Batch ID	Test / Method	MTX	DF	Manually Integrated Peaks Rational Peak #	L+	Surr OK?	IS OK?	Run OK?	Comment
M 160145	9	IC6777-1		bn1							ok	
M 160146	10	ICV6777-50		bn1							ok	not fo dod
M 160147	11	ICV6777-50		bn2							ok	
M 160148	12	ICV6777-50		aniline							ok	
M 160149	13	ICV6777-50		acid							ok	not for dod
M 160150a	14	ICV6777-50		abn surr							ok	not for dod. computer froze, use 'a' file
M 160151	15	ICV6777-50		bzd 3rd							ok	sv192604-51 4:24pm
M 160151	1	ICV-6777-50		bn1							n need	op192397-83

GCMS Semi Volatile Run Log **SGS - Dayton** Instrument ID: GCMSM

Standard / Reagent	Lot #	Concentration	Standard / Reagent	Lot #	Concentration
DFTPP	sv192604-32	50ppm	ISTD	CL13615	4000ppm
bona	sv192604-57f	50ppm	DCM/Fisher	195024	---
tcl42	sv192604-56a	50ppm			
bzd	sv192604-59c	50ppm			

Run Batch: EM6780	ACQ. Method: MM6777	Sequence Loaded By: hennys
Date: 10/10/2019	Reference Method: 8270d/625.1	Data Processed By: altheam
Column: Rxi5silms30mx.25mmx.25um	Quant Methods: MM6777	Approved By:
Injection Volume: 1uL	Initial Calib Date: 10/3/19	Approved Date:

MP Missed Peak, OP Overlapping Peak SP Split Peak, PDB Poorly Defined Baselin BR Baseline Ripple PII Poor Instrument Integration

Data File	A	L	S	Sample ID	OP Batch ID	Test / Method	MTX	DF	Manually Integrated Peaks Rational Peak #	L+	Surr OK?	IS OK?	Run OK?	Comment
M 160198	1			DFTPP									ok	8.51 am
M 160199	2			CC6777-50									ok	
M 160200	3			CC6772-50									ok	
M 160201	4			CC6773-50									ok	
M 160202	5			OP23230-MB1	OP23230	AB8270NJTCL20+		AQ		X	Y	Y	OK	
M 160203	6			OP23230-BS1	OP23230	AB8270NJTCL20+		AQ		X	Y	Y	OK	
M 160204	7			OP23230-BSD	OP23230	AB8270NJTCL20+		AQ		X	Y	Y	OK	
M 160205	8			JC966307-1	OP23230	AB8270SL		AQ			Y	Y	OK	

GCMS Semi Volatile Run Log

Data File	A L S	Sample ID	OP Batch ID	Test / Method	MTX	DF	Manually Integrated Peaks Rational Peak #	L+	Surr OK?	IS OK?	Run OK?	Comment
M 160206	9	JC96260-1	OP23230	AB8270NJTCL20+	AQ			X	Y	Y	OK	
M 160207	10	JC96260-2	OP23230	AB8270NJTCL20+	AQ			X	Y	Y	OK	
M 160208	11	JC96030-18	OP23161A	B8270SIMPAAH+2MNAP	AQ			X	Y	Y	OK	
M 160209	12	JC96030-20	OP23161A	B8270SIMPAAH+2MNAP	AQ			X	Y	Y	OK	
M 160210	13	JC96030-23	OP23161A	B8270SIMPAAH+2MNAP	AQ			X	Y	Y	OK	corr needs dilution
M 160211	14	JC96030-24	OP23161A	B8270SIMPAAH+2MNAP	AQ			X	Y	Y	OK	corr needs dilution
M 160212	15	JC96030-19	OP23161A	B8270SIMPAAH+2MNAP	AQ				Y	Y	ok	corr needs dilution
M 160213	16	OP23227-MB1	OP23227	AB8270STD	SO				Y	Y	ok	NAP hit
M 160214	17	OP23227-BS1	OP23227	AB8270STD	SO				Y	Y	ok	
M 160215	18	OP23227-BSD	OP23227	AB8270STD	SO				Y	Y	ok	
M 160216	19	JC96401-1	OP23227	AB8270TCL20	SO		pii 56		Y	Y	OK	corr needs dilution
M 160217	20	JC96307-1	OP23230	AB8270SL	AQ				Y	Y	OK	
M 160218	21	JC96030-23	OP23161A	B8270SIMPAAH+2MNAP	AQ			X	Y	Y	OK	
M 160219	22	JC96030-24	OP23161A	B8270SIMPAAH+2MNAP	AQ			X	Y	Y	OK	
M 160220a	23	OP23227-MB1	op23227	AB8270TCL20+	SO				Y	Y	OK	
M 160221	24	JC95956-4	OP23126	AB8270TCL20+	SO	5	pii 93		Y	Y	OK	diln due to visc.
M 160222	25	JC95942-8	OP23126	AB8270TCL20+	SO	10			Y	Y	OK	
M 160223	16	OP23227-MB1							Y	Y	OK	run after m160215
M 160224	26	JC95956-3				5			Y	Y	OK	dilution due to visc. Rr out of clock 21:02

Instrument ID: GCMSM

SGS - Dayton

GCMS Semi Volatile Run Log

Standard / Reagent	Lot #	Concentration	Standard / Reagent	Lot #	Concentration
DFTPP	sv192604-32	50ppm	ISTD	CL13615	4000ppm
bona	sv192604-57d	25ppm	DCM/Fisher	195024	---
tcl42	sv192604-56d	25ppm			
bzd	sv192604-59f	25ppm			

Run Batch: EM6781	ACQ. Method: MM6777	Sequence Loaded By: hennys
Date: 10/11/2019	Reference Method: 8270d/625.1	Data Processed By: jeryllr
Column: Rxi5silms30mx.25mmx.25um	Quant Methods: MM6777	Approved By:
Injection Volume: 1uL	Initial Calib Date: 10/3/19	Approved Date:

MP Missed Peak, OP Overlapping Peak SP Split Peak, PDB Poorly Defined Baselin BR Baseline Ripple PII Poor Instrument Integration

Data File	A	L	S	Sample ID	OP	Batch ID	Test / Method	MTX	DF	Manually Integrated Peaks Rational Peak #	L+	Surr OK?	IS OK?	Run OK?	Comment
M 160225	1			DFTPP											no holding pressure
M 160226	1			DFTPP											not using
M 160227	2			CC6777-25											no holding pressure; re-install
M 160228	1			DFTPP											no holding pressure
M 160229	1			DFTPP											no holding pressure
M 160230	1			DFTPP											11.06am
M 160231	2			CC6777-25											ok
M 160232	3			CC6772-25											ok

GCMS Semi Volatile Run Log

Data File	AL S	Sample ID	OP Batch ID	Test / Method	MTX	DF	Manually Integrated Peaks Rational Peak #	L+	Surr OK?	IS OK?	Run OK?	Comment
M 160233	4	CC6773-25									ok	
M 160234	5	OP23204-MB1	OP23204	AB8270SL3	AQ				y	y	ok	
M 160235	6	OP23204-BS1	OP23204	AB8270SL3	AQ				y	y	ok	
M 160236	7	OP23204-BSD	OP23204	AB8270SL3	AQ				y	y	ok	
M 160237	8	JC96211-8	OP23204	B8270NJTCL20+	AQ			X	y	y	ok	
M 160238	9	JC96270-21	OP23204	B8270PAH	AQ				y	y	ok	
M 160239	10	JC96282-1	OP23204	AB8270TCL20	AQ				y	y	ok	
M 160240	11	JC96282-2	OP23204	AB8270TCL20	AQ				y	y	ok	
M 160241	12	JC96211-4	OP23204	B8270NJTCL20+	AQ		mp	X	y	y	ok	
M 160242	13	JC96030-19	OP23161A	B8270SIMPAAH+2MNAP	AQ	100		X	y	y	ok	
M 160243	14	JC96244-1	OP23230	B8270PAH	AQ				y	y	ok	
M 160244	15	JC96235-1	OP23230	AB8270SCO	AQ				y	y	ok	
M 160245	16	JC96248-5	OP23230	AB8270TCL20	AQ				y	y	ok	
M 160246	17	JC96248-6	OP23230	AB8270TCL20	AQ				y	y	ok	corr mb hit
M 160247	18	JC96248-7	OP23230	AB8270TCL20	AQ		pii		y	y	ok	corr mb hit
M 160248	19	JC96248-8	OP23230	AB8270TCL20	AQ				y	y	ok	
M 160249	20	JC96248-4	OP23230	AB8270TCL20	AQ				y	y	ok	corr mb hit/target compounds are overcal
M 160250	21	OP23230-MS	OP23230	AB8270NJTCL20+	AQ		sp	X	y	y	ok	
M 160251	22	OP23230-MSD	OP23230	AB8270NJTCL20+	AQ		mp.sp	X	y	y	ok	

GCMS Semi Volatile Run Log

Data File	AL S	Sample ID	OP Batch ID	Test / Method	MTX	DF	Manually Integrated Peaks Rational Peak #	L+	Surr OK?	IS OK?	Run OK?	Comment
M 160252	23	JC95956-3	OP23126	AB8270TCL20+	SO	5		X	y	y	ok	dilin due to visc
M 160253	24	JC96030-22	OP23161A	B8270SIMPAAH+2MNAP	AQ			X	low	y	ok	corr surr out/nap is overcal
M 160254	25	JC96030-17	OP23161A	B8270SIMPAAH+2MNAP	AQ			X	y	y	ok	corr needs dilution/10:08 pm

Standard / Reagent	Lot #	Concentration	Standard / Reagent	Lot #	Concentration
DFTPP	sv192604-32	50ppm	ISTD	CL 13615	4000ppm
bna	sv192604-57f	50ppm	DCM/Fisher	195024	---
tcl42	sv192604-56b	50ppm			
bzd	sv192604-59a	50ppm			
bna	sv192604-38i	1ppm			

Run Batch: EM6782	ACQ. Method: MM6771	Sequence Loaded By: jamesc1
Date: 10/12/2019	Reference Method: 8270d/625.1	Data Processed By: altheam
Column: Rx15silms30mx.25mmx.25um	Quant Methods: MM6771	Approved By: rinap
Injection Volume: 1uL	Initial Calib Date: 10/3/2019	Approved Date: 10/16/19

MP Missed Peak, OP Overlapping Peak SP Split Peak, PDB Poorly Defined Baselin BR Baseline Ripple PII Poor Instrument Integration

Data File	A	L	S	Sample ID	OP Batch ID	Test / Method	MTX	DF	Manually Integrated Peaks Rational Peak #	L+	Surr OK?	IS OK?	Run OK?	Comment
M 160255	1			DFTPP									ng	tailing failed
M 160256	1			DFTPP									ng	tailing failed
M 160257	1			DFTPP									ok	3.04 pm
M 160258	2			CC6777-50									ok	
M 160259	3			CC6772-50									ok	
M 160260	4			CC6773-50									ok	
M 160261	5			BNA 1PPM VEF									ok	
M 160262	6			OP23240-MB1	OP23240	AB8270NJTCL20+		AQ		X	y	y	ok	

GCMS Semi Volatile Run Log

Data File	A L S	Sample ID	OP Batch ID	Test / Method	MTX	DF	Manually Integrated Peaks Rational Peak #	L+	Surr OK?	IS OK?	Run OK?	Comment
M 160263	7	OP23229-MB1	OP23229	AB8270NJTCL20+	AQ			X	y	y	ok	
M 160264	8	OP23229-BS1	OP23229	AB8270NJTCL20+	AQ			X	y	y	ok	
M 160265	9	OP23240-BS1	OP23240	AB8270NJTCL20+	AQ			X	y	y	ok	
M 160266	10	JC96260-3	OP23240	AB8270NJTCL20+	AQ			X	y	y	ok	
M 160267	11	JC96350-2	OP23240	AB8270SL3	AQ				y	y	ok	
M 160268	12	JC96350-3	OP23240	AB8270SL3	AQ				y	y	ok	
M 160269	13	JC96350-4	OP23240	AB8270SL3	AQ				y	y	ok	
M 160270	14	JC96350-5	OP23240	AB8270SL3	AQ				low	y	ok	corr surr out
M 160271	15	JC96350-1	OP23240	AB8270SL3	AQ				y	y	ok	
M 160272	16	JC96350-6	OP23240	AB8270SL3	AQ				y	y	ok	
M 160273	17	JC96366-1	OP23240	AB8270TCL20+	AQ			X	y	y	ok	
M 160274	18	JC96383-2	OP23240	AB8270TCL20+	AQ		pli 44	X	y	y	ok	
M 160275	19	OP23240-MS	OP23240	AB8270NJTCL20+	AQ			X	y	y	ok	
M 160276	20	OP23240-MSD	OP23240	AB8270NJTCL20+	AQ			X	y	y	ok	
M 160277	21	OP23229-BSD	OP23229	AB8270NJTCL20+	AQ			X	y	y	ok	
M 160278	22	JC95655-4							y	y	ok	
M 160279	23	JC96205-1	OP23229	B8270TICS+	AQ			X	y	y	ok	
M 160280	24	JC96212-1	OP23229	B8270NAP	AQ				y	y	ok	
M 160281	25	JC96248-4	OP23230	AB8270TCL20	AQ	10			y	y	ok	

GCMS Semi Volatile Run Log

Data File	A L S	Sample ID	OP Batch ID	Test / Method	MTX	DF	Manually Integrated Peaks Rational Peak #	L+	Surr OK?	IS OK?	Run OK?	Comment
M 160282	26	JC96030-22	OP23161A	B8270SIMPAAH+2MNAP	AQ	10		X	y	y	ok	corr needs dilution
M 160283	27	JC96030-17	OP23161A	B8270SIMPAAH+2MNAP	AQ	2	pii 100	X	y	y	ok	2.57 am
M 160284	2	ECC6777-50									ok	out of clock// ok for ABSL3
M 160285	3	ECC6772-50									ok	out of clock//ok for ABSL3
M 160286	4	ECC6773-50									ok	out of clock 4:21// ok for ABSL3

GCMS Semi Volatile Run Log **SGS - Dayton** Instrument ID: GCMSM

Standard / Reagent	Lot #	Concentration	Standard / Reagent	Lot #	Concentration
DFTPP	sv192604-32	50ppm	ISTD	CL13615	4000ppm
bona	sv192604-57g	25ppm	DCM/Fisher	195024	---
tcl42	sv192604-56c	25ppm			
bzd	sv192604-59f	25ppm			

Run Batch: EM6783	ACQ. Method: MM6771	Sequence Loaded By: hennys
Date: 10/13/2019	Reference Method: 8270d/625.1	Data Processed By: jonkm
Column: Rxi5silms30mx.25mmx.25um	Quant Methods: MM6771	Approved By:
Injection Volume: 1uL	Initial Calib Date: 10/3/2019	Approved Date:

MP Missed Peak, OP Overlapping Peak SP Split Peak, PDB Poorly Defined Baselin BR Baseline Ripple PII Poor Instrument Integration

Data File	A	L	S	Sample ID	OP Batch ID	Test / Method	MTX	DF	Manually Integrated Peaks Rational Peak #	Surr OK? L+	IS OK? OK?	Run OK? OK?	Comment
M 160287	1			DFTPP								ok	9.18am
M 160288	2			CC6777-25								ok	
M 160289	3			CC6772-25								ok	
M 160290	4			CC6773-25								ok	
M 160291	5			OP23213-MB1	OP23213	AB8270SCO	SO		MP	y	y	rx	nap. 2mnnap hit
M 160292	6			OP23213-BS1	OP23213	AB8270SCO	SO			y	y	ok	
M 160293	7			JC96251-5	OP23213	AB8270TCL20+	SO			y	y	rr	mb hit
M 160294	8			JC96212-6	OP23204	B8270NAP	AQ			y	y	ok	

GCMS Semi Volatile Run Log

Data File	AL S	Sample ID	OP Batch ID	Test / Method	MTX	DF	Manually Integrated Peaks Rational Peak #	L+	Surr OK?	IS OK?	Run OK?	Comment
M 160295	9	JC96243-1	OP23204	AB8270TCL20+	AQ			X	y	y	ok	
M 160296	10	JC96243-3	OP23204	AB8270TCL20+	AQ			X	N	y	corr	surr out
M 160297	11	JC96248-1	OP23204	AB8270TCL20	AQ				y	y	ok	
M 160298	12	JC96248-2	OP23204	AB8270TCL20	AQ				y	y	ok	
M 160299	13	JC96248-3	OP23204	AB8270TCL20	AQ				y	y	ok	
M 160300	14	JC96213-1	OP23204	B8270NJTCL20+	AQ		pli	X	y	y	ok	
M 160301	15	JC96212-3	OP23230	B8270NAP	AQ				y	y	ok	
M 160302	16	JC96244-4	OP23213	B8270PAH	SO				y	y	rr	mb hit
M 160303	17	JC96244-2	OP23213	B8270PAH	SO				y	y	rr	mb hit
M 160304	18	JC96244-3	OP23213	B8270PAH	SO				y	y	rr	mb hit
M 160305	19	JC96244-6	OP23213	B8270PAH	SO				y	y	rr	mb hit
M 160306	20	JC96243-5	OP23213	AB8270TCL20+	SO			X	y	y	rr	mb hit
M 160307	21	JC96244-7	OP23213	AB8270TCL20+	SO			X	y	y	rr	mb hit
M 160308	22	JC96244-5	OP23213	B8270PAH	SO				y	y	rr	mb hit
M 160309	23	JC96212-5	OP23230	B8270NAP	AQ				y	y	rr/ok	needs dilution
M 160310	24	JC96243-4	OP23213	AB8270TCL20+	SO			X	y	y	rr	possible carry over
M 160311	25	JC95956-3	OP23126	AB8270TCL20+	SO	2		X	y	y	ok	dilin due to visc
M 160312	26	OP23213-MS	OP23213	AB8270SCO	SO				y	y	ok	
M 160313	27	OP23213-MSD	OP23213	AB8270SCO	SO				y	y	ok	(21:12)

Instrument ID: GCMSM

SGS - Dayton

GCMS Semi Volatile Run Log

Standard / Reagent	Lot #	Concentration	Standard / Reagent	Lot #	Concentration
DFTPP	sv192604-32	50ppm	ISTD	CL13615	4000ppm
bona	sv192604-57g	25ppm	DCM/Fisher	195025	---
tcl42	sv192604-56d	25ppm			
bzd	sv192604-59f	25ppm			

Run Batch: EM6787	ACQ. Method: MM6777	Sequence Loaded By: hennys
Date: 10/16/2019	Reference Method: 8270d/625.1	Data Processed By: jerylr
Column: Rxi5silms30mx.25mmx.25um	Quant Methods: MM6777	Approved By:
Injection Volume: 1uL	Initial Calib Date: 10/3/2019	Approved Date:

MP Missed Peak, OP Overlapping Peak SP Split Peak, PDB Poorly Defined Baselin BR Baseline Ripple PII Poor Instrument Integration

Data File	A	L	S	Sample ID	OP	Batch ID	Test / Method	MTX	DF	Manually Integrated Peaks Rational Peak #	Surr OK?	IS OK?	Run OK?	Comment
M 160396	1			DFTPP									not using	
M 160397	2			CC6777-25									ng	area low, raise em
M 160398	1			DFTPP									not using	
M 160399	2			CC6777-25									ng	area low, re-install
M 160400	1			DFTPP									ok	10:42 am
M 160401	2			CC6777-25									ok	
M 160402	3			CC6772-25									ok	
M 160403	4			CC6773-25									ok	

GCMS Semi Volatile Run Log

Data File	A L S	Sample ID	OP Batch ID	Test / Method	MTX	DF	Manually Integrated Peaks Rational Peak #	L+	Surr OK?	IS OK?	Run OK?	Comment
M 160404	5	OP23339-MB1	OP23339	AB625PPL	AQ				y	y	ok	
M 160405	6	OP23339-BS1	OP23339	AB625PPL	AQ				y	y	ok	
M 160406	7	OP23339-BSD	OP23339	AB625PPL	AQ				y	y	ok	
M 160407	8	OP23204-BS1	OP23204	AB8270SL3	AQ		mp		y	y	ok	
M 160408	9	OP23204-BSD	OP23204	AB8270SL3	AQ				y	y	ok	
M 160409a	10	TD45639-1	OP23339	AB625SL	AQ				low	y	ok	chemstation shutdown, use 'a' file/corr surr out
M 160410	11	TD45639-2	OP23339	AB625SL	AQ				y	y	ok	
M 160411	12	JC96386-3	OP23339	AB625PPL+	AQ			X	y	y	ok	
M 160412	13	JC96395-1	OP23339	AB625SL	AQ				y	y	ok	
M 160413	14	JC95998-1	OP23339	AB625PPL+	AQ			X	y	y	ok	
M 160414	15	JC96144-1	OP23339	AB625PPL	AQ		pli		y	y	ok	
M 160415	16	JC96150-1	OP23339	B625PPL	AQ				y	y	ok	
M 160416	17	JC96161-1	OP23339	AB625TCL20+	AQ			X	y	y	ok	
M 160417	18	JC96407-4	OP23273	AB8270TCL20+	SO	20		X	y	y	ok	
M 160418	19	JC96283-7	OP23204	AB8270SL3	AQ	10			y	y	ok	
M 160419	20	JC96283-8	OP23204	AB8270SL3	AQ	10			low	y	ok	corr surr out
M 160420	21	JC96137-4	OP23156	AB8270TCL20+	SO	100		X			not run	cut from sequence
M 160421	22	JC96137-8	OP23156	AB8270TCL20+	SO	50		X			not run	cut from sequence
M 160422	23	JC96137-12	OP23156	AB8270TCL20+	SO	2		X			not run	dilin due to visc. cut from sequence

GCMS Semi Volatile Run Log

Data File	A L S	Sample ID	OP Batch ID	Test / Method	MTX	DF	Manually Integrated Peaks Rational Peak #	L+ Surr OK?	IS OK?	Run OK?	Comment
M 160423	24	JC96137-12	OP23156	AB8270TCL20+	SO	10		X		not run	cut from sequence
M 160424	25	JC96164-2	OP23213	AB8270TCL20+	SO			X	y	ok	corr surr out
M 160425	26	JC96137-8	OP23156	AB8270TCL20+	SO	5		X		not run	cut from sequence
M 160426	27	JC95790-3	OP23276	B8270PAH	SO					N	dilin due to visc. cut from sequence
M 160427	28	JC95790-4	OP23276	B8270PAH	SO					N	dilin due to visc. cut from sequence
M 160428	29	OP23276-MS	OP23276	AB8270RCP	SO					N	dilin due to visc. cut from sequence
M 160429	30	OP23276-MSD	OP23276	AB8270RCP	SO					N	dilin due to visc. cut from sequence
M 160430	2	ECC6777-25								ok	low:60
M 160431	3	ECC6772-25								ok	
M 160432	4	ECC6773-25								ok	09:43PM

ABN Aqueous Extraction Logbook

BATCH # **MS 023204** RACK# **KLW**
 Set-up by: **MT**
 Extracted by: **MT**
 Concentrated by: **MT**
 Final Vol. Top-up: **MT**
 Vialled by: **MT**
 Supervisor Review: **JF 10/11/19**

Extract Method (CHECK OFF "Y"/DO NOT-CIRCLE):
 Separatory Funnel: SW846 3510CCLP/isher. 3510C SIM
 Continuous Liquid Liquid: SW846 3520CCLP/isher.

OGBOOK ID: **9-2434**
 Time Started: **10/11/19**
 Time Finished: **10/11/19**

Sample #	Sample Description	Sample Volume (mL)	pH Adjust (mL)	Final Extract	Comments
1	MB1 ABN	1000	2.1	Clear	
2	BS1	1000	2.2	Yellow	
3	MSD	1000	2.3	Yellow	
4	BS12 SIM	1000	2.4	Yellow	
5	BSD12MS	1000	2.5	Yellow	
6	MSD	1000	2.6	Yellow	
7	BS	1000	2.7	Yellow	
8	MSD	1000	2.8	Yellow	
9	MSD	1000	2.9	Yellow	
10	MSD	1000	3.0	Yellow	
11	JCA0212-6	1050	2.1	Clear	
12	JCA0213-1	1050	2.2	Yellow	
13	JCA0243-1	1000	2.3	Clear	
14	JCA0293-7	1000	2.4	Clear	
15	-8	1000	2.5	Clear	
16	-9	1000	2.6	Clear	
17	-10	1000	2.7	Clear	
18	-11	1000	2.8	Clear	
19	-12	1000	2.9	Clear	
20	-13	1000	3.0	Clear	
21	JCA0289-1	1050	2.1	Clear	
22	JCA0211-8	1050	2.2	Yellow	
23	-4	870	2.3	Clear	
24	JCA0270-21	1050	2.4	Yellow	
25	JCA0282-1	1000	2.5	Yellow	
26	-2	1000	2.6	Yellow	
27	JCA0243-3	1000	2.7	Yellow	
28	JCA0248-1	1000	2.8	Yellow	
29	-2	1040	2.9	Clear	
30	-3	1050	3.0	Clear	

Sample #	Analysis Type	Sample Bottle #	Sample Description	Sample Volume (mL)	pH Adjust (mL)	Final Extract	Misc.
1	ABN	2	Clear	1050	2.1	Clear	
2	ABN	1	Yellow	1050	2.2	Yellow	
3	ABN	3	Yellow	1000	2.3	Clear	
4	ABN	1	Yellow	1000	2.4	Clear	
5	ABN	1	Yellow	1000	2.5	Clear	
6	ABN	1	Yellow	1000	2.6	Clear	
7	ABN	1	Yellow	1000	2.7	Clear	
8	ABN	2	Yellow	1000	2.8	Clear	
9	ABN	1	Clear	1000	2.9	Clear	
10	ABN	2	Clear	1000	3.0	Clear	
11	ABN	2	Clear	1050	2.1	Clear	
12	ABN	1	Yellow	1050	2.2	Yellow	
13	ABN	2	Clear	870	2.3	Clear	
14	ABN	3	Clear	1050	2.4	Yellow	
15	ABN	4	Yellow	1000	2.5	Yellow	
16	ABN	3	Yellow	1000	2.6	Yellow	
17	ABN	2	Yellow	1000	2.7	Yellow	
18	ABN	1	Yellow	1040	2.8	Clear	
19	ABN	1	Yellow	1050	2.9	Clear	
20	ABN	1	Yellow	1050	3.0	Clear	

Sample #	Analysis Type	Sample Bottle #	Sample Description	Sample Volume (mL)	pH Adjust (mL)	Final Extract	Misc.
1	ABN	2	Clear	1050	2.1	Clear	
2	ABN	1	Yellow	1050	2.2	Yellow	
3	ABN	3	Yellow	1000	2.3	Clear	
4	ABN	1	Yellow	1000	2.4	Clear	
5	ABN	1	Yellow	1000	2.5	Clear	
6	ABN	1	Yellow	1000	2.6	Clear	
7	ABN	1	Yellow	1000	2.7	Clear	
8	ABN	2	Yellow	1000	2.8	Clear	
9	ABN	1	Clear	1000	2.9	Clear	
10	ABN	2	Clear	1000	3.0	Clear	
11	ABN	2	Clear	1050	2.1	Clear	
12	ABN	1	Yellow	1050	2.2	Yellow	
13	ABN	2	Clear	870	2.3	Clear	
14	ABN	3	Clear	1050	2.4	Yellow	
15	ABN	4	Yellow	1000	2.5	Yellow	
16	ABN	3	Yellow	1000	2.6	Yellow	
17	ABN	2	Yellow	1000	2.7	Yellow	
18	ABN	1	Yellow	1040	2.8	Clear	
19	ABN	1	Yellow	1050	2.9	Clear	
20	ABN	1	Yellow	1050	3.0	Clear	

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Comments: **JCA0283-3, 5, 6, 7**
 QC Samples (MS, MSD, LINK and/or DUP, LINK) Confirmed by:

Form: OP022A-12
 Rev Date: 8/2/17

ABN Aqueous Extraction Logbook

BATCH #	MS OP23235	TRACK#	Green
Set-up by:	MT		
Extracted by:	MT		
Concentrated by:	MT		
Final Vol. Top-up:	MT		
Valid by:	MT		
Supervisor Review:		10/23/19	
Equipment/Range	ID	Observed Temp (°C)	Corrected Temp (°C)
Buchi (65-71°C)			
Buchi Chiller			
Waterbath (70-80°C)	56	75.76	71.71
Waterbath Chiller (6PM)	63	6	
NEVA (P-3-TC, LPM)	4	34	
CONC (ppm)			AMT (mg)
SUBROGATE	LOT#	192397-81	50
AMT (mg)			
AMT (mg)			1.0
WITNESS SIGN: <u>JF</u>		SPRKE SIGN: <u>MT</u>	
MATRIX SPIKE	LOT#	192397-84	50
Acid			AMT (mg)
Acid (for SIM)			AMT (mg)
Base #1			AMT (mg)
Base #2	192397-83	50	1.0
Anilines	192397-85	50	1.0
BSSM	192397-67	50	1.0
	192397-77	1 ppm	1.0
WITNESS SIGN: <u>JF</u>		SPRKE SIGN: <u>MT</u>	
SOLVENT	LOT#	195572	BRAND
METH CHLOR			Fisher
AMT (mg)			60x6
REAGENT	LOT#		BATCH#
NaOH	188194		Fisher
H2SO4	2004A75		Ricca
Sodium Sulfate	19175		Fisher
Glass Wool	044610		Leag
Filter Paper			
pH strips	217518		Hydrex

Extract Method (CHECK OFF [✓] DO NOT CIRCLE):
 Separatory Funnel: 8W48 350CCLP/ther ✓ 350C SIM
 Continuous Liquid Liquid: 8W48 350CCLP/ther

LOGBOOK ID: 9-2402

Date Started: 10/19/19
 Date Finished: 10-19-19
 Time Started: 22:00
 Time Finished: 7:00

QC ID# for Special Spike	Lot #	Conc.	Amt. Spiked

WITNESS SIGN: _____
 Manager/Supervisor/Tenn Lead Approval: _____

SPECIAL PROCESSING INSTRUCTIONS
 Rx Reason:
 Spiking:
 Weights/Volumes:
 Required MS/MSD: JC96248-4 (Bullseye)
 Final Volumes:
 Other:

Sample #	Analysis Type	Sample Bottle #	Sample Description	Sample Volume (mL)	pH Adjust (mL)		Final Extract Vol (mL)	Comments	
					>11 NaOH	H2SO4			
JC96248-4	MS	1	yellow	1000	22	711	Clear	1.0	
JC96248-4	MSD	1	yellow	1000	22	711	Clear	1.0	
JC96248-4	MSD	1	yellow	1000	22	711	Clear	1.0	
JC96248-4	MS	1	yellow	1000	22	711	Clear	1.0	
JC96248-4	MSD	1	yellow	1000	22	711	Clear	1.0	
JC96248-4	MSD	1	yellow	1000	22	711	Clear	1.0	
JC96248-4	MSD	1	yellow	1000	22	711	Clear	1.0	
JC96248-4	MSD	1	yellow	1000	22	711	Clear	1.0	
JC96248-4	MSD	1	yellow	1000	22	711	Clear	1.0	
JC96248-4	MSD	1	yellow	1000	22	711	Clear	1.0	
JC96248-4	MSD	1	yellow	1000	22	711	Clear	1.0	
JC96248-4	MSD	1	yellow	1000	22	711	Clear	1.0	
JC96248-4	MSD	1	yellow	1000	22	711	Clear	1.0	
JC96248-4	MSD	1	yellow	1000	22	711	Clear	1.0	
JC96248-4	MSD	1	yellow	1000	22	711	Clear	1.0	
JC96248-4	MSD	1	yellow	1000	22	711	Clear	1.0	
JC96248-4	MSD	1	yellow	1000	22	711	Clear	1.0	
JC96248-4	MSD	1	yellow	1000	22	711	Clear	1.0	
JC96248-4	MSD	1	yellow	1000	22	711	Clear	1.0	
JC96248-4	MSD	1	yellow	1000	22	711	Clear	1.0	

Comments: JC96248-4 - Final Spike
 QC Samples (MS, MSD, LINK and/or DUP, Lmk) Confirmed by: JC96248-4 - Final Spike

SGS
 Form: OF-022A-12
 Rev Date: 8/2/17

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OP23404

ABN Aqueous Extraction Logbook

LOGBOOK ID: 9-2434

Date Started: 10/19/19
 Date Finished: 10/18/19
 Time Started: 8:00 AM
 Time Finished: 14:00

Extract Method (CHECK OFF - DO NOT CIRCLE):
 Separatory Funnel SW846 3510C/1P/1W
 Continuous Liquid Liquid: SW846 3520C/1P/1W
 3510C SIM

BATCH #	MS	TRACK#	B102
Setup by:	VP	HC	RL
Extracted by:	VP	HC	RL
Concentrated by:	VP	HC	RL
Fiscal Vol. Top-up:	VP	HC	RL
Vialled by:	VP	HC	RL
Supervisor Review:	SF 10/18/19		
Equipment/Range	ID	Observed Temp (°C)	Corrected Temp (°C)
Buchi Chiller	5	7.5	7.5
Watersh (70-80°C)	F2	5	—
Watersh Chiller (0°C)	4	3.5	—
NEVA (0.3-30C LPM)			
SUBCAGATE	LOT #	CONC (ppm)	AMT (mL)
ABN	192397-81	50	1.0
ABN DOD SIM	VP	SPICE SIGN:	RL
WITNESS SIGN:	LOT #	CONC (ppm)	AMT (mL)
Acid	192397-84	50	Acid: 1.0
Acid (for SIM)	192397-90	50	1.0
Base #1	192397-91	50	1.0
Base #2	192397-86	50	1.0
Amines	192397-95	100M	1.0
BSIM			
WITNESS SIGN:	LOT #	CONC (ppm)	AMT (mL)
SOLVENT	195025	SPICE SIGN:	RL
METH COLOR		BRAND	60X6
REAGENT	LOT #	BATCH #	
NaOH	188669		BRAND
H2SO4	2810632		BRAND
Sodium Sulfate	192068		10-2-19
Glue Wood	04410		Lab
Filter Paper			
pH strips	217518		loglabon

Sample #	Analysis Type	Sample Bottle #	Sample Description	Sample Volume (mL)	pH Adjust (mL)		Final Extract	Misc
					>11 NaOH	Δ H2SO4		
J096768-1	MS/MSD	1	Clear	1000	2.2	711	Clear	
J096768-2	MS/MSD	2	Clear	1000	2.2	711	Yellow	
J096768-3	MS/MSD	3	Clear	1000	2.2	711	Yellow	
J096768-4	MS/MSD	4	Clear	1000	2.2	711	Yellow	
J096768-5	MS/MSD	5	Clear	1000	2.2	711	Yellow	
J096768-6	MS/MSD	6	Clear	1000	2.2	711	Yellow	
J096768-7	MS/MSD	7	Clear	1000	2.2	711	Yellow	
J096768-8	MS/MSD	8	Clear	1000	2.2	711	Yellow	
J096768-9	MS/MSD	9	Clear	1000	2.2	711	Yellow	
J096768-10	MS/MSD	10	Clear	1000	2.2	711	Yellow	
J096768-11	MS/MSD	11	Clear	1000	2.2	711	Yellow	
J096768-12	MS/MSD	12	Clear	1000	2.2	711	Yellow	
J096768-13	MS/MSD	13	Clear	1000	2.2	711	Yellow	
J096768-14	MS/MSD	14	Clear	1000	2.2	711	Yellow	
J096768-15	MS/MSD	15	Clear	1000	2.2	711	Yellow	
J096768-16	MS/MSD	16	Clear	1000	2.2	711	Yellow	
J096768-17	MS/MSD	17	Clear	1000	2.2	711	Yellow	
J096768-18	MS/MSD	18	Clear	1000	2.2	711	Yellow	
J096768-19	MS/MSD	19	Clear	1000	2.2	711	Yellow	
J096768-20	MS/MSD	20	Clear	1000	2.2	711	Yellow	

SPECIAL PROCESSING INSTRUCTIONS

Spiking: Required MS/MSD: J096768-1
 - full scan + SIM

Final Volume:

Other:

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SGS
 Form: OF022A-12
 Rev Date: 8/2/17

Comments: QC Samples (MS, MSD, LINK and/or DUP, LINK) Confirmed by:

Metals Analysis

QC Data Summaries

Includes the following where applicable:

- Instrument Runlogs
- Initial and Continuing Calibration Blanks
- Initial and Continuing Calibration Checks
- High and Low Check Standards
- Interfering Element Check Standards
- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries
- IDL and Linear Range Summaries

SGS Instrument Runlog
 Inorganics Analyses

Login Number: JC96248
 Account: BBLNYS - Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: H8100819W1.CSV Date Analyzed: 10/08/19 Methods: SW846 7470A
 Analyst: LL Run ID: MA47587
 Parameters: Hg

Time	Sample Description	Dilution Factor	PS Recov	Comments
11:31	MA47587-STD1	1		B=2.9685E-004, C=5.3640E-003, RHO=0.99945556
11:32	MA47587-STD2	1		STDB
11:34	MA47587-STD3	1		STDC
11:35	MA47587-STD4	1		STDD
11:37	MA47587-STD5	1		STDE
11:38	MA47587-STD6	1		STDF
11:42	MA47587-ICV1	1		
11:43	MA47587-ICB1	1		
11:45	MA47587-CCV1	1		
11:47	MA47587-CCB1	1		
11:48	MA47587-CRI1	1		
11:50	MA47587-CCV2	1		
11:51	MA47587-CCB2	1		
11:54	MP17764-MB1	1		
11:55	MP17764-B1	1		
11:56	MP17764-S1	1		
11:58	MP17764-S2	1		
12:00	JC96160-1	1		(sample used for QC only; not part of login JC96248)
12:01	ZZZZZZ	1		
12:03	ZZZZZZ	1		
12:04	ZZZZZZ	1		
12:05	ZZZZZZ	1		
12:07	MA47587-CCV3	1		
12:08	MA47587-CCB3	1		
12:10	ZZZZZZ	1		
12:11	ZZZZZZ	1		
12:13	ZZZZZZ	1		
12:14	ZZZZZZ	1		
12:15	ZZZZZZ	1		
12:17	ZZZZZZ	1		
12:18	ZZZZZZ	1		
12:19	ZZZZZZ	1		
12:21	ZZZZZZ	1		

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SGS Instrument Runlog
Inorganics Analyses

Login Number: JC96248
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA

File ID: H8100819W1.CSV Date Analyzed: 10/08/19 Methods: SW846 7470A
Analyst: LL Run ID: MA47587
Parameters: Hg

Time	Sample Description	Dilution Factor	PS Recov	Comments
12:22	MA47587-CCV4	1		
12:23	MA47587-CCB4	1		
12:25	ZZZZZZ	1		
12:26	ZZZZZZ	1		
12:28	ZZZZZZ	1		
12:29	ZZZZZZ	1		
12:30	ZZZZZZ	1		
12:32	ZZZZZZ	1		
12:33	MP17765-MB1	1		
12:34	MA47587-CCV5	1		
12:36	MA47587-CCB5	1		
12:37	MP17765-B1	1		
12:39	MP17765-S1	1		
12:40	MP17765-S2	1		
12:42	JC96153-2F	1		(sample used for QC only; not part of login JC96248)
12:44	ZZZZZZ	1		
12:45	ZZZZZZ	1		
12:46	ZZZZZZ	1		
12:48	ZZZZZZ	1		
12:49	ZZZZZZ	1		
12:50	MA47587-CCV6	1		
12:52	MA47587-CCB6	1		
12:54	ZZZZZZ	1		
12:55	ZZZZZZ	1		
12:56	ZZZZZZ	1		
12:57	ZZZZZZ	1		
12:59	ZZZZZZ	1		
13:00	ZZZZZZ	1		
13:01	ZZZZZZ	1		
13:03	ZZZZZZ	1		
13:04	ZZZZZZ	1		
13:05	MA47587-CCV7	1		
13:07	MA47587-CCB7	1		

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SGS Instrument Runlog
Inorganics Analyses

Login Number: JC96248
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA

File ID: H8100819W1.CSV Date Analyzed: 10/08/19 Methods: SW846 7470A
Analyst: LL Run ID: MA47587
Parameters: Hg

Time	Sample Description	Dilution Factor	PS Recov	Comments
13:08	ZZZZZZ	1		
13:10	ZZZZZZ	1		
13:11	ZZZZZZ	1		
13:12	ZZZZZZ	1		
13:14	MP17766-MB1	1		
13:15	MA47587-CCV8	1		
13:16	MA47587-CCB8	1		
13:18	MP17766-B1	1		
13:19	MP17766-S1	1		
13:21	MP17766-S2	1		
13:23	JC96248-4	1		
13:25	MP17766-S3	1		
13:26	MP17766-S4	1		
13:28	JC96248-4F	1		
13:30	JC96248-1	1		
13:31	JC96248-1F	1		
13:32	MA47587-CCV9	1		
13:34	MA47587-CCB9	1		
13:35	JC96248-2	1		
13:37	JC96248-2F	1		
13:38	JC96248-3	1		
13:39	JC96248-3F	1		
13:41	JC96248-5	1		
13:42	JC96248-5F	1		
13:43	JC96248-6	1		
13:45	JC96248-6F	1		
13:46	JC96248-7	1		
13:47	MA47587-CCV10	1		
13:49	MA47587-CCB10	1		
13:50	JC96248-7F	1		
13:52	JC96248-8	1		
13:53	JC96248-8F	1		
13:54	ZZZZZZ	1		

-----> Last reportable sample/prep for job JC96248

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SGS Instrument Runlog
Inorganics Analyses

Login Number: JC96248
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA

File ID: H8100819W1.CSV Date Analyzed: 10/08/19 Methods: SW846 7470A
Analyst: LL Run ID: MA47587
Parameters: Hg

Time	Sample Description	Dilution Factor	PS Recov	Comments
13:56	ZZZZZZ	1		
13:57	ZZZZZZ	1		
13:58	ZZZZZZ	1		
14:00	ZZZZZZ	1		
14:01	MA47587-CCV11	1		
14:03	MA47587-CCB11	1		

-----> Last reportable CCB for job JC96248
Refer to raw data for calibration curve and standards.

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REPORTED ELEMENTS SUMMARY

Login Number: JC96248
 Account: BBLNYS - Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: H8100819W1.CSV Date Analyzed: 10/08/19 Methods: SW846 7470A
 Analyst: LL Run ID: MA47587
 Parameters: Hg

Time	Sample Description	Element:	H Dilution	g
11:42	MA47587-ICV1	1	X	
11:43	MA47587-ICB1	1	X	
11:45	MA47587-CCV1	1	X	
11:47	MA47587-CCB1	1	X	
11:48	MA47587-CRI1	1	X	
11:50	MA47587-CCV2	1	X	
11:51	MA47587-CCB2	1	X	
11:54	MP17764-MB1	1	X	
11:55	MP17764-B1	1	X	
11:56	MP17764-S1	1	X	
11:58	MP17764-S2	1	X	
12:00	JC96160-1	1	X (a)	
12:01	ZZZZZZ	1		
12:03	ZZZZZZ	1		
12:04	ZZZZZZ	1		
12:05	ZZZZZZ	1		
12:07	MA47587-CCV3	1	X	
12:08	MA47587-CCB3	1	X	
12:10	ZZZZZZ	1		
12:11	ZZZZZZ	1		
12:13	ZZZZZZ	1		
12:14	ZZZZZZ	1		
12:15	ZZZZZZ	1		
12:17	ZZZZZZ	1		
12:18	ZZZZZZ	1		
12:19	ZZZZZZ	1		
12:21	ZZZZZZ	1		
12:22	MA47587-CCV4	1	X	
12:23	MA47587-CCB4	1	X	
12:25	ZZZZZZ	1		
12:26	ZZZZZZ	1		
12:28	ZZZZZZ	1		
12:29	ZZZZZZ	1		

Element: H
g

10.1.1
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REPORTED ELEMENTS SUMMARY

Login Number: JC96248
 Account: BBLNYS - Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: H8100819W1.CSV Date Analyzed: 10/08/19 Methods: SW846 7470A
 Analyst: LL Run ID: MA47587
 Parameters: Hg

Time	Sample Description	Element: H Dilution g
12:30	ZZZZZZ	1
12:32	ZZZZZZ	1
12:33	MP17765-MB1	1 X
12:34	MA47587-CCV5	1 X
12:36	MA47587-CCB5	1 X
12:37	MP17765-B1	1 X
12:39	MP17765-S1	1 X
12:40	MP17765-S2	1 X
12:42	JC96153-2F	1 X (a)
12:44	ZZZZZZ	1
12:45	ZZZZZZ	1
12:46	ZZZZZZ	1
12:48	ZZZZZZ	1
12:49	ZZZZZZ	1
12:50	MA47587-CCV6	1 X
12:52	MA47587-CCB6	1 X
12:54	ZZZZZZ	1
12:55	ZZZZZZ	1
12:56	ZZZZZZ	1
12:57	ZZZZZZ	1
12:59	ZZZZZZ	1
13:00	ZZZZZZ	1
13:01	ZZZZZZ	1
13:03	ZZZZZZ	1
13:04	ZZZZZZ	1
13:05	MA47587-CCV7	1 X
13:07	MA47587-CCB7	1 X
13:08	ZZZZZZ	1
13:10	ZZZZZZ	1
13:11	ZZZZZZ	1
13:12	ZZZZZZ	1
13:14	MP17766-MB1	1 X
13:15	MA47587-CCV8	1 X
		Element: H g

10.1.1
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REPORTED ELEMENTS SUMMARY

Login Number: JC96248
 Account: BBLNYS - Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: H8100819W1.CSV Date Analyzed: 10/08/19 Methods: SW846 7470A
 Analyst: LL Run ID: MA47587
 Parameters: Hg

Time	Sample Description	Element:	H Dilution	g
13:16	MA47587-CCB8	1	X	
13:18	MP17766-B1	1	X	
13:19	MP17766-S1	1	X	
13:21	MP17766-S2	1	X	
13:23	JC96248-4	1	X	
13:25	MP17766-S3	1	X	
13:26	MP17766-S4	1	X	
13:28	JC96248-4F	1	X	
13:30	JC96248-1	1	X	
13:31	JC96248-1F	1	X	
13:32	MA47587-CCV9	1	X	
13:34	MA47587-CCB9	1	X	
13:35	JC96248-2	1	X	
13:37	JC96248-2F	1	X	
13:38	JC96248-3	1	X	
13:39	JC96248-3F	1	X	
13:41	JC96248-5	1	X	
13:42	JC96248-5F	1	X	
13:43	JC96248-6	1	X	
13:45	JC96248-6F	1	X	
13:46	JC96248-7	1	X	
13:47	MA47587-CCV10	1	X	
13:49	MA47587-CCB10	1	X	
13:50	JC96248-7F	1	X	
13:52	JC96248-8	1	X	
13:53	JC96248-8F	1	X	
13:54	ZZZZZZ	1		
13:56	ZZZZZZ	1		
13:57	ZZZZZZ	1		
13:58	ZZZZZZ	1		
14:00	ZZZZZZ	1		
14:01	MA47587-CCV11	1	X	
14:03	MA47587-CCB11	1	X	
		Element:	H	g

10.1.1
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REPORTED ELEMENTS SUMMARY

Login Number: JC96248
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA

File ID: H8100819W1.CSV Date Analyzed: 10/08/19 Methods: SW846 7470A
Analyst: LL Run ID: MA47587
Parameters: Hg

Time	Sample Description	Element:	Dilution
		H	g

(a) Sample used for QC only; not part of login JC96248.

Element: H
g

10.1.1
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BLANK RESULTS SUMMARY
 Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC96248
 Account: BBLNYS - Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: H8100819W1.CSV Date Analyzed: 10/08/19 Methods: SW846 7470A
 QC Limits: result < RL Run ID: MA47587 Units: ug/l

	Time:		11:43		11:47		11:51		12:08	
	Sample ID:		ICB1		CCB1		CCB2		CCB3	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Mercury	0.20	.023	-0.0697	<0.20	-0.0694	<0.20	-0.0804	<0.20	-0.0715	<0.20

(*) Outside of QC limits
 (anr) Analyte not requested

10.1.2
 10

BLANK RESULTS SUMMARY
 Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC96248
 Account: BBLNYS - Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: H8100819W1.CSV Date Analyzed: 10/08/19 Methods: SW846 7470A
 QC Limits: result < RL Run ID: MA47587 Units: ug/l

	Time:		12:23		12:36		12:52		13:07	
	Sample ID:		CCB4		CCB5		CCB6		CCB7	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Mercury	0.20	.023	-0.0641	<0.20	-0.0656	<0.20	-0.0659	<0.20	-0.0460	<0.20

(*) Outside of QC limits
 (anr) Analyte not requested

10.1.2
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BLANK RESULTS SUMMARY
 Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC96248
 Account: BBLNYS - Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: H8100819W1.CSV Date Analyzed: 10/08/19 Methods: SW846 7470A
 QC Limits: result < RL Run ID: MA47587 Units: ug/l

	Time:		13:16		13:34		13:49		14:03	
	Sample ID:		CCB8		CCB9		CCB10		CCB11	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Mercury	0.20	.023	-0.0484	<0.20	-0.0665	<0.20	-0.0641	<0.20	-0.0691	<0.20

(*) Outside of QC limits
 (anr) Analyte not requested

10.1.2
 10

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC96248
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA

File ID: H8100819W1.CSV Date Analyzed: 10/08/19 Methods: SW846 7470A
QC Limits: 90 to 110 % Recovery Run ID: MA47587 Units: ug/l

	Time:	11:42		11:45		11:50			
Sample ID:	ICV	ICV1	CCV	CCV1	CCV	CCV2	Results	% Rec	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Mercury	3	2.99	99.7	2.5	2.63	105.2	2.5	2.51	100.4

(*) Outside of QC limits
(anr) Analyte not requested

10.1.3
10

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC96248
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA

File ID: H8100819W1.CSV Date Analyzed: 10/08/19 Methods: SW846 7470A
QC Limits: 90 to 110 % Recovery Run ID: MA47587 Units: ug/l

	Time:	12:07		12:22		12:34			
Sample ID:	CCV	CCV3		CCV4		CCV5			
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Mercury	2.5	2.55	102.0	2.5	2.62	104.8	2.5	2.61	104.4

(*) Outside of QC limits
(anr) Analyte not requested

10.1.3
10

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC96248
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA

File ID: H8100819W1.CSV Date Analyzed: 10/08/19 Methods: SW846 7470A
QC Limits: 90 to 110 % Recovery Run ID: MA47587 Units: ug/l

	Time:	12:50		13:05		13:15			
Sample ID:	CCV	CCV6	CCV	CCV7	CCV	CCV8			
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Mercury	2.5	2.61	104.4	2.5	2.55	102.0	2.5	2.60	104.0

(*) Outside of QC limits
(anr) Analyte not requested

10.1.3
10

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC96248
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA

File ID: H8100819W1.CSV Date Analyzed: 10/08/19 Methods: SW846 7470A
QC Limits: 90 to 110 % Recovery Run ID: MA47587 Units: ug/l

	Time:	13:32		13:47		14:01			
Sample ID:	CCV	CCV9		CCV10		CCV11			
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Mercury	2.5	2.56	102.4	2.5	2.48	99.2	2.5	2.56	102.4

(*) Outside of QC limits
(anr) Analyte not requested

10.1.3
10

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC96248
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA

File ID: H8100819W1.CSV Date Analyzed: 10/08/19 Methods: SW846 7470A
QC Limits: 70 to 130 % Recovery Run ID: MA47587 Units: ug/l

Time:			11:48	
Sample ID:	CRI	CRIA	CRI1	
Metal	True	True	Results	% Rec

Mercury 0.20 0.217 108.5

(*) Outside of QC limits
(anr) Analyte not requested

10.1.4
10

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC96248
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SC100919M1.ICP Date Analyzed: 10/09/19 Methods: EPA 200.7, SW846 6010D
Analyst: EAL Run ID: MA47598
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

Time	Sample Description	Dilution Factor	PS Recov	Comments
11:45	MA47598-STD1	1		STDA
11:54	MA47598-STD2	1		STDB
12:00	ZZZZZZ	1		
12:05	ZZZZZZ	1		
12:10	MA47598-ICV1	1		
12:15	MA47598-ICB1	1		
12:23	MA47598-ICCV1	1		
12:35	MA47598-CCB1	1		
12:39	MA47598-CRID1	1		
12:44	MA47598-CRI1	1		
12:49	MA47598-ICSA1	1		
12:55	MA47598-ICSAB1	1		
13:00	ZZZZZZ	1		
13:06	ZZZZZZ	1		
13:18	ZZZZZZ	1		
13:28	MA47598-HSTD1	1		
13:35	MA47598-HSTD2	1		
13:40	MA47598-CCV1	1		
13:45	MA47598-CCB2	1		
13:50	ZZZZZZ	1		
13:55	ZZZZZZ	1		
14:00	ZZZZZZ	1		
14:05	ZZZZZZ	1		
14:10	ZZZZZZ	1		
14:15	ZZZZZZ	5		
14:20	ZZZZZZ	5		
14:25	ZZZZZZ	1		
14:30	ZZZZZZ	1		
14:35	MA47598-CCV2	1		
14:40	MA47598-CCB3	1		
14:45	ZZZZZZ	2		
14:51	ZZZZZZ	2		
14:56	ZZZZZZ	2		

10.2
10

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC96248
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SC100919M1.ICP Date Analyzed: 10/09/19 Methods: EPA 200.7, SW846 6010D
Analyst: EAL Run ID: MA47598
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

Time	Sample Description	Dilution Factor	PS Recov	Comments
15:01	ZZZZZZ	2		
15:06	ZZZZZZ	1		
15:11	ZZZZZZ	1		
15:16	ZZZZZZ	1		
15:21	ZZZZZZ	1		
15:26	ZZZZZZ	1		
15:31	MA47598-CCV3	1		
15:36	MA47598-CCB4	1		
15:41	MP17762-MB1	1		
15:46	MP17762-MB2	1		
15:51	MP17762-B1	1		
15:56	MP17762-B2	1		
16:01	MP17762-S1	1		
16:06	MP17762-S2	1		
16:12	JC96248-4	1		
16:17	MP17762-SD1	5		
16:22	MP17762-S3	1		
16:27	MA47598-CCV4	1		
16:32	MA47598-CCB5	1		
16:37	MP17762-S4	1		
16:43	JC96248-4F	1		
16:48	MP17762-SD2	5		
16:53	JC96248-1	1		
16:58	JC96248-2	1		
17:03	JC96248-3	1		
17:08	JC96248-5	1		
17:13	JC96248-6	1		
17:19	JC96248-7	1		
----->	Last reportable sample/prep for job JC96248			
17:29	MA47598-CCV5	1		
17:39	MA47598-CCB6	1		
----->	Last reportable CCB for job JC96248			
17:43	ZZZZZZ	1		
17:49	ZZZZZZ	1		
17:55	ZZZZZZ	1		

10.2
10

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC96248
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SC100919M1.ICP Date Analyzed: 10/09/19 Methods: EPA 200.7, SW846 6010D
Analyst: EAL Run ID: MA47598
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

Time	Sample Description	Dilution Factor	PS Recov	Comments
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18:04 ZZZZZZ 1
18:11 ZZZZZZ 1
18:16 ZZZZZZ 1
18:23 ZZZZZZ 1

Refer to raw data for calibration curve and standards.

REPORTED ELEMENTS SUMMARY

Login Number: JC96248
 Account: BBLNYS - Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SC100919M1.ICP Date Analyzed: 10/09/19 Methods: EPA 200.7, SW846 6010D
 Analyst: EAL Run ID: MA47598
 Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

Time	Sample Description	Element Dilution	A	S	A	B	B	C	C	C	C	F	P	M	M	N	K	S	A	N	T	V	Z
			l	b	s	a	e	d	a	r	o	u	e	b	g	n	i	e	g	a	l	n	
12:00	ZZZZZZ	1																					
12:05	ZZZZZZ	1																					
12:10	MA47598-ICV1	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
12:15	MA47598-ICB1	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
12:23	MA47598-ICCV1	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
12:35	MA47598-CCB1	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
12:39	MA47598-CRID1	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
12:44	MA47598-CRI1	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
12:49	MA47598-ICSA1	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
12:55	MA47598-ICSAB1	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
13:00	ZZZZZZ	1																					
13:06	ZZZZZZ	1																					
13:18	ZZZZZZ	1																					
13:28	MA47598-HSTD1	1		X	X	X	X	X		X	X	X		X	X		X	X		X	X	X	X
13:35	MA47598-HSTD2	1	X					X				X		X			X			X			
13:40	MA47598-CCV1	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
13:45	MA47598-CCB2	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
13:50	ZZZZZZ	1																					
13:55	ZZZZZZ	1																					
14:00	ZZZZZZ	1																					
14:05	ZZZZZZ	1																					
14:10	ZZZZZZ	1																					
14:15	ZZZZZZ	5																					
14:20	ZZZZZZ	5																					
14:25	ZZZZZZ	1																					
14:30	ZZZZZZ	1																					
14:35	MA47598-CCV2	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
14:40	MA47598-CCB3	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
14:45	ZZZZZZ	2																					
14:51	ZZZZZZ	2																					
14:56	ZZZZZZ	2																					
15:01	ZZZZZZ	2																					
15:06	ZZZZZZ	1																					

10.2.1
10

REPORTED ELEMENTS SUMMARY

Login Number: JC96248
 Account: BBLNYS - Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SC100919M1.ICP Date Analyzed: 10/09/19 Methods: EPA 200.7, SW846 6010D
 Analyst: EAL Run ID: MA47598
 Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

Time	Sample Description	Element Dilution	A	S	A	B	B	C	C	C	C	F	P	M	M	N	K	S	A	N	T	V	Z
			l	b	s	a	e	d	a	r	o	u	e	b	g	n	i	e	g	a	l	n	
15:11	ZZZZZZ	1																					
15:16	ZZZZZZ	1																					
15:21	ZZZZZZ	1																					
15:26	ZZZZZZ	1																					
15:31	MA47598-CCV3	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
15:36	MA47598-CCB4	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
15:41	MP17762-MB1	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
15:46	MP17762-MB2	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
15:51	MP17762-B1	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
15:56	MP17762-B2	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
16:01	MP17762-S1	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
16:06	MP17762-S2	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
16:12	JC96248-4	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
16:17	MP17762-SD1	5	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
16:22	MP17762-S3	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
16:27	MA47598-CCV4	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
16:32	MA47598-CCB5	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
16:37	MP17762-S4	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
16:43	JC96248-4F	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
16:48	MP17762-SD2	5	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
16:53	JC96248-1	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
16:58	JC96248-2	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
17:03	JC96248-3	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
17:08	JC96248-5	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
17:13	JC96248-6	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
17:19	JC96248-7	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
17:29	MA47598-CCV5	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
17:39	MA47598-CCB6	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
17:43	ZZZZZZ	1																					
17:49	ZZZZZZ	1																					
17:55	ZZZZZZ	1																					
18:04	ZZZZZZ	1																					
18:11	ZZZZZZ	1																					

10.2.1
10

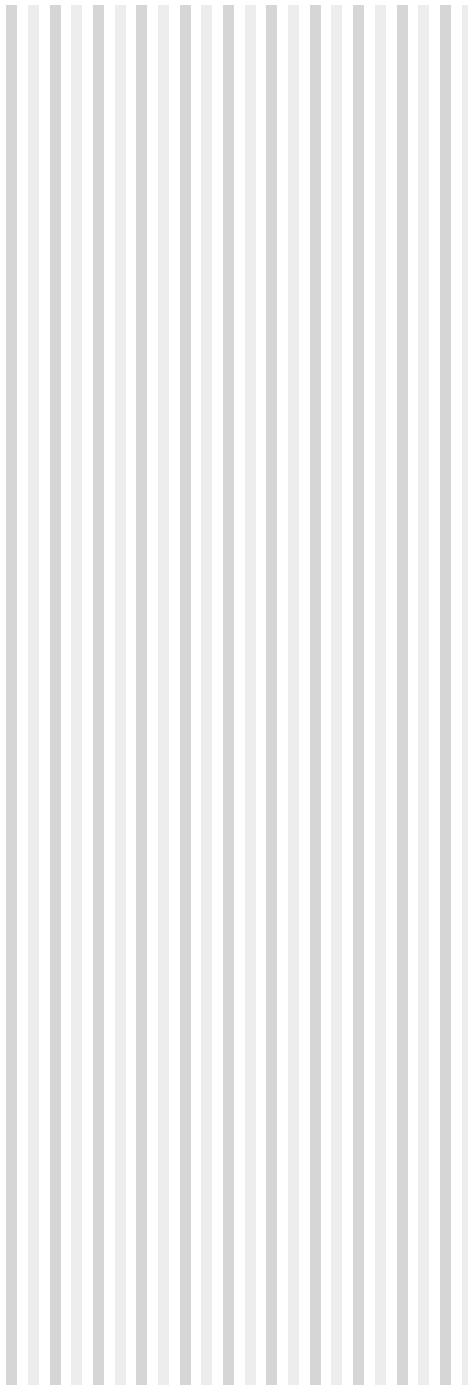
REPORTED ELEMENTS SUMMARY

Login Number: JC96248
 Account: BBLNYS - Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SC100919M1.ICP Date Analyzed: 10/09/19 Methods: EPA 200.7, SW846 6010D
 Analyst: EAL Run ID: MA47598
 Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

Time	Sample Description	Element Dilution	A	S	A	B	B	C	C	C	C	F	P	M	M	N	K	S	A	N	T	V	Z
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18:16 ZZZZZZ 1
 18:23 ZZZZZZ 1



Element: A S A B B C C C C F P M M N K S A N T V Z
 l b s a e d a r o u e b g n i e g a l n

INTERNAL STANDARD SUMMARY

Login Number: JC96248
 Account: BBLNYS - Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SC100919M1.ICP Date Analyzed: 10/09/19 Methods: EPA 200.7, SW846 6010D
 Analyst: EAL Run ID: MA47598
 Parameters: Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Ni, K, Se, Ag, Na, Tl, V, Zn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
11:45	MA47598-STD1	9150 R	205000 R	30706 R	12611 R
11:54	MA47598-STD2	8538	188860	29652	11360
12:00	ZZZZZZ	8786	195530	30124	11659
12:05	ZZZZZZ	9158	205890	30820	12571
12:10	MA47598-ICV1	8825	193780	30059	11684
12:15	MA47598-ICB1	9171	204360	30580	12587
12:23	MA47598-ICCV1	8833	194220	30327	11711
12:35	MA47598-CCB1	9172	205850	30790	12610
12:39	MA47598-CRID1	9130	203690	30789	12518
12:44	MA47598-CRI1	9037	202960	30565	12316
12:49	MA47598-ICSA1	8151	179610	29242	10607
12:55	MA47598-ICSAB1	8244	181680	29664	10700
13:00	ZZZZZZ	9755	206970	30595	13489
13:06	ZZZZZZ	17976 !	390160 !	50094 !	22153 !
13:18	ZZZZZZ	20227 !	419410 !	999999 !	26883 !
13:28	MA47598-HSTD1	8805	196360	30624	12347
13:35	MA47598-HSTD2	8278	180720	29688	10691
13:40	MA47598-CCV1	8863	196760	30592	11718
13:45	MA47598-CCB2	9178	206290	31335	12592
13:50	ZZZZZZ	9046	201540	30886	12702
13:55	ZZZZZZ	8952	205280	30968	12580
14:00	ZZZZZZ	9177	206700	31055	12602
14:05	ZZZZZZ	9243	206000	31672	12650
14:10	ZZZZZZ	8937	199840	31222	11919
14:15	ZZZZZZ	9126	204580	31498	12414
14:20	ZZZZZZ	9349	209550	31968	12552
14:25	ZZZZZZ	9269	208070	31753	12701
14:30	ZZZZZZ	9014	200870	31211	12028
14:35	MA47598-CCV2	8880	196940	30740	11747
14:40	MA47598-CCB3	9225	207040	31123	12657
14:45	ZZZZZZ	9328	207580	32387	12048
14:51	ZZZZZZ	9312	207380	32367	12125
14:56	ZZZZZZ	9250	205500	32050	12195

10.2.2 10

INTERNAL STANDARD SUMMARY

Login Number: JC96248
 Account: BBLNYS - Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SC100919M1.ICP Date Analyzed: 10/09/19 Methods: EPA 200.7, SW846 6010D
 Analyst: EAL Run ID: MA47598
 Parameters: Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Ni, K, Se, Ag, Na, Tl, V, Zn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
15:01	ZZZZZZ	9185	205220	31995	11966
15:06	ZZZZZZ	9446	211700	32489	13027
15:11	ZZZZZZ	9156	204230	31796	12213
15:16	ZZZZZZ	9185	205080	32619	12113
15:21	ZZZZZZ	8943	199270	31785	11831
15:26	ZZZZZZ	9012	201820	31985	12066
15:31	MA47598-CCV3	8908	197250	31118	11760
15:36	MA47598-CCB4	9304	210020	31627	12743
15:41	MP17762-MB1	9261	210740	32036	12684
15:46	MP17762-MB2	9272	208730	31973	12698
15:51	MP17762-B1	8975	201210	31545	11976
15:56	MP17762-B2	9037	203890	31670	12039
16:01	MP17762-S1	8767	199400	31550	11442
16:06	MP17762-S2	8769	195950	31599	11449
16:12	JC96248-4	8918	199110	31734	11626
16:17	MP17762-SD1	9175	205790	31572	12345
16:22	MP17762-S3	8716	195890	31312	11411
16:27	MA47598-CCV4	8949	199150	30667	11883
16:32	MA47598-CCB5	9307	209110	31459	12782
16:37	MP17762-S4	8694	195400	31277	11364
16:43	JC96248-4F	8777	197360	31468	11569
16:48	MP17762-SD2	9146	205750	31650	12325
16:53	JC96248-1	8651	195120	31079	11441
16:58	JC96248-2	8699	194700	31053	11491
17:03	JC96248-3	8642	194260	31063	11430
17:08	JC96248-5	8866	197700	31333	11661
17:13	JC96248-6	8897	201350	31380	11875
17:19	JC96248-7	8658	195950	31167	11447
17:29	MA47598-CCV5	9030	200100	30621	11967
17:39	MA47598-CCB6	9400	213190	32192	12940
17:43	ZZZZZZ	9625	200040	32927	11911
17:49	ZZZZZZ	8682	195180	31345	11473
17:55	ZZZZZZ	9453	214170	32363	12977

10.2.2
10

INTERNAL STANDARD SUMMARY

Login Number: JC96248
 Account: BBLNYS - Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SC100919M1.ICP Date Analyzed: 10/09/19 Methods: EPA 200.7, SW846 6010D
 Analyst: EAL Run ID: MA47598
 Parameters: Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Ni, K, Se, Ag, Na, Tl, V, Zn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
18:04	ZZZZZZ	9505	213590	32358	13012
18:11	ZZZZZZ	9510	215850	32430	13082
18:16	ZZZZZZ	9437	213440	32299	12943
18:23	ZZZZZZ	9454	213280	32221	12971

R = Reference for ISTD limits. ! = Outside limits.

LEGEND:

Istd#	Parameter	Limits
Istd#1	Yttrium (2243)	70-130 %
Istd#2	Yttrium (3600)	70-130 %
Istd#3	Yttrium (3710)	70-130 %
Istd#4	Indium	70-130 %

10.2.2
10

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC96248
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SC100919M1.ICP Date Analyzed: 10/09/19 Methods: EPA 200.7, SW846 6010D
QC Limits: result < RL Run ID: MA47598 Units: ug/l

Metal	Time:		12:15		12:35		13:45		14:40	
	Sample ID:	RL	ICB1	final	CCB1	final	CCB2	final	CCB3	final
Aluminum	200	14	-6.30	<200	-0.200	<200	-9.20	<200	-3.20	<200
Antimony	6.0	1.4	0.200	<6.0	0.00	<6.0	-0.400	<6.0	0.400	<6.0
Arsenic	3.0	1.5	0.700	<3.0	-0.300	<3.0	0.00	<3.0	0.700	<3.0
Barium	200	.5	0.200	<200	0.300	<200	-0.200	<200	-0.100	<200
Beryllium	1.0	.1	0.100	<1.0	0.400	<1.0	0.200	<1.0	0.100	<1.0
Bismuth	20	1.8								
Boron	100	.8	anr							
Cadmium	3.0	.3	0.300	<3.0	0.200	<3.0	0.200	<3.0	0.400	<3.0
Calcium	5000	3.9	3.40	<5000	8.50	<5000	3.30	<5000	0.600	<5000
Cerium	100									
Chromium	10	.3	0.400	<10	0.300	<10	0.200	<10	0.100	<10
Cobalt	50	.3	0.400	<50	0.300	<50	0.300	<50	0.300	<50
Copper	10	.6	0.500	<10	0.300	<10	0.500	<10	0.400	<10
Iron	100	2.6	3.80	<100	8.50	<100	3.30	<100	1.90	<100
Lead	3.0	1.6	1.00	<3.0	0.400	<3.0	0.400	<3.0	1.20	<3.0
Lithium	50	2.1								
Magnesium	5000	16	-7.00	<5000	6.70	<5000	-4.20	<5000	-7.90	<5000
Manganese	15	.1	0.400	<15	0.400	<15	0.300	<15	0.200	<15
Molybdenum	20	.4								
Nickel	10	.5	0.300	<10	0.300	<10	0.00	<10	0.300	<10
Phosphorus	50	1.9								
Potassium	10000	79	-8.40	<10000	0.400	<10000	11.5	<10000	-42.7	<10000
Selenium	10	3	1.80	<10	0.900	<10	2.80	<10	2.10	<10
Silicon	200	1.2								
Silver	10	.5	-0.400	<10	-0.200	<10	-0.200	<10	-0.100	<10
Sodium	10000	9.9	10.6	<10000	6.90	<10000	26.9	<10000	-9.20	<10000
Strontium	10	.3								
Sulfur	50	3.5								
Thallium	10	1.3	1.50	<10	1.30	<10	1.50	<10	0.800	<10
Tin	10	.7	anr							
Titanium	10	.5								
Tungsten	50	1.7								
Vanadium	50	.5	0.400	<50	0.100	<50	0.100	<50	0.200	<50

10.2.3
10

BLANK RESULTS SUMMARY
 Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC96248
 Account: BBLNYS - Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SC100919M1.ICP Date Analyzed: 10/09/19 Methods: EPA 200.7, SW846 6010D
 QC Limits: result < RL Run ID: MA47598 Units: ug/l

Time:			12:15			12:35			13:45			14:40
Sample ID:	RL	IDL	ICB1	final	CCB1	final	CCB2	final	CCB3	final	CCB3	final
Metal			raw		raw		raw		raw		raw	

Zinc	20	.2	0.400	<20	0.300	<20	0.200	<20	0.200	<20
Zirconium	10	.3								

(*) Outside of QC limits
 (anr) Analyte not requested

10.2.3
 10

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC96248
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SC100919M1.ICP Date Analyzed: 10/09/19 Methods: EPA 200.7, SW846 6010D
QC Limits: result < RL Run ID: MA47598 Units: ug/l

Metal	Time:		15:36		16:32		17:39		
	Sample ID:	RL	IDL	CCB4	final	CCB5	final	CCB6	final
Aluminum		200	14	-6.90	<200	2.80	<200	-7.10	<200
Antimony		6.0	1.4	-0.600	<6.0	0.500	<6.0	-0.700	<6.0
Arsenic		3.0	1.5	0.500	<3.0	0.400	<3.0	0.300	<3.0
Barium		200	.5	0.100	<200	0.100	<200	-0.600	<200
Beryllium		1.0	.1	0.400	<1.0	0.300	<1.0	0.00	<1.0
Bismuth		20	1.8						
Boron		100	.8	anr					
Cadmium		3.0	.3	0.400	<3.0	0.600	<3.0	0.100	<3.0
Calcium		5000	3.9	9.60	<5000	6.00	<5000	-1.90	<5000
Cerium		100							
Chromium		10	.3	0.700	<10	0.700	<10	-0.200	<10
Cobalt		50	.3	0.400	<50	0.600	<50	0.100	<50
Copper		10	.6	0.800	<10	1.00	<10	0.300	<10
Iron		100	2.6	7.80	<100	8.10	<100	-0.500	<100
Lead		3.0	1.6	0.500	<3.0	0.800	<3.0	0.100	<3.0
Lithium		50	2.1						
Magnesium		5000	16	5.50	<5000	2.90	<5000	-8.00	<5000
Manganese		15	.1	0.800	<15	0.800	<15	0.100	<15
Molybdenum		20	.4						
Nickel		10	.5	0.400	<10	0.600	<10	-0.100	<10
Phosphorus		50	1.9						
Potassium		10000	79	-51.1	<10000	7.00	<10000	24.2	<10000
Selenium		10	3	2.50	<10	2.90	<10	1.40	<10
Silicon		200	1.2						
Silver		10	.5	0.00	<10	0.200	<10	-0.100	<10
Sodium		10000	9.9	17.4	<10000	27.9	<10000	19.6	<10000
Strontium		10	.3						
Sulfur		50	3.5						
Thallium		10	1.3	1.30	<10	1.10	<10	0.700	<10
Tin		10	.7	anr					
Titanium		10	.5						
Tungsten		50	1.7						
Vanadium		50	.5	0.600	<50	0.400	<50	0.200	<50

10.2.3
10

BLANK RESULTS SUMMARY
 Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC96248
 Account: BBLNYS - Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SC100919M1.ICP Date Analyzed: 10/09/19 Methods: EPA 200.7, SW846 6010D
 QC Limits: result < RL Run ID: MA47598 Units: ug/l

Time:			15:36			16:32			17:39
Sample ID:	RL	IDL	CCB4	final	CCB5	final	CCB6	final	
Metal			raw		raw		raw		

Zinc	20	.2	0.200	<20	0.500	<20	-0.200	<20	
Zirconium	10	.3							

(*) Outside of QC limits
 (anr) Analyte not requested

10.2.3
 10

CALIBRATION CHECK STANDARDS SUMMARY
Initial Continuing Calibration Check

Login Number: JC96248
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SC100919M1.ICP Date Analyzed: 10/09/19 Methods: EPA 200.7, SW846 6010D
QC Limits: to % Recovery Run ID: MA47598 Units: ug/l

Time: Sample ID:	ICCV	12:23 ICCV1	Results	% Rec
Metal	True			
Aluminum	40000	39900		99.8
Antimony	2000	2030		101.5
Arsenic	2000	2030		101.5
Barium	2000	2020		101.0
Beryllium	2000	2020		101.0
Bismuth				
Boron	anr			
Cadmium	2000	2010		100.5
Calcium	40000	41000		102.5
Cerium				
Chromium	2000	2040		102.0
Cobalt	2000	2040		102.0
Copper	2000	2020		101.0
Iron	40000	40400		101.0
Lead	2000	2030		101.5
Lithium				
Magnesium	40000	40400		101.0
Manganese	2000	2070		103.5
Molybdenum				
Nickel	2000	2050		102.5
Phosphorus				
Potassium	40000	40000		100.0
Selenium	2000	2010		100.5
Silicon				
Silver	250	250		100.0
Sodium	40000	40400		101.0
Strontium				
Sulfur				
Thallium	2000	2080		104.0
Tin	anr			
Titanium				
Tungsten				
Vanadium	2000	2040		102.0

10.2.4 10

CALIBRATION CHECK STANDARDS SUMMARY
Initial Continuing Calibration Check

Login Number: JC96248
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SC100919M1.ICP Date Analyzed: 10/09/19 Methods: EPA 200.7, SW846 6010D
QC Limits: to % Recovery Run ID: MA47598 Units: ug/l

Time:	12:23
Sample ID: ICCV	ICCV1
Metal	True
Results	% Rec

Zinc 2000 2030 101.5

Zirconium

(*) Outside of QC limits
(anr) Analyte not requested

10.2.4
10

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC96248
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SC100919M1.ICP Date Analyzed: 10/09/19 Methods: EPA 200.7, SW846 6010D
QC Limits: 95 to 105 % Recovery Run ID: MA47598 Units: ug/l

Metal	Time:	12:10			13:40			14:35		
	Sample ID:	ICV	ICV1	CCV	CCV1	CCV	CCV2	CCV	CCV2	% Rec
	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec	
Aluminum	40000	40400	101.0	40000	39500	98.8	40000	39100	97.8	
Antimony	2000	2020	101.0	2000	2020	101.0	2000	2010	100.5	
Arsenic	2000	2020	101.0	2000	2020	101.0	2000	2010	100.5	
Barium	2000	2010	100.5	2000	2000	100.0	2000	1980	99.0	
Beryllium	2000	2020	101.0	2000	1990	99.5	2000	1980	99.0	
Bismuth										
Boron	anr									
Cadmium	2000	2000	100.0	2000	1990	99.5	2000	1980	99.0	
Calcium	40000	39900	99.8	40000	40600	101.5	40000	40100	100.3	
Cerium										
Chromium	2000	1990	99.5	2000	2010	100.5	2000	2000	100.0	
Cobalt	2000	1980	99.0	2000	2040	102.0	2000	2030	101.5	
Copper	2000	2000	100.0	2000	1990	99.5	2000	1990	99.5	
Iron	40000	39500	98.8	40000	40100	100.3	40000	39800	99.5	
Lead	2000	1960	98.0	2000	2020	101.0	2000	2010	100.5	
Lithium										
Magnesium	40000	39400	98.5	40000	40100	100.3	40000	39800	99.5	
Manganese	2000	2010	100.5	2000	2060	103.0	2000	2050	102.5	
Molybdenum										
Nickel	2000	2010	100.5	2000	2040	102.0	2000	2030	101.5	
Phosphorus										
Potassium	40000	40100	100.3	40000	39600	99.0	40000	39200	98.0	
Selenium	2000	2030	101.5	2000	2000	100.0	2000	1990	99.5	
Silicon										
Silver	250	251	100.4	250	247	98.8	250	247	98.8	
Sodium	40000	41100	102.8	40000	40200	100.5	40000	40100	100.3	
Strontium										
Sulfur										
Thallium	2000	2060	103.0	2000	2070	103.5	2000	2060	103.0	
Tin	anr									
Titanium										
Tungsten										
Vanadium	2000	2060	103.0	2000	2010	100.5	2000	2010	100.5	

10.2.5 10

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC96248
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SC100919M1.ICP Date Analyzed: 10/09/19 Methods: EPA 200.7, SW846 6010D
QC Limits: 95 to 105 % Recovery Run ID: MA47598 Units: ug/l

	Time:		12:10		13:40		14:35		
Sample ID:	ICV	ICV1	CCV	CCV1	CCV	CCV2	Results	% Rec	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec

Zinc	2000	1980	99.0	2000	2010	100.5	2000	2000	100.0
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Zirconium

(*) Outside of QC limits
(anr) Analyte not requested

10.2.5 10

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC96248
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SC100919M1.ICP Date Analyzed: 10/09/19 Methods: EPA 200.7, SW846 6010D
QC Limits: 95 to 105 % Recovery Run ID: MA47598 Units: ug/l

Metal	Sample ID: CCV True	15:31	% Rec	CCV True	16:27	% Rec	CCV True	17:29	% Rec
		CCV3 Results			CCV4 Results			CCV5 Results	
Aluminum	40000	38800	97.0	40000	38900	97.3	40000	38700	96.8
Antimony	2000	2000	100.0	2000	2000	100.0	2000	1960	98.0
Arsenic	2000	2000	100.0	2000	1990	99.5	2000	1950	97.5
Barium	2000	1960	98.0	2000	1960	98.0	2000	1960	98.0
Beryllium	2000	1950	97.5	2000	1960	98.0	2000	1960	98.0
Bismuth									
Boron	anr								
Cadmium	2000	1980	99.0	2000	1970	98.5	2000	1930	96.5
Calcium	40000	39700	99.3	40000	39700	99.3	40000	39600	99.0
Cerium									
Chromium	2000	1990	99.5	2000	1970	98.5	2000	1950	97.5
Cobalt	2000	2020	101.0	2000	1990	99.5	2000	1970	98.5
Copper	2000	1990	99.5	2000	1960	98.0	2000	1940	97.0
Iron	40000	39200	98.0	40000	39300	98.3	40000	39200	98.0
Lead	2000	2000	100.0	2000	1990	99.5	2000	1960	98.0
Lithium									
Magnesium	40000	39300	98.3	40000	39400	98.5	40000	39100	97.8
Manganese	2000	2030	101.5	2000	2010	100.5	2000	1990	99.5
Molybdenum									
Nickel	2000	2020	101.0	2000	2010	100.5	2000	1980	99.0
Phosphorus									
Potassium	40000	38800	97.0	40000	38800	97.0	40000	38800	97.0
Selenium	2000	1980	99.0	2000	1960	98.0	2000	1940	97.0
Silicon									
Silver	250	246	98.4	250	243	97.2	250	241	96.4
Sodium	40000	39600	99.0	40000	39600	99.0	40000	39400	98.5
Strontium									
Sulfur									
Thallium	2000	2060	103.0	2000	2040	102.0	2000	2010	100.5
Tin	anr								
Titanium									
Tungsten									
Vanadium	2000	2000	100.0	2000	1980	99.0	2000	1960	98.0

10.2.5 10

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC96248
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SC100919M1.ICP Date Analyzed: 10/09/19 Methods: EPA 200.7, SW846 6010D
QC Limits: 95 to 105 % Recovery Run ID: MA47598 Units: ug/l

	Time:		15:31		16:27		17:29		
Sample ID:	CCV	CCV3	CCV	CCV4	CCV	CCV5			
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec

Zinc	2000	1990	99.5	2000	1990	99.5	2000	1970	98.5
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Zirconium

(*) Outside of QC limits
(anr) Analyte not requested

10.2.5 10

HIGH STANDARD CHECK SUMMARY

Login Number: JC96248
 Account: BBLNYS - Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SC100919M1.ICP Date Analyzed: 10/09/19 Methods: EPA 200.7, SW846 6010D
 QC Limits: 90 to 110 % Recovery Run ID: MA47598 Units: ug/l

Time:	13:28			13:35		
Sample ID:	HSTD	HSTD1		HSTD	HSTD2	
Metal	True	Results	% Rec	True	Results	% Rec
Aluminum				300000	292000	97.3
Antimony	8000	8350	104.4			
Arsenic	8000	8220	102.8			
Barium	8000	8030	100.4			
Beryllium	8000	7930	99.1			
Bismuth						
Boron	anr					
Cadmium	8000	7990	99.9			
Calcium				200000	195000	97.5
Cerium						
Chromium	8000	8170	102.1			
Cobalt	8000	8040	100.5			
Copper	8000	8080	101.0			
Iron				200000	190000	95.0
Lead	8000	8190	102.4			
Lithium						
Magnesium				300000	294000	98.0
Manganese	8000	8220	102.8			
Molybdenum						
Nickel	8000	8060	100.8			
Phosphorus						
Potassium				200000	201000	100.5
Selenium	8000	8060	100.8			
Silicon						
Silver	625	632	101.1			
Sodium				200000	204000	102.0
Strontium						
Sulfur						
Thallium	8000	8210	102.6			
Tin	anr					
Titanium						
Tungsten						
Vanadium	8000	8220	102.8			

10.2.6
10

HIGH STANDARD CHECK SUMMARY

Login Number: JC96248
 Account: BBLNYS - Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SC100919M1.ICP Date Analyzed: 10/09/19 Methods: EPA 200.7, SW846 6010D
 QC Limits: 90 to 110 % Recovery Run ID: MA47598 Units: ug/l

Time:		13:28		13:35		
Sample ID:	HSTD	HSTD1		HSTD	HSTD2	
Metal	True	Results	% Rec	True	Results	% Rec

Zinc 8000 8250 103.1

Zirconium

(*) Outside of QC limits
 (anr) Analyte not requested

10.2.6
10

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC96248
 Account: BBLNYS - Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SC100919M1.ICP Date Analyzed: 10/09/19 Methods: EPA 200.7, SW846 6010D
 QC Limits: CRI 80-120% CRIA 80-120% Run ID: MA47598 Units: ug/l

Time:				12:39			12:44		
Sample ID:	CRI	CRIA	CRID	CRID1			CR1		
Metal	True	True	True	Results	% Rec		Results	% Rec	
Aluminum	200	500	100	98.6	98.6		197	98.5	
Antimony	6.0	20	3.0	0.500U	0.0* (a)		5.70	95.0	
Arsenic	8.0	20	3.0	3.20	106.7		7.90	98.8	
Barium	200		4.0	3.60	90.0		198	99.0	
Beryllium	2.0		1.0	0.900	90.0		2.00	100.0	
Bismuth	20								
Boron	100		10	anr					
Cadmium	3.0		1.0	1.00	100.0		3.00	100.0	
Calcium	5000	2000	1000	1040	104.0		5220	104.4	
Cerium									
Chromium	10		2.0	1.90	95.0		10.1	101.0	
Cobalt	50		3.0	3.10	103.3		51.0	102.0	
Copper	10		2.0	0.200U	0.0* (a)		10.0	100.0	
Iron	100	500					102	102.0	
Lead	3.0	20	2.5	0.700U	0.0* (a)		3.30	110.0	
Lithium	50								
Magnesium	5000	2000	100	104	104.0		5250	105.0	
Manganese	15		3.0	3.30	110.0		15.8	105.3	
Molybdenum	20								
Nickel	10		4.0	4.10	102.5		10.2	102.0	
Phosphorus	50								
Potassium	5000		2000	1980	99.0		5050	101.0	
Selenium	10	20	5.0	5.90	118.0		10.5	105.0	
Silicon	200								
Silver	5.0		2.0	0.100U	0.0* (a)		4.30	86.0	
Sodium	5000		1000	1050	105.0		5210	104.2	
Strontium	10								
Sulfur	50								
Thallium	10		2.0	3.10	155.0* (a)		11.7	117.0	
Tin	10								
Titanium	10								
Tungsten	50								
Vanadium	50		2.0	2.00	100.0		51.2	102.4	

10.2.7
10

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC96248
 Account: BBLNYS - Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SC100919M1.ICP Date Analyzed: 10/09/19 Methods: EPA 200.7, SW846 6010D
 QC Limits: CRI 80-120% CRIA 80-120% Run ID: MA47598 Units: ug/l

Time:				12:39			12:44
Sample ID:	CRI	CRIA	CRID	CRID1		CRI1	
Metal	True	True	True	Results	% Rec	Results	% Rec

Zinc	20		10	10.2	102.0	21.8	109.0
Zirconium	10						

(*) Outside of QC limits
 (anr) Analyte not requested
 (a) No samples reported for this element at this RL in the area bracketed by this QC.

10.2.7
 10

INTERFERING ELEMENT CHECK STANDARDS SUMMARY
Part 1 - ICSA and ICSAB Standards

Login Number: JC96248
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SC100919M1.ICP Date Analyzed: 10/09/19 Methods: EPA 200.7, SW846 6010D
QC Limits: 80 to 120 % Recovery Run ID: MA47598 Units: ug/l

Time:			12:49			12:55
Sample ID:	ICSA	ICSAB	ICSAL	% Rec	ICSAB1	% Rec
Metal	True	True	Results		Results	
Aluminum	500000	500000	503000	100.6	497000	99.4
Antimony		1000	-0.800		1020	102.0
Arsenic		1000	-0.500		1050	105.0
Barium		500	0.00		499	99.8
Beryllium		500	0.600		485	97.0
Bismuth		500	3.10		512	102.4
Boron		500	-2.40		482	96.4
Cadmium		1000	0.300		993	99.3
Calcium	400000	400000	400000	100.0	380000	95.0
Cerium			20.3		1.50	
Chromium		500	0.400		478	95.6
Cobalt		500	-0.700		483	96.6
Copper		500	-2.00		499	99.8
Iron	200000	200000	202000	101.0	188000	94.0
Lead		1000	1.90		907	90.7
Lithium		500	-7.70		511	102.2
Magnesium	500000	500000	515000	103.0	501000	100.2
Manganese		500	-1.30		499	99.8
Molybdenum		500	2.10		484	96.8
Nickel		1000	0.00		955	95.5
Phosphorus		500	-12.7		459	91.8
Potassium			160		160	
Selenium		1000	-0.900		991	99.1
Silicon		500	8.80		544	108.8
Silver		1000	0.200		1020	102.0
Sodium			83.3		70.0	
Strontium		500	-2.30		500	100.0
Sulfur		500	-13.1		477	95.4
Thallium		1000	-3.10		955	95.5
Tin		500	-2.00		464	92.8
Titanium		500	-1.30		502	100.4
Tungsten		500	3.20		463	92.6
Vanadium		500	1.50		487	97.4

10.2.8
10

INTERFERING ELEMENT CHECK STANDARDS SUMMARY
 Part 1 - ICSA and ICSAB Standards

Login Number: JC96248
 Account: BBLNYS - Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SC100919M1.ICP Date Analyzed: 10/09/19 Methods: EPA 200.7, SW846 6010D
 QC Limits: 80 to 120 % Recovery Run ID: MA47598 Units: ug/l

Time:		12:49		12:55		
Sample ID:	ICSAB	ICSAB	ICSAB1	ICSAB1	ICSAB1	
Metal	True	True	Results	% Rec	Results	% Rec

Zinc		1000	2.20		934	93.4
Zirconium		500	0.700		510	102.0

(*) Outside of QC limits
 (anr) Analyte not requested

10.2.8
 10

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC96248
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SC100919M2.ICP Date Analyzed: 10/09/19 Methods: EPA 200.7, SW846 6010D
Analyst: EAL Run ID: MA47601
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

Time	Sample Description	Dilution Factor	PS Recov	Comments
18:40	MA47601-STD1	1		STDA
18:45	MA47601-STD2	1		STDB
18:51	ZZZZZZ	1		
18:56	ZZZZZZ	1		
19:01	MA47601-ICV1	1		
19:08	MA47601-ICB1	1		
19:14	MA47601-ICCV1	1		
19:23	MA47601-CCB1	1		
19:28	MA47601-CRID1	1		
19:34	MA47601-CRI1	1		
19:39	MA47601-ICSA1	1		
19:44	MA47601-ICSAB1	1		
19:49	MA47601-HSTD1	1		
19:55	MA47601-HSTD2	1		
20:01	MA47601-CCV1	1		
20:06	MA47601-CCB2	1		
20:11	ZZZZZZ	1		
20:16	ZZZZZZ	1		
20:21	ZZZZZZ	1		
20:26	ZZZZZZ	1		
20:31	ZZZZZZ	1		
20:36	MA47601-CCV2	1		
20:41	MA47601-CCB3	1		
20:46	JC96248-8	1		
20:51	JC96248-1F	1		high rsd
20:56	JC96248-2F	1		
21:02	JC96248-3F	1		
21:07	JC96248-5F	1		to reanalyze for AS
21:12	JC96248-6F	1		
21:17	JC96248-7F	1		high rsd
21:22	JC96248-8F	1		to reanalyze for AS
----->	Last reportable sample/prep for job JC96248			
21:27	ZZZZZZ	1		
21:32	ZZZZZZ	1		

10.3
10

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC96248
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SC100919M2.ICP Date Analyzed: 10/09/19 Methods: EPA 200.7, SW846 6010D
Analyst: EAL Run ID: MA47601
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

Time	Sample Description	Dilution Factor	PS Recov	Comments
21:38	MA47601-CCV3	1		
21:43	MA47601-CCB4	1		
----->	Last reportable CCB for job JC96248			
21:48	ZZZZZZ	1		
21:53	ZZZZZZ	1		
21:58	ZZZZZZ	1		
22:03	ZZZZZZ	1		
22:08	ZZZZZZ	1		
22:13	ZZZZZZ	1		
22:18	ZZZZZZ	1		
22:23	ZZZZZZ	1		
22:28	ZZZZZZ	1		
22:34	ZZZZZZ	1		
22:39	ZZZZZZ	1		
22:44	ZZZZZZ	1		
22:49	MA47601-CCV4	1		
22:54	MA47601-CCB5	1		
22:59	ZZZZZZ	1		
23:04	ZZZZZZ	1		
23:09	MP17725A-MB1	1		
23:14	MP17725A-B1	1		
23:19	MP17725A-S1	1		Na high
23:24	MP17725A-S2	1		Na high
23:30	JC96034-1	1		(sample used for QC only; not part of login JC96248)
23:35	MP17725A-SD1	5		Na high. rerun 1:5 for Zn
23:40	ZZZZZZ	1		
23:45	ZZZZZZ	1		
23:50	MA47601-CCV5	1		
23:55	MA47601-CCB6	1		
00:00	ZZZZZZ	1		
00:05	ZZZZZZ	1		
00:10	ZZZZZZ	1		
00:15	ZZZZZZ	1		
00:20	ZZZZZZ	1		

10.3
10

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC96248
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SC100919M2.ICP Date Analyzed: 10/09/19 Methods: EPA 200.7, SW846 6010D
Analyst: EAL Run ID: MA47601
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

Time	Sample Description	Dilution Factor	PS Recov	Comments
00:25	ZZZZZZ	1		
00:30	ZZZZZZ	1		
00:35	ZZZZZZ	1		
00:40	ZZZZZZ	1		
00:45	ZZZZZZ	1		
00:50	MA47601-CCV6	1		
00:55	MA47601-CCB7	1		
01:00	ZZZZZZ	1		
01:05	ZZZZZZ	1		
01:10	ZZZZZZ	1		
01:15	MP17771-MB1	1		
01:20	MP17771-B1	1		
01:25	MP17771-S1	1		needs post spike for SB
01:31	MP17771-S2	1		
01:36	JC95345-13T	1		(sample used for QC only; not part of login JC96248)
01:41	MP17771-SD1	5		
01:46	ZZZZZZ	1		
01:51	MA47601-CCV7	1		
01:56	MA47601-CCB8	1		
02:01	ZZZZZZ	1		
02:06	ZZZZZZ	1		
02:12	ZZZZZZ	1		
02:17	ZZZZZZ	1		
02:22	ZZZZZZ	1		
02:27	ZZZZZZ	1		
02:32	ZZZZZZ	1		
02:37	ZZZZZZ	1		
02:42	ZZZZZZ	1		
02:48	ZZZZZZ	1		
02:53	MA47601-CCV8	1		
02:58	MA47601-CCB9	1		
03:03	ZZZZZZ	1		
03:08	ZZZZZZ	1		

10.3
10

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC96248
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SC100919M2.ICP Date Analyzed: 10/09/19 Methods: EPA 200.7, SW846 6010D
Analyst: EAL Run ID: MA47601
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

Time	Sample Description	Dilution Factor	PS Recov	Comments
03:13	ZZZZZZ	1		
03:19	ZZZZZZ	1		
03:24	ZZZZZZ	1		
03:29	MP17772-MB1	1		
03:34	MP17772-B1	1		
03:39	MP17772-B2	1		
03:44	JC96010-1	1		(sample used for QC only; not part of login JC96248)
03:48	MP17772-SD1	5		
03:53	MA47601-CCV9	1		
03:58	MA47601-CCB10	1		
04:04	ZZZZZZ	1		
04:08	ZZZZZZ	1		
04:13	ZZZZZZ	1		
04:18	ZZZZZZ	1		
04:23	ZZZZZZ	1		
04:28	ZZZZZZ	1		
04:33	ZZZZZZ	1		
04:38	ZZZZZZ	1		
04:43	MP17769-MB1	1		
04:48	MP17769-B1	1		
04:53	MA47601-CCV10	1		
04:58	MA47601-CCB11	1		
05:03	MP17769-S1	1		
05:08	MP17769-S2	1		
05:13	JC96316-1	1		(sample used for QC only; not part of login JC96248)
05:19	MP17769-SD1	5		
05:24	ZZZZZZ	1		
05:29	ZZZZZZ	1		
05:34	ZZZZZZ	1		
05:39	ZZZZZZ	1		
05:44	ZZZZZZ	1		
05:49	ZZZZZZ	1		
05:54	MA47601-CCV11	1		

10.3
10

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC96248
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SC100919M2.ICP Date Analyzed: 10/09/19 Methods: EPA 200.7, SW846 6010D
Analyst: EAL Run ID: MA47601
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

Time	Sample Description	Dilution Factor	PS Recov	Comments
05:59	MA47601-CCB12	1		
06:04	ZZZZZZ	1		
06:09	ZZZZZZ	1		
06:14	ZZZZZZ	1		
06:19	ZZZZZZ	1		
06:24	ZZZZZZ	1		
06:29	ZZZZZZ	1		
06:34	ZZZZZZ	1		
06:40	ZZZZZZ	1		
06:45	MA47601-CCV12	1		
06:50	MA47601-CCB13	1		
06:55	MP17785-MB1	1		
07:00	MP17785-B1	1		
07:05	MP17785-S1	1		
07:10	MP17785-S2	1		
07:15	JC96410-5	1		(sample used for QC only; not part of login JC96248)
07:20	MP17785-SD1	5		
07:25	ZZZZZZ	1		
07:30	MP17785-S2	1		
07:35	MA47601-CCV13	1		
07:40	MA47601-CCB14	1		
08:07	MA47601-CCV14	1		
08:12	MA47601-CCB15	1		

Refer to raw data for calibration curve and standards.

10.3
10

REPORTED ELEMENTS SUMMARY

Login Number: JC96248
 Account: BBLNYS - Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SC100919M2.ICP Date Analyzed: 10/09/19 Methods: EPA 200.7, SW846 6010D
 Analyst: EAL Run ID: MA47601
 Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

Time	Sample Description	Element Dilution	A	S	A	B	B	C	C	C	C	F	P	M	M	N	K	S	A	N	T	V	Z
			l	b	s	a	e	d	a	r	o	u	e	b	g	n	i	e	g	a	l	n	
18:51	ZZZZZZ	1																					
18:56	ZZZZZZ	1																					
19:01	MA47601-ICV1	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
19:08	MA47601-ICB1	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
19:14	MA47601-ICCV1	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
19:23	MA47601-CCB1	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
19:28	MA47601-CRID1	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
19:34	MA47601-CRI1	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
19:39	MA47601-ICSA1	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
19:44	MA47601-ICSAB1	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
19:49	MA47601-HSTD1	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
19:55	MA47601-HSTD2	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
20:01	MA47601-CCV1	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
20:06	MA47601-CCB2	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
20:11	ZZZZZZ	1																					
20:16	ZZZZZZ	1																					
20:21	ZZZZZZ	1																					
20:26	ZZZZZZ	1																					
20:31	ZZZZZZ	1																					
20:36	MA47601-CCV2	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
20:41	MA47601-CCB3	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
20:46	JC96248-8	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
20:51	JC96248-1F	1	X	X	X	X	X		X	X	X	X		X	X	X	X	X	X	X	X	X	X
20:56	JC96248-2F	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
21:02	JC96248-3F	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
21:07	JC96248-5F	1	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
21:12	JC96248-6F	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
21:17	JC96248-7F	1	X	X	X	X	X		X	X	X	X		X	X	X	X	X	X	X	X	X	X
21:22	JC96248-8F	1	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
21:27	ZZZZZZ	1																					
21:32	ZZZZZZ	1																					
21:38	MA47601-CCV3	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
21:43	MA47601-CCB4	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

Element: A S A B B C C C C F P M M N K S A N T V Z
 l b s a e d a r o u e b g n i e g a l n

10.3.1
 10

REPORTED ELEMENTS SUMMARY

Login Number: JC96248
 Account: BBLNYS - Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SC100919M2.ICP Date Analyzed: 10/09/19 Methods: EPA 200.7, SW846 6010D
 Analyst: EAL Run ID: MA47601
 Parameters: Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Ni, K, Se, Ag, Na, Tl, V, Zn

Time	Sample Description	Element Dilution	A	S	A	B	B	C	C	C	C	F	P	M	M	N	K	S	A	N	T	V	Z	
			l	b	s	a	e	d	a	r	o	u	e	b	g	n	i	e	g	a	l	n		
21:48	ZZZZZZ	1																						
21:53	ZZZZZZ	1																						
21:58	ZZZZZZ	1																						
22:03	ZZZZZZ	1																						
22:08	ZZZZZZ	1																						
22:13	ZZZZZZ	1																						
22:18	ZZZZZZ	1																						
22:23	ZZZZZZ	1																						
22:28	ZZZZZZ	1																						
22:34	ZZZZZZ	1																						
22:39	ZZZZZZ	1																						
22:44	ZZZZZZ	1																						
22:49	MA47601-CCV4	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
22:54	MA47601-CCB5	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
22:59	ZZZZZZ	1																						
23:04	ZZZZZZ	1																						
23:09	MP17725A-MB1	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
23:14	MP17725A-B1	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
23:19	MP17725A-S1	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
23:24	MP17725A-S2	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
23:30	JC96034-1	1	X		X	X	X	X	X	X	X	X	X	X	X	X	X				X	X	X	(a)
23:35	MP17725A-SD1	5	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
23:40	ZZZZZZ	1																						
23:45	ZZZZZZ	1																						
23:50	MA47601-CCV5	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
23:55	MA47601-CCB6	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
00:00	ZZZZZZ	1																						
00:05	ZZZZZZ	1																						
00:10	ZZZZZZ	1																						
00:15	ZZZZZZ	1																						
00:20	ZZZZZZ	1																						
00:25	ZZZZZZ	1																						
00:30	ZZZZZZ	1																						

10.3.1
10

REPORTED ELEMENTS SUMMARY

Login Number: JC96248
 Account: BBLNYS - Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SC100919M2.ICP Date Analyzed: 10/09/19 Methods: EPA 200.7, SW846 6010D
 Analyst: EAL Run ID: MA47601
 Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

Time	Sample Description	Element: Dilution	A l	S b	A s	B a	B e	C d	C a	C r	C o	C u	F e	P b	M g	M n	N i	K	S e	A g	N a	T l	V	Z n	
00:35	ZZZZZZ	1																							
00:40	ZZZZZZ	1																							
00:45	ZZZZZZ	1																							
00:50	MA47601-CCV6	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
00:55	MA47601-CCB7	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
01:00	ZZZZZZ	1																							
01:05	ZZZZZZ	1																							
01:10	ZZZZZZ	1																							
01:15	MP17771-MB1	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
01:20	MP17771-B1	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
01:25	MP17771-S1	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
01:31	MP17771-S2	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
01:36	JC95345-13T	1												X											(a)
01:41	MP17771-SD1	5	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
01:46	ZZZZZZ	1																							
01:51	MA47601-CCV7	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
01:56	MA47601-CCB8	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
02:01	ZZZZZZ	1																							
02:06	ZZZZZZ	1																							
02:12	ZZZZZZ	1																							
02:17	ZZZZZZ	1																							
02:22	ZZZZZZ	1																							
02:27	ZZZZZZ	1																							
02:32	ZZZZZZ	1																							
02:37	ZZZZZZ	1																							
02:42	ZZZZZZ	1																							
02:48	ZZZZZZ	1																							
02:53	MA47601-CCV8	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
02:58	MA47601-CCB9	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
03:03	ZZZZZZ	1																							
03:08	ZZZZZZ	1																							
03:13	ZZZZZZ	1																							
03:19	ZZZZZZ	1																							

10.3.1
10

REPORTED ELEMENTS SUMMARY

Login Number: JC96248
 Account: BBLNYS - Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SC100919M2.ICP Date Analyzed: 10/09/19 Methods: EPA 200.7, SW846 6010D
 Analyst: EAL Run ID: MA47601
 Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

Time	Sample Description	Element: Dilution	A l	S b	A s	B a	B e	C d	C a	C r	C o	C u	F e	P b	M g	M n	N i	K	S e	A g	N a	T l	V	Z n
03:24	ZZZZZZ	1																						
03:29	MP17772-MB1	1				X	X	X	X				X						X	X				
03:34	MP17772-B1	1				X	X	X	X				X						X	X				
03:39	MP17772-B2	1				X	X	X	X				X						X	X				
03:44	JC96010-1	1				X	X	X	X				X						X	X				(a)
03:48	MP17772-SD1	5				X	X	X	X				X						X	X				
03:53	MA47601-CCV9	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
03:58	MA47601-CCB10	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
04:04	ZZZZZZ	1																						
04:08	ZZZZZZ	1																						
04:13	ZZZZZZ	1																						
04:18	ZZZZZZ	1																						
04:23	ZZZZZZ	1																						
04:28	ZZZZZZ	1																						
04:33	ZZZZZZ	1																						
04:38	ZZZZZZ	1																						
04:43	MP17769-MB1	1											X			X				X				
04:48	MP17769-B1	1											X			X				X				
04:53	MA47601-CCV10	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
04:58	MA47601-CCB11	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
05:03	MP17769-S1	1											X			X				X				
05:08	MP17769-S2	1											X			X				X				
05:13	JC96316-1	1											X			X								(a)
05:19	MP17769-SD1	5											X			X				X				
05:24	ZZZZZZ	1																						
05:29	ZZZZZZ	1																						
05:34	ZZZZZZ	1																						
05:39	ZZZZZZ	1																						
05:44	ZZZZZZ	1																						
05:49	ZZZZZZ	1																						
05:54	MA47601-CCV11	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
05:59	MA47601-CCB12	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
06:04	ZZZZZZ	1																						

10.3.1
10

REPORTED ELEMENTS SUMMARY

Login Number: JC96248
 Account: BBLNYS - Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SC100919M2.ICP Date Analyzed: 10/09/19 Methods: EPA 200.7, SW846 6010D
 Analyst: EAL Run ID: MA47601
 Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

Time	Sample Description	Element Dilution	A	S	A	B	B	C	C	C	C	F	P	M	M	N	K	S	A	N	T	V	Z
			l	b	s	a	e	d	a	r	o	u	e	b	g	n	i	e	g	a	l	n	
06:09	ZZZZZZ	1																					
06:14	ZZZZZZ	1																					
06:19	ZZZZZZ	1																					
06:24	ZZZZZZ	1																					
06:29	ZZZZZZ	1																					
06:34	ZZZZZZ	1																					
06:40	ZZZZZZ	1																					
06:45	MA47601-CCV12	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
06:50	MA47601-CCB13	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
06:55	MP17785-MB1	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
07:00	MP17785-B1	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
07:05	MP17785-S1	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
07:10	MP17785-S2	1																					
07:15	JC96410-5	1											X										(a)
07:20	MP17785-SD1	5	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
07:25	ZZZZZZ	1																					
07:30	MP17785-S2	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
07:35	MA47601-CCV13	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
07:40	MA47601-CCB14	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
08:07	MA47601-CCV14	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
08:12	MA47601-CCB15	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

(a) Sample used for QC only; not part of login JC96248.

Element: A S A B B C C C C F P M M N K S A N T V Z
 l b s a e d a r o u e b g n i e g a l n

INTERNAL STANDARD SUMMARY

Login Number: JC96248
 Account: BBLNYS - Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SC100919M2.ICP Date Analyzed: 10/09/19 Methods: EPA 200.7, SW846 6010D
 Analyst: EAL Run ID: MA47601
 Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
18:40	MA47601-STD1	9485 R	215890 R	32252 R	13051 R
18:45	MA47601-STD2	8851	197510	31378	11717
18:51	ZZZZZZ	9091	201970	31804	12034
18:56	ZZZZZZ	9362	215700	32370	12899
19:01	MA47601-ICV1	9093	202880	31731	12029
19:08	MA47601-ICB1	9454	212670	31699	13010
19:14	MA47601-ICCV1	9130	202690	31620	12082
19:23	MA47601-CCB1	9457	213300	32218	13028
19:28	MA47601-CRID1	9408	210630	31891	12925
19:34	MA47601-CRI1	9367	210800	32164	12776
19:39	MA47601-ICSA1	8424	187030	30656	10921
19:44	MA47601-ICSAB1	8437	187260	30981	10964
19:49	MA47601-HSTD1	9184	209910	31924	12864
19:55	MA47601-HSTD2	8512	187430	30803	10994
20:01	MA47601-CCV1	9176	205910	31737	12147
20:06	MA47601-CCB2	9491	213660	32325	13083
20:11	ZZZZZZ	9341	206140	32086	13165
20:16	ZZZZZZ	9265	216100	32267	13053
20:21	ZZZZZZ	9500	214790	32203	13083
20:26	ZZZZZZ	9475	214800	32411	13041
20:31	ZZZZZZ	9247	206640	32278	12338
20:36	MA47601-CCV2	9233	203210	31825	12235
20:41	MA47601-CCB3	9480	217440	32218	13081
20:46	JC96248-8	9522	216580	32505	13110
20:51	JC96248-1F	8817	199560	30348	11684
20:56	JC96248-2F	8873	200730	31908	11738
21:02	JC96248-3F	8808	201100	31812	11680
21:07	JC96248-5F	8978	203520	32219	11878
21:12	JC96248-6F	9083	206590	32375	12173
21:17	JC96248-7F	8801	200760	30704	11674
21:22	JC96248-8F	9462	214180	32464	13045
21:27	ZZZZZZ	9113	208270	32237	12126
21:32	ZZZZZZ	9074	205660	31896	12082

10.3.2
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INTERNAL STANDARD SUMMARY

Login Number: JC96248
 Account: BBLNYS - Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SC100919M2.ICP Date Analyzed: 10/09/19 Methods: EPA 200.7, SW846 6010D
 Analyst: EAL Run ID: MA47601
 Parameters: Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Ni, K, Se, Ag, Na, Tl, V, Zn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
21:38	MA47601-CCV3	9058	205440	31419	12029
21:43	MA47601-CCB4	9453	214300	32099	13032
21:48	ZZZZZZ	9623	199500	32679	11954
21:53	ZZZZZZ	8683	196840	30997	11500
21:58	ZZZZZZ	9443	215360	32255	13006
22:03	ZZZZZZ	9375	213340	31916	12911
22:08	ZZZZZZ	9445	214340	32075	12987
22:13	ZZZZZZ	9454	213640	32063	13057
22:18	ZZZZZZ	9412	214410	32171	13010
22:23	ZZZZZZ	9486	215400	32444	13035
22:28	ZZZZZZ	9478	214960	32426	13032
22:34	ZZZZZZ	9462	214190	32366	13145
22:39	ZZZZZZ	9511	213490	32348	13177
22:44	ZZZZZZ	9400	213690	32284	12975
22:49	MA47601-CCV4	9103	201580	31405	12083
22:54	MA47601-CCB5	9407	212570	32088	12982
22:59	ZZZZZZ	8886	201880	31701	11715
23:04	ZZZZZZ	9071	206600	32063	12137
23:09	MP17725A-MB1	9389	214510	32334	12935
23:14	MP17725A-B1	9137	204710	32395	12206
23:19	MP17725A-S1	8851	198660	31927	11316
23:24	MP17725A-S2	8812	196410	32034	11273
23:30	JC96034-1	8895	199310	31854	11385
23:35	MP17725A-SD1	9172	206750	31525	12219
23:40	ZZZZZZ	8436	189230	31119	10647
23:45	ZZZZZZ	8406	184660	31293	10624
23:50	MA47601-CCV5	8940	198810	30924	11882
23:55	MA47601-CCB6	9389	214090	31720	12929
00:00	ZZZZZZ	9294	209630	32077	12662
00:05	ZZZZZZ	9316	213780	32322	12735
00:10	ZZZZZZ	9246	208340	32205	12503
00:15	ZZZZZZ	9335	212000	32684	12632
00:20	ZZZZZZ	9272	210030	32118	12640

10.3.2
10

INTERNAL STANDARD SUMMARY

Login Number: JC96248
 Account: BBLNYS - Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SC100919M2.ICP Date Analyzed: 10/09/19 Methods: EPA 200.7, SW846 6010D
 Analyst: EAL Run ID: MA47601
 Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
00:25	ZZZZZZ	9247	210470	32190	12588
00:30	ZZZZZZ	9300	211790	32430	12745
00:35	ZZZZZZ	9290	210690	32055	12658
00:40	ZZZZZZ	9376	214560	32377	12844
00:45	ZZZZZZ	9281	210090	32268	12640
00:50	MA47601-CCV6	9048	201240	31245	11994
00:55	MA47601-CCB7	9419	211780	31921	12977
01:00	ZZZZZZ	9418	214620	32330	12964
01:05	ZZZZZZ	8849	196650	31757	11487
01:10	ZZZZZZ	9390	215000	32208	12924
01:15	MP17771-MB1	9340	216400	32303	12873
01:20	MP17771-B1	9098	204150	31666	12168
01:25	MP17771-S1	9384	213100	33198	12100
01:31	MP17771-S2	9401	209860	32922	12098
01:36	JC95345-13T	9497	214980	33244	12330
01:41	MP17771-SD1	9472	214460	32489	12724
01:46	ZZZZZZ	No results reported for the elements associated with this internal standard.			
01:51	MA47601-CCV7	9061	203710	31315	12008
01:56	MA47601-CCB8	9433	215170	31785	12993
02:01	ZZZZZZ	No results reported for the elements associated with this internal standard.			
02:06	ZZZZZZ	8317	187340	30814	10511
02:12	ZZZZZZ	No results reported for the elements associated with this internal standard.			
02:17	ZZZZZZ	No results reported for the elements associated with this internal standard.			
02:22	ZZZZZZ	No results reported for the elements associated with this internal standard.			
02:27	ZZZZZZ	No results reported for the elements associated with this internal standard.			
02:32	ZZZZZZ	No results reported for the elements associated with this internal standard.			
02:37	ZZZZZZ	No results reported for the elements associated with this internal standard.			
02:42	ZZZZZZ	No results reported for the elements associated with this internal standard.			
02:48	ZZZZZZ	No results reported for the elements associated with this internal standard.			
02:53	MA47601-CCV8	8990	201300	30992	11905
02:58	MA47601-CCB9	9400	214490	31944	12935
03:03	ZZZZZZ	No results reported for the elements associated with this internal standard.			
03:08	ZZZZZZ	10061	224740	35124	12466

10.3.2 10

INTERNAL STANDARD SUMMARY

Login Number: JC96248
 Account: BBLNYS - Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SC100919M2.ICP Date Analyzed: 10/09/19 Methods: EPA 200.7, SW846 6010D
 Analyst: EAL Run ID: MA47601
 Parameters: Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Ni, K, Se, Ag, Na, Tl, V, Zn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
03:13	ZZZZZZ	9492	214090	33307	12408
03:19	ZZZZZZ	9547	213800	33481	12520
03:24	ZZZZZZ	9513	211730	32889	12517
03:29	MP17772-MB1	9443	212190	32144	12949
03:34	MP17772-B1	9205	205530	31518	12266
03:39	MP17772-B2	9165	206200	31850	12216
03:44	JC96010-1	9446	209610	32071	12998
03:48	MP17772-SD1	9307	213120	31751	12743
03:53	MA47601-CCV9	8956	198900	31052	11849
03:58	MA47601-CCB10	9328	212730	31475	12819
04:04	ZZZZZZ	9323	213170	31990	12759
04:08	ZZZZZZ	9342	212810	32198	12798
04:13	ZZZZZZ	9265	209530	32019	12688
04:18	ZZZZZZ	9298	212560	31853	12713
04:23	ZZZZZZ	9311	210740	31931	12733
04:28	ZZZZZZ	9274	212780	31850	12726
04:33	ZZZZZZ	9278	210140	31896	12699
04:38	ZZZZZZ	9307	211460	31850	12746
04:43	MP17769-MB1	9369	212900	31928	12849
04:48	MP17769-B1	9107	205530	31574	12107
04:53	MA47601-CCV10	8964	200890	31492	11840
04:58	MA47601-CCB11	9339	211850	31447	12822
05:03	MP17769-S1	9011	200160	31345	11773
05:08	MP17769-S2	8986	200540	31349	11758
05:13	JC96316-1	9104	206310	31519	12088
05:19	MP17769-SD1	9300	210810	31621	12620
05:24	ZZZZZZ	9060	202230	31379	12048
05:29	ZZZZZZ	9111	203140	31718	12095
05:34	ZZZZZZ	9089	203810	31410	12064
05:39	ZZZZZZ	9082	205650	31500	12060
05:44	ZZZZZZ	9196	206850	31719	12311
05:49	ZZZZZZ	9136	203400	31442	12134
05:54	MA47601-CCV11	8999	202070	30779	11885

10.3.2
10

INTERNAL STANDARD SUMMARY

Login Number: JC96248
 Account: BBLNYS - Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SC100919M2.ICP Date Analyzed: 10/09/19 Methods: EPA 200.7, SW846 6010D
 Analyst: EAL Run ID: MA47601
 Parameters: Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Ni, K, Se, Ag, Na, Tl, V, Zn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
05:59	MA47601-CCB12	9326	212090	31392	12796
06:04	ZZZZZZ	8019	173800	29853	9489
06:09	ZZZZZZ	8568	187560	31185	10754
06:14	ZZZZZZ	8097	178840	30211	10068
06:19	ZZZZZZ	8981	198960	31330	11559
06:24	ZZZZZZ	9021	200110	31277	11605
06:29	ZZZZZZ	9449	213590	31830	12922
06:34	ZZZZZZ	8676	189590	31213	10755
06:40	ZZZZZZ	8995	200410	31411	11765
06:45	MA47601-CCV12	9038	200960	31181	11895
06:50	MA47601-CCB13	9349	211620	31414	12790
06:55	MP17785-MB1	9530	215620	32208	13131
07:00	MP17785-B1	9198	206550	32099	12251
07:05	MP17785-S1	9069	202470	32521	11743
07:10	MP17785-S2	No results reported for the elements associated with this internal standard.			
07:15	JC96410-5	9155	205290	32285	11959
07:20	MP17785-SD1	9236	209950	31722	12443
07:25	ZZZZZZ	8983	202400	31621	11955
07:30	MP17785-S2	9014	204020	32175	11709
07:35	MA47601-CCV13	8938	201160	30832	11811
07:40	MA47601-CCB14	9365	211660	31459	12844
08:07	MA47601-CCV14	9016	201140	30647	11954
08:12	MA47601-CCB15	9390	213500	31563	12945

R = Reference for ISTD limits. ! = Outside limits.

LEGEND:

Istd#	Parameter	Limits
Istd#1	Yttrium (2243)	70-130 %
Istd#2	Yttrium (3600)	70-130 %
Istd#3	Yttrium (3710)	70-130 %
Istd#4	Indium	70-130 %

10.3.2
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BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC96248
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SC100919M2.ICP Date Analyzed: 10/09/19 Methods: EPA 200.7, SW846 6010D
QC Limits: result < RL Run ID: MA47601 Units: ug/l

Time: Sample ID:	19:08 ICB1	19:23 CCB1	20:06 CCB2	20:41 CCB3	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	14	9.40	<200	-0.200	<200	4.50	<200	0.500	<200				
Antimony	6.0	1.4	0.900	<6.0	0.900	<6.0	1.40	<6.0	1.00	<6.0				
Arsenic	3.0	1.5	1.30	<3.0	0.800	<3.0	1.10	<3.0	1.40	<3.0				
Barium	200	.5	0.400	<200	0.00	<200	0.600	<200	0.100	<200				
Beryllium	1.0	.1	0.430	<1.0	0.00	<1.0	0.500	<1.0	0.200	<1.0				
Bismuth	20	1.8												
Boron	100	.8	anr											
Cadmium	3.0	.3	0.800	<3.0	0.100	<3.0	0.300	<3.0	0.200	<3.0				
Calcium	5000	3.9	10.1	<5000	1.50	<5000	16.1	<5000	4.90	<5000				
Cerium	100													
Chromium	10	.3	0.800	<10	0.200	<10	0.800	<10	0.500	<10				
Cobalt	50	.3	0.800	<50	-0.100	<50	0.100	<50	0.100	<50				
Copper	10	.6	0.700	<10	0.200	<10	0.800	<10	0.400	<10				
Iron	100	2.6	8.70	<100	-0.900	<100	10.9	<100	2.90	<100				
Lead	3.0	1.6	0.400	<3.0	0.00	<3.0	0.00	<3.0	0.100	<3.0				
Lithium	50	2.1												
Magnesium	5000	16	4.00	<5000	-6.50	<5000	2.80	<5000	-4.90	<5000				
Manganese	15	.1	0.700	<15	0.00	<15	0.800	<15	0.200	<15				
Molybdenum	20	.4												
Nickel	10	.5	1.10	<10	0.200	<10	0.400	<10	0.200	<10				
Phosphorus	50	1.9												
Potassium	10000	79	4.00	<10000	22.4	<10000	72.0	<10000	4.80	<10000				
Selenium	10	3	0.100	<10	1.20	<10	0.100	<10	-0.100	<10				
Silicon	200	1.2												
Silver	10	.5	-0.100	<10	0.400	<10	0.400	<10	0.100	<10				
Sodium	10000	9.9	24.8	<10000	9.90	<10000	71.7	<10000	18.2	<10000				
Strontium	10	.3												
Sulfur	50	3.5												
Thallium	10	1.3	1.10	<10	0.900	<10	0.900	<10	0.900	<10				
Tin	10	.7	anr											
Titanium	10	.5												
Tungsten	50	1.7												
Vanadium	50	.5	0.600	<50	0.00	<50	0.700	<50	0.300	<50				

10.3.3
10

BLANK RESULTS SUMMARY
 Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC96248
 Account: BBLNYS - Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SC100919M2.ICP Date Analyzed: 10/09/19 Methods: EPA 200.7, SW846 6010D
 QC Limits: result < RL Run ID: MA47601 Units: ug/l

Time:			19:08		19:23		20:06		20:41	
Sample ID:	RL	IDL	ICB1	final	CCB1	final	CCB2	final	CCB3	final
Metal			raw		raw		raw		raw	

Zinc	20	.2	1.00	<20	1.30	<20	1.50	<20	1.10	<20
Zirconium	10	.3								

(*) Outside of QC limits
 (anr) Analyte not requested

10.3.3
 10

BLANK RESULTS SUMMARY
 Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC96248
 Account: BBLNYS - Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SC100919M2.ICP Date Analyzed: 10/09/19 Methods: EPA 200.7, SW846 6010D
 QC Limits: result < RL Run ID: MA47601 Units: ug/l

Metal	RL	IDL	21:43 CCB4 raw	final
Aluminum	200	14	0.800	<200
Antimony	6.0	1.4	0.300	<6.0
Arsenic	3.0	1.5	1.40	<3.0
Barium	200	.5	0.300	<200
Beryllium	1.0	.1	0.300	<1.0
Bismuth	20	1.8		
Boron	100	.8	anr	
Cadmium	3.0	.3	0.700	<3.0
Calcium	5000	3.9	7.30	<5000
Cerium	100			
Chromium	10	.3	0.600	<10
Cobalt	50	.3	0.600	<50
Copper	10	.6	0.500	<10
Iron	100	2.6	4.90	<100
Lead	3.0	1.6	0.600	<3.0
Lithium	50	2.1		
Magnesium	5000	16	-11.1	<5000
Manganese	15	.1	0.400	<15
Molybdenum	20	.4		
Nickel	10	.5	0.600	<10
Phosphorus	50	1.9		
Potassium	10000	79	48.2	<10000
Selenium	10	3	1.20	<10
Silicon	200	1.2		
Silver	10	.5	0.200	<10
Sodium	10000	9.9	47.1	<10000
Strontium	10	.3		
Sulfur	50	3.5		
Thallium	10	1.3	0.700	<10
Tin	10	.7	anr	
Titanium	10	.5		
Tungsten	50	1.7		
Vanadium	50	.5	0.400	<50

10.3.3
10

BLANK RESULTS SUMMARY
 Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC96248
 Account: BBLNYS - Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SC100919M2.ICP Date Analyzed: 10/09/19 Methods: EPA 200.7, SW846 6010D
 QC Limits: result < RL Run ID: MA47601 Units: ug/l

Time:	21:43			
Sample ID:	CCB4			
Metal	RL	IDL	raw	final

Zinc	20	.2	1.50	<20
Zirconium	10	.3		

(*) Outside of QC limits
 (anr) Analyte not requested

10.3.3
 10

CALIBRATION CHECK STANDARDS SUMMARY
Initial Continuing Calibration Check

Login Number: JC96248
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SC100919M2.ICP Date Analyzed: 10/09/19 Methods: EPA 200.7, SW846 6010D
QC Limits: to % Recovery Run ID: MA47601 Units: ug/l

Time:	Sample ID:	ICCV	19:14 ICCV1	Results	% Rec
Metal	True				
Aluminum	40000		40200		100.5
Antimony	2000		2040		102.0
Arsenic	2000		2030		101.5
Barium	2000		2040		102.0
Beryllium	2000		2060		103.0
Bismuth					
Boron	anr				
Cadmium	2000		2010		100.5
Calcium	40000		40800		102.0
Cerium					
Chromium	2000		2040		102.0
Cobalt	2000		2040		102.0
Copper	2000		2010		100.5
Iron	40000		40600		101.5
Lead	2000		2030		101.5
Lithium					
Magnesium	40000		40500		101.3
Manganese	2000		2060		103.0
Molybdenum					
Nickel	2000		2050		102.5
Phosphorus					
Potassium	40000		40200		100.5
Selenium	2000		2020		101.0
Silicon					
Silver	250		248		99.2
Sodium	40000		40500		101.3
Strontium					
Sulfur					
Thallium	2000		2080		104.0
Tin	anr				
Titanium					
Tungsten					
Vanadium	2000		2020		101.0

10.3.4
10

CALIBRATION CHECK STANDARDS SUMMARY
Initial Continuing Calibration Check

Login Number: JC96248
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SC100919M2.ICP Date Analyzed: 10/09/19 Methods: EPA 200.7, SW846 6010D
QC Limits: to % Recovery Run ID: MA47601 Units: ug/l

Time:	19:14
Sample ID: ICCV	ICCV1
Metal	True
Results	% Rec

Zinc 2000 2040 102.0

Zirconium

(*) Outside of QC limits
(anr) Analyte not requested

10.3.4
10

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC96248
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SC100919M2.ICP Date Analyzed: 10/09/19 Methods: EPA 200.7, SW846 6010D
QC Limits: 95 to 105 % Recovery Run ID: MA47601 Units: ug/l

Time:	19:01	20:01	20:36
Sample ID:	ICV	ICV1	CCV
Metal	True	Results	% Rec
Aluminum	40000	40600	101.5
Antimony	2000	2040	102.0
Arsenic	2000	2030	101.5
Barium	2000	2030	101.5
Beryllium	2000	2050	102.5
Bismuth			
Boron	anr		
Cadmium	2000	2010	100.5
Calcium	40000	40500	101.3
Cerium			
Chromium	2000	2000	100.0
Cobalt	2000	2010	100.5
Copper	2000	2000	100.0
Iron	40000	40200	100.5
Lead	2000	2020	101.0
Lithium			
Magnesium	40000	40200	100.5
Manganese	2000	2020	101.0
Molybdenum			
Nickel	2000	2030	101.5
Phosphorus			
Potassium	40000	40400	101.0
Selenium	2000	2020	101.0
Silicon			
Silver	250	246	98.4
Sodium	40000	41000	102.5
Strontium			
Sulfur			
Thallium	2000	2070	103.5
Tin	anr		
Titanium			
Tungsten			
Vanadium	2000	2030	101.5

10.3.5 10

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC96248
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SC100919M2.ICP Date Analyzed: 10/09/19 Methods: EPA 200.7, SW846 6010D
QC Limits: 95 to 105 % Recovery Run ID: MA47601 Units: ug/l

	Time:		19:01		20:01		20:36		
Sample ID:	ICV	ICV1	CCV	CCV1	CCV	CCV2	Results	% Rec	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec

Zinc	2000	2020	101.0	2000	2030	101.5	2000	2020	101.0
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Zirconium

(*) Outside of QC limits
(anr) Analyte not requested

10.3.5
10

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC96248
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SC100919M2.ICP Date Analyzed: 10/09/19 Methods: EPA 200.7, SW846 6010D
QC Limits: 95 to 105 % Recovery Run ID: MA47601 Units: ug/l

Time: Sample ID: CCV	21:38 CCV3	Results	% Rec
Metal	True		
Aluminum	40000	40400	101.0
Antimony	2000	2050	102.5
Arsenic	2000	2040	102.0
Barium	2000	2050	102.5
Beryllium	2000	2060	103.0
Bismuth			
Boron	anr		
Cadmium	2000	2030	101.5
Calcium	40000	40900	102.3
Cerium			
Chromium	2000	2010	100.5
Cobalt	2000	2040	102.0
Copper	2000	1980	99.0
Iron	40000	40700	101.8
Lead	2000	2040	102.0
Lithium			
Magnesium	40000	40700	101.8
Manganese	2000	2030	101.5
Molybdenum			
Nickel	2000	2060	103.0
Phosphorus			
Potassium	40000	40400	101.0
Selenium	2000	2030	101.5
Silicon			
Silver	250	244	97.6
Sodium	40000	40900	102.3
Strontium			
Sulfur			
Thallium	2000	2090	104.5
Tin	anr		
Titanium			
Tungsten			
Vanadium	2000	2000	100.0

10.3.5
10

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC96248
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SC100919M2.ICP Date Analyzed: 10/09/19 Methods: EPA 200.7, SW846 6010D
QC Limits: 95 to 105 % Recovery Run ID: MA47601 Units: ug/l

Time:	21:38		
Sample ID:	CCV	CCV3	
Metal	True	Results	% Rec

Zinc 2000 2060 103.0

Zirconium

(*) Outside of QC limits
(anr) Analyte not requested

10.3.5
10

HIGH STANDARD CHECK SUMMARY

Login Number: JC96248
 Account: BBLNYS - Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SC100919M2.ICP Date Analyzed: 10/09/19 Methods: EPA 200.7, SW846 6010D
 QC Limits: 90 to 110 % Recovery Run ID: MA47601 Units: ug/l

Time:	19:49			19:55		
Sample ID:	HSTD	HSTD1		HSTD	HSTD2	
Metal	True	Results	% Rec	True	Results	% Rec
Aluminum				300000	298000	99.3
Antimony	8000	8310	103.9			
Arsenic	8000	8180	102.3			
Barium	8000	8250	103.1			
Beryllium	8000	8130	101.6			
Bismuth						
Boron	anr					
Cadmium	8000	7970	99.6			
Calcium				200000	196000	98.0
Cerium						
Chromium	8000	8110	101.4			
Cobalt	8000	7970	99.6			
Copper	8000	7920	99.0			
Iron				200000	194000	97.0
Lead	8000	8150	101.9			
Lithium						
Magnesium				300000	297000	99.0
Manganese	8000	8030	100.4			
Molybdenum						
Nickel	8000	8000	100.0			
Phosphorus						
Potassium				200000	204000	102.0
Selenium	8000	8030	100.4			
Silicon						
Silver	625	626	100.2			
Sodium				200000	203000	101.5
Strontium						
Sulfur						
Thallium	8000	8160	102.0			
Tin	anr					
Titanium						
Tungsten						
Vanadium	8000	7940	99.3			

10.3.6
10

HIGH STANDARD CHECK SUMMARY

Login Number: JC96248
 Account: BBLNYS - Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SC100919M2.ICP Date Analyzed: 10/09/19 Methods: EPA 200.7, SW846 6010D
 QC Limits: 90 to 110 % Recovery Run ID: MA47601 Units: ug/l

	Time:	19:49		19:55		
Sample ID:	HSTD	HSTD1		HSTD	HSTD2	
Metal	True	Results	% Rec	True	Results	% Rec

Zinc 8000 8240 103.0

Zirconium

(*) Outside of QC limits
 (anr) Analyte not requested

10.3.6
 10

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC96248
 Account: BBLNYS - Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SC100919M2.ICP Date Analyzed: 10/09/19 Methods: EPA 200.7, SW846 6010D
 QC Limits: CRI 80-120% CRIA 80-120% Run ID: MA47601 Units: ug/l

Time:	Sample ID:	CRI	CRIA	CRID	19:28 CRID1	% Rec	19:34 CRI1	% Rec
Metal	True	True	True	Results		Results	% Rec	
Aluminum	200	500	100	104	104.0	213	106.5	
Antimony	6.0	20	3.0			6.50	108.3	
Arsenic	8.0	20	3.0	3.40	113.3	9.30	116.3	
Barium	200		4.0	4.10	102.5	201	100.5	
Beryllium	2.0		1.0	1.00	100.0	2.00	100.0	
Bismuth	20							
Boron	100		10					
Cadmium	3.0		1.0	1.10	110.0	3.00	100.0	
Calcium	5000	2000	1000	1050	105.0	5210	104.2	
Cerium								
Chromium	10		2.0	2.10	105.0	10.4	104.0	
Cobalt	50		3.0	3.10	103.3	50.7	101.4	
Copper	10		2.0			9.90	99.0	
Iron	100	500				103	103.0	
Lead	3.0	20	2.5			2.60	86.7	
Lithium	50							
Magnesium	5000	2000	100	99.5	99.5	5250	105.0	
Manganese	15		3.0	3.30	110.0	15.9	106.0	
Molybdenum	20							
Nickel	10		4.0	4.40	110.0	10.5	105.0	
Phosphorus	50							
Potassium	5000		2000	2050	102.5	5090	101.8	
Selenium	10	20	5.0	4.00	80.0	9.70	97.0	
Silicon	200							
Silver	5.0		2.0			4.40	88.0	
Sodium	5000		1000	1060	106.0	5210	104.2	
Strontium	10							
Sulfur	50							
Thallium	10		2.0			10.5	105.0	
Tin	10							
Titanium	10							
Tungsten	50							
Vanadium	50		2.0	2.20	110.0	50.9	101.8	

10.3.7
10

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC96248
 Account: BBLNYS - Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SC100919M2.ICP Date Analyzed: 10/09/19 Methods: EPA 200.7, SW846 6010D
 QC Limits: CRI 80-120% CRIA 80-120% Run ID: MA47601 Units: ug/l

Time:				19:28			19:34
Sample ID:	CRI	CRIA	CRID	CRID1		CRI1	
Metal	True	True	True	Results	% Rec	Results	% Rec

Zinc	20		10	10.5	105.0	22.1	110.5
Zirconium	10						

(*) Outside of QC limits
 (anr) Analyte not requested

10.3.7
 10

INTERFERING ELEMENT CHECK STANDARDS SUMMARY
Part 1 - ICSA and ICSAB Standards

Login Number: JC96248
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SC100919M2.ICP Date Analyzed: 10/09/19 Methods: EPA 200.7, SW846 6010D
QC Limits: 80 to 120 % Recovery Run ID: MA47601 Units: ug/l

Time:			19:39			19:44
Sample ID:	ICSA	ICSAB	ICSAL	% Rec	ICSAB1	% Rec
Metal	True	True	Results		Results	
Aluminum	500000	500000	512000	102.4	505000	101.0
Antimony		1000	1.20		1030	103.0
Arsenic		1000	1.80		1060	106.0
Barium		500	0.300		505	101.0
Beryllium		500	0.600		495	99.0
Bismuth		500	0.200		514	102.8
Boron		500	-1.20		485	97.0
Cadmium		1000	1.00		1010	101.0
Calcium	400000	400000	397000	99.3	381000	95.3
Cerium			18.9		2.10	
Chromium		500	0.800		480	96.0
Cobalt		500	-0.600		483	96.6
Copper		500	0.500		501	100.2
Iron	200000	200000	203000	101.5	190000	95.0
Lead		1000	2.60		912	91.2
Lithium		500	-6.20		517	103.4
Magnesium	500000	500000	515000	103.0	502000	100.4
Manganese		500	0.00		500	100.0
Molybdenum		500	2.30		488	97.6
Nickel		1000	2.20		961	96.1
Phosphorus		500	-14.5		462	92.4
Potassium			141		182	
Selenium		1000	-0.400		1000	100.0
Silicon		500	8.10		549	109.8
Silver		1000	1.20		983	98.3
Sodium			74.9		100	
Strontium		500	-2.30		491	98.2
Sulfur		500	-12.6		480	96.0
Thallium		1000	2.40		960	96.0
Tin		500	-1.50		468	93.6
Titanium		500	-0.700		505	101.0
Tungsten		500	3.80		467	93.4
Vanadium		500	-0.100		484	96.8

10.3.8
10

INTERFERING ELEMENT CHECK STANDARDS SUMMARY
 Part 1 - ICSA and ICSAB Standards

Login Number: JC96248
 Account: BBLNYS - Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SC100919M2.ICP Date Analyzed: 10/09/19 Methods: EPA 200.7, SW846 6010D
 QC Limits: 80 to 120 % Recovery Run ID: MA47601 Units: ug/l

Time:			19:39			19:44
Sample ID:	ICSA	ICSAB	ICSAL		ICSAB1	
Metal	True	True	Results	% Rec	Results	% Rec

Zinc		1000	2.50		948	94.8
Zirconium		500	0.200		509	101.8

(*) Outside of QC limits
 (anr) Analyte not requested

10.3.8
 10

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC96248
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SE101019M1.ICP Date Analyzed: 10/10/19 Methods: EPA 200.7, SW846 6010D
Analyst: ND Run ID: MA47607
Parameters: As,Ca,Mg

Time	Sample Description	Dilution Factor	PS Recov	Comments
10:32	MA47607-STD1	1		STDA
10:37	MA47607-STD2	1		STDB
10:42	ZZZZZZ	1		
10:47	ZZZZZZ	1		
10:52	MA47607-ICV1	1		
10:57	MA47607-ICB1	1		
11:14	MA47607-ICV2	1		
11:23	MA47607-ICB2	1		
11:29	MA47607-ICCV1	1		
11:38	MA47607-CCB1	1		
11:49	MA47607-CRI1	1		
11:55	MA47607-CRID1	1		
12:00	MA47607-ICSA1	1		
12:05	MA47607-ICSAB1	1		
12:10	MA47607-HSTD1	1		
12:15	MA47607-HSTD2	1		
12:20	ZZZZZZ	1		
12:26	ZZZZZZ	1		
12:31	ZZZZZZ	1		
12:36	MA47607-CCV1	1		
12:41	MA47607-CCB2	1		
12:46	ZZZZZZ	1		
12:51	ZZZZZZ	1		
12:56	ZZZZZZ	1		
13:01	ZZZZZZ	5		
13:06	JC96248-8F	1		
13:12	JC96248-1F	1		
13:17	JC96248-5F	1		
13:22	JC96248-7F	1		
----->	Last reportable sample/prep for job JC96248			
13:27	ZZZZZZ	1		
13:32	MA47607-CCV2	1		
13:37	MA47607-CCB3	1		
13:42	MP17718-MB2	5		

10.4
10

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC96248
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SE101019M1.ICP Date Analyzed: 10/10/19 Methods: EPA 200.7, SW846 6010D
Analyst: ND Run ID: MA47607
Parameters: As,Ca,Mg

Time	Sample Description	Dilution Factor	PS Recov	Comments
13:47	MP17718-B2	5		
13:52	ZZZZZZ	1		
13:57	MP17717-MB2	5		
14:03	MP17717-B2	5		
14:08	ZZZZZZ	5		
14:13	ZZZZZZ	5		
14:18	ZZZZZZ	5		
14:23	ZZZZZZ	5		
14:28	MA47607-CCV3	1		
14:33	MA47607-CCB4	1		
14:38	ZZZZZZ	5		
14:44	ZZZZZZ	5		
14:49	ZZZZZZ	5		
14:54	ZZZZZZ	5		
14:59	ZZZZZZ	5		
15:05	ZZZZZZ	5		
15:10	MP17712-MB2	5		
15:15	MP17712-B2	5		
15:20	ZZZZZZ	5		
15:25	MA47607-CCV4	1		
15:30	MA47607-CCB5	1		
15:35	ZZZZZZ	5		
15:40	ZZZZZZ	5		
15:46	ZZZZZZ	5		
15:51	ZZZZZZ	5		
15:56	ZZZZZZ	5		
16:01	ZZZZZZ	5		
16:07	ZZZZZZ	1		
16:12	ZZZZZZ	2		
16:17	ZZZZZZ	1		
16:22	MA47607-CCV5	1		
16:27	MA47607-CCB6	1		
16:32	ZZZZZZ	1		

10.4
10

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC96248
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SE101019M1.ICP Date Analyzed: 10/10/19 Methods: EPA 200.7, SW846 6010D
Analyst: ND Run ID: MA47607
Parameters: As,Ca,Mg

Time	Sample Description	Dilution Factor	PS Recov	Comments
16:38	MA47607-ICSA2	1		
16:43	MA47607-ICSAB2	1		
16:48	MA47607-CCV6	1		
16:53	MA47607-CCB7	1		
----->	Last reportable CCB for job JC96248			
16:58	ZZZZZ	1		
17:03	MP17688-PS1	1		
17:08	ZZZZZ	1		
17:13	ZZZZZ	1		
17:18	MP17746-S1	2		
17:22	MP17746-S2	2		
17:27	JC96219-1	2		(sample used for QC only; not part of login JC96248)
17:32	MP17746-SD1	10		
17:37	MP17746-PS1	1		
17:42	MA47607-CCV7	1		
17:47	MA47607-CCB8	1		
17:52	MP17725A-S1	5		
17:57	MP17725A-S2	5		
18:02	JC96034-1	5		(sample used for QC only; not part of login JC96248)
18:07	MP17725A-SD1	25		
18:12	MP17725A-SD1	5		
18:17	ZZZZZ	2		
18:22	ZZZZZ	10		
18:27	ZZZZZ	5		
18:32	ZZZZZ	2		
18:38	MA47607-CCV8	1		
18:42	MA47607-CCB9	1		
18:47	ZZZZZ	1		
18:53	MP17771-PS1	1		
18:57	ZZZZZ	2		
19:02	ZZZZZ	2		
19:07	ZZZZZ	5		
19:12	ZZZZZ	5		
19:17	ZZZZZ	5		

10.4
10

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC96248
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SE101019M1.ICP Date Analyzed: 10/10/19 Methods: EPA 200.7, SW846 6010D
Analyst: ND Run ID: MA47607
Parameters: As,Ca,Mg

Time	Sample Description	Dilution Factor	PS Recov	Comments
19:22	ZZZZZZ	3		
19:27	ZZZZZZ	5		
19:32	MA47607-CCV9	1		
19:37	MA47607-CCB10	1		
19:42	ZZZZZZ	1		
19:48	ZZZZZZ	1		
19:53	ZZZZZZ	1		
19:58	ZZZZZZ	1		
20:03	ZZZZZZ	1		
20:08	ZZZZZZ	1		
20:14	ZZZZZZ	1		
20:19	ZZZZZZ	1		
20:24	ZZZZZZ	1		
20:29	ZZZZZZ	1		
20:34	ZZZZZZ	1		
20:39	ZZZZZZ	1		
20:45	MA47607-CCV10	1		
20:49	MA47607-CCB11	1		
20:55	ZZZZZZ	5		
21:00	ZZZZZZ	5		
21:05	ZZZZZZ	5		
21:10	ZZZZZZ	5		
21:15	ZZZZZZ	2		
21:20	ZZZZZZ	1		
21:25	ZZZZZZ	20		
21:30	ZZZZZZ	10		
21:35	ZZZZZZ	20		
21:40	MA47607-CCV11	1		
21:45	MA47607-CCB12	1		
21:50	ZZZZZZ	5		
21:55	ZZZZZZ	5		
22:00	ZZZZZZ	10		
22:05	MP17791-B1	1		

10.4
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SGS Instrument Runlog
Inorganics Analyses

Login Number: JC96248
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SE101019M1.ICP Date Analyzed: 10/10/19 Methods: EPA 200.7, SW846 6010D
Analyst: ND Run ID: MA47607
Parameters: As,Ca,Mg

Time	Sample Description	Dilution Factor	PS Recov	Comments
22:10	MP17791-MB1	1		
22:15	MP17791-S1	1		
22:20	MP17791-S2	1		
22:25	JC96412-10	1		(sample used for QC only; not part of login JC96248)
22:30	MP17791-SD1	5		
22:35	ZZZZZZ	1		
22:40	MA47607-CCV12	1		
22:45	MA47607-CCB13	1		
22:50	ZZZZZZ	1		
22:55	ZZZZZZ	1		
23:00	ZZZZZZ	1		
23:05	ZZZZZZ	1		
23:10	ZZZZZZ	1		
23:15	ZZZZZZ	1		
23:20	ZZZZZZ	1		
23:25	ZZZZZZ	1		
23:30	ZZZZZZ	1		
23:35	MA47607-CCV13	1		
23:40	MA47607-CCB14	1		
23:45	ZZZZZZ	1		
23:50	ZZZZZZ	1		
23:55	ZZZZZZ	1		
00:00	ZZZZZZ	1		
00:05	ZZZZZZ	1		
00:10	ZZZZZZ	1		
00:15	ZZZZZZ	1		
00:20	ZZZZZZ	1		
00:25	ZZZZZZ	1		
00:30	MA47607-CCV14	1		
00:34	MA47607-CCB15	1		
00:40	MP17788-MB1	1		
00:45	MP17788-MB2	1		
00:50	MP17788-B1	1		out for T1

10.4
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SGS Instrument Runlog
Inorganics Analyses

Login Number: JC96248
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SE101019M1.ICP Date Analyzed: 10/10/19 Methods: EPA 200.7, SW846 6010D
Analyst: ND Run ID: MA47607
Parameters: As,Ca,Mg

Time	Sample Description	Dilution Factor	PS Recov	Comments
00:55	MP17788-B2	1		
01:00	MP17788-S1	1		Ca, Na high
01:04	MP17788-S2	1		Ca, Na high
01:09	JC96341-1	1		(sample used for QC only; not part of login JC96248)
01:15	MP17788-SD1	5		Ca, Na high
01:20	ZZZZZZ	1		
01:25	MA47607-CCV15	1		
01:30	MA47607-CCB16	1		
01:35	ZZZZZZ	1		
01:40	ZZZZZZ	1		
01:45	ZZZZZZ	1		
01:50	ZZZZZZ	1		
01:55	ZZZZZZ	1		
02:00	ZZZZZZ	1		
02:05	ZZZZZZ	1		
02:11	ZZZZZZ	1		
02:16	MA47607-CCV16	1		
02:20	MA47607-CCB17	1		

Refer to raw data for calibration curve and standards.

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REPORTED ELEMENTS SUMMARY

Login Number: JC96248
 Account: BBLNYS - Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SE101019M1.ICP Date Analyzed: 10/10/19 Methods: EPA 200.7, SW846 6010D
 Analyst: ND Run ID: MA47607
 Parameters: As,Ca,Mg

Time	Sample Description	Element: Dilution	A	C	M
			s	a	g
10:42	ZZZZZZ	1			
10:47	ZZZZZZ	1			
10:52	MA47607-ICV1	1			
10:57	MA47607-ICB1	1			
11:14	MA47607-ICV2	1	X	X	X
11:23	MA47607-ICB2	1	X	X	X
11:29	MA47607-ICCV1	1	X	X	X
11:38	MA47607-CCB1	1	X	X	X
11:49	MA47607-CRI1	1	X	X	X
11:55	MA47607-CRID1	1	X	X	X
12:00	MA47607-ICSA1	1	X	X	X
12:05	MA47607-ICSAB1	1	X	X	X
12:10	MA47607-HSTD1	1	X	X	X
12:15	MA47607-HSTD2	1	X	X	X
12:20	ZZZZZZ	1			
12:26	ZZZZZZ	1			
12:31	ZZZZZZ	1			
12:36	MA47607-CCV1	1	X	X	X
12:41	MA47607-CCB2	1	X	X	X
12:46	ZZZZZZ	1			
12:51	ZZZZZZ	1			
12:56	ZZZZZZ	1			
13:01	ZZZZZZ	5			
13:06	JC96248-8F	1	X		
13:12	JC96248-1F	1		X	X
13:17	JC96248-5F	1	X		
13:22	JC96248-7F	1		X	X
13:27	ZZZZZZ	1			
13:32	MA47607-CCV2	1	X	X	X
13:37	MA47607-CCB3	1	X	X	X
13:42	MP17718-MB2	5	X		
13:47	MP17718-B2	5	X		
13:52	ZZZZZZ	1			

Element: A C M
 s a g

10.4.1
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REPORTED ELEMENTS SUMMARY

Login Number: JC96248
 Account: BBLNYS - Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SE101019M1.ICP Date Analyzed: 10/10/19 Methods: EPA 200.7, SW846 6010D
 Analyst: ND Run ID: MA47607
 Parameters: As,Ca,Mg

Time	Sample Description	Element: Dilution	A s	C a	M g
13:57	MP17717-MB2	5	X		
14:03	MP17717-B2	5	X		
14:08	ZZZZZZ	5			
14:13	ZZZZZZ	5			
14:18	ZZZZZZ	5			
14:23	ZZZZZZ	5			
14:28	MA47607-CCV3	1	X	X	X
14:33	MA47607-CCB4	1	X	X	X
14:38	ZZZZZZ	5			
14:44	ZZZZZZ	5			
14:49	ZZZZZZ	5			
14:54	ZZZZZZ	5			
14:59	ZZZZZZ	5			
15:05	ZZZZZZ	5			
15:10	MP17712-MB2	5	X		
15:15	MP17712-B2	5	X		
15:20	ZZZZZZ	5			
15:25	MA47607-CCV4	1	X	X	X
15:30	MA47607-CCB5	1	X	X	X
15:35	ZZZZZZ	5			
15:40	ZZZZZZ	5			
15:46	ZZZZZZ	5			
15:51	ZZZZZZ	5			
15:56	ZZZZZZ	5			
16:01	ZZZZZZ	5			
16:07	ZZZZZZ	1			
16:12	ZZZZZZ	2			
16:17	ZZZZZZ	1			
16:22	MA47607-CCV5	1	X	X	X
16:27	MA47607-CCB6	1	X	X	X
16:32	ZZZZZZ	1			
16:38	MA47607-ICSA2	1	X	X	X
16:43	MA47607-ICSAB2	1	X	X	X

10.4.1
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REPORTED ELEMENTS SUMMARY

Login Number: JC96248
 Account: BBLNYS - Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SE101019M1.ICP Date Analyzed: 10/10/19 Methods: EPA 200.7, SW846 6010D
 Analyst: ND Run ID: MA47607
 Parameters: As,Ca,Mg

Time	Sample Description	Dilution	Element: s a g	A s	C a	M g
16:48	MA47607-CCV6	1		X	X	X
16:53	MA47607-CCB7	1		X	X	X
16:58	ZZZZZZ	1				
17:03	MP17688-PS1	1				
17:08	ZZZZZZ	1				
17:13	ZZZZZZ	1				
17:18	MP17746-S1	2				
17:22	MP17746-S2	2				
17:27	JC96219-1	2				(a)
17:32	MP17746-SD1	10				
17:37	MP17746-PS1	1				X
17:42	MA47607-CCV7	1		X	X	X
17:47	MA47607-CCB8	1		X	X	X
17:52	MP17725A-S1	5				
17:57	MP17725A-S2	5				
18:02	JC96034-1	5				(a)
18:07	MP17725A-SD1	25				
18:12	MP17725A-SD1	5				
18:17	ZZZZZZ	2				
18:22	ZZZZZZ	10				
18:27	ZZZZZZ	5				
18:32	ZZZZZZ	2				
18:38	MA47607-CCV8	1		X	X	X
18:42	MA47607-CCB9	1		X	X	X
18:47	ZZZZZZ	1				
18:53	MP17771-PS1	1				
18:57	ZZZZZZ	2				
19:02	ZZZZZZ	2				
19:07	ZZZZZZ	5				
19:12	ZZZZZZ	5				
19:17	ZZZZZZ	5				
19:22	ZZZZZZ	3				
19:27	ZZZZZZ	5				

10.4.1
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REPORTED ELEMENTS SUMMARY

Login Number: JC96248
 Account: BBLNYS - Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SE101019M1.ICP Date Analyzed: 10/10/19 Methods: EPA 200.7, SW846 6010D
 Analyst: ND Run ID: MA47607
 Parameters: As,Ca,Mg

Time	Sample Description	Element: Dilution	A s	C a	M g
19:32	MA47607-CCV9	1	X	X	X
19:37	MA47607-CCB10	1	X	X	X
19:42	ZZZZZZ	1			
19:48	ZZZZZZ	1			
19:53	ZZZZZZ	1			
19:58	ZZZZZZ	1			
20:03	ZZZZZZ	1			
20:08	ZZZZZZ	1			
20:14	ZZZZZZ	1			
20:19	ZZZZZZ	1			
20:24	ZZZZZZ	1			
20:29	ZZZZZZ	1			
20:34	ZZZZZZ	1			
20:39	ZZZZZZ	1			
20:45	MA47607-CCV10	1	X	X	X
20:49	MA47607-CCB11	1	X	X	X
20:55	ZZZZZZ	5			
21:00	ZZZZZZ	5			
21:05	ZZZZZZ	5			
21:10	ZZZZZZ	5			
21:15	ZZZZZZ	2			
21:20	ZZZZZZ	1			
21:25	ZZZZZZ	20			
21:30	ZZZZZZ	10			
21:35	ZZZZZZ	20			
21:40	MA47607-CCV11	1	X	X	X
21:45	MA47607-CCB12	1	X	X	X
21:50	ZZZZZZ	5			
21:55	ZZZZZZ	5			
22:00	ZZZZZZ	10			
22:05	MP17791-B1	1	X	X	X
22:10	MP17791-MB1	1	X	X	X
22:15	MP17791-S1	1		X	X

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REPORTED ELEMENTS SUMMARY

Login Number: JC96248
 Account: BBLNYS - Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SE101019M1.ICP Date Analyzed: 10/10/19 Methods: EPA 200.7, SW846 6010D
 Analyst: ND Run ID: MA47607
 Parameters: As,Ca,Mg

Time	Sample Description	Element: Dilution	A s	C a	M g
22:20	MP17791-S2	1	X	X	
22:25	JC96412-10	1		X	X (a)
22:30	MP17791-SD1	5	X	X	X
22:35	ZZZZZZ	1			
22:40	MA47607-CCV12	1	X	X	X
22:45	MA47607-CCB13	1	X	X	X
22:50	ZZZZZZ	1			
22:55	ZZZZZZ	1			
23:00	ZZZZZZ	1			
23:05	ZZZZZZ	1			
23:10	ZZZZZZ	1			
23:15	ZZZZZZ	1			
23:20	ZZZZZZ	1			
23:25	ZZZZZZ	1			
23:30	ZZZZZZ	1			
23:35	MA47607-CCV13	1	X	X	X
23:40	MA47607-CCB14	1	X	X	X
23:45	ZZZZZZ	1			
23:50	ZZZZZZ	1			
23:55	ZZZZZZ	1			
00:00	ZZZZZZ	1			
00:05	ZZZZZZ	1			
00:10	ZZZZZZ	1			
00:15	ZZZZZZ	1			
00:20	ZZZZZZ	1			
00:25	ZZZZZZ	1			
00:30	MA47607-CCV14	1	X	X	X
00:34	MA47607-CCB15	1	X	X	X
00:40	MP17788-MB1	1	X	X	X
00:45	MP17788-MB2	1	X	X	X
00:50	MP17788-B1	1	X	X	X
00:55	MP17788-B2	1	X	X	X
01:00	MP17788-S1	1	X		X

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REPORTED ELEMENTS SUMMARY

Login Number: JC96248
 Account: BBLNYS - Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SE101019M1.ICP Date Analyzed: 10/10/19 Methods: EPA 200.7, SW846 6010D
 Analyst: ND Run ID: MA47607
 Parameters: As,Ca,Mg

Time	Sample Description	Element: Dilution	A s	C a	M g
01:04	MP17788-S2	1	X		X
01:09	JC96341-1	1			(a)
01:15	MP17788-SD1	5	X		X
01:20	ZZZZZZ	1			
01:25	MA47607-CCV15	1	X	X	X
01:30	MA47607-CCB16	1	X	X	X
01:35	ZZZZZZ	1			
01:40	ZZZZZZ	1			
01:45	ZZZZZZ	1			
01:50	ZZZZZZ	1			
01:55	ZZZZZZ	1			
02:00	ZZZZZZ	1			
02:05	ZZZZZZ	1			
02:11	ZZZZZZ	1			
02:16	MA47607-CCV16	1	X	X	X
02:20	MA47607-CCB17	1	X	X	X

(a) Sample used for QC only; not part of login JC96248.

Element: A C M
 s a g

10.4.1
 10

INTERNAL STANDARD SUMMARY

Login Number: JC96248
 Account: BBLNYS - Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SE101019M1.ICP Date Analyzed: 10/10/19 Methods: EPA 200.7, SW846 6010D
 Analyst: ND Run ID: MA47607
 Parameters: As,Ca,Mg

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
10:32	MA47607-STD1	3389 R	100650 R	14542 R	8057 R
10:37	MA47607-STD2	3250	96231	14587	7151
10:42	ZZZZZZ	3342	98206	14604	7460
10:47	ZZZZZZ	3397	101910	14680	8078
10:52	MA47607-ICV1	No results reported for the elements associated with this internal standard.			
10:57	MA47607-ICB1	No results reported for the elements associated with this internal standard.			
11:14	MA47607-ICV2	3327	98031	14717	7431
11:23	MA47607-ICB2	3419	101500	14581	8151
11:29	MA47607-ICCV1	3332	97584	14527	7454
11:38	MA47607-CCB1	3437	101220	14683	8175
11:49	MA47607-CRI1	3387	98877	14547	7957
11:55	MA47607-CRID1	3421	99895	14720	8087
12:00	MA47607-ICSA1	3098	88955	14355	6533
12:05	MA47607-ICSAB1	3114	89345	14340	6564
12:10	MA47607-HSTD1	3350	98483	14716	7826
12:15	MA47607-HSTD2	3152	89783	14140	6623
12:20	ZZZZZZ	3418	98299	14769	8096
12:26	ZZZZZZ	3406	99792	14740	8154
12:31	ZZZZZZ	3471	100610	14856	8160
12:36	MA47607-CCV1	3350	96421	14661	7389
12:41	MA47607-CCB2	3453	99762	14781	8107
12:46	ZZZZZZ	3514	100990	15055	8320
12:51	ZZZZZZ	3521	101500	15074	8330
12:56	ZZZZZZ	3458	100540	14976	8133
13:01	ZZZZZZ	3140	89351	14281	6746
13:06	JC96248-8F	3418	99691	14903	8043
13:12	JC96248-1F	3199	93234	14472	7158
13:17	JC96248-5F	3255	94420	14702	7273
13:22	JC96248-7F	3193	93556	14584	7138
13:27	ZZZZZZ	3455	100390	14829	8123
13:32	MA47607-CCV2	3353	96971	14631	7384
13:37	MA47607-CCB3	3448	100020	14751	8084
13:42	MP17718-MB2	3450	100160	14926	8102

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INTERNAL STANDARD SUMMARY

Login Number: JC96248
 Account: BBLNYS - Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SE101019M1.ICP Date Analyzed: 10/10/19 Methods: EPA 200.7, SW846 6010D
 Analyst: ND Run ID: MA47607
 Parameters: As,Ca,Mg

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
13:47	MP17718-B2	3425	99382	14900	7928
13:52	ZZZZZZ	3030	84257	14087	6346
13:57	MP17717-MB2	3251	92506	14484	7149
14:03	MP17717-B2	3290	93743	14560	7173
14:08	ZZZZZZ	3197	91940	14362	6962
14:13	ZZZZZZ	3179	91831	14345	6926
14:18	ZZZZZZ	3268	93647	14533	7169
14:23	ZZZZZZ	3185	91916	14365	6935
14:28	MA47607-CCV3	3338	95182	14345	7370
14:33	MA47607-CCB4	3427	98861	14607	8033
14:38	ZZZZZZ	3246	92256	14421	7109
14:44	ZZZZZZ	3233	91754	14382	7056
14:49	ZZZZZZ	3216	91075	14406	7008
14:54	ZZZZZZ	3258	92010	14414	7136
14:59	ZZZZZZ	3245	90986	14472	7060
15:05	ZZZZZZ	3233	92003	14464	7028
15:10	MP17712-MB2	3278	92199	14575	7184
15:15	MP17712-B2	3310	93524	14520	7187
15:20	ZZZZZZ	3261	91023	14224	7125
15:25	MA47607-CCV4	3339	95341	14603	7339
15:30	MA47607-CCB5	3439	98564	14671	8043
15:35	ZZZZZZ	3292	92861	14617	7148
15:40	ZZZZZZ	3300	93824	14619	7225
15:46	ZZZZZZ	3196	91451	14188	6998
15:51	ZZZZZZ	3141	90631	14320	6884
15:56	ZZZZZZ	3295	94114	14584	7276
16:01	ZZZZZZ	3302	94086	14470	7272
16:07	ZZZZZZ	3447	100810	14828	8105
16:12	ZZZZZZ	3415	98360	14956	7703
16:17	ZZZZZZ	3428	99764	14757	8070
16:22	MA47607-CCV5	3320	94393	14393	7328
16:27	MA47607-CCB6	3417	98835	14538	8030
16:32	ZZZZZZ	3317	96443	14512	7441

10.4.2
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INTERNAL STANDARD SUMMARY

Login Number: JC96248
 Account: BBLNYS - Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SE101019M1.ICP Date Analyzed: 10/10/19 Methods: EPA 200.7, SW846 6010D
 Analyst: ND Run ID: MA47607
 Parameters: As,Ca,Mg

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
16:38	MA47607-ICSA2	3097	87770	14152	6479
16:43	MA47607-ICSAB2	3081	87851	14164	6440
16:48	MA47607-CCV6	3362	96027	14495	7386
16:53	MA47607-CCB7	3448	98851	14606	8054
16:58	ZZZZZ	3424	98724	14713	8003
17:03	MP17688-PS1	3401	97133	15144	7355
17:08	ZZZZZ	3437	98977	14780	8041
17:13	ZZZZZ	3363	96389	14705	7490
17:18	MP17746-S1	3390	98270	14871	7565
17:22	MP17746-S2	3401	97504	14845	7504
17:27	JC96219-1	3418	98138	15021	7672
17:32	MP17746-SD1	3412	98119	14772	7902
17:37	MP17746-PS1	3346	95792	14822	7213
17:42	MA47607-CCV7	3338	94510	14491	7325
17:47	MA47607-CCB8	3448	98779	14614	8039
17:52	MP17725A-S1	3355	95708	14582	7447
17:57	MP17725A-S2	3352	94976	14572	7433
18:02	JC96034-1	3374	95347	14534	7545
18:07	MP17725A-SD1	3428	97467	14551	7913
18:12	MP17725A-SD1	3336	95302	14497	7479
18:17	ZZZZZ	3201	89965	14323	6815
18:22	ZZZZZ	3344	94695	14493	7475
18:27	ZZZZZ	3282	92876	14454	7195
18:32	ZZZZZ	3309	94070	14438	7306
18:38	MA47607-CCV8	3354	95303	14455	7348
18:42	MA47607-CCB9	3447	98657	14550	8040
18:47	ZZZZZ	3445	97854	14670	8047
18:53	MP17771-PS1	3405	96190	15039	7284
18:57	ZZZZZ	3451	97046	14825	7734
19:02	ZZZZZ	3440	97049	14908	7616
19:07	ZZZZZ	3455	97706	14779	7770
19:12	ZZZZZ	3456	98378	14866	7792
19:17	ZZZZZ	3416	97377	14512	7681

10.4.2
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INTERNAL STANDARD SUMMARY

Login Number: JC96248
 Account: BBLNYS - Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SE101019M1.ICP Date Analyzed: 10/10/19 Methods: EPA 200.7, SW846 6010D
 Analyst: ND Run ID: MA47607
 Parameters: As,Ca,Mg

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
19:22	ZZZZZZ	3481	98417	14855	7736
19:27	ZZZZZZ	3454	97787	14590	7749
19:32	MA47607-CCV9	3331	95243	14401	7290
19:37	MA47607-CCB10	3440	98895	14500	8015
19:42	ZZZZZZ	3433	98631	14382	7992
19:48	ZZZZZZ	3417	98268	14476	7945
19:53	ZZZZZZ	3421	98570	14453	7970
19:58	ZZZZZZ	3392	99218	14535	7946
20:03	ZZZZZZ	3419	98699	14367	7961
20:08	ZZZZZZ	3429	97821	14474	8008
20:14	ZZZZZZ	3425	98424	14475	8013
20:19	ZZZZZZ	3434	98575	14461	7993
20:24	ZZZZZZ	3443	98805	14388	8052
20:29	ZZZZZZ	3134	90713	14143	6940
20:34	ZZZZZZ	3539	95542	15240	7267
20:39	ZZZZZZ	3157	90424	14049	6932
20:45	MA47607-CCV10	3316	94725	14319	7271
20:49	MA47607-CCB11	3407	97355	14350	7958
20:55	ZZZZZZ	3400	96092	14554	7631
21:00	ZZZZZZ	3422	96306	14644	7668
21:05	ZZZZZZ	3419	97115	14614	7691
21:10	ZZZZZZ	3435	97291	14540	7687
21:15	ZZZZZZ	3489	98781	14982	7539
21:20	ZZZZZZ	3387	97347	14599	7909
21:25	ZZZZZZ	3283	93066	14158	7198
21:30	ZZZZZZ	3321	94373	14223	7433
21:35	ZZZZZZ	3316	93906	14212	7419
21:40	MA47607-CCV11	3315	94343	14158	7271
21:45	MA47607-CCB12	3409	98355	14217	7945
21:50	ZZZZZZ	3334	95142	14297	7565
21:55	ZZZZZZ	3338	95507	14288	7570
22:00	ZZZZZZ	3365	95825	14464	7458
22:05	MP17791-B1	3349	96338	14517	7468

10.4.2
10

INTERNAL STANDARD SUMMARY

Login Number: JC96248
 Account: BBLNYS - Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SE101019M1.ICP Date Analyzed: 10/10/19 Methods: EPA 200.7, SW846 6010D
 Analyst: ND Run ID: MA47607
 Parameters: As,Ca,Mg

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
22:10	MP17791-MB1	3427	99429	14601	8015
22:15	MP17791-S1	3491	99522	15513	7225
22:20	MP17791-S2	3435	98524	15449	7068
22:25	JC96412-10	3529	100550	15455	7377
22:30	MP17791-SD1	3433	98346	14644	7670
22:35	ZZZZZZ	3313	95431	14867	7226
22:40	MA47607-CCV12	3316	94651	14240	7274
22:45	MA47607-CCB13	3413	98453	14418	7967
22:50	ZZZZZZ	3430	97731	14917	7627
22:55	ZZZZZZ	3406	97206	14926	7538
23:00	ZZZZZZ	3493	99134	15213	7519
23:05	ZZZZZZ	No results reported for the elements associated with this internal standard.			
23:10	ZZZZZZ	No results reported for the elements associated with this internal standard.			
23:15	ZZZZZZ	No results reported for the elements associated with this internal standard.			
23:20	ZZZZZZ	No results reported for the elements associated with this internal standard.			
23:25	ZZZZZZ	No results reported for the elements associated with this internal standard.			
23:30	ZZZZZZ	No results reported for the elements associated with this internal standard.			
23:35	MA47607-CCV13	3299	94365	14270	7253
23:40	MA47607-CCB14	3393	97780	14335	7934
23:45	ZZZZZZ	No results reported for the elements associated with this internal standard.			
23:50	ZZZZZZ	No results reported for the elements associated with this internal standard.			
23:55	ZZZZZZ	No results reported for the elements associated with this internal standard.			
00:00	ZZZZZZ	3477	99887	14943	7668
00:05	ZZZZZZ	3495	100490	15138	7638
00:10	ZZZZZZ	3463	99745	15133	7593
00:15	ZZZZZZ	3483	100100	14990	7561
00:20	ZZZZZZ	3488	99602	15026	7591
00:25	ZZZZZZ	3417	98232	15054	7308
00:30	MA47607-CCV14	3299	95010	14274	7246
00:34	MA47607-CCB15	3414	98301	14244	7980
00:40	MP17788-MB1	3443	98614	14583	8102
00:45	MP17788-MB2	3409	98386	14646	8016
00:50	MP17788-B1	3317	95450	14561	7420

10.4.2
10

INTERNAL STANDARD SUMMARY

Login Number: JC96248
 Account: BBLNYS - Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SE101019M1.ICP Date Analyzed: 10/10/19 Methods: EPA 200.7, SW846 6010D
 Analyst: ND Run ID: MA47607
 Parameters: As,Ca,Mg

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
00:55	MP17788-B2	3330	96083	14657	7451
01:00	MP17788-S1	3056	87648	14144	6376
01:04	MP17788-S2	3065	87980	14125	6399
01:09	JC96341-1	3032	86790	14083	6447
01:15	MP17788-SD1	3239	92524	14267	7198
01:20	ZZZZZ	3039	86469	14053	6465
01:25	MA47607-CCV15	3263	94222	14346	7175
01:30	MA47607-CCB16	3376	97583	14472	7891
01:35	ZZZZZ	3311	94824	14577	7409
01:40	ZZZZZ	3324	95637	14679	7588
01:45	ZZZZZ	3292	94261	14549	7368
01:50	ZZZZZ	3325	95544	14549	7588
01:55	ZZZZZ	3251	92754	14367	7280
02:00	ZZZZZ	3272	94471	14351	7597
02:05	ZZZZZ	3240	94116	14402	7328
02:11	ZZZZZ	3252	92847	14435	7319
02:16	MA47607-CCV16	3259	93410	14372	7145
02:20	MA47607-CCB17	3367	97032	14472	7854

R = Reference for ISTD limits. ! = Outside limits.

LEGEND:

Istd#	Parameter	Limits
Istd#1	Yttrium (2243)	70-130 %
Istd#2	Yttrium (3600)	70-130 %
Istd#3	Yttrium (3710)	70-130 %
Istd#4	Indium	70-130 %

10.4.2
10

BLANK RESULTS SUMMARY
 Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC96248
 Account: BBLNYS - Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SE101019M1.ICP Date Analyzed: 10/10/19 Methods: EPA 200.7, SW846 6010D
 QC Limits: result < RL Run ID: MA47607 Units: ug/l

Metal	RL	IDL	11:23 ICB2		11:38 CCB1		12:41 CCB2		13:37 CCB3	
			raw	final	raw	final	raw	final	raw	final
Aluminum	200	13	anr							
Antimony	6.0	1.1	anr							
Arsenic	3.0	1.2	0.700	<3.0	0.300	<3.0	0.700	<3.0	0.100	<3.0
Barium	200	.2	anr							
Beryllium	1.0	.1	anr							
Bismuth	20	1.8								
Boron	100	1.2								
Cadmium	3.0	.2	anr							
Calcium	5000	3.7	-1.10	<5000	2.60	<5000	5.20	<5000	-4.60	<5000
Cerium	100									
Chromium	10	.4	anr							
Cobalt	50	.3	anr							
Copper	10	1	anr							
Iron	100	2.4	anr							
Lead	3.0	1.5	anr							
Lithium	50	1.5								
Magnesium	5000	17	-13.9	<5000	-8.90	<5000	26.9	<5000	-7.00	<5000
Manganese	15	.1	anr							
Molybdenum	20	.3								
Nickel	10	.3	anr							
Phosphorus	50	2								
Potassium	10000	40	anr							
Selenium	10	1.8	anr							
Silicon	200	.9								
Silver	10	.5	anr							
Sodium	10000	13	anr							
Strontium	10	.2								
Sulfur	50	3.5								
Thallium	10	1.6	anr							
Tin	10	.6								
Titanium	10	.6								
Tungsten	50	1.1								
Vanadium	50	.4	anr							

10.4.3
10

BLANK RESULTS SUMMARY
 Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC96248
 Account: BBLNYS - Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SE101019M1.ICP Date Analyzed: 10/10/19 Methods: EPA 200.7, SW846 6010D
 QC Limits: result < RL Run ID: MA47607 Units: ug/l

Time:			11:23		11:38		12:41		13:37	
Sample ID:	RL	IDL	ICB2	final	CCB1	final	CCB2	final	CCB3	final

Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Zinc	20	.2	anr							
Zirconium	10	.2								

(*) Outside of QC limits
 (anr) Analyte not requested

10.4.3
 10

BLANK RESULTS SUMMARY
 Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC96248
 Account: BBLNYS - Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SE101019M1.ICP Date Analyzed: 10/10/19 Methods: EPA 200.7, SW846 6010D
 QC Limits: result < RL Run ID: MA47607 Units: ug/l

Time:			14:33			15:30			16:27			16:53
Sample ID:	RL	IDL	CCB4	final	CCB5	final	CCB6	final	CCB7	final	CCB7	final
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final	raw	final
Aluminum	200	13	anr									
Antimony	6.0	1.1	anr									
Arsenic	3.0	1.2	0.200	<3.0	0.400	<3.0	0.400	<3.0	0.200	<3.0		
Barium	200	.2	anr									
Beryllium	1.0	.1	anr									
Bismuth	20	1.8										
Boron	100	1.2										
Cadmium	3.0	.2	anr									
Calcium	5000	3.7	4.70	<5000	1.40	<5000	4.00	<5000	-5.70	<5000		
Cerium	100											
Chromium	10	.4	anr									
Cobalt	50	.3	anr									
Copper	10	1	anr									
Iron	100	2.4	anr									
Lead	3.0	1.5	anr									
Lithium	50	1.5										
Magnesium	5000	17	8.70	<5000	-3.40	<5000	8.30	<5000	13.7	<5000		
Manganese	15	.1	anr									
Molybdenum	20	.3										
Nickel	10	.3	anr									
Phosphorus	50	2										
Potassium	10000	40	anr									
Selenium	10	1.8	anr									
Silicon	200	.9										
Silver	10	.5	anr									
Sodium	10000	13	anr									
Strontium	10	.2										
Sulfur	50	3.5										
Thallium	10	1.6	anr									
Tin	10	.6										
Titanium	10	.6										
Tungsten	50	1.1										
Vanadium	50	.4	anr									

10.4.3
10

BLANK RESULTS SUMMARY
 Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC96248
 Account: BBLNYS - Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SE101019M1.ICP Date Analyzed: 10/10/19 Methods: EPA 200.7, SW846 6010D
 QC Limits: result < RL Run ID: MA47607 Units: ug/l

Time:			14:33		15:30		16:27		16:53	
Sample ID:			CCB4		CCB5		CCB6		CCB7	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Zinc	20	.2	anr							
Zirconium	10	.2								

(*) Outside of QC limits
 (anr) Analyte not requested

10.4.3
 10

CALIBRATION CHECK STANDARDS SUMMARY
Initial Continuing Calibration Check

Login Number: JC96248
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SE101019M1.ICP Date Analyzed: 10/10/19 Methods: EPA 200.7, SW846 6010D
QC Limits: to % Recovery Run ID: MA47607 Units: ug/l

Metal	Sample ID	ICCV	ICCV1	Results	% Rec
Aluminum		anr			
Antimony		anr			
Arsenic	2000		1990		99.5
Barium		anr			
Beryllium		anr			
Bismuth					
Boron					
Cadmium		anr			
Calcium	40000		40700		101.8
Cerium					
Chromium		anr			
Cobalt		anr			
Copper		anr			
Iron		anr			
Lead		anr			
Lithium					
Magnesium	40000		40400		101.0
Manganese		anr			
Molybdenum					
Nickel		anr			
Phosphorus					
Potassium		anr			
Selenium		anr			
Silicon					
Silver		anr			
Sodium		anr			
Strontium					
Sulfur					
Thallium		anr			
Tin					
Titanium					
Tungsten					
Vanadium		anr			

10.4.4
10

CALIBRATION CHECK STANDARDS SUMMARY
Initial Continuing Calibration Check

Login Number: JC96248
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SE101019M1.ICP Date Analyzed: 10/10/19 Methods: EPA 200.7, SW846 6010D
QC Limits: to % Recovery Run ID: MA47607 Units: ug/l

Time:	11:29		
Sample ID: ICCV	ICCV1		
Metal	True	Results	% Rec

Zinc anr

Zirconium

(*) Outside of QC limits
(anr) Analyte not requested

10.4.4
10

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC96248
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SE101019M1.ICP Date Analyzed: 10/10/19 Methods: EPA 200.7, SW846 6010D
QC Limits: 95 to 105 % Recovery Run ID: MA47607 Units: ug/l

Metal	Time:	11:14			12:36			13:32		
	Sample ID:	ICV	ICV2	CCV	CCV1	CCV	CCV2	CCV	CCV2	% Rec
	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec	
Aluminum	anr									
Antimony	anr									
Arsenic	2000	2000	100.0	2000	2050	102.5	2000	2070	103.5	
Barium	anr									
Beryllium	anr									
Bismuth										
Boron										
Cadmium	anr									
Calcium	40000	39400	98.5	40000	41300	103.3	40000	41400	103.5	
Cerium										
Chromium	anr									
Cobalt	anr									
Copper	anr									
Iron	anr									
Lead	anr									
Lithium										
Magnesium	40000	38900	97.3	40000	39700	99.3	40000	40000	100.0	
Manganese	anr									
Molybdenum										
Nickel	anr									
Phosphorus										
Potassium	anr									
Selenium	anr									
Silicon										
Silver	anr									
Sodium	anr									
Strontium										
Sulfur										
Thallium	anr									
Tin										
Titanium										
Tungsten										
Vanadium	anr									

10.4.5 10

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC96248
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SE101019M1.ICP Date Analyzed: 10/10/19 Methods: EPA 200.7, SW846 6010D
QC Limits: 95 to 105 % Recovery Run ID: MA47607 Units: ug/l

	Time:		11:14		12:36		13:32		
Sample ID:	ICV	ICV2	ICV2	CCV	CCV1	CCV	CCV2	CCV2	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec

Zinc anr

Zirconium

(*) Outside of QC limits
(anr) Analyte not requested

10.4.5
10

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC96248
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SE101019M1.ICP Date Analyzed: 10/10/19 Methods: EPA 200.7, SW846 6010D
QC Limits: 95 to 105 % Recovery Run ID: MA47607 Units: ug/l

Metal	Time:	14:28			15:25			16:22		
	Sample ID:	CCV	CCV3	% Rec	CCV	CCV4	% Rec	CCV	CCV5	% Rec
Aluminum		anr								
Antimony		anr								
Arsenic	2000	2080	104.0	2000	2100	105.0	2000	2080	104.0	
Barium		anr								
Beryllium		anr								
Bismuth										
Boron										
Cadmium		anr								
Calcium	40000	42400	106.0	40000	41700	104.3	40000	42100	105.3	
Cerium										
Chromium		anr								
Cobalt		anr								
Copper		anr								
Iron		anr								
Lead		anr								
Lithium										
Magnesium	40000	41200	103.0	40000	39900	99.8	40000	41200	103.0	
Manganese		anr								
Molybdenum										
Nickel		anr								
Phosphorus										
Potassium		anr								
Selenium		anr								
Silicon										
Silver		anr								
Sodium		anr								
Strontium										
Sulfur										
Thallium		anr								
Tin										
Titanium										
Tungsten										
Vanadium		anr								

10.4.5
10

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC96248
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SE101019M1.ICP Date Analyzed: 10/10/19 Methods: EPA 200.7, SW846 6010D
QC Limits: 95 to 105 % Recovery Run ID: MA47607 Units: ug/l

	Time:		14:28		15:25		16:22		
Sample ID:	CCV	CCV3	CCV	CCV4	CCV	CCV5			
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec

Zinc anr

Zirconium

(*) Outside of QC limits
(anr) Analyte not requested

10.4.5
10

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC96248
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SE101019M1.ICP Date Analyzed: 10/10/19 Methods: EPA 200.7, SW846 6010D
QC Limits: 95 to 105 % Recovery Run ID: MA47607 Units: ug/l

Metal	Sample ID: CCV	True	Results	% Rec
Aluminum	anr			
Antimony	anr			
Arsenic	2000	2060	103.0	
Barium	anr			
Beryllium	anr			
Bismuth				
Boron				
Cadmium	anr			
Calcium	40000	41500	103.8	
Cerium				
Chromium	anr			
Cobalt	anr			
Copper	anr			
Iron	anr			
Lead	anr			
Lithium				
Magnesium	40000	40200	100.5	
Manganese	anr			
Molybdenum				
Nickel	anr			
Phosphorus				
Potassium	anr			
Selenium	anr			
Silicon				
Silver	anr			
Sodium	anr			
Strontium				
Sulfur				
Thallium	anr			
Tin				
Titanium				
Tungsten				
Vanadium	anr			

10.4.5
10

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC96248
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SE101019M1.ICP Date Analyzed: 10/10/19 Methods: EPA 200.7, SW846 6010D
QC Limits: 95 to 105 % Recovery Run ID: MA47607 Units: ug/l

Time:	16:48		
Sample ID: CCV	CCV6		
Metal	True	Results	% Rec

Zinc anr

Zirconium

(*) Outside of QC limits
(anr) Analyte not requested

10.4.5
10

HIGH STANDARD CHECK SUMMARY

Login Number: JC96248
 Account: BBLNYS - Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SE101019M1.ICP Date Analyzed: 10/10/19 Methods: EPA 200.7, SW846 6010D
 QC Limits: 90 to 110 % Recovery Run ID: MA47607 Units: ug/l

	Time:	12:10		12:15		
Sample ID:	HSTD	HSTD1	% Rec	HSTD	HSTD2	
Metal	True	Results	% Rec	True	Results	
Aluminum						
Antimony	anr					
Arsenic	8000	8240	103.0			
Barium	anr					
Beryllium	anr					
Bismuth						
Boron						
Cadmium	anr					
Calcium				200000	202000	101.0
Cerium						
Chromium	anr					
Cobalt	anr					
Copper	anr					
Iron						
Lead	anr					
Lithium						
Magnesium				300000	298000	99.3
Manganese	anr					
Molybdenum						
Nickel	anr					
Phosphorus						
Potassium						
Selenium	anr					
Silicon						
Silver	anr					
Sodium						
Strontium						
Sulfur						
Thallium	anr					
Tin						
Titanium						
Tungsten						
Vanadium	anr					

10.4.6
10

HIGH STANDARD CHECK SUMMARY

Login Number: JC96248
 Account: BBLNYS - Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SE101019M1.ICP Date Analyzed: 10/10/19 Methods: EPA 200.7, SW846 6010D
 QC Limits: 90 to 110 % Recovery Run ID: MA47607 Units: ug/l

	Time:	12:10		12:15	
Sample ID:	HSTD	HSTD1	HSTD	HSTD2	
Metal	True	Results	% Rec	True	Results

Zinc anr

Zirconium

(*) Outside of QC limits
 (anr) Analyte not requested

10.4.6
 10

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC96248
 Account: BBLNYS - Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SE101019M1.ICP Date Analyzed: 10/10/19 Methods: EPA 200.7, SW846 6010D
 QC Limits: CRI 80-120% CRIA 80-120% Run ID: MA47607 Units: ug/l

Time:	11:49	11:55		
Sample ID:	CRI1	CRID1	Results	% Rec
Metal	True	True	Results	% Rec
Aluminum	200	500	100	anr
Antimony	6.0	20	3.0	anr
Arsenic	8.0	20	3.0	8.40 105.0 2.90 96.7
Barium	200		4.0	anr
Beryllium	2.0		1.0	anr
Bismuth	20			
Boron	100		10	
Cadmium	3.0		1.0	anr
Calcium	5000	2000	1000	5380 107.6 1040 104.0
Cerium				
Chromium	10		2.0	anr
Cobalt	50		3.0	anr
Copper	10		2.0	anr
Iron	100	500		anr
Lead	3.0	20	2.5	anr
Lithium	50			
Magnesium	5000	2000	100	5250 105.0
Manganese	15		3.0	anr
Molybdenum	20			
Nickel	10		4.0	anr
Phosphorus	50			
Potassium	5000		2000	anr
Selenium	10	20	5.0	anr
Silicon	200			
Silver	5.0		2.0	anr
Sodium	5000		1000	anr
Strontium	10			
Sulfur	50			
Thallium	10		2.0	anr
Tin	10			
Titanium	10			
Tungsten	50			
Vanadium	50		2.0	anr

10.4.7
10

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC96248
 Account: BBLNYS - Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SE101019M1.ICP Date Analyzed: 10/10/19 Methods: EPA 200.7, SW846 6010D
 QC Limits: CRI 80-120% CRIA 80-120% Run ID: MA47607 Units: ug/l

Time:				11:49		11:55	
Sample ID:	CRI	CRIA	CRID	CRID1		CRID1	
Metal	True	True	True	Results	% Rec	Results	% Rec

Zinc	20		10	anr			
Zirconium	10						

(*) Outside of QC limits
 (anr) Analyte not requested

10.4.7
10

INTERFERING ELEMENT CHECK STANDARDS SUMMARY
Part 1 - ICSA and ICSAB Standards

Login Number: JC96248
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SE101019M1.ICP Date Analyzed: 10/10/19 Methods: EPA 200.7, SW846 6010D
QC Limits: 80 to 120 % Recovery Run ID: MA47607 Units: ug/l

Metal	Time:		12:00		12:05		16:38		16:43	
	Sample ID:	ICSA	ICSAB	ICSAL	% Rec	ICSAB1	% Rec	ICSA2	% Rec	ICSAB2	% Rec
Aluminum	500000	500000	496000	99.2	495000	99.0	506000	101.2	501000	100.2
Antimony		1000	4.40		998	99.8	3.30		1030	103.0
Arsenic		1000	-0.600		1050	105.0	-0.600		1100	110.0
Barium		500	-1.10		477	95.4	-1.10		486	97.2
Beryllium		500	0.300		476	95.2	0.300		492	98.4
Bismuth		500	-0.500		511	102.2	-1.50		530	106.0
Boron		500	-2.80		476	95.2	-2.30		496	99.2
Cadmium		1000	0.500		994	99.4	0.300		1010	101.0
Calcium	400000	400000	402000	100.5	384000	96.0	411000	102.8	394000	98.5
Cerium			62.4		34.6		61.7		37.6	
Chromium		500	0.500		492	98.4	0.00		507	101.4
Cobalt		500	-1.40		482	96.4	-1.60		502	100.4
Copper		500	-4.50		497	99.4	-4.30		512	102.4
Iron	200000	200000	200000	100.0	187000	93.5	205000	102.5	193000	96.5
Lead		1000	2.30		935	93.5	0.800		977	97.7
Lithium		500	-1.00		507	101.4	-1.30		511	102.2
Magnesium	500000	500000	507000	101.4	497000	99.4	518000	103.6	508000	101.6
Manganese		500	-0.300		493	98.6	-1.10		510	102.0
Molybdenum		500	-1.40		478	95.6	-1.70		500	100.0
Nickel		1000	-1.00		951	95.1	-1.00		979	97.9
Phosphorus		500	-7.00		473	94.6	-6.60		503	100.6
Potassium			-418		-394		-396		-368	
Selenium		1000	-4.20		982	98.2	-8.60		1030	103.0
Silicon		500	-9.80		528	105.6	-12.8		555	111.0
Silver		1000	-1.50		1030	103.0	-2.10		1050	105.0
Sodium			-2.70		3.90		47.9		57.4	
Strontium		500	-5.30		463	92.6	-5.50		473	94.6
Sulfur		500	-33.9		448	89.6	-35.0		463	92.6
Thallium		1000	1.60		947	94.7	3.10		992	99.2
Tin		500	-2.70		459	91.8	-3.00		478	95.6
Titanium		500	-0.600		466	93.2	-0.700		457	91.4
Tungsten		500	9.00		479	95.8	13.3		501	100.2
Vanadium		500	-3.40		488	97.6	-2.90		502	100.4

10.4.8 10

INTERFERING ELEMENT CHECK STANDARDS SUMMARY
 Part 1 - ICSA and ICSAB Standards

Login Number: JC96248
 Account: BBLNYS - Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SE101019M1.ICP Date Analyzed: 10/10/19 Methods: EPA 200.7, SW846 6010D
 QC Limits: 80 to 120 % Recovery Run ID: MA47607 Units: ug/l

Time:		12:00		12:05		16:38		16:43		
Sample ID:	ICSAB	ICSAB	ICSAB1	ICSAB1	ICSAB1	ICSAB2	ICSAB2	ICSAB2	ICSAB2	
Metal	True	True	Results	% Rec	Results	% Rec	Results	% Rec	Results	% Rec

Zinc		1000	1.50		936	93.6	0.800		979	97.9
Zirconium		500	-0.500		503	100.6	-0.200		519	103.8

(*) Outside of QC limits
 (anr) Analyte not requested

10.4.8
 10

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: JC96248
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA

QC Batch ID: MP17762
Matrix Type: AQUEOUS

Methods: SW846 6010D
Units: ug/l

Prep Date: 10/08/19 10/08/19

Metal	RL	IDL	MDL	MB raw	final	MB raw	final
Aluminum	200	14	46	-6.8	<200	-6.4	<200 (a)
Antimony	6.0	1.4	4.7	-1.1	<6.0	0.40	<6.0 (a)
Arsenic	3.0	1.5	2.8	-0.10	<3.0	0.60	<3.0 (a)
Barium	200	.5	13	-0.40	<200	-0.50	<200 (a)
Beryllium	1.0	.1	.5	0.0	<1.0	0.0	<1.0 (a)
Bismuth	20	1.8	4				
Boron	100	.8	63				
Cadmium	3.0	.3	1	-0.10	<3.0	0.10	<3.0 (a)
Calcium	5000	3.9	99	2.8	<5000	10.9	<5000(a)
Cerium	100						
Chromium	10	.3	2	0.10	<10	0.0	<10 (a)
Cobalt	50	.3	2.6	0.0	<50	-0.10	<50 (a)
Copper	10	.6	5.9	0.10	<10	0.0	<10 (a)
Iron	100	2.6	32	1.0	<100	0.80	<100 (a)
Lead	3.0	1.6	1.8	0.60	<3.0	0.50	<3.0 (a)
Lithium	50	2.1	7.3				
Magnesium	5000	16	140	-3.5	<5000	-4.5	<5000(a)
Manganese	15	.1	1.4	0.0	<15	0.10	<15 (a)
Molybdenum	20	.4	3.6				
Nickel	10	.5	1.7	-0.10	<10	-0.20	<10 (a)
Phosphorus	50	1.9	18				
Potassium	10000	79	200	-51	<10000	-43	<10000(a)
Selenium	10	3	4.9	2.0	<10	1.0	<10 (a)
Silicon	200	1.2	100				
Silver	10	.5	1.9	-0.30	<10	-0.10	<10 (a)
Sodium	10000	9.9	570	10.4	<10000	1.1	<10000(a)
Strontium	10	.3	1				
Sulfur	50	3.5	45				
Thallium	10	1.3	1.8	0.0	<10	0.60	<10 (a)
Tin	10	.7	3.7				
Titanium	10	.5	2.5				
Tungsten	50	1.7	40				
Vanadium	50	.5	1.8	-0.10	<50	-0.20	<50 (a)

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: JC96248
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA

QC Batch ID: MP17762
Matrix Type: AQUEOUS

Methods: SW846 6010D
Units: ug/l

Prep Date: 10/08/19 10/08/19

Metal	RL	IDL	MDL	MB raw	final	MB raw	final
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Zinc	20	.2	6.9	2.9	<20	5.8	<20 (a)
Zirconium	10	.3	4.1				

Associated samples MP17762: JC96248-1, JC96248-2, JC96248-3, JC96248-4, JC96248-5, JC96248-6, JC96248-7, JC96248-8, JC96248-1F, JC96248-2F, JC96248-3F, JC96248-4F, JC96248-5F, JC96248-6F, JC96248-7F, JC96248-8F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested
(a) Lab filtered.

10.5.1
10

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC96248
 Account: BBLNYS - Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

QC Batch ID: MP17762
 Matrix Type: AQUEOUS

Methods: SW846 6010D
 Units: ug/l

Prep Date: 10/08/19

Metal	JC96248-4 Original MS	Spikelot MPSPK2	% Rec	QC Limits	
Aluminum	6890	34100	25000	108.8	75-125
Antimony	2.7	1970	2000	98.4	75-125
Arsenic	26.8	2000	2000	98.7	75-125
Barium	250	2150	2000	95.0	75-125
Beryllium	0.60	1890	2000	94.5	75-125
Bismuth					
Boron					
Cadmium	0.90	1920	2000	96.0	75-125
Calcium	72500	97400	25000	99.6	75-125
Cerium					
Chromium	46.8	1900	2000	92.7	75-125
Cobalt	6.4	1950	2000	97.2	75-125
Copper	38.5	1930	2000	94.6	75-125
Iron	19200	42900	25000	94.8	75-125
Lead	87.9	2010	2000	96.1	75-125
Lithium					
Magnesium	38600	62100	25000	94.0	75-125
Manganese	958	2810	2000	92.6	75-125
Molybdenum					
Nickel	11.5	1950	2000	96.9	75-125
Phosphorus					
Potassium	20900	45500	25000	98.4	75-125
Selenium	0.0	1920	2000	96.0	75-125
Silicon					
Silver	0.0	241	250	96.4	75-125
Sodium	110000	135000	25000	100.0	75-125
Strontium					
Sulfur					
Thallium	0.0	1950	2000	97.5	75-125
Tin					
Titanium					
Tungsten					
Vanadium	14.7	1910	2000	94.8	75-125

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC96248
 Account: BBLNYS - Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

QC Batch ID: MP17762
 Matrix Type: AQUEOUS

Methods: SW846 6010D
 Units: ug/l

Prep Date: 10/08/19

Metal	JC96248-4 Original MS	SpikeLot MPSPK2	% Rec	QC Limits
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Zinc	173	2060	2000	94.4	75-125
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Zirconium

Associated samples MP17762: JC96248-1, JC96248-2, JC96248-3, JC96248-4, JC96248-5, JC96248-6, JC96248-7, JC96248-8, JC96248-1F, JC96248-2F, JC96248-3F, JC96248-4F, JC96248-5F, JC96248-6F, JC96248-7F, JC96248-8F

Results < IDL are shown as zero for calculation purposes
 (*) Outside of QC limits
 (N) Matrix Spike Rec. outside of QC limits
 (anr) Analyte not requested

10.5.2
10

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC96248
 Account: BBLNYS - Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

QC Batch ID: MP17762
 Matrix Type: AQUEOUS

Methods: SW846 6010D
 Units: ug/l

Prep Date: 10/08/19

Metal	JC96248-4 Original MSD	MSD	SpikeLot MPSPK2	% Rec	MSD RPD	QC Limit
Aluminum	6890	33900	25000	108.0	0.6	20
Antimony	2.7	1960	2000	97.9	0.5	20
Arsenic	26.8	1980	2000	97.7	1.0	20
Barium	250	2130	2000	94.0	0.9	20
Beryllium	0.60	1880	2000	94.0	0.5	20
Bismuth						
Boron						
Cadmium	0.90	1920	2000	96.0	0.0	20
Calcium	72500	95200	25000	90.8	2.3	20
Cerium						
Chromium	46.8	1930	2000	94.2	1.6	20
Cobalt	6.4	1930	2000	96.2	1.0	20
Copper	38.5	1960	2000	96.1	1.5	20
Iron	19200	42500	25000	93.2	0.9	20
Lead	87.9	2010	2000	96.1	0.0	20
Lithium						
Magnesium	38600	61400	25000	91.2	1.1	20
Manganese	958	2840	2000	94.1	1.1	20
Molybdenum						
Nickel	11.5	1940	2000	96.4	0.5	20
Phosphorus						
Potassium	20900	45000	25000	96.4	1.1	20
Selenium	0.0	1910	2000	95.5	0.5	20
Silicon						
Silver	0.0	245	250	98.0	1.6	20
Sodium	110000	133000	25000	92.0	1.5	20
Strontium						
Sulfur						
Thallium	0.0	1940	2000	97.0	0.5	20
Tin						
Titanium						
Tungsten						
Vanadium	14.7	1930	2000	95.8	1.0	20

10.5.2
10

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC96248
 Account: BBLNYS - Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

QC Batch ID: MP17762
 Matrix Type: AQUEOUS

Methods: SW846 6010D
 Units: ug/l

Prep Date: 10/08/19

Metal	JC96248-4 Original MSD	Spikelot MPSPK2	% Rec	MSD RPD	QC Limit	
Zinc	173	2050	2000	93.9	0.5	20

Zirconium

Associated samples MP17762: JC96248-1, JC96248-2, JC96248-3, JC96248-4, JC96248-5, JC96248-6, JC96248-7, JC96248-8, JC96248-1F, JC96248-2F, JC96248-3F, JC96248-4F, JC96248-5F, JC96248-6F, JC96248-7F, JC96248-8F

Results < IDL are shown as zero for calculation purposes
 (*) Outside of QC limits
 (N) Matrix Spike Rec. outside of QC limits
 (anr) Analyte not requested

10.5.2
 10

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC96248
 Account: BBLNYS - Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

QC Batch ID: MP17762
 Matrix Type: AQUEOUS

Methods: SW846 6010D
 Units: ug/l

Prep Date: 10/08/19

Metal	JC96248-4F Original MS	Spikelot MPSPK2	% Rec	QC Limits	
Aluminum	0.0	24700	25000	98.8	75-125
Antimony	1.6	2060	2000	102.9	75-125
Arsenic	8.7	2060	2000	102.6	75-125
Barium	140	2090	2000	97.5	75-125
Beryllium	0.10	1960	2000	98.0	75-125
Bismuth					
Boron					
Cadmium	0.0	2000	2000	100.0	75-125
Calcium	69100	93800	25000	98.8	75-125
Cerium					
Chromium	0.90	1950	2000	97.5	75-125
Cobalt	2.1	2010	2000	100.4	75-125
Copper	1.3	1980	2000	98.9	75-125
Iron	208	25000	25000	99.2	75-125
Lead	0.0	2000	2000	100.0	75-125
Lithium					
Magnesium	37300	61800	25000	98.0	75-125
Manganese	730	2720	2000	99.5	75-125
Molybdenum					
Nickel	2.2	2020	2000	100.9	75-125
Phosphorus					
Potassium	20400	45100	25000	98.8	75-125
Selenium	0.0	1990	2000	99.5	75-125
Silicon					
Silver	0.0	251	250	100.4	75-125
Sodium	110000	137000	25000	108.0	75-125
Strontium					
Sulfur					
Thallium	0.0	2030	2000	101.5	75-125
Tin					
Titanium					
Tungsten					
Vanadium	0.90	1980	2000	99.0	75-125

10.5.2
10

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC96248
 Account: BBLNYS - Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

QC Batch ID: MP17762
 Matrix Type: AQUEOUS

Methods: SW846 6010D
 Units: ug/l

Prep Date: 10/08/19

Metal	JC96248-4F Original MS	SpikeLot MPSPK2	% Rec	QC Limits	
Zinc	7.8	1980	2000	98.6	75-125

Zirconium

Associated samples MP17762: JC96248-1, JC96248-2, JC96248-3, JC96248-4, JC96248-5, JC96248-6, JC96248-7, JC96248-8, JC96248-1F, JC96248-2F, JC96248-3F, JC96248-4F, JC96248-5F, JC96248-6F, JC96248-7F, JC96248-8F

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

(anr) Analyte not requested

10.5.2
10

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC96248
 Account: BBLNYS - Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

QC Batch ID: MP17762
 Matrix Type: AQUEOUS

Methods: SW846 6010D
 Units: ug/l

Prep Date: 10/08/19

Metal	JC96248-4F Original MSD	MSD	SpikeLot MPSPK2	% Rec	MSD RPD	QC Limit
Aluminum	0.0	25000	25000	100.0	1.2	20
Antimony	1.6	2070	2000	103.4	0.5	20
Arsenic	8.7	2070	2000	103.1	0.5	20
Barium	140	2120	2000	99.0	1.4	20
Beryllium	0.10	1980	2000	99.0	1.0	20
Bismuth						
Boron						
Cadmium	0.0	2010	2000	100.5	0.5	20
Calcium	69100	95300	25000	104.8	1.6	20
Cerium						
Chromium	0.90	1960	2000	98.0	0.5	20
Cobalt	2.1	2030	2000	101.4	1.0	20
Copper	1.3	1990	2000	99.4	0.5	20
Iron	208	25200	25000	100.0	0.8	20
Lead	0.0	2020	2000	101.0	1.0	20
Lithium						
Magnesium	37300	62900	25000	102.4	1.8	20
Manganese	730	2750	2000	101.0	1.1	20
Molybdenum						
Nickel	2.2	2030	2000	101.4	0.5	20
Phosphorus						
Potassium	20400	45900	25000	102.0	1.8	20
Selenium	0.0	2010	2000	100.5	1.0	20
Silicon						
Silver	0.0	253	250	101.2	0.8	20
Sodium	110000	138000	25000	112.0	0.7	20
Strontium						
Sulfur						
Thallium	0.0	2040	2000	102.0	0.5	20
Tin						
Titanium						
Tungsten						
Vanadium	0.90	2000	2000	100.0	1.0	20

10.5.2
10

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC96248
 Account: BBLNYS - Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

QC Batch ID: MP17762
 Matrix Type: AQUEOUS

Methods: SW846 6010D
 Units: ug/l

Prep Date: 10/08/19

Metal	JC96248-4F Original MSD	Spikelot MPSPK2	% Rec	MSD RPD	QC Limit
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Zinc	7.8	1990	2000	99.1	0.5	20
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Zirconium

Associated samples MP17762: JC96248-1, JC96248-2, JC96248-3, JC96248-4, JC96248-5, JC96248-6, JC96248-7, JC96248-8, JC96248-1F, JC96248-2F, JC96248-3F, JC96248-4F, JC96248-5F, JC96248-6F, JC96248-7F, JC96248-8F

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

(anr) Analyte not requested

10.5.2
10

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: JC96248
 Account: BBLNYS - Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

QC Batch ID: MP17762
 Matrix Type: AQUEOUS

Methods: SW846 6010D
 Units: ug/l

Prep Date: 10/08/19 10/08/19

Metal	BSP Result	Spikelot MPSPK2	% Rec	QC Limits	BSP Result	Spikelot MPSPK2	% Rec	QC Limits
Aluminum	24700	25000	98.8	80-120	24000(a)	25000	96.0	80-120
Antimony	2040	2000	102.0	80-120	1960 (a)	2000	98.0	80-120
Arsenic	2010	2000	100.5	80-120	1910 (a)	2000	95.5	80-120
Barium	1950	2000	97.5	80-120	1900 (a)	2000	95.0	80-120
Beryllium	1960	2000	98.0	80-120	1900 (a)	2000	95.0	80-120
Bismuth								
Boron								
Cadmium	1970	2000	98.5	80-120	1900 (a)	2000	95.0	80-120
Calcium	25300	25000	101.2	80-120	24600(a)	25000	98.4	80-120
Cerium								
Chromium	1980	2000	99.0	80-120	1900 (a)	2000	95.0	80-120
Cobalt	2010	2000	100.5	80-120	1950 (a)	2000	97.5	80-120
Copper	1980	2000	99.0	80-120	1910 (a)	2000	95.5	80-120
Iron	25000	25000	100.0	80-120	24300(a)	25000	97.2	80-120
Lead	2020	2000	101.0	80-120	1950 (a)	2000	97.5	80-120
Lithium								
Magnesium	25000	25000	100.0	80-120	24400(a)	25000	97.6	80-120
Manganese	2030	2000	101.5	80-120	1950 (a)	2000	97.5	80-120
Molybdenum								
Nickel	2010	2000	100.5	80-120	1950 (a)	2000	97.5	80-120
Phosphorus								
Potassium	24600	25000	98.4	80-120	23900(a)	25000	95.6	80-120
Selenium	1970	2000	98.5	80-120	1890 (a)	2000	94.5	80-120
Silicon								
Silver	248	250	99.2	80-120	238 (a)	250	95.2	80-120
Sodium	25300	25000	101.2	80-120	24600(a)	25000	98.4	80-120
Strontium								
Sulfur								
Thallium	2070	2000	103.5	80-120	2000 (a)	2000	100.0	80-120
Tin								
Titanium								
Tungsten								
Vanadium	1990	2000	99.5	80-120	1920 (a)	2000	96.0	80-120

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: JC96248
 Account: BBLNYS - Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

QC Batch ID: MP17762
 Matrix Type: AQUEOUS

Methods: SW846 6010D
 Units: ug/l

Prep Date: 10/08/19 10/08/19

Metal	BSP Result	Spikelot MPSPK2	% Rec	QC Limits	BSP Result	Spikelot MPSPK2	% Rec	QC Limits
Zinc	1990	2000	99.5	80-120	1930 (a)	2000	96.5	80-120

Zirconium

Associated samples MP17762: JC96248-1, JC96248-2, JC96248-3, JC96248-4, JC96248-5, JC96248-6, JC96248-7, JC96248-8, JC96248-1F, JC96248-2F, JC96248-3F, JC96248-4F, JC96248-5F, JC96248-6F, JC96248-7F, JC96248-8F

Results < IDL are shown as zero for calculation purposes
 (*) Outside of QC limits
 (anr) Analyte not requested
 (a) Lab filtered.

10.5.3
 10

SERIAL DILUTION RESULTS SUMMARY

Login Number: JC96248
 Account: BBLNYS - Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

QC Batch ID: MP17762
 Matrix Type: AQUEOUS

Methods: SW846 6010D
 Units: ug/l

Prep Date: 10/08/19 10/08/19

Metal	JC96248-4		QC Limits	JC96248-4F		QC Limits		
	Original	SDL 1:5		%DIF	Original		SDL 1:5	%DIF
Aluminum	6890	6910	0.3	0-10	0.00	0.00	NC	0-10
Antimony	2.70	0.00	100.0(a)	0-10	1.60	0.00	100.0(a)	0-10
Arsenic	26.8	27.7	3.4	0-10	8.70	8.50	2.3	0-10
Barium	250	248	0.6	0-10	140	141	0.2	0-10
Beryllium	0.600	0.800	33.3 (a)	0-10	0.100	0.00	100.0(a)	0-10
Bismuth								
Boron								
Cadmium	0.900	0.00	100.0(a)	0-10	0.00	0.00	NC	0-10
Calcium	72500	74200	2.2	0-10	69100	71600	3.7	0-10
Cerium								
Chromium	46.8	47.4	1.3	0-10	0.900	0.00	100.0(a)	0-10
Cobalt	6.40	6.60	3.1	0-10	2.10	2.20	4.8	0-10
Copper	38.5	40.9	6.2	0-10	1.30	3.10	138.5(a)	0-10
Iron	19200	19500	1.5	0-10	208	223	7.1	0-10
Lead	87.9	87.3	0.7	0-10	0.00	0.00	NC	0-10
Lithium								
Magnesium	38600	39400	2.3	0-10	37300	38500	3.2	0-10
Manganese	958	965	0.8	0-10	730	740	1.5	0-10
Molybdenum								
Nickel	11.5	10.9	5.2	0-10	2.20	0.00	100.0(a)	0-10
Phosphorus								
Potassium	20900	20800	0.6	0-10	20400	20400	0.3	0-10
Selenium	0.00	0.00	NC	0-10	0.00	0.00	NC	0-10
Silicon								
Silver	0.00	0.00	NC	0-10	0.00	0.00	NC	0-10
Sodium	110000	113000	2.8	0-10	110000	115000	4.0	0-10
Strontium								
Sulfur								
Thallium	0.00	0.00	NC	0-10	0.00	0.00	NC	0-10
Tin								
Titanium								
Tungsten								
Vanadium	14.7	15.0	2.0	0-10	0.900	0.00	100.0(a)	0-10

10.5.4
10

SERIAL DILUTION RESULTS SUMMARY

Login Number: JC96248
 Account: BBLNYS - Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

QC Batch ID: MP17762
 Matrix Type: AQUEOUS

Methods: SW846 6010D
 Units: ug/l

Prep Date: 10/08/19 10/08/19

Metal	JC96248-4		QC Limits	JC96248-4F		QC Limits
	Original	SDL 1:5 %DIF		Original	SDL 1:5 %DIF	
Zinc	173	194	0-10	7.80	28.3	0-10

Zirconium

Associated samples MP17762: JC96248-1, JC96248-2, JC96248-3, JC96248-4, JC96248-5, JC96248-6, JC96248-7, JC96248-8, JC96248-1F, JC96248-2F, JC96248-3F, JC96248-4F, JC96248-5F, JC96248-6F, JC96248-7F, JC96248-8F

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

(anr) Analyte not requested

(a) Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

(b) Serial dilution indicates possible matrix interference.

10.5.4
10

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: JC96248
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA

QC Batch ID: MP17766
Matrix Type: AQUEOUS

Methods: SW846 7470A
Units: ug/l

Prep Date: 10/08/19

Metal	RL	IDL	MDL	MB	
				raw	final
Mercury	0.20	.023	.095	0.031	<0.20

Associated samples MP17766: JC96248-1, JC96248-2, JC96248-3, JC96248-4, JC96248-5, JC96248-6, JC96248-7, JC96248-8, JC96248-1F, JC96248-2F, JC96248-3F, JC96248-4F, JC96248-5F, JC96248-6F, JC96248-7F, JC96248-8F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC96248
 Account: BBLNYS - Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

QC Batch ID: MP17766
 Matrix Type: AQUEOUS

Methods: SW846 7470A
 Units: ug/l

Prep Date: 10/08/19

Metal	JC96248-4 Original MS	Spikelot HGPW3	QC % Rec	QC Limits
Mercury	0.42 2.5	2	104.0	75-125

Associated samples MP17766: JC96248-1, JC96248-2, JC96248-3, JC96248-4, JC96248-5, JC96248-6, JC96248-7, JC96248-8, JC96248-1F, JC96248-2F, JC96248-3F, JC96248-4F, JC96248-5F, JC96248-6F, JC96248-7F, JC96248-8F

Results < IDL are shown as zero for calculation purposes
 (*) Outside of QC limits
 (N) Matrix Spike Rec. outside of QC limits
 (anr) Analyte not requested

10.6.2
10

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC96248
 Account: BBLNYS - Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

QC Batch ID: MP17766
 Matrix Type: AQUEOUS

Methods: SW846 7470A
 Units: ug/l

Prep Date: 10/08/19

Metal	JC96248-4 Original MSD	Spikelot HGPW3	% Rec	MSD RPD	QC Limit
Mercury	0.42 2.6	2	109.0	3.9	20

Associated samples MP17766: JC96248-1, JC96248-2, JC96248-3, JC96248-4, JC96248-5, JC96248-6, JC96248-7, JC96248-8, JC96248-1F, JC96248-2F, JC96248-3F, JC96248-4F, JC96248-5F, JC96248-6F, JC96248-7F, JC96248-8F

Results < IDL are shown as zero for calculation purposes
 (*) Outside of QC limits
 (N) Matrix Spike Rec. outside of QC limits
 (anr) Analyte not requested

10.6.2
10

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC96248
 Account: BBLNYS - Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

QC Batch ID: MP17766
 Matrix Type: AQUEOUS

Methods: SW846 7470A
 Units: ug/l

Prep Date: 10/08/19

Metal	JC96248-4F Original MS	Spikelot HGPW3	QC % Rec	QC Limits
Mercury	0.0	2.1	2	105.0 75-125

Associated samples MP17766: JC96248-1, JC96248-2, JC96248-3, JC96248-4, JC96248-5, JC96248-6, JC96248-7, JC96248-8, JC96248-1F, JC96248-2F, JC96248-3F, JC96248-4F, JC96248-5F, JC96248-6F, JC96248-7F, JC96248-8F

Results < IDL are shown as zero for calculation purposes
 (*) Outside of QC limits
 (N) Matrix Spike Rec. outside of QC limits
 (anr) Analyte not requested

10.6.2
10

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC96248
 Account: BBLNYS - Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

QC Batch ID: MP17766
 Matrix Type: AQUEOUS

Methods: SW846 7470A
 Units: ug/l

Prep Date: 10/08/19

Metal	JC96248-4F Original MSD	Spikelot HGPW3	% Rec	MSD RPD	QC Limit
Mercury	0.0	2.1	2	105.0	0.0 20

Associated samples MP17766: JC96248-1, JC96248-2, JC96248-3, JC96248-4, JC96248-5, JC96248-6, JC96248-7, JC96248-8, JC96248-1F, JC96248-2F, JC96248-3F, JC96248-4F, JC96248-5F, JC96248-6F, JC96248-7F, JC96248-8F

Results < IDL are shown as zero for calculation purposes
 (*) Outside of QC limits
 (N) Matrix Spike Rec. outside of QC limits
 (anr) Analyte not requested

10.6.2
 10

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: JC96248
 Account: BBLNYS - Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

QC Batch ID: MP17766
 Matrix Type: AQUEOUS

Methods: SW846 7470A
 Units: ug/l

Prep Date: 10/08/19

Metal	BSP Result	Spikelot HGPW3	% Rec	QC Limits
Mercury	1.9	2	95.0	80-120

Associated samples MP17766: JC96248-1, JC96248-2, JC96248-3, JC96248-4, JC96248-5, JC96248-6, JC96248-7, JC96248-8, JC96248-1F, JC96248-2F, JC96248-3F, JC96248-4F, JC96248-5F, JC96248-6F, JC96248-7F, JC96248-8F

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits
 (anr) Analyte not requested

10.6.3
 10

Instrument Detection Limits

Job Number: JC96248
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA

Instrument ID: LEEMANHG8	Effective Date: 08/01/19
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Analyte	IDL ug/l
Mercury	.023

The above applies to the following instrument runs:
MA47587

10.7
10

Instrument Detection Limits

Job Number: JC96248
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA

Instrument ID: SSTRACE3	Effective Date: 02/18/19
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Analyte	IDL ug/l
Aluminum	14.3
Antimony	1.4
Arsenic	1.5
Barium	.5
Beryllium	.1
Bismuth	1.8
Boron	.8
Cadmium	.3
Calcium	3.9
Chromium	.3
Cobalt	.3
Copper	.6
Iron	2.6
Lead	1.6
Lithium	2.1
Magnesium	16.3
Manganese	.1
Molybdenum	.4
Nickel	.5
Phosphorus	1.9
Potassium	79
Selenium	3
Silicon	1.2
Silver	.5
Sodium	9.9
Sulfur	3.5
Strontium	.3
Thallium	1.3
Tin	.7
Titanium	.5
Tungsten	1.7
Vanadium	.5
Yttrium	5
Zinc	.2
Zirconium	.3

The above applies to the following instrument runs:
MA47598,MA47601

10.7
10

Instrument Detection Limits

Job Number: JC96248
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA

Instrument ID: SSTRACE5	Effective Date: 01/16/19
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Analyte	IDL ug/l
Aluminum	13.3
Antimony	1.1
Arsenic	1.2
Barium	.2
Beryllium	.1
Bismuth	1.8
Boron	1.2
Cadmium	.2
Calcium	3.7
Chromium	.4
Cobalt	.3
Copper	1
Iron	2.4
Lead	1.5
Lithium	1.5
Magnesium	17
Manganese	.1
Molybdenum	.3
Nickel	.3
Phosphorus	2
Potassium	39.9
Selenium	1.8
Silicon	.9
Silver	.5
Sodium	13
Sulfur	3.5
Strontium	.2
Thallium	1.6
Tin	.6
Titanium	.6
Tungsten	1.1
Vanadium	.4
Zinc	.2
Zirconium	.2

The above applies to the following instrument runs:
MA47607

10.7
10

Instrument Linear Ranges

Job Number: JC96248
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA

Instrument ID: LEEMANHG8	Effective Date: 03/10/17
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Analyte	Linear Range ug/l
Mercury	5

The above applies to the following instrument runs:
MA47587

10.7
10

Instrument Linear Ranges

Job Number: JC96248
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA

Instrument ID: SSTRACE3	Effective Date: 08/22/19
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Analyte	Linear Range ug/l
Aluminum	300000
Antimony	8000
Arsenic	8000
Barium	8000
Beryllium	8000
Bismuth	8000
Boron	8000
Cadmium	8000
Calcium	200000
Cerium	8000
Chromium	8000
Cobalt	8000
Copper	8000
Iron	200000
Lead	8000
Lithium	8000
Magnesium	300000
Manganese	8000
Molybdenum	8000
Nickel	8000
Palladium	8000
Phosphorus	8000
Potassium	200000
Selenium	8000
Silicon	25000
Silver	625
Sodium	200000
Sulfur	100000
Strontium	8000
Thallium	8000
Tin	8000
Titanium	8000
Tungsten	8000
Vanadium	8000
Zinc	8000
Zirconium	8000

The above applies to the following instrument runs:
MA47598,MA47601

10.7
10

Instrument Linear Ranges

Job Number: JC96248
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA

Instrument ID: SSTRACE5	Effective Date: 08/22/19
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Analyte	Linear Range ug/l
Aluminum	300000
Antimony	8000
Arsenic	8000
Barium	8000
Beryllium	8000
Bismuth	8000
Boron	8000
Cadmium	8000
Calcium	200000
Cerium	8000
Chromium	8000
Cobalt	8000
Copper	8000
Iron	200000
Lead	8000
Lithium	8000
Magnesium	300000
Manganese	8000
Molybdenum	8000
Nickel	8000
Palladium	8000
Phosphorus	8000
Potassium	200000
Selenium	8000
Silicon	25000
Silver	625
Sodium	200000
Sulfur	100000
Strontium	8000
Thallium	8000
Tin	8000
Titanium	8000
Tungsten	8000
Vanadium	8000
Zinc	8000
Zirconium	8000

The above applies to the following instrument runs:
MA47607

10.7
10

Metals Analysis

Raw Data

MA47587

Method: ACCUTEST

Operator: Admin

Date of Analysis: 08 Oct 2019 11:21:03

Sample ID	Date	Type	Units	Conc.	µ Abs.	Wt.	Vol.
STDA - 1	08 Oct 2019 11:31:32	Std	ug/l	-	93	1.000	1.000
STDB - 1	08 Oct 2019 11:32:50	Std	ug/l	-	700	1.000	1.000
STDC - 1	08 Oct 2019 11:34:08	Std	ug/l	-	1459	1.000	1.000
STDD - 1	08 Oct 2019 11:35:31	Std	ug/l	-	3188	1.000	1.000
STDE - 1	08 Oct 2019 11:37:05	Std	ug/l	-	8757	1.000	1.000
STDF - 1	08 Oct 2019 11:38:46	Std	ug/l	-	16687	1.000	1.000
ICV - 1	08 Oct 2019 11:42:43	CK STND	ug/l	99.6% 2.9869	10044	1.000	1.000
ICB - 1	08 Oct 2019 11:43:58	CK STND	ug/l	-0.0697	-253	1.000	1.000
CCV - 1	08 Oct 2019 11:45:51	CK STND	ug/l	105.0% 2.6253	8826	1.000	1.000
CCB - 1	08 Oct 2019 11:47:08	CK STND	ug/l	-0.0694	-252	1.000	1.000
CRI - 1	08 Oct 2019 11:48:58	CK STND	ug/l	108.5% 0.2170	713	1.000	1.000
CCV - 1	08 Oct 2019 11:50:14	CK STND	ug/l	100.3% 2.5066	8426	1.000	1.000
CCB - 1	08 Oct 2019 11:51:38	CK STND	ug/l	-0.0804	-289	1.000	1.000
MP17764-MB1 - 1	08 Oct 2019 11:54:10	SMPL	ug/l	0.0900	285	1.000	1.000
MP17764-B1 - 1	08 Oct 2019 11:55:26	SMPL	ug/l	2.2103	7428	1.000	1.000
MP17764-S1 - 1	08 Oct 2019 11:56:46	SMPL	ug/l	2.1427	7200	1.000	1.000
MP17764-S2 - 1	08 Oct 2019 11:58:27	SMPL	ug/l	2.1053	7074	1.000	1.000
JC96160-1 - 1	08 Oct 2019 12:00:11	SMPL	ug/l	0.0582	178	1.000	1.000
JC96160-2 - 1	08 Oct 2019 12:01:56	SMPL	ug/l	0.0998	318	1.000	1.000
JC96160-3 - 1	08 Oct 2019 12:03:15	SMPL	ug/l	0.0493	148	1.000	1.000
JC96160-4 - 1	08 Oct 2019 12:04:35	SMPL	ug/l	0.0906	287	1.000	1.000
JC96041-1F - 1	08 Oct 2019 12:05:55	SMPL	ug/l	0.0825	260	1.000	1.000
CCV - 1	08 Oct 2019 12:07:16	CK STND	ug/l	102.0% 2.5499	8572	1.000	1.000
CCB - 1	08 Oct 2019 12:08:36	CK STND	ug/l	-0.0715	-259	1.000	1.000
JC96041-2F - 1	08 Oct 2019 12:10:26	SMPL	ug/l	0.1253	404	1.000	1.000
JC96041-3F - 1	08 Oct 2019 12:11:43	SMPL	ug/l	0.0825	260	1.000	1.000
JC96041-4F - 1	08 Oct 2019 12:13:04	SMPL	ug/l	0.0796	250	1.000	1.000
JC96041-5F - 1	08 Oct 2019 12:14:25	SMPL	ug/l	0.1300	420	1.000	1.000
JC96041-6F - 1	08 Oct 2019 12:15:45	SMPL	ug/l	0.1173	377	1.000	1.000
JC96041-7F - 1	08 Oct 2019 12:17:04	SMPL	ug/l	0.1134	364	1.000	1.000
JC96041-8F - 1	08 Oct 2019 12:18:24	SMPL	ug/l	0.0846	267	1.000	1.000
JC96041-9F - 1	08 Oct 2019 12:19:44	SMPL	ug/l	0.0618	190	1.000	1.000
JC96041-10F - 1	08 Oct 2019 12:21:03	SMPL	ug/l	0.0131	26	1.000	1.000
CCV - 1	08 Oct 2019 12:22:22	CK STND	ug/l	104.6% 2.6158	8794	1.000	1.000
CCB - 1	08 Oct 2019 12:23:42	CK STND	ug/l	-0.0641	-234	1.000	1.000
JC96041-11F - 1	08 Oct 2019 12:25:31	SMPL	ug/l	0.0573	175	1.000	1.000
JC96263-1F - 1	08 Oct 2019 12:26:48	SMPL	ug/l	0.0609	187	1.000	1.000
JC96263-2F - 1	08 Oct 2019 12:28:07	SMPL	ug/l	0.0674	209	1.000	1.000
JC96263-3F - 1	08 Oct 2019 12:29:27	SMPL	ug/l	0.0401	117	1.000	1.000
JC96235-1 - 1	08 Oct 2019 12:30:48	SMPL	ug/l	0.0437	129	1.000	1.000
JC96244-1 - 1	08 Oct 2019 12:32:08	SMPL	ug/l	0.0496	149	1.000	1.000
MP17765-MB1 - 1	08 Oct 2019 12:33:28	SMPL	ug/l	0.0404	118	1.000	1.000
CCV - 1	08 Oct 2019 12:34:46	CK STND	ug/l	104.4% 2.6093	8772	1.000	1.000
CCB - 1	08 Oct 2019 12:36:06	CK STND	ug/l	-0.0656	-239	1.000	1.000
MP17765-B1 - 1	08 Oct 2019 12:37:54	SMPL	ug/l	1.9705	6620	1.000	1.000
MP17765-S1 - 1	08 Oct 2019 12:39:11	SMPL	ug/l	2.1685	7287	1.000	1.000
MP17765-S2 - 1	08 Oct 2019 12:40:54	SMPL	ug/l	2.1643	7273	1.000	1.000
JC96153-2F - 1	08 Oct 2019 12:42:35	SMPL	ug/l	-0.0074	-43	1.000	1.000
JC96153-1F - 1	08 Oct 2019 12:44:17	SMPL	ug/l	0.0365	105	1.000	1.000
JC96153-3F - 1	08 Oct 2019 12:45:36	SMPL	ug/l	0.0258	69	1.000	1.000
JC96153-4F - 1	08 Oct 2019 12:46:54	SMPL	ug/l	0.0321	90	1.000	1.000
JC96153-5F - 1	08 Oct 2019 12:48:13	SMPL	ug/l	0.0431	127	1.000	1.000
JC96153-6F - 1	08 Oct 2019 12:49:32	SMPL	ug/l	0.0214	54	1.000	1.000
CCV - 1	08 Oct 2019 12:50:50	CK STND	ug/l	104.3% 2.6066	8763	1.000	1.000
CCB - 1	08 Oct 2019 12:52:09	CK STND	ug/l	-0.0659	-240	1.000	1.000
JC96153-7F - 1	08 Oct 2019 12:54:00	SMPL	ug/l	0.0434	128	1.000	1.000
JC96153-8F - 1	08 Oct 2019 12:55:18	SMPL	ug/l	0.0345	98	1.000	1.000
JC96153-9F - 1	08 Oct 2019 12:56:38	SMPL	ug/l	0.0258	69	1.000	1.000
JC96153-10F - 1	08 Oct 2019 12:57:56	SMPL	ug/l	0.0291	80	1.000	1.000
JC96153-11F - 1	08 Oct 2019 12:59:15	SMPL	ug/l	0.0362	104	1.000	1.000
JC96153-12F - 1	08 Oct 2019 13:00:33	SMPL	ug/l	0.0353	101	1.000	1.000
JC96136-1 - 1	08 Oct 2019 13:01:50	SMPL	ug/l	0.0365	105	1.000	1.000
JC96136-2 - 1	08 Oct 2019 13:03:09	SMPL	ug/l	0.0440	130	1.000	1.000
JC96136-3 - 1	08 Oct 2019 13:04:27	SMPL	ug/l	0.0336	95	1.000	1.000
CCV - 1	08 Oct 2019 13:05:46	CK STND	ug/l	102.0% 2.5499	8572	1.000	1.000
CCB - 1	08 Oct 2019 13:07:05	CK STND	ug/l	-0.0460	-173	1.000	1.000
JC96136-4 - 1	08 Oct 2019 13:08:56	SMPL	ug/l	0.0348	99	1.000	1.000
JC96136-5 - 1	08 Oct 2019 13:10:13	SMPL	ug/l	0.0665	206	1.000	1.000
JC96136-6 - 1	08 Oct 2019 13:11:31	SMPL	ug/l	0.0333	94	1.000	1.000

MA47587

Method: ACCUTEST

Operator: Admin

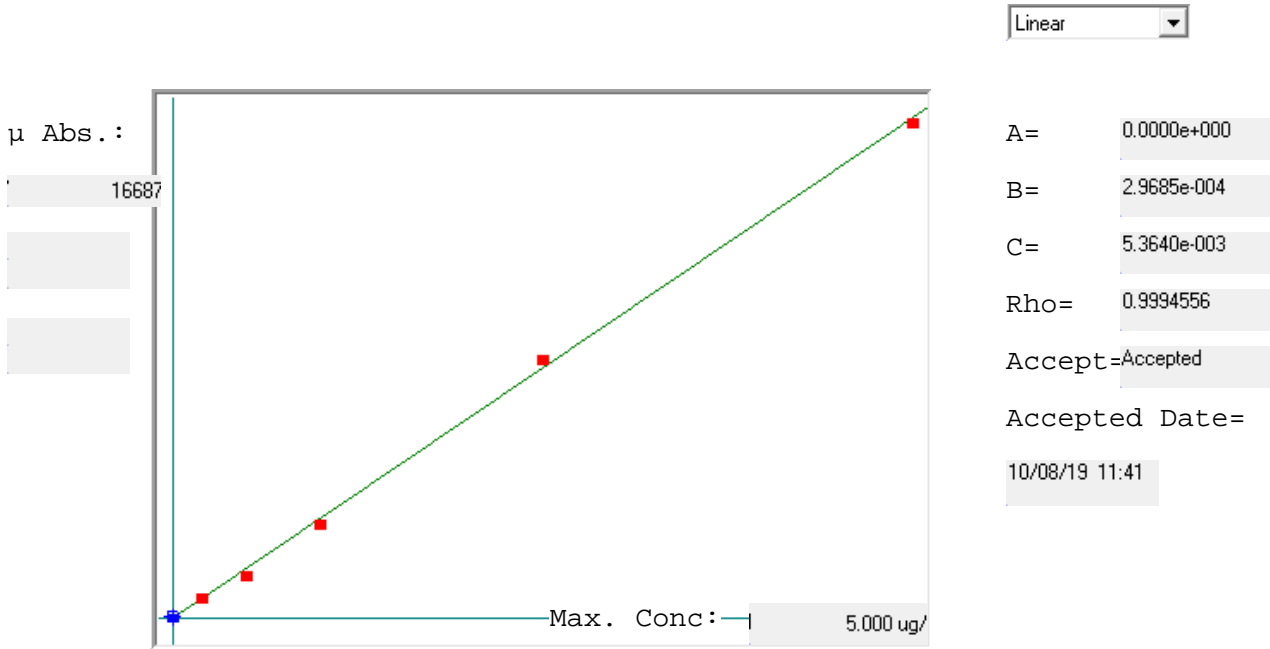
Date of Analysis: 08 Oct 2019 11:21:03

Sample ID	Date	Type	Units	Conc.	μ Abs.	Wt.	Vol.
JC96136-7 - 1	08 Oct 2019 13:12:51	SMPL	ug/l	0.0336	95	1.000	1.000
MP17766-MB1 - 1	08 Oct 2019 13:14:10	SMPL	ug/l	0.0306	85	1.000	1.000
CCV - 1	08 Oct 2019 13:15:31	CK STND	ug/l	103.8% 2.5956	8726	1.000	1.000
CCB - 1	08 Oct 2019 13:16:50	CK STND	ug/l	-0.0484	-181	1.000	1.000
MP17766-B1 - 1	08 Oct 2019 13:18:41	SMPL	ug/l	1.8755	6300	1.000	1.000
MP17766-S1 - 1	08 Oct 2019 13:19:59	SMPL	ug/l	2.5010	8407	1.000	1.000
MP17766-S2 - 1	08 Oct 2019 13:21:41	SMPL	ug/l	2.5796	8672	1.000	1.000
JC96248-4 - 1	08 Oct 2019 13:23:26	SMPL	ug/l	0.4218	1403	1.000	1.000
MP17766-S3 - 1	08 Oct 2019 13:25:13	SMPL	ug/l	2.0536	6900	1.000	1.000
MP17766-S4 - 1	08 Oct 2019 13:26:44	SMPL	ug/l	2.0872	7013	1.000	1.000
JC96248-4F - 1	08 Oct 2019 13:28:27	SMPL	ug/l	-0.0297	-118	1.000	1.000
JC96248-1 - 1	08 Oct 2019 13:30:11	SMPL	ug/l	0.0181	43	1.000	1.000
JC96248-1F - 1	08 Oct 2019 13:31:29	SMPL	ug/l	0.0264	71	1.000	1.000
CCV - 1	08 Oct 2019 13:32:48	CK STND	ug/l	102.4% 2.5600	8606	1.000	1.000
CCB - 1	08 Oct 2019 13:34:07	CK STND	ug/l	-0.0665	-242	1.000	1.000
JC96248-2 - 1	08 Oct 2019 13:35:57	SMPL	ug/l	0.0371	107	1.000	1.000
JC96248-2F - 1	08 Oct 2019 13:37:16	SMPL	ug/l	0.0339	96	1.000	1.000
JC96248-3 - 1	08 Oct 2019 13:38:36	SMPL	ug/l	0.0279	76	1.000	1.000
JC96248-3F - 1	08 Oct 2019 13:39:56	SMPL	ug/l	0.0303	84	1.000	1.000
JC96248-5 - 1	08 Oct 2019 13:41:15	SMPL	ug/l	0.0149	32	1.000	1.000
JC96248-5F - 1	08 Oct 2019 13:42:33	SMPL	ug/l	0.0288	79	1.000	1.000
JC96248-6 - 1	08 Oct 2019 13:43:50	SMPL	ug/l	0.0270	73	1.000	1.000
JC96248-6F - 1	08 Oct 2019 13:45:09	SMPL	ug/l	0.0324	91	1.000	1.000
JC96248-7 - 1	08 Oct 2019 13:46:28	SMPL	ug/l	0.0327	92	1.000	1.000
CCV - 1	08 Oct 2019 13:47:47	CK STND	ug/l	99.2% 2.4796	8335	1.000	1.000
CCB - 1	08 Oct 2019 13:49:06	CK STND	ug/l	-0.0641	-234	1.000	1.000
JC96248-7F - 1	08 Oct 2019 13:50:56	SMPL	ug/l	0.0434	128	1.000	1.000
JC96248-8 - 1	08 Oct 2019 13:52:14	SMPL	ug/l	0.0255	68	1.000	1.000
JC96248-8F - 1	08 Oct 2019 13:53:33	SMPL	ug/l	0.0229	59	1.000	1.000
JC96260-1 - 1	08 Oct 2019 13:54:53	SMPL	ug/l	0.0241	63	1.000	1.000
JC96260-2 - 1	08 Oct 2019 13:56:11	SMPL	ug/l	0.0250	66	1.000	1.000
JC96260-3 - 1	08 Oct 2019 13:57:30	SMPL	ug/l	0.0169	39	1.000	1.000
MP17716-FMBCONF - 1	08 Oct 2019 13:58:50	SMPL	ug/l	0.0401	117	1.000	1.000
MP17716-FLCCONF - 1	08 Oct 2019 14:00:09	SMPL	ug/l	2.1053	7074	1.000	1.000
CCV - 1	08 Oct 2019 14:01:28	CK STND	ug/l	102.3% 2.5568	8595	1.000	1.000
CCB - 1	08 Oct 2019 14:03:14	CK STND	ug/l	-0.0691	-251	1.000	1.000

11.1

11

ACCUTEST



Std ID	Conc.	Calc.	Dev.	Mean	SD or %RSD	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
STDA	0.000	0.033	0.033	93	0.000	93				
STDB	0.200	0.213	0.013	700	0.0 %	700				
STDC	0.500	0.438	-0.062	1459	0.0 %	1459				
STDD	1.000	0.952	-0.048	3188	0.0 %	3188				
STDE	2.500	2.605	0.105	8757	0.0 %	8757				
STDF	5.000	4.959	-0.041	16687	0.0 %	16687				

11.1.1

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Sample Name: STDA Acquired: 10/9/2019 11:45:22 Type: Cal
 Method: SGS 3 NO Valve(v283) Mode: IR Corr. Factor: 1.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	0105	-0011	0003	0001	-0000	0028	-0000	0000	-0003
Stddev	.0006	.0001	.0001	.0001	.0000	.0000	.0001	.0002	.0000
%RSD	5.635	12.23	37.71	78.38	83.92	.2443	118.4	710.9	13.54
#1	.0110	-.0010	.0004	.0002	-.0000	.0028	.0000	-.0002	-.0003
#2	.0107	-.0013	.0003	.0000	-.0000	.0028	-.0001	.0001	-.0003
#3	.0099	-.0011	.0002	.0002	-.0000	.0028	-.0000	.0002	-.0003
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	0006	0005	-0003	-0001	0001	-0001	0002	0009	0096
Stddev	.0001	.0001	.0000	.0000	.0003	.0001	.0001	.0004	.0001
%RSD	9.109	24.77	5.417	28.16	592.5	73.59	31.28	44.24	1.282
#1	.0006	.0006	-.0003	-.0001	.0003	-.0000	.0003	.0010	.0096
#2	.0006	.0004	-.0003	-.0001	.0002	-.0002	.0001	.0012	.0096
#3	.0005	.0005	-.0003	-.0001	-.0003	-.0001	.0002	.0004	.0094
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	0003	-0000	0015	-0041	0003	0001	0009	0002	-0015
Stddev	.0001	.0001	.0008	.0003	.0001	.0001	.0001	.0000	.0001
%RSD	28.32	106.1	55.12	6.579	19.31	57.25	15.67	4.388	7.808
#1	.0002	-.0001	.0008	-.0043	.0003	.0000	.0009	.0002	-.0013
#2	.0003	.0001	.0013	-.0042	.0003	.0001	.0011	.0002	-.0016
#3	.0002	-.0001	.0025	-.0038	.0004	.0002	.0008	.0002	-.0015
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040	
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	
Avg	0001	0012	-0005	-0015	0001	-0069	-0130	0006	
Stddev	.0000	.0001	.0001	.0001	.0001	.0007	.0000	.0000	
%RSD	67.86	12.30	13.04	5.279	84.96	10.05	.3848	6.070	
#1	.0001	.0012	-.0004	-.0015	.0002	-.0061	-.0130	.0006	
#2	.0001	.0012	-.0006	-.0014	.0000	-.0071	-.0130	.0007	
#3	.0000	.0010	-.0005	-.0016	.0001	-.0075	-.0130	.0006	

Sample Name: STDA Acquired: 10/9/2019 11:45:22 Type: Cal
 Method: SGS 3 NO Valve(v283) Mode: IR Corr. Factor: 1.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	205000.	30706.	9149.8	12611.
Stddev	.447	.78	14.9	19.
%RSD	.21827	.25419	.16246	.15001
#1	204890.	30698.	9156.9	12606.
#2	204620.	30633.	9159.8	12632.
#3	205490.	30788.	9132.7	12595.

Sample Name: STDb Acquired: 10/9/2019 11:54:33 Type: Cal
 Method: SGS 3 NO Valve(v283) Mode: IR Corr. Factor: 1.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	8.054	13.33	4.246	2.728	6.202	1.008	3.240	2.341	0.721
Stddev	.079	.28	.006	.004	.0068	.012	.055	.001	.0008
%RSD	.9849	2.091	.1392	.1284	1.092	1.198	1.701	.0554	1.146
#1	8.126	13.65	4.253	2.729	6.231	1.012	3.263	2.341	.0723
#2	8.066	13.23	4.241	2.724	6.250	1.017	3.279	2.340	.0728
#3	7.969	13.12	4.245	2.730	6.124	.9943	3.177	2.342	.0712
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7.866	6.221	4.663	3.692	1.078	3.687	5.859	3.658	8.964
Stddev	.0092	.008	.0006	.0005	.001	.0002	.0005	.010	.225
%RSD	1.165	.1298	.1257	.1251	.1234	.0634	.0777	.2727	2.513
#1	.7909	6.229	4.668	3.689	1.079	3.685	5.865	3.664	9.224
#2	.7928	6.212	4.657	3.690	1.077	3.687	5.856	3.646	8.837
#3	.7761	6.221	4.664	3.697	1.079	3.690	5.858	3.664	8.830
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5.398	9.367	1.864	6.472	9.298	3.025	1.887	9.237	13.68
Stddev	.021	.0035	.006	.015	.0011	.002	.002	.0008	.28
%RSD	.3818	.3707	.3182	.2280	.1168	.0618	.1249	.0903	2.031
#1	5.416	.9402	1.868	6.487	9.305	3.027	1.890	.9247	13.82
#2	5.376	.9332	1.857	6.457	9.286	3.023	1.885	.9231	13.36
#3	5.403	.9366	1.866	6.472	9.305	3.024	1.886	.9233	13.86
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040	
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	
Avg	6.533	1.467	1.903	2.124	6.287	2.061	.5513	1.418	
Stddev	.0069	.002	.025	.0004	.0010	.006	.0004	.0014	
%RSD	1.055	.1409	1.289	.2070	.1512	.3049	.0752	.9711	
#1	.6560	1.468	1.922	2.120	6.297	2.066	.5513	1.424	
#2	.6585	1.465	1.912	2.123	6.278	2.054	.5510	1.427	
#3	.6455	1.469	1.876	2.129	6.286	2.064	.5518	1.402	

Sample Name: STDb Acquired: 10/9/2019 11:54:33 Type: Cal
 Method: SGS 3 NO Valve(v283) Mode: IR Corr. Factor: 1.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	188860.	29652.	8537.9	11360.
Stddev	2052.	263.	10.3	11.
%RSD	1.0863	.88562	.12090	.09659
#1	188010.	29349.	8526.4	11348.
#2	187380.	29809.	8541.2	11368.
#3	191200.	29798.	8546.2	11364.

Sample Name: CCVCONF Acquired: 10/9/2019 12:00:14 Type: QC
Method: SGS 3 NO Valve(v283) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Table with 10 columns: Elem, Units, Avg, Stddev, %RSD, #1, #2, #3. Data for elements Ba4554, Be3130, Cd2288, Co2286, Cr2677, Cu3247, Mn2576, Ni2316, Ag3280.

Check ? Value Range

Table with 10 columns: Elem, Units, Avg, Stddev, %RSD, #1, #2, #3. Data for elements V_2924, Zn2062, As1890, Tl1908, Pb2203, Se1960, Sb2068, Al3961, Ca3179.

Check ? Value Range

Table with 10 columns: Elem, Units, Avg, Stddev, %RSD, #1, #2, #3. Data for elements Fe2599, Mg2790, K_7664, Na5895, B_2089, Mo2020, Si2124, Sn1899, Sr4077.

Check ? Value Range

Sample Name: CCVCONF Acquired: 10/9/2019 12:00:14 Type: QC
Method: SGS 3 NO Valve(v283) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Table with 10 columns: Elem, Units, Avg, Stddev, %RSD, #1, #2, #3. Data for elements Ti3349, W_2079, Zr3391, S_1820, Bi2230, Li6707, P_1774, Ce4040.

Check ? Value Range

Table with 10 columns: Int. Std. Units, Avg, Stddev, %RSD, #1, #2, #3. Data for elements Y_3600, Y_3710, Y_2243, In2306.

Check ? Value Range

Sample Name: CCBCONF Acquired: 10/9/2019 12:05:12 Type: QC
Method: SGS 3 NO Valve(v283) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Table with 10 columns: Elem, Units, Avg, Stddev, %RSD, #1, #2, #3. Data for elements Ba4554, Be3130, Cd2288, Co2286, Cr2677, Cu3247, Mn2576, Ni2316, Ag3280.

Check ? High Limit Low Limit

Table with 10 columns: Elem, Units, Avg, Stddev, %RSD, #1, #2, #3. Data for elements V_2924, Zn2062, As1890, Tl1908, Pb2203, Se1960, Sb2068, Al3961, Ca3179.

Check ? High Limit Low Limit

Table with 10 columns: Elem, Units, Avg, Stddev, %RSD, #1, #2, #3. Data for elements Fe2599, Mg2790, K_7664, Na5895, B_2089, Mo2020, Si2124, Sn1899, Sr4077.

Check ? High Limit Low Limit

Sample Name: CCBCONF Acquired: 10/9/2019 12:05:12 Type: QC
Method: SGS 3 NO Valve(v283) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Table with 10 columns: Elem, Units, Avg, Stddev, %RSD, #1, #2, #3. Data for elements Ti3349, W_2079, Zr3391, S_1820, Bi2230, Li6707, P_1774, Ce4040.

Check ? High Limit Low Limit

Table with 10 columns: Int. Std. Units, Avg, Stddev, %RSD, #1, #2, #3. Data for elements Y_3600, Y_3710, Y_2243, In2306.

Sample Name: ICCV 1 Acquired: 10/9/2019 12:23:20 Type: QC
 Method: SGS 3 NO Valve(v283) Mode: CONC Corr. Factor: 1.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.021	2.017	2.006	2.040	2.036	2.018	2.069	2.045	2.501
Stddev	.004	.004	.001	.003	.032	.030	.031	.003	.0033
%RSD	.1737	.2173	.0715	.1589	1.562	1.493	1.494	.1527	1.318
#1	2.020	2.017	2.007	2.044	2.078	2.056	2.108	2.049	2.539
#2	2.017	2.011	2.007	2.042	2.001	1.983	2.039	2.045	2.459
#3	2.025	2.021	2.005	2.037	2.030	2.014	2.050	2.042	2.501
#4	2.022	2.019	2.004	2.039	2.035	2.020	2.080	2.042	2.505

Check ? Value Range Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.035	2.032	2.030	2.083	2.032	2.012	2.034	39.93	40.95
Stddev	.031	.003	.003	.006	.004	.003	.001	.04	.05
%RSD	1.520	.1674	.1347	.2694	.1719	.1366	.0669	.0918	.1223

#1	2.075	2.036	2.030	2.088	2.037	2.013	2.035	39.92	40.92
#2	2.000	2.034	2.029	2.085	2.033	2.015	2.035	39.88	40.89
#3	2.028	2.029	2.026	2.082	2.030	2.009	2.033	39.97	40.99
#4	2.036	2.031	2.033	2.075	2.030	2.010	2.033	39.93	40.99

Check ? Value Range Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass

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Sample Name: ICCV 1 Acquired: 10/9/2019 12:23:20 Type: QC
 Method: SGS 3 NO Valve(v283) Mode: CONC Corr. Factor: 1.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	40.44	40.43	39.99	40.42	2.026	2.046	5.344	2.076	2.045
Stddev	.05	.01	.07	.02	.002	.002	.001	.003	.001
%RSD	.1203	.0182	.1673	.0392	.0717	.0793	.0198	.1623	.0534
#1	40.44	40.44	39.98	40.44	2.027	2.046	5.344	2.078	2.045
#2	40.37	40.42	39.91	40.40	2.027	2.046	5.342	2.079	2.043
#3	40.47	40.42	40.02	40.42	2.025	2.043	5.344	2.072	2.046
#4	40.47	40.44	40.06	40.43	2.024	2.047	5.343	2.077	2.045

Check ? Value Range Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Fail 5.000 Chk Pass Chk Pass 5.000%

Elem	Tl3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.052	2.015	2.088	1.984	2.018	1.999	2.007	2.027
Stddev	.032	.001	.032	.003	.004	.004	.005	.029
%RSD	1.538	.0583	1.548	.1508	.1874	.2076	.2701	1.420

#1	2.092	2.016	2.129	1.988	2.016	2.001	2.014	2.063
#2	2.015	2.014	2.051	1.985	2.015	1.993	2.005	1.993
#3	2.050	2.013	2.079	1.981	2.016	2.000	2.001	2.025
#4	2.049	2.015	2.092	1.982	2.023	2.003	2.008	2.028

Check ? Value Range Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass

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11.2
11

Sample Name: ICCV 1 Acquired: 10/9/2019 12:23:20 Type: QC
 Method: SGS 3 NO Valve(v283) Mode: CONC Corr. Factor: 1.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	194220.	30327.	8833.1	11711.
Stddev	3350.	105.	13.7	24.
%RSD	1.7250	.34557	.15541	.20382
#1	189810.	30396.	8815.5	11677.
#2	197940.	30304.	8831.5	11709.
#3	194850.	30419.	8848.5	11730.
#4	194290.	30188.	8837.0	11725.

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Sample Name: CCB 7 Acquired: 10/9/2019 12:35:17 Type: QC
 Method: SGS 3 NO Valve(v283) Mode: CONC Corr. Factor: 1.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0003	.0004	.0002	.0003	.0003	.0003	.0004	.0003	-0.0002
Stddev	.0002	.0002	.0001	.0001	.0002	.0002	.0000	.0001	.0002
%RSD	58.00	44.34	56.63	20.41	58.51	55.47	8.776	21.40	86.08
#1	.0004	.0002	.0001	.0004	.0001	.0005	.0004	.0003	-0.0002
#2	.0005	.0006	.0003	.0003	.0003	.0002	.0004	.0002	-0.0003
#3	.0001	.0004	.0001	.0003	.0005	.0002	.0003	.0003	-0.0000

Check ? High Limit Low Limit Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0001	.0003	-0.003	.0013	.0004	.0009	.0000	-0.0002	.0085
Stddev	.0000	.0001	.0004	.0004	.0003	.0012	.0013	.0047	.0033
%RSD	35.74	24.49	134.5	29.70	80.04	133.4	31630.	2434.	38.77

#1	.0001	.0004	-0.001	.0016	.0004	.0002	.0011	-0.0056	.0048
#2	.0002	.0003	-0.000	.0009	.0007	.0003	.0003	.0032	.0093
#3	.0001	.0002	-0.008	.0014	.0001	.0023	-0.0014	.0018	.0112

Check ? High Limit Low Limit Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0085	.0067	.0004	.0069	.0016	.0003	.0009	.0004	.0006
Stddev	.0039	.0098	.0228	.0069	.0003	.0002	.0008	.0003	.0002
%RSD	46.44	145.2	5949.	99.25	20.79	62.88	83.50	81.76	30.22

#1	.0039	-0.030	.0219	-0.010	.0017	.0005	.0017	.0001	.0004
#2	.0106	.0165	.0027	.0112	.0020	.0001	.0001	.0003	.0007
#3	.0109	.0067	-0.235	.0106	.0013	.0003	.0009	.0007	.0006

Check ? High Limit Low Limit Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass

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Sample Name: CCB 7 Acquired: 10/9/2019 12:35:17 Type: QC
Method: SGS 3 NO Valve(v283) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Table with 9 columns: Elem, Units, Ti3349, W_2079, Zr3391, S_1820, Bi2230, Li6707, P_1774, Ce4040. Rows include Avg, Stddev, %RSD and #1-3.

Check ? High Limit Low Limit
Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass

Table with 4 columns: Int. Std. Units, Y_3600, Y_3710, Y_2243, In2306. Rows include Avg, Stddev, %RSD and #1-3.

Table with 4 columns: #1, #2, #3. Rows include values for various elements.

Sample Name: CRID Acquired: 10/9/2019 12:39:50 Type: QC
Method: SGS 3 NO Valve(v283) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Table with 11 columns: Elem, Units, Ba4554, Be3130, Cd2288, Co2286, Cr2677, Cu3247, Mn2576, Ni2316, Ag3280. Rows include Avg, Stddev, %RSD and #1-3.

Check ? Value Range
Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Fail Chk Pass Chk Pass Chk Fail

Table with 11 columns: Elem, Units, V_2924, Zn2062, As1890, Tl1908, Pb2203, Se1960, Sb2068, Al3961, Ca3179. Rows include Avg, Stddev, %RSD and #1-3.

Table with 11 columns: #1, #2, #3. Rows include values for various elements.

Check ? Value Range
Chk Pass Chk Pass Chk Pass Chk Fail Chk Fail Chk Pass Chk Fail Chk Pass Chk Pass

Table with 11 columns: Elem, Units, Fe2599, Mg2790, K_7664, Na5895, B_2089, Mo2020, Si2124, Sn1899, Sr4077. Rows include Avg, Stddev, %RSD and #1-3.

Table with 11 columns: #1, #2, #3. Rows include values for various elements.

Check ? Value Range
None Chk Pass Chk Pass Chk Pass None None None None None

11.2
11

Sample Name: CRID Acquired: 10/9/2019 12:39:50 Type: QC
Method: SGS 3 NO Valve(v283) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Table with 9 columns: Elem, Units, Ti3349, W_2079, Zr3391, S_1820, Bi2230, Li6707, P_1774, Ce4040. Rows include Avg, Stddev, %RSD and #1-3.

Check ? Value Range
None None None None None None None None

Table with 4 columns: Int. Std. Units, Y_3600, Y_3710, Y_2243, In2306. Rows include Avg, Stddev, %RSD and #1-3.

Table with 4 columns: #1, #2, #3. Rows include values for various elements.

Sample Name: CRI Acquired: 10/9/2019 12:44:52 Type: QC
Method: SGS 3 NO Valve(v283) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Table with 11 columns: Elem, Units, Ba4554, Be3130, Cd2288, Co2286, Cr2677, Cu3247, Mn2576, Ni2316, Ag3280. Rows include Avg, Stddev, %RSD and #1-3.

Check ? Value Range
Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass

Table with 11 columns: Elem, Units, V_2924, Zn2062, As1890, Tl1908, Pb2203, Se1960, Sb2068, Al3961, Ca3179. Rows include Avg, Stddev, %RSD and #1-3.

Table with 11 columns: #1, #2, #3. Rows include values for various elements.

Check ? Value Range
Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass

Table with 11 columns: Elem, Units, Fe2599, Mg2790, K_7664, Na5895, B_2089, Mo2020, Si2124, Sn1899, Sr4077. Rows include Avg, Stddev, %RSD and #1-3.

Table with 11 columns: #1, #2, #3. Rows include values for various elements.

Check ? Value Range
Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass

Sample Name: CRI Acquired: 10/9/2019 12:44:52 Type: QC
Method: SGS 3 NO Valve(v283) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Table with 9 columns (Elem, Units, Avg, Stddev, %RSD) and 9 rows (Ti3349, W_2079, Zr3391, S_1820, Bi2230, Li6707, P_1774, Ce4040, #1-3)

Check ? Chk Pass Chk Pass Chk Fail Chk Pass Chk Pass Chk Pass Chk Pass None
Value High Limit
Range Low Limit

Table with 4 columns (Int. Std. Units, Avg, Stddev, %RSD) and 4 rows (Y_3600, Y_3710, Y_2243, In2306, #1-3)

Table with 4 columns and 4 rows (#1, #2, #3) for individual data points.

Sample Name: ICSA Acquired: 10/9/2019 12:49:50 Type: QC
Method: SGS 3 NO Valve(v283) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Table with 11 columns (Elem, Units, Avg, Stddev, %RSD) and 11 rows (Ba4554, Be3130, Cd2288, Co2286, Cr2677, Cu3247, Mn2576, Ni2316, Ag3280, #1-3)

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
Value High Limit
Range Low Limit

Table with 11 columns (Elem, Units, Avg, Stddev, %RSD) and 11 rows (V_2924, Zn2062, As1890, Tl1908, Pb2203, Se1960, Sb2068, Al3961, Ca3179, #1-3)

Table with 11 columns and 11 rows (#1, #2, #3) for individual data points.

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
Value High Limit
Range Low Limit

Table with 11 columns (Elem, Units, Avg, Stddev, %RSD) and 11 rows (Fe2599, Mg2790, K_7664, Na5895, B_2089, Mo2020, Si2124, Sn1899, Sr4077, #1-3)

Table with 11 columns and 11 rows (#1, #2, #3) for individual data points.

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
Value High Limit
Range Low Limit

Sample Name: ICSA Acquired: 10/9/2019 12:49:50 Type: QC
Method: SGS 3 NO Valve(v283) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Table with 9 columns (Elem, Units, Avg, Stddev, %RSD) and 9 rows (Ti3349, W_2079, Zr3391, S_1820, Bi2230, Li6707, P_1774, Ce4040, #1-3)

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass None
Value High Limit
Range Low Limit

Table with 4 columns (Int. Std. Units, Avg, Stddev, %RSD) and 4 rows (Y_3600, Y_3710, Y_2243, In2306, #1-3)

Table with 4 columns and 4 rows (#1, #2, #3) for individual data points.

Sample Name: ICSAB Acquired: 10/9/2019 12:55:04 Type: QC
Method: SGS 3 NO Valve(v283) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Table with 11 columns (Elem, Units, Avg, Stddev, %RSD) and 11 rows (Ba4554, Be3130, Cd2288, Co2286, Cr2677, Cu3247, Mn2576, Ni2316, Ag3280, #1-3)

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
Value High Limit
Range Low Limit

Table with 11 columns (Elem, Units, Avg, Stddev, %RSD) and 11 rows (V_2924, Zn2062, As1890, Tl1908, Pb2203, Se1960, Sb2068, Al3961, Ca3179, #1-3)

Table with 11 columns and 11 rows (#1, #2, #3) for individual data points.

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
Value High Limit
Range Low Limit

Table with 11 columns (Elem, Units, Avg, Stddev, %RSD) and 11 rows (Fe2599, Mg2790, K_7664, Na5895, B_2089, Mo2020, Si2124, Sn1899, Sr4077, #1-3)

Table with 11 columns and 11 rows (#1, #2, #3) for individual data points.

Check ? Chk Pass Chk Pass None None Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
Value High Limit
Range Low Limit

Sample Name: ICSAB Acquired: 10/9/2019 12:55:04 Type: QC
 Method: SGS 3 NO Valve(v283) Mode: CONC Corr. Factor: 1.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5019	.4631	.5097	.4769	.5119	.5114	.4592	.0015
Stddev	.0005	.0029	.0009	.0023	.0026	.0024	.0014	.0029
%RSD	.1060	.6197	.1787	.4769	.5109	.4685	.2951	193.3

#1	.5019	.4633	.5087	.4750	.5135	.5136	.4585	.0013
#2	.5014	.4659	.5104	.4762	.5089	.5089	.4584	-.0013
#3	.5024	.4601	.5100	.4794	.5132	.5116	.4608	.0045

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass None
 Value Range

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	181680.	29664.	8243.8	10700.
Stddev	265.	269.	10.5	9.
%RSD	.14570	.90714	.12707	.08423

#1	181840.	29517.	8245.5	10706.
#2	181820.	29500.	8253.4	10703.
#3	181370.	29974.	8232.6	10689.

Sample Name: BLOCKEDCONF Acquired: 10/9/2019 13:00:09 Type: Unk
 Method: SGS 3 NO Valve(v283) Mode: CONC Corr. Factor: 1.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 8.037	7.958	7.006	7.162	7.899	7.784	7.838	7.170	.6013
Stddev	.097	.152	.236	.223	.303	.363	.402	.214	.0331
%RSD	1.201	1.906	3.373	3.117	3.833	4.661	5.130	2.983	5.509

#1	7.944	7.889	7.242	7.383	8.085	8.015	8.031	7.382	.6215
#2	8.137	7.853	7.007	7.165	8.063	7.972	8.108	7.173	.6192
#3	8.029	8.132	6.770	6.937	7.550	7.366	7.376	6.955	.5690

Elem V_2924 Zn2062 As1890 Tl1908 Pb2203 Se1960 Sb2068 Al3961 Ca3179
 Units ppm ppm ppm ppm ppm ppm ppm ppm ppm
 Avg 7.798 7.302 7.226 7.317 7.316 7.071 7.278 .1307 .0288
 Stddev .373 .219 .245 .235 .216 .246 .255 .0318 .0250
 %RSD 4.782 3.005 3.395 3.214 2.948 3.477 3.503 24.33 86.89

#1	7.959	7.521	7.470	7.547	7.529	7.315	7.532	.1040	.0136
#2	8.063	7.305	7.228	7.327	7.321	7.075	7.281	.1222	.0151
#3	7.371	7.082	6.979	7.077	7.098	6.823	7.022	.1659	.0577

Elem Fe2599 Mg2790 K_7664 Na5895 B_2089 Mo2020 Si2124 Sn1899 Sr4077
 Units ppm ppm ppm ppm ppm ppm ppm ppm ppm
 Avg -0.008 .0722 .4213 .0855 7.078 7.369 24.51 7.613 F 8.087
 Stddev .0112 .0194 .0350 .0037 .248 .246 .82 .243 .014
 %RSD 136.1 26.87 8.314 4.329 3.502 3.334 3.348 3.187 1.749

#1	-0.087	.0600	.4146	.0896	7.325	7.614	25.34	7.851	8.099
#2	-0.057	.0621	.4592	.0845	7.078	7.371	24.51	7.621	8.092
#3	.0120	.0946	.3901	.0824	6.829	7.122	23.69	7.366	8.071

Elem Ti3349 W_2079 Zr3391 S_1820 Bi2230 Li6707 P_1774 Ce4040
 Units ppm ppm ppm ppm ppm ppm ppm ppm ppm
 Avg F 8.011 7.516 7.983 85.57 7.228 F 8.096 7.149 7.948
 Stddev .441 .246 .374 3.02 .261 .015 .246 .441
 %RSD 5.502 3.270 4.681 3.535 3.613 .1841 3.436 5.548

#1	8.198	7.761	8.211	88.59	7.484	8.097	7.386	8.216
#2	8.328	7.519	8.187	85.60	7.239	8.110	7.164	8.190
#3	7.508	7.269	7.552	82.54	6.962	8.080	6.896	7.439

Sample Name: BLOCKEDCONF Acquired: 10/9/2019 13:00:09 Type: Unk
 Method: SGS 3 NO Valve(v283) Mode: CONC Corr. Factor: 1.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	206970.	30595.	9755.4	13489.
Stddev	9410.	169.	223.2	278.
%RSD	4.5467	.55201	2.2884	2.0633

#1	202140.	30787.	9537.1	13219.
#2	200950.	30470.	9745.9	13472.
#3	217810.	30527.	9983.3	13775.

Sample Name: MISSEDCONF Acquired: 10/9/2019 13:06:18 Type: Unk
 Method: SGS 3 NO Valve(v283) Mode: CONC Corr. Factor: 1.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.014	-0.000	-0.002	-0.003	.0004	.0010	-0.003	-0.006	.0037
Stddev	.0002	.0000	.0000	.0001	.0000	.0006	.0001	.0001	.0019
%RSD	12.89	112.3	11.38	39.86	5.367	62.26	31.53	16.45	51.19

#1	-0.016	-0.000	-0.002	-0.002	.0004	.0010	-0.003	-0.005	.0032
#2	-0.014	-0.000	-0.002	-0.004	.0004	.0017	-0.004	-0.005	.0058
#3	-0.013	-0.001	-0.002	-0.003	.0005	.0004	-0.002	-0.007	.0021

Elem V_2924 Zn2062 As1890 Tl1908 Pb2203 Se1960 Sb2068 Al3961 Ca3179
 Units ppm ppm ppm ppm ppm ppm ppm ppm ppm
 Avg -0.005 .0002 .0017 .0014 .0010 .0025 -0.007 82.17 55.82
 Stddev .0001 .0001 .0004 .0003 .0006 .0009 .0001 6.15 5.35
 %RSD 13.04 24.29 20.62 23.78 61.41 36.00 15.65 7.479 9.592

#1	-0.005	.0003	.0020	.0018	.0018	.0016	-0.006	88.63	52.99
#2	-0.004	.0002	.0013	.0013	.0006	.0034	-0.008	81.47	61.99
#3	-0.005	.0002	.0018	.0011	.0008	.0025	-0.006	76.40	52.46

Elem Fe2599 Mg2790 K_7664 Na5895 B_2089 Mo2020 Si2124 Sn1899 Sr4077
 Units ppm ppm ppm ppm ppm ppm ppm ppm ppm
 Avg 57.51 88.62 58.26 65.25 .0030 .0025 .0078 -0.013 -0.002
 Stddev 5.21 7.73 5.26 8.62 .0006 .0006 .0010 .0001 .0001
 %RSD 9.060 8.726 9.037 13.20 20.08 23.85 12.40 5.025 56.56

#1	58.96	95.24	62.92	68.75	.0037	.0031	.0087	-0.013	-0.001
#2	61.85	90.49	59.32	71.57	.0027	.0025	.0081	-0.013	-0.003
#3	51.73	80.12	52.55	55.44	.0026	.0019	.0068	-0.012	-0.002

Elem Ti3349 W_2079 Zr3391 S_1820 Bi2230 Li6707 P_1774 Ce4040
 Units ppm ppm ppm ppm ppm ppm ppm ppm ppm
 Avg -0.002 .0006 .0012 .0073 -.0014 .0028 -.0059 -.0061
 Stddev .0002 .0003 .0003 .0008 .0004 .0011 .0003 .0027
 %RSD 62.98 45.28 20.35 10.53 31.88 38.06 4.462 45.10

#1	-0.003	.0008	.0012	.0065	-0.011	.0038	-0.056	-0.038
#2	-0.003	.0007	.0015	.0073	-0.019	.0017	-0.058	-0.091
#3	-0.001	.0003	.0010	.0081	-0.012	.0029	-0.061	-0.053

Sample Name: MISSEDCONF Acquired: 10/9/2019 13:06:18 Type: Unk
 Method: SGS 3 NO Valve(v283) Mode: CONC Corr. Factor: 1.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	390160.	50094.	17976.	22153.
Stddev	20818.	1586.	56.	111.
%RSD	5.3357	3.1661	.30992	.50218
#1	367130.	51627.	17974.	22120.
#2	407640.	48460.	17921.	22063.
#3	395720.	50197.	18033.	22277.

Sample Name: MISSEDCONF Acquired: 10/9/2019 13:18:35 Type: Unk
 Method: SGS 3 NO Valve(v283) Mode: CONC Corr. Factor: 1.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	*****	*****	.6549	.7209	.7923	.7074	.8195	.7288	.0549
Stddev	----	----	.0118	.0176	.0722	.0653	.0777	.0175	.0050
%RSD	----	----	1.805	2.446	9.112	9.229	9.487	2.401	9.037
#1	-.0022	-.0009	.6616	.7324	.7184	.6412	.7607	.7399	.0493
#2	-.0021	-.0010	.6618	.7298	.8627	.7717	.9076	.7378	.0588
#3	----	----	.6412	.7006	.7960	.7094	.7902	.7086	.0566
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7587	.7737	.6656	.6945	.7357	.6255	.6396	-.0333	-.0012
Stddev	.0701	.0169	.0142	.0382	.0227	.0147	.0123	.0333	.0163
%RSD	9.238	2.184	2.127	5.507	3.081	2.352	1.924	99.99	1383.
#1	.6900	.7837	.6753	.7132	.7505	.6347	.6489	-.0516	-.0111
#2	.8301	.7833	.6720	.7198	.7470	.6333	.6442	-.0534	-.0101
#3	.7561	.7542	.6493	.6505	.7096	.6086	.6256	.0051	.0176
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0026	.0028	-.0336	-.0404	.6351	.7037	2.324	.7575	*****
Stddev	.0010	.0073	.0221	.0109	.0036	.0127	.026	.0165	----
%RSD	40.93	265.5	65.85	27.11	5.719	1.799	1.108	2.179	----
#1	-.0035	.0065	-.0361	-.0305	.6333	.7082	2.336	.7661	.0001
#2	-.0027	.0074	-.0103	-.0386	.6327	.7135	2.341	.7679	.0000
#3	-.0014	-.0057	-.0544	-.0521	.6392	.6894	2.294	.7385	----
Elem	Tl3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040	
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	.7708	.6912	.7611	.7274	.6179	*****	.6395	.7227	
Stddev	.0727	.0111	.0690	.189	.0249	----	.0337	.0663	
%RSD	9.426	1.611	9.070	2.604	4.037	----	5.268	9.175	
#1	.6956	.6963	.6908	7.386	6300	.0021	.6568	.6576	
#2	.8406	.6988	.8288	7.380	6344	.0012	.6611	.7901	
#3	.7762	.6784	.7636	7.055	5892	----	.6007	.7205	

Sample Name: MISSEDCONF Acquired: 10/9/2019 13:18:35 Type: Unk
 Method: SGS 3 NO Valve(v283) Mode: CONC Corr. Factor: 1.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	419410.	*****	20227.	26883.
Stddev	28749.	----	406.	455.
%RSD	6.8547	----	2.0051	1.6926
#1	449570.	50182.	20597.	27293.
#2	392320.	43478.	20291.	26961.
#3	416330.	----	19793.	26393.

Sample Name: HSTD Acquired: 10/9/2019 13:28:53 Type: QC
 Method: SGS 3 NO Valve(v283) Mode: CONC Corr. Factor: 1.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	8.030	7.932	7.992	8.044	8.167	8.080	8.222	8.058	.6323
Stddev	.202	.147	.018	.014	.070	.161	.035	.016	.0037
%RSD	2.519	1.851	2.277	.1763	.8603	1.987	.4315	.1982	.5832
#1	8.162	7.914	8.012	8.056	8.248	8.251	8.261	8.075	.6360
#2	7.797	7.795	7.978	8.029	8.123	8.054	8.192	8.044	.6325
#3	8.130	8.087	7.985	8.048	8.129	7.933	8.214	8.054	.6286
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value Range									
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	8.219	8.248	8.224	8.208	8.195	8.056	8.350	0.434	-.0134
Stddev	.114	.023	.017	.011	.015	.018	.013	.0179	.0059
%RSD	1.382	.2806	.2028	.1370	.1845	.2228	.1569	41.21	43.94
#1	8.292	8.274	8.239	8.221	8.202	8.072	8.364	0.357	-.0202
#2	8.277	8.229	8.206	8.201	8.173	8.037	8.337	0.307	-.0104
#3	8.088	8.242	8.226	8.203	8.181	8.061	8.350	.0638	-.0096
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	None
Value Range									
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0098	.0461	.4894	.0960	8.119	8.412	F 27.93	8.623	8.024
Stddev	.0064	.0123	.0245	.0013	.016	.017	.04	.020	.229
%RSD	66.07	26.66	4.997	1.304	.1906	.1981	.1328	.2256	2.855
#1	-.0171	.0324	.4674	.0965	8.135	8.428	27.96	8.644	8.123
#2	-.0072	.0495	.4851	.0968	8.104	8.394	27.89	8.606	7.763
#3	-.0050	.0562	.5157	.0945	8.119	8.412	27.93	8.619	8.188
Check ?	None	None	None	None	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
Value Range							25.00%		

Sample Name: HSTD Acquired: 10/9/2019 13:28:53 Type: QC
 Method: SGS 3 NO Valve(v283) Mode: CONC Corr. Factor: 1.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	8.385	8.558	8.342	97.44	8.284	8.071	8.108	8.388
Stddev	.054	.015	.125	.19	.011	.219	.016	.057
%RSD	.6465	.1729	1.502	.1925	.1325	2.717	.1946	.6767
#1	8.391	8.573	8.444	97.61	8.296	8.203	8.126	8.446
#2	8.436	8.544	8.380	97.24	8.274	7.818	8.098	8.383
#3	8.328	8.556	8.202	97.48	8.284	8.192	8.099	8.333

Check ? Value Range
 Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass None

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	196360.	30624.	8805.0	12347.
Stddev	1810.	759.	29.3	38.
%RSD	.92189	2.4779	.33267	.30901
#1	194690.	30287.	8771.2	12303.
#2	196110.	31493.	8819.6	12365.
#3	198280.	30092.	8824.1	12373.

Sample Name: HSTD Acquired: 10/9/2019 13:35:02 Type: QC
 Method: SGS 3 NO Valve(v283) Mode: CONC Corr. Factor: 1.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0007	.0006	.0003	-0.004	.0016	-0.0002	-0.0003	.0007	-0.0005
Stddev	.0002	.0000	.0001	.0001	.0001	.0006	.0001	.0004	.0009
%RSD	32.61	8.415	47.79	24.94	8.415	275.9	36.74	65.49	174.6
#1	.0004	.0006	.0002	-0.005	.0017	-0.0005	-0.0003	.0004	-0.0002
#2	.0008	.0006	.0002	-0.003	.0015	.0005	-0.0003	.0005	.0002
#3	.0007	.0005	.0005	-0.003	.0015	-0.0005	-0.0002	.0012	-0.0016

Check ? Value Range
 None None None None None None None None None

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0017	.0027	.0001	.0010	.0014	.0007	-0.0013	.2917	194.5
Stddev	.0000	.0001	.0010	.0020	.0002	.0031	.0006	4.2	.9
%RSD	1.034	4.230	1112.	207.8	13.54	459.0	44.63	1.437	.4572
#1	.0017	.0026	.0010	-0.010	.0015	-0.022	-0.009	292.7	195.4
#2	.0016	.0028	.0003	.0030	.0012	.0039	-0.019	295.3	193.6
#3	.0017	.0027	-0.010	.0008	.0015	.0004	-0.010	287.1	194.5

Check ? Value Range
 None None None None None None None Chk Pass Chk Pass

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	189.9	293.9	201.0	203.9	.0043	.0030	.0220	-0.0018	-0.0008
Stddev	.4	.7	.1	1.3	.0006	.0004	.0002	.0005	.0001
%RSD	.2174	.2441	.0504	.6527	13.78	14.28	1.071	30.12	14.71
#1	190.2	294.7	201.1	203.1	.0049	.0035	.0219	-.0024	-.0009
#2	189.9	293.9	200.9	205.4	.0042	.0027	.0219	-.0017	-.0006
#3	189.4	293.2	201.1	203.1	.0037	.0028	.0223	-0.0013	-.0008

Check ? Value Range
 Chk Pass Chk Pass Chk Pass Chk Pass None None None None None

Sample Name: HSTD Acquired: 10/9/2019 13:35:02 Type: QC
 Method: SGS 3 NO Valve(v283) Mode: CONC Corr. Factor: 1.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0002	.0013	.0008	-0.0201	.0036	-0.0017	-0.0079	.0189
Stddev	.0001	.0008	.0002	.0016	.0002	.0028	.0005	.0033
%RSD	27.97	58.44	25.89	7.812	6.208	162.2	6.772	17.54
#1	-0.0003	.0004	.0008	-0.0216	.0036	-0.0047	-0.0078	.0167
#2	-0.0002	.0018	.0010	-0.0185	.0034	-0.0012	-0.0085	.0174
#3	-0.0002	.0017	.0006	-0.0203	.0038	.0008	-0.0074	.0227

Check ? Value Range
 None None None None None None None None

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	180720.	29688.	8277.6	10691.
Stddev	1687.	35.	20.8	23.
%RSD	.93326	.11831	.25151	.21717
#1	179640.	29650.	8301.1	10718.
#2	182670.	29720.	8269.9	10678.
#3	179870.	29695.	8261.7	10678.

Sample Name: CCV Acquired: 10/9/2019 13:40:29 Type: QC
 Method: SGS 3 NO Valve(v283) Mode: CONC Corr. Factor: 1.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.001	1.994	1.991	2.039	2.005	1.991	2.055	2.037	.2471
Stddev	.002	.002	.003	.004	.020	.020	.036	.003	.0021
%RSD	.0738	.0933	.1650	.1827	1.004	.9926	1.742	.1378	.8506
#1	2.000	1.992	1.989	2.035	2.026	2.011	2.089	2.034	.2492
#2	2.003	1.993	1.990	2.039	2.003	1.991	2.059	2.038	.2469
#3	2.001	1.996	1.995	2.042	1.985	1.971	2.018	2.039	.2450

Check ? Value Range
 Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.012	2.014	2.020	2.068	2.021	2.001	2.023	39.51	40.55
Stddev	.023	.003	.005	.003	.001	.004	.003	.07	.06
%RSD	1.143	.1642	.2259	.1292	.0579	.2221	.1260	.1667	.1583
#1	2.035	2.011	2.017	2.065	2.020	1.998	2.023	39.45	40.51
#2	2.013	2.012	2.018	2.070	2.020	1.999	2.022	39.50	40.54
#3	1.989	2.018	2.025	2.069	2.022	2.006	2.026	39.58	40.64

Check ? Value Range
 Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	40.06	40.09	39.64	40.16	2.020	2.040	5.325	2.066	2.033
Stddev	.05	.06	.03	.04	.005	.004	.011	.004	.002
%RSD	.1149	.1383	.0865	.1008	.2463	.1978	.2111	.1988	.0863
#1	40.05	40.04	39.61	40.16	2.014	2.036	5.315	2.062	2.034
#2	40.02	40.08	39.65	40.12	2.020	2.040	5.322	2.068	2.031
#3	40.11	40.15	39.67	40.20	2.024	2.044	5.337	2.070	2.033

Check ? Value Range
 Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass

Sample Name: CCV Acquired: 10/9/2019 13:40:29 Type: QC Method: SGS 3 NO Valve(v283) Mode: CONC Corr. Factor: 1.000000 User: admin Custom ID1: Custom ID2: Custom ID3: Comment:

Table with 9 columns: Elem, Units, Avg, Stddev, %RSD. Rows include Ti3349, W_2079, Zr3391, S_1820, Bi2230, Li6707, P_1774, Ce4040 and #1, #2, #3.

Check ? Value Range Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass

Int. Std. Units Y_3600, Y_3710, Y_2243, In2306. Avg 196760, 30592, 8862.8, 11718. Stddev 2565, 116, 21.9, 22. %RSD 1.3036, .37828, .24685, .18743

#1 194200, 30661, 8880.5, 11740. #2 196740, 30657, 8869.6, 11717. #3 199330, 30458, 8838.3, 11696.

Sample Name: CCB Acquired: 10/9/2019 13:45:27 Type: QC Method: SGS 3 NO Valve(v283) Mode: CONC Corr. Factor: 1.000000 User: admin Custom ID1: Custom ID2: Custom ID3: Comment:

Table with 11 columns: Elem, Units, Avg, Stddev, %RSD. Rows include Ba4554, Be3130, Cd2288, Co2286, Cr2677, Cu3247, Mn2576, Ni2316, Ag3280 and #1, #2, #3.

Check ? High Limit Low Limit Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass

Elem V_2924, Zn2062, As1890, Tl1908, Pb2203, Se1960, Sb2068, Al3961, Ca3179. Avg .0001, .0002, -.0000, .0015, .0004, .0028, -.0004, -.0092, -.0002, .0033. Stddev .0001, .0001, .0008, .0005, .0002, .0008, .0003, .0003, .0026, .0016. %RSD 94.79, 47.82, 25680, 35.79, 41.82, 30.38, 69.02, 28.57, 48.14

#1 .0000, .0001, .0008, .0016, .0002, .0024, -.0002, -.0064, .0017. #2 .0003, .0002, -.0000, .0020, .0006, .0037, -.0008, -.0095, .0049. #3 .0001, .0003, -.0008, .0009, .0005, .0021, -.0004, -.0116, .0034

Check ? High Limit Low Limit Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass

Elem Fe2599, Mg2790, K_7664, Na5895, B_2089, Mo2020, Si2124, Sn1899, Sr4077. Avg .0033, -.0042, .0115, .0269, .0041, .0008, .0037, .0007, .0004. Stddev .0012, .0076, .0125, .0080, .0006, .0000, .0007, .0005, .0001. %RSD 36.25, 180.6, 109.3, 29.61, 15.64, 5.417, 18.78, 70.50, 21.72

#1 .0032, -.0107, .0204, .0186, .0041, .0009, .0032, .0005, .0004. #2 .0045, .0042, -.0029, .0278, .0047, .0009, .0045, .0013, .0003. #3 .0021, -.0062, .0168, .0344, .0035, .0008, .0033, .0003, .0003

Check ? High Limit Low Limit Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass

Sample Name: CCB Acquired: 10/9/2019 13:45:27 Type: QC Method: SGS 3 NO Valve(v283) Mode: CONC Corr. Factor: 1.000000 User: admin Custom ID1: Custom ID2: Custom ID3: Comment:

Table with 9 columns: Elem, Units, Avg, Stddev, %RSD. Rows include Ti3349, W_2079, Zr3391, S_1820, Bi2230, Li6707, P_1774, Ce4040 and #1, #2, #3.

Check ? High Limit Low Limit Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass

Int. Std. Units Y_3600, Y_3710, Y_2243, In2306. Avg 206290, 31335, 9177.7, 12592. Stddev 1316, 207, 5.3, 9. %RSD .63803, .65940, .05746, .07484

#1 205750, 31547, 9173.8, 12586. #2 205330, 31322, 9183.7, 12603. #3 207790, 31134, 9175.6, 12587.

Sample Name: FECONF Acquired: 10/9/2019 13:50:31 Type: Unk Method: SGS 3 NO Valve(v283) Mode: CONC Corr. Factor: 1.000000 User: admin Custom ID1: Custom ID2: Custom ID3: Comment:

Table with 11 columns: Elem, Units, Avg, Stddev, %RSD. Rows include Ba4554, Be3130, Cd2288, Co2286, Cr2677, Cu3247, Mn2576, Ni2316, Ag3280 and #1, #2, #3.

Check ? High Limit Low Limit Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass

Elem V_2924, Zn2062, As1890, Tl1908, Pb2203, Se1960, Sb2068, Al3961, Ca3179. Avg .0005, -.0014, .0003, .0000, .0000, .0000, -.0000, -.0007, -.0142, .0070. Stddev .0002, .0001, .0004, .0006, .0011, .0010, .0011, .0044, .0015, .0015. %RSD 44.36, 6.938, 105.4, 2867, 2352, 2313, 160.4, 30.57, 21.62

#1 .0003, -.0015, -.0001, .0000, .0013, .0003, -.0017, -.0160, .0054. #2 .0005, -.0013, .0006, .0006, -.0007, .0008, .0006, -.0093, .0084. #3 .0007, -.0015, .0005, -.0005, -.0005, -.0012, -.0010, -.0174, .0072

Elem Fe2599, Mg2790, K_7664, Na5895, B_2089, Mo2020, Si2124, Sn1899, Sr4077. Avg 197.7, -.0007, .0466, .0045, -.0000, .0007, .0033, -.0005, .0001. Stddev 2.7, .0243, .0210, .0075, .0003, .0002, .0002, .0002, .0001. %RSD 1.349, 3432, 45.19, 165.4, 1256, 34.68, 5.501, 44.08, 91.90

#1 200.5, .0178, .0614, -.0007, .0003, .0009, .0032, -.0005, .0000. #2 197.4, -.0283, .0558, .0012, -.0002, .0004, .0035, -.0003, .0001. #3 195.1, .0083, .0225, .0131, -.0002, .0007, .0032, -.0008, .0000

Elem Ti3349, W_2079, Zr3391, S_1820, Bi2230, Li6707, P_1774, Ce4040. Avg -.0002, -.0006, .0008, -.0231, .0096, -.0139, -.0070, -.0188. Stddev .0001, .0004, .0002, .0009, .0008, .0012, .0007, .0006. %RSD 82.18, 67.14, 20.54, 4.097, 8.383, 8.976, 9.722, 3.078

#1 -.0003, -.0009, .0009, -.0226, .0090, -.0149, -.0066, .0181. #2 -.0002, -.0002, .0008, -.0226, .0106, -.0142, -.0066, .0192. #3 -.0000, -.0005, .0006, -.0242, .0094, -.0125, -.0078, .0190

Zoom In Zoom Out

Sample Name: FECONF Acquired: 10/9/2019 13:50:31 Type: Unk
Method: SGS 3 NO Valve(v283) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Table with 5 columns: Int. Std., Y_3600, Y_3710, Y_2243, In2306. Rows include Units, Avg, Stddev, %RSD, and sample identifiers #1, #2, #3.

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Zoom In Zoom Out

Sample Name: CRCONF Acquired: 10/9/2019 13:55:41 Type: Unk
Method: SGS 3 NO Valve(v283) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Table with 11 columns: Elem, Ba4554, Be3130, Cd2288, Co2286, Cr2677, Cu3247, Mn2576, Ni2316, Ag3280. Rows include Units, Avg, Stddev, %RSD, and sample identifiers #1, #2, #3.

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11.2 11

Zoom In Zoom Out

Sample Name: CRCONF Acquired: 10/9/2019 13:55:41 Type: Unk
Method: SGS 3 NO Valve(v283) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Table with 5 columns: Int. Std., Y_3600, Y_3710, Y_2243, In2306. Rows include Units, Avg, Stddev, %RSD, and sample identifiers #1, #2, #3.

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Zoom In Zoom Out

Sample Name: ASCONF Acquired: 10/9/2019 14:00:53 Type: Unk
Method: SGS 3 NO Valve(v283) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Table with 11 columns: Elem, Ba4554, Be3130, Cd2288, Co2286, Cr2677, Cu3247, Mn2576, Ni2316, Ag3280. Rows include Units, Avg, Stddev, %RSD, and sample identifiers #1, #2, #3.

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Sample Name: ASCONF Acquired: 10/9/2019 14:00:53 Type: Unk
 Method: SGS 3 NO Valve(v283) Mode: CONC Corr. Factor: 1.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	206700.	31055.	9177.2	12602.
Stddev	3061.	143.	11.7	13.
%RSD	1.4809	.46166	.12766	.10700
#1	203350.	31073.	9182.6	12604.
#2	209350.	30903.	9163.8	12588.
#3	207400.	31188.	9185.3	12615.

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Sample Name: MP17746-MB1CONF Acquired: 10/9/2019 14:05:51 Type: Unk
 Method: SGS 3 NO Valve(v283) Mode: CONC Corr. Factor: 1.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.000	.0001	.0001	-0.000	.0015	.0013	.0008	.0007	-0.001
Stddev	.0002	.0000	.0001	.0001	.0003	.0002	.0000	.0002	.0001
%RSD	361.5	26.11	155.0	239.0	21.54	17.92	1.774	32.48	54.74
#1	.0000	.0002	.0001	-0.002	.0018	.0013	.0009	.0004	-0.002
#2	.0001	.0001	.0001	.0000	.0012	.0015	.0008	.0008	-0.002
#3	-0.002	.0001	-0.000	.0000	.0016	.0011	.0008	.0008	-0.001
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.001	.0322	.0012	.0004	.0004	.0010	-0.0005	.0115	.0974
Stddev	.0001	.0001	.0007	.0003	.0007	.0011	.0007	.0084	.0011
%RSD	122.0	.3141	59.21	67.65	193.4	111.9	124.6	72.60	1.079
#1	-0.002	.0323	.0020	.0001	.0003	.0007	-0.008	.0027	.0986
#2	-0.000	.0322	.0006	.0007	-0.003	.0022	-0.010	.0193	.0967
#3	-0.000	.0321	.0010	.0004	.0012	.0001	.0002	.0125	.0968
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0218	.0139	.0065	.0643	.0020	.0004	.0079	.0205	.0005
Stddev	.0006	.0035	.0196	.0028	.0002	.0001	.0005	.0003	.0000
%RSD	2.692	25.32	301.2	4.364	11.69	19.66	6.483	1.284	4.544
#1	.0222	.0179	.0200	.0618	.0022	.0004	.0080	.0208	.0005
#2	.0220	.0121	-0.159	.0673	.0018	.0003	.0074	.0202	.0005
#3	.0211	.0116	.0154	.0639	.0019	.0004	.0084	.0206	.0006
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040	
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	.0007	-0.0008	.0007	.0079	-0.0009	.0014	.0232	-0.0007	
Stddev	.0001	.0003	.0001	.0009	.0008	.0012	.0003	.0004	
%RSD	19.09	33.40	12.07	11.34	93.24	84.63	1.359	56.73	
#1	.0008	-0.0005	.0006	.0081	-0.001	.0002	.0231	-0.008	
#2	.0007	-0.0011	.0008	.0086	-0.0017	.0027	.0229	-0.010	
#3	.0005	-0.0009	.0008	.0069	-0.0008	.0014	.0235	-0.002	

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11.2
11

Sample Name: MP17746-MB1CONF Acquired: 10/9/2019 14:05:51 Type: Unk
 Method: SGS 3 NO Valve(v283) Mode: CONC Corr. Factor: 1.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	206000.	31672.	9242.9	12650.
Stddev	564.	314.	3.8	7.
%RSD	.27357	.99276	.04152	.05591
#1	206000.	31338.	9240.7	12650.
#2	205430.	31716.	9247.3	12643.
#3	206560.	31963.	9240.6	12657.

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Sample Name: MP17746-B1CONF Acquired: 10/9/2019 14:10:51 Type: Unk
 Method: SGS 3 NO Valve(v283) Mode: CONC Corr. Factor: 1.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.916	1.922	1.917	1.964	1.938	1.939	1.998	1.968
Stddev	.002	.002	.001	.002	.011	.007	.019	.001
%RSD	.1111	.1047	.0654	.0915	5.590	.3518	.9515	.0736
#1	1.916	1.923	1.919	1.962	1.935	1.936	1.988	1.966
#2	1.914	1.920	1.916	1.964	1.929	1.933	1.986	1.969
#3	1.918	1.923	1.916	1.966	1.950	1.946	2.020	1.969
Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.436	1.939	1.969	1.963	2.020	1.969	1.910	1.976
Stddev	.0009	.012	.002	.003	.001	.002	.001	.003
%RSD	.3702	.6213	.0926	.1721	.0617	.1100	.0455	.1428
#1	.2437	1.936	1.968	1.964	2.018	1.967	1.911	1.978
#2	.2427	1.929	1.971	1.959	2.020	1.971	1.910	1.973
#3	.2445	1.952	1.968	1.966	2.021	1.969	1.910	1.976
Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	24.25	25.00	24.68	24.75	24.25	24.92	1.890	1.973
Stddev	.03	.04	.04	.03	.06	.02	.002	.000
%RSD	.1058	.1439	.1573	.1147	.2432	.0961	.1146	.0223
#1	24.27	25.03	24.69	24.79	24.28	24.95	1.892	1.972
#2	24.22	24.96	24.64	24.73	24.18	24.90	1.888	1.973
#3	24.25	25.01	24.71	24.75	24.29	24.90	1.891	1.972
Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0490	2.050	1.957	1.978	1.219	2.013	1.989	F -.0233
Stddev	.0008	.001	.001	.007	.008	.011	.004	.0018
%RSD	1.668	.0262	.0429	.3469	.6633	5.194	.2206	7.693
#1	.0486	2.050	1.958	1.978	1.211	2.011	1.994	-.0226
#2	.0484	2.051	1.957	1.972	1.219	2.004	1.986	-.0254
#3	.0499	2.051	1.956	1.986	1.227	2.025	1.988	-.0220

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Sample Name: MP17746-B1CONF Acquired: 10/9/2019 14:10:51 Type: Unk
 Method: SGS 3 NO Valve(v283) Mode: CONC Corr. Factor: 1.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm
Avg	.0008	1.925	W -.0712
Stddev	.0010	.002	.0015
%RSD	121.8	.0846	2.070
#1	.0002	1.923	-.0729
#2	.0002	1.924	-.0703
#3	.0020	1.926	-.0704

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	199840.	31222.	8936.7	11919.
Stddev	1584.	86.	19.4	32.
%RSD	.79259	.27594	.21675	.26939
#1	200460.	31194.	8957.8	11955.
#2	201020.	31319.	8919.7	11896.
#3	198040.	31154.	8932.5	11904.

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Sample Name: JC96231-8-7 Acquired: 10/9/2019 14:15:45 Type: Unk
 Method: SGS 3 NO Valve(v283) Mode: CONC Corr. Factor: 5.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment: MP17746

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5094	.0052	.0018	.1029	.2258	.5875	5.256	.2182	.0057
Stddev	.0039	.0008	.0011	.0006	.0029	.0091	.070	.0012	.0037
%RSD	.7687	14.90	59.52	.5395	1.278	1.549	1.325	.5428	64.99
#1	.5051	.0050	.0028	.1036	.2231	.5787	5.200	.2183	.0060
#2	.5126	.0046	.0018	.1027	.2254	.5869	5.234	.2193	.0093
#3	.5105	.0061	.0007	.1026	.2289	.5969	5.334	.2170	.0019

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4459	.4757	.5688	.0023	.3935	.0084	.0014	80.04	102.9
Stddev	.0047	.0010	.0017	.0015	.0017	.0086	.0051	.27	.4
%RSD	1.045	2.060	.3045	66.06	.4433	102.0	365.6	.3428	.3641
#1	.4434	.4765	.5669	.0040	.3946	.0134	-.0044	79.76	102.5
#2	.4431	.4746	.5692	.0016	.3915	-.0015	.0037	80.31	103.2
#3	.4513	.4760	.5702	.0013	.3944	.0134	.0049	80.05	102.9

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	625.5	44.78	14.80	1.631	.0999	.0203	5.137	.0593	.3393
Stddev	6.1	.13	.07	.019	.0034	.0012	.053	.0017	.0004
%RSD	.9784	.2950	.4954	1.165	3.409	6.074	1.030	2.944	.1161
#1	618.6	44.66	14.73	1.618	.1037	.0206	5.191	.0575	.3389
#2	630.5	44.92	14.80	1.652	.0989	.0214	5.136	.0595	.3392
#3	627.3	44.77	14.87	1.622	.0971	.0190	5.085	.0610	.3397

Elem	Tl3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.075	.0902	.0762	3.256	.0303	.0984	5.310	.3198
Stddev	.047	.0057	.0005	.008	.0055	.0035	.004	.0081
%RSD	1.525	6.326	.7141	.2468	18.07	3.596	.0703	2.518
#1	3.028	.0965	.0759	3.260	.0282	.1016	5.312	.3169
#2	3.074	.0888	.0758	3.260	.0262	.0946	5.313	.3289
#3	3.122	.0853	.0768	3.246	.0365	.0990	5.306	.3136

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Sample Name: JC96231-8-7 Acquired: 10/9/2019 14:15:45 Type: Unk
 Method: SGS 3 NO Valve(v283) Mode: CONC Corr. Factor: 5.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment: MP17746

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	204580.	31498.	9125.9	12414.
Stddev	2571.	205.	10.8	18.
%RSD	1.2568	.64987	.11849	.14879
#1	206120.	31660.	9133.3	12431.
#2	205990.	31268.	9130.9	12416.
#3	201610.	31665.	9113.5	12394.

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Sample Name: JC96231-20 Acquired: 10/9/2019 14:20:46 Type: Unk
 Method: SGS 3 NO Valve(v283) Mode: CONC Corr. Factor: 5.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3971	.0048	.0016	.1195	.7612	.4470	1.484	.4855	.0089
Stddev	.0019	.0003	.0010	.0004	.0046	.0035	.011	.0017	.0005
%RSD	4.778	7.003	60.87	.3707	5.992	.7907	.7132	.3476	5.239
#1	.3949	.0047	.0008	.1195	.7613	.4449	1.484	.4856	.0086
#2	.3986	.0045	.0015	.1199	.7566	.4451	1.473	.4837	.0095
#3	.3977	.0051	.0027	.1190	.7657	.4511	1.494	.4871	.0088

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.170	.5007	.4871	.0011	1.522	.0099	.0088	56.60	13.49
Stddev	.008	.0003	.0031	.0029	.001	.0052	.0022	.14	.04
%RSD	.7181	.0534	.6304	266.1	.0794	53.20	25.44	.2455	.2793
#1	1.169	.5004	.4905	.0044	1.523	.0064	.0062	56.53	13.46
#2	1.163	.5007	.4861	-.0009	1.522	.0159	.0102	56.76	13.53
#3	1.179	.5009	.4846	-.0003	1.521	.0073	.0100	56.50	13.49

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	547.7	12.53	7.639	15.82	.0416	.0194	1.923	.7127	.3733
Stddev	5.3	.01	.019	.08	.0011	.0013	.011	.0021	.0006
%RSD	.9755	.0977	.2475	.5304	2.547	6.902	.5791	.2918	.1667
#1	546.9	12.54	7.618	15.78	.0404	.0208	1.912	.7139	.3733
#2	542.8	12.54	7.646	15.77	.0417	.0181	1.924	.7103	.3740
#3	553.4	12.52	7.654	15.92	.0425	.0192	1.934	.7140	.3727

Elem	Tl3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	37.01	.0458	1.252	240.6	.1073	.0716	4.825	.8877
Stddev	.43	.0010	.010	.2	.0127	.0013	.014	.0066
%RSD	1.167	2.104	.8109	.0997	11.80	1.765	.2853	.7389
#1	37.07	.0459	1.253	240.6	.1056	.0717	4.830	.8857
#2	36.55	.0448	1.242	240.4	.0955	.0703	4.809	.8823
#3	37.41	.0467	1.262	240.9	.1207	.0729	4.835	.8950

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Sample Name: JC96231-20 Acquired: 10/9/2019 14:20:46 Type: Unk
 Method: SGS 3 NO Valve(v283) Mode: CONC Corr. Factor: 5.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	209550.	31968.	9348.9	12552.
Stddev	1037.	193.	13.8	11.
%RSD	.49496	.60241	.14744	.09161
#1	209370.	32188.	9333.3	12543.
#2	210660.	31884.	9353.9	12549.
#3	208610.	31831.	9359.4	12565.

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Sample Name: MP17747-MB1CONF Acquired: 10/9/2019 14:25:52 Type: Unk
 Method: SGS 3 NO Valve(v283) Mode: CONC Corr. Factor: 1.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.004	-0.000	-0.001	0.000	0.006	0.005	0.003	0.001	-0.005
Stddev	.0002	.0000	.0001	.0001	.0001	.0000	.0001	.0002	.0002
%RSD	42.46	965.6	74.42	614.5	11.09	6.366	18.55	203.4	34.44
#1	-0.002	.0000	-0.001	-0.000	.0006	.0005	.0003	.0002	-0.005
#2	-0.005	.0000	-0.001	-0.001	.0006	.0005	.0004	-0.001	-0.003
#3	-0.006	-0.000	-0.000	.0001	.0007	.0005	.0002	.0002	-0.006
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.000	.0152	0.006	0.005	0.002	0.016	-0.010	0.012	0.046
Stddev	.0003	.0000	.0009	.0011	.0003	.0008	.0007	.0016	.0004
%RSD	2177.	.1774	152.3	248.1	193.8	47.52	72.86	132.6	8394
#1	-0.003	.0152	-0.004	-0.008	-0.002	.0025	-0.011	-0.006	.0460
#2	-0.000	.0152	.0008	.0012	.0003	.0014	-0.002	.0025	.0467
#3	.0003	.0153	.0013	.0010	.0004	.0010	-0.017	.0018	.0465
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	0.193	0.140	-0.0593	0.281	0.010	0.002	0.012	0.173	0.004
Stddev	.0015	.0119	.0430	.0055	.0001	.0002	.0003	.0003	.0000
%RSD	7.926	84.79	72.64	19.59	9.859	93.05	2.742	1.895	10.56
#1	.0210	.0153	-0.0630	.0306	.0009	.0004	.0112	.0173	.0003
#2	.0180	.0251	-1.003	.0218	.0011	.0001	.0109	.0175	.0003
#3	.0189	.0015	-0.145	.0318	.0011	.0001	.0115	.0169	.0004
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040	
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	0.005	0.036	0.016	0.062	0.005	0.008	0.019	0.009	
Stddev	.0003	.0004	.0001	.0006	.0013	.0003	.0004	.0010	
%RSD	53.86	11.13	3.491	10.04	276.5	42.34	2.091	114.0	
#1	.0002	.0041	.0017	.0062	.0017	.0011	.0194	.0011	
#2	.0006	.0034	.0016	.0057	-0.0009	.0009	.0186	.0017	
#3	.0007	.0034	.0016	.0069	.0006	.0004	.0191	-0.002	

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Sample Name: MP17747-MB1CONF Acquired: 10/9/2019 14:25:52 Type: Unk
 Method: SGS 3 NO Valve(v283) Mode: CONC Corr. Factor: 1.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	208070.	31753.	9268.7	12701.
Stddev	1682.	88.	2.0	9.
%RSD	.80843	.27800	.02112	.07149
#1	209880.	31699.	9270.0	12693.
#2	207790.	31705.	9269.8	12711.
#3	206560.	31855.	9266.5	12700.

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Sample Name: MP17747-B1CONF Acquired: 10/9/2019 14:30:53 Type: Unk
 Method: SGS 3 NO Valve(v283) Mode: CONC Corr. Factor: 1.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.920	1.931	1.932	1.980	1.950	1.952	2.006	1.983
Stddev	.007	.005	.001	.001	.022	.019	.028	.002
%RSD	.3713	.2648	.0643	.0346	1.122	.9962	1.403	.0753
#1	1.927	1.937	1.934	1.980	1.974	1.973	2.037	1.983
#2	1.913	1.928	1.932	1.979	1.943	1.947	1.997	1.982
#3	1.918	1.928	1.931	1.980	1.932	1.936	1.983	1.985
Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.438	1.955	1.973	1.974	2.031	1.983	1.928	1.992
Stddev	.0023	.022	.001	.000	.007	.002	.001	.002
%RSD	.9446	1.102	.0483	.0190	.3601	.0750	.0464	.1069
#1	.2464	1.980	1.973	1.974	2.033	1.982	1.928	1.994
#2	.2432	1.947	1.973	1.974	2.038	1.985	1.929	1.990
#3	.2419	1.939	1.974	1.974	2.024	1.984	1.927	1.991
Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	23.66	24.33	24.08	24.19	23.58	24.32	1.914	1.997
Stddev	.05	.04	.03	.04	.05	.02	.002	.000
%RSD	.1917	.1567	.1334	.1793	.2049	.0819	.1030	.0132
#1	23.71	24.37	24.11	24.20	23.63	24.33	1.914	1.996
#2	23.65	24.31	24.07	24.24	23.56	24.33	1.912	1.997
#3	23.63	24.30	24.05	24.15	23.54	24.30	1.916	1.997
Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	0.600	2.061	1.968	1.981	1.287	2.029	-0.134	F -0.247
Stddev	.0012	.001	.004	.022	.011	.020	.0015	.0008
%RSD	1.959	.0430	.1921	1.096	.8595	1.003	10.96	3.164
#1	.0591	2.062	1.972	2.004	1.275	2.052	-0.148	-0.256
#2	.0613	2.060	1.964	1.977	1.287	2.023	-0.135	-0.240
#3	.0596	2.061	1.967	1.961	1.298	2.013	-0.118	-0.245

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Sample Name: MP17747-B1CONF Acquired: 10/9/2019 14:30:53 Type: Unk
 Method: SGS 3 NO Valve(v283) Mode: CONC Corr. Factor: 1.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Li6707	P_1774	Ce4040	
Units	ppm	ppm	ppm	
Avg	0.011	1.933	W -0.0705	
Stddev	.0015	.001	.0015	
%RSD	128.3	.0508	2.071	
#1	.0026	1.932	-.0689	
#2	-.0003	1.934	-.0717	
#3	.0011	1.932	-.0708	
Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	200870.	31211.	9014.4	12028.
Stddev	2726.	105.	9.1	9.
%RSD	1.3572	.33589	.10094	.07811
#1	197810.	31296.	9005.2	12019.
#2	201740.	31094.	9023.3	12038.
#3	203050.	31242.	9014.7	12026.

Sample Name: CCV Acquired: 10/9/2019 14:35:51 Type: QC
 Method: SGS 3 NO Valve(v283) Mode: CONC Corr. Factor: 1.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.982	1.977	1.980	2.026	2.000	1.989	2.049	2.030	2.469
Stddev	.005	.004	.003	.001	.022	.026	.035	.001	.0033
%RSD	.2646	.2257	.1260	.0304	1.109	1.303	1.693	.0652	1.320
#1	1.979	1.974	1.979	2.026	1.975	1.961	2.009	2.030	2.432
#2	1.980	1.976	1.983	2.027	2.007	1.997	2.071	2.030	2.481
#3	1.988	1.982	1.978	2.025	2.018	2.011	2.066	2.028	2.494
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.012	2.004	2.006	2.059	2.010	1.985	2.014	39.13	40.14
Stddev	.023	.002	.002	.002	.001	.003	.005	.04	.07
%RSD	1.129	.1028	.0956	.1015	.0715	.1422	.2388	.1112	.1745
#1	1.987	2.004	2.005	2.058	2.012	1.988	2.020	39.11	40.07
#2	2.021	2.007	2.008	2.061	2.009	1.982	2.011	39.10	40.15
#3	2.030	2.003	2.004	2.057	2.009	1.985	2.013	39.18	40.21
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	39.79	39.81	39.23	40.09	2.005	2.031	5.293	2.056	2.025
Stddev	.07	.02	.06	.00	.002	.000	.006	.001	.001
%RSD	.1663	.0542	.1576	.0026	.0751	.0068	.1138	.0259	.0516
#1	39.72	39.81	39.16	40.09	2.003	2.031	5.287	2.056	2.025
#2	39.78	39.84	39.26	40.09	2.006	2.031	5.298	2.056	2.024
#3	39.86	39.79	39.27	40.09	2.005	2.031	5.296	2.057	2.026
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Sample Name: CCV Acquired: 10/9/2019 14:35:51 Type: QC
 Method: SGS 3 NO Valve(v283) Mode: CONC Corr. Factor: 1.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.008	2.008	2.063	1.962	2.003	1.956	1.991	1.989
Stddev	.024	.004	.025	.001	.004	.005	.002	.028
%RSD	1.202	.1764	1.222	.0471	.1875	.2741	.0781	1.411
#1	1.982	2.009	2.034	1.961	1.998	1.951	1.989	1.958
#2	2.014	2.012	2.073	1.963	2.004	1.956	1.992	1.997
#3	2.029	2.005	2.081	1.962	2.006	1.962	1.990	2.013
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								
Int. Std.	Y_3600	Y_3710	Y_2243	In2306				
Units	Cts/S	Cts/S	Cts/S	Cts/S				
Avg	196940.	30740.	8879.7	11747.				
Stddev	1531.	73.	11.0	13.				
%RSD	.7713	.23842	.12355	.11357				
#1	198680.	30803.	8874.8	11737.				
#2	196330.	30660.	8872.1	11743.				
#3	195810.	30757.	8892.3	11762.				

Sample Name: CCB Acquired: 10/9/2019 14:40:49 Type: QC
 Method: SGS 3 NO Valve(v283) Mode: CONC Corr. Factor: 1.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.001	.0001	.0004	.0003	.0001	.0004	.0002	.0003	-0.001
Stddev	.0002	.0000	.0000	.0001	.0002	.0003	.0000	.0001	.0005
%RSD	160.8	16.22	8.857	21.66	127.3	91.28	4.503	43.10	525.5
#1	-0.000	.0002	.0004	.0003	.0002	.0006	.0002	.0001	.0000
#2	-0.000	.0001	.0004	.0002	-0.000	-0.000	.0002	.0004	-0.006
#3	-0.004	.0001	.0004	.0003	.0003	.0005	.0002	.0003	.0003
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0002	.0002	.0007	.0008	.0012	.0021	.0004	-0.032	.0006
Stddev	.0003	.0000	.0005	.0009	.0006	.0005	.0014	.0004	.0018
%RSD	133.5	10.15	69.02	102.0	46.78	21.94	347.3	13.57	294.0
#1	.0002	.0002	.0008	.0018	.0011	.0018	.0014	-.0028	.0024
#2	-0.000	.0002	.0011	.0005	.0007	.0026	-.0012	-.0036	-.0012
#3	.0005	.0002	.0002	.0002	.0019	.0019	.0009	-.0032	.0006
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0019	-0.0079	-0.027	-0.092	.0025	.0010	.0014	.0005	.0002
Stddev	.0005	.0046	.0078	.0056	.0002	.0000	.0011	.0003	.0000
%RSD	27.53	57.84	18.20	60.67	9.900	5.154	77.77	65.09	29.46
#1	.0023	-.0114	-.0436	-.0126	.0027	.0010	.0025	.0006	.0002
#2	.0013	-.0095	-.0500	-.0123	.0025	.0009	.0003	.0001	.0002
#3	.0021	-.0027	-.0345	-.0028	.0022	.0010	.0013	.0006	.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Sample Name: CCB Acquired: 10/9/2019 14:40:49 Type: QC
Method: SGS 3 NO Valve(v283) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Table with 9 columns: Elem, Units, Avg, Stddev, %RSD, Ti3349, W_2079, Zr3391, S_1820, Bi2230, Li6707, P_1774, Ce4040. Contains data for various elements including Ti, W, Zr, S, Bi, Li, and P.

Table with 9 columns: Elem, Units, Avg, Stddev, %RSD, Ti3349, W_2079, Zr3391, S_1820, Bi2230, Li6707, P_1774, Ce4040. Contains data for various elements including Ti, W, Zr, S, Bi, Li, and P.

Sample Name: JC96164-2-7 Acquired: 10/9/2019 14:45:53 Type: Unk
Method: SGS 3 NO Valve(v283) Mode: CONC Corr. Factor: 2.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment: MP17747

Table with 11 columns: Elem, Units, Avg, Stddev, %RSD, Ba4554, Be3130, Cd2288, Co2286, Cr2677, Cu3247, Mn2576, Ni2316, Ag3280. Contains data for various elements including Ba, Be, Cd, Co, Cr, Cu, Mn, Ni, and Ag.

Table with 11 columns: Elem, Units, Avg, Stddev, %RSD, V_2924, Zn2062, As1890, Ti1908, Pb2203, Se1960, Sb2068, Al3961, Ca3179. Contains data for various elements including V, Zn, As, Ti, Pb, Se, Sb, Al, and Ca.

11.2

Sample Name: JC96164-2-7 Acquired: 10/9/2019 14:45:53 Type: Unk
Method: SGS 3 NO Valve(v283) Mode: CONC Corr. Factor: 2.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment: MP17747

Table with 5 columns: Int. Std. Units, Y_3600 Cts/S, Y_3710 Cts/S, Y_2243 Cts/S, In2306 Cts/S. Contains summary data for four elements.

Table with 5 columns: #1, #2, #3, Y_3600, Y_3710, Y_2243, In2306. Contains replicate data for four elements.

Sample Name: JC96164-9 Acquired: 10/9/2019 14:51:03 Type: Unk
Method: SGS 3 NO Valve(v283) Mode: CONC Corr. Factor: 2.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Table with 11 columns: Elem, Units, Avg, Stddev, %RSD, Ba4554, Be3130, Cd2288, Co2286, Cr2677, Cu3247, Mn2576, Ni2316, Ag3280. Contains data for various elements including Ba, Be, Cd, Co, Cr, Cu, Mn, Ni, and Ag.

Table with 11 columns: Elem, Units, Avg, Stddev, %RSD, V_2924, Zn2062, As1890, Ti1908, Pb2203, Se1960, Sb2068, Al3961, Ca3179. Contains data for various elements including V, Zn, As, Ti, Pb, Se, Sb, Al, and Ca.

Sample Name: JC96164-9 Acquired: 10/9/2019 14:51:03 Type: Unk
 Method: SGS 3 NO Valve(v283) Mode: CONC Corr. Factor: 2.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	207380.	32367.	9311.5	12125.
Stddev	1694.	181.	18.1	22.
%RSD	.81669	.56004	.19469	.18434
#1	208450.	32241.	9305.9	12124.
#2	208270.	32284.	9331.7	12148.
#3	205430.	32574.	9296.8	12103.

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Sample Name: JC96242-1 Acquired: 10/9/2019 14:56:06 Type: Unk
 Method: SGS 3 NO Valve(v283) Mode: CONC Corr. Factor: 2.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.205	.0040	.0017	1.034	2.050	9.161	2.633	2.100	.0031
Stddev	.005	.0001	.0001	.0002	.0021	.0113	.032	.0008	.0007
%RSD	.3883	2.015	8.026	.2143	1.020	1.236	1.222	.3955	24.35
#1	1.210	.0041	.0016	1.033	2.051	9.178	2.617	2.104	.0033
#2	1.203	.0040	.0019	1.033	2.028	9.041	2.612	2.090	.0037
#3	1.202	.0041	.0017	1.037	2.070	9.265	2.670	2.105	.0022
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.953	1.096	.0406	.0018	1.183	.0003	-.0022	111.4	23.32
Stddev	.0037	.002	.0002	.0010	.002	.0030	.0034	.1	.11
%RSD	1.264	.2070	.5842	55.00	.1689	1090.	149.5	.1289	.4591
#1	.2960	1.093	.0404	.0009	1.181	-.0006	-.0041	111.3	23.20
#2	.2913	1.095	.0408	.0017	1.185	-.0022	-.0043	111.4	23.36
#3	.2987	1.098	.0405	.0028	1.182	.0036	.0016	111.5	23.40
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	196.3	49.30	39.05	1.532	.0178	.0046	1.685	.0687	1.242
Stddev	.4	.56	.12	.013	.0010	.0001	.010	.0002	.0004
%RSD	.2233	1.133	.3032	.8449	5.393	2.234	.5739	.2313	.2851
#1	195.8	48.66	38.93	1.534	.0169	.0047	1.696	.0686	.1246
#2	196.4	49.59	39.05	1.519	.0177	.0046	1.681	.0686	.1240
#3	196.6	49.65	39.17	1.544	.0188	.0045	1.677	.0689	.1240
Elem	Tl3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040	
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	8.557	.0086	.0313	1.550	.0397	.2294	3.593	.4603	
Stddev	.106	.0007	.0004	.004	.0094	.0038	.002	.0043	
%RSD	1.234	8.426	1.411	2.760	23.54	1.658	.0422	.9404	
#1	8.576	.0078	.0316	1.546	.0449	.2329	3.594	.4610	
#2	8.443	.0087	.0308	1.548	.0289	.2300	3.592	.4557	
#3	8.652	.0092	.0315	1.555	.0454	.2253	3.595	.4643	

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11.2
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Sample Name: JC96242-1 Acquired: 10/9/2019 14:56:06 Type: Unk
 Method: SGS 3 NO Valve(v283) Mode: CONC Corr. Factor: 2.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	205500.	32050.	9250.3	12195.
Stddev	2297.	428.	14.8	15.
%RSD	1.1177	1.3359	.16047	.12257
#1	204760.	32543.	9266.6	12208.
#2	208080.	31824.	9237.6	12179.
#3	203670.	31781.	9246.6	12197.

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Sample Name: JC96243-4 Acquired: 10/9/2019 15:01:09 Type: Unk
 Method: SGS 3 NO Valve(v283) Mode: CONC Corr. Factor: 2.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5231	.0027	.0016	.0921	.2065	.9078	2.882	2.182	.0025
Stddev	.0023	.0001	.0004	.0007	.0029	.0096	.018	.0006	.0005
%RSD	.4306	3.209	27.37	.7310	1.409	1.059	.6393	.2560	18.67
#1	.5247	.0028	.0020	.0914	.2095	.9182	2.897	2.177	.0020
#2	.5205	.0027	.0013	.0927	.2062	.9057	2.888	2.188	.0025
#3	.5242	.0027	.0013	.0923	.2037	.8993	2.862	2.181	.0029
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.728	.6540	.0236	.0009	3.570	.0012	-.0027	132.8	130.1
Stddev	.0039	.0005	.0013	.0006	.0028	.0030	.0020	.2	1.1
%RSD	1.050	.0753	5.586	70.17	.7785	249.2	74.33	.1874	8.128
#1	.3768	.6545	.0248	.0002	3.539	-.0018	-.0031	132.8	129.0
#2	.3728	.6536	.0222	.0014	3.581	.0042	-.0045	132.5	130.1
#3	.3689	.6539	.0238	.0010	3.591	.0012	-.0005	133.0	131.1
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	180.9	63.47	10.02	15.47	.0493	.0065	1.695	.0585	.3937
Stddev	.3	.07	.09	.03	.0004	.0004	.008	.0009	.0003
%RSD	.1864	.1040	.9008	.1924	.7635	6.103	.4785	1.583	.0762
#1	180.9	63.41	10.03	15.50	.0496	.0066	1.694	.0596	.3939
#2	180.6	63.46	9.931	15.46	.0489	.0060	1.703	.0579	.3938
#3	181.2	63.55	10.11	15.45	.0495	.0068	1.687	.0582	.3934
Elem	Tl3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040	
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	9.758	.0061	.1138	1.184	.0500	.0712	3.626	.3461	
Stddev	.124	.0006	.0006	.005	.0079	.0016	.002	.0068	
%RSD	1.269	10.38	.4851	.4623	15.91	2.298	.0598	1.972	
#1	9.890	.0062	.1144	1.178	.0589	.0725	3.628	.3506	
#2	9.740	.0054	.1134	1.186	.0473	.0694	3.624	.3495	
#3	9.644	.0067	.1136	1.188	.0437	.0718	3.628	.3382	

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Sample Name: JC96243-4 Acquired: 10/9/2019 15:01:09 Type: Unk
 Method: SGS 3 NO Valve(v283) Mode: CONC Corr. Factor: 2.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	205220.	31995.	9185.2	11966.
Stddev	2230.	123.	4.0	17.
%RSD	1.0868	.38352	.04338	.13822
#1	203150.	32085.	9185.9	11974.
#2	204910.	32045.	9188.9	11977.
#3	207580.	31856.	9181.0	11947.

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Sample Name: MP17761-MB1CONF Acquired: 10/9/2019 15:06:14 Type: Unk
 Method: SGS 3 NO Valve(v283) Mode: CONC Corr. Factor: 1.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.003	-0.000	-0.002	0.002	-0.000	0.002	0.003	0.001	0.000
Stddev	.0003	.0001	.0001	.0002	.0001	.0002	.0000	.0000	.0001
%RSD	112.6	112.5	74.24	108.9	227.9	94.25	12.36	69.83	691.2
#1	-0.002	.0000	-0.002	.0002	.0001	.0004	.0003	.0001	.0000
#2	-0.007	-0.001	-0.000	-0.000	-0.001	.0001	.0003	.0001	-0.000
#3	-0.000	-0.001	-0.003	.0003	-0.001	.0001	.0003	.0000	.0001
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.001	0.040	0.005	0.018	-0.001	0.009	-0.020	0.494	0.125
Stddev	.0003	.0001	.0003	.0003	.0006	.0009	.0017	.012	.0011
%RSD	470.9	1.322	51.82	16.53	481.1	104.8	81.78	22.62	9.007
#1	-0.001	.0039	.0007	.0020	-0.007	.0001	-.0033	.0561	.0128
#2	-0.003	.0040	.0002	.0020	-0.001	.0007	-0.027	.0557	.0134
#3	.0002	.0040	.0007	.0015	.0005	.0018	-0.001	.0365	.0112
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	0.187	0.023	-0.0542	-0.0453	-0.0005	-0.0003	0.032	-0.007	0.001
Stddev	.0009	.0044	.0274	.0092	.0002	.0002	.0014	.0002	.0000
%RSD	4.798	189.5	50.51	20.22	31.94	63.69	42.70	21.28	58.69
#1	.0186	.0043	-0.230	-0.418	-0.007	-0.005	.0045	-0.006	.0000
#2	.0197	-0.027	-0.740	-0.557	-0.004	-0.001	.0018	-0.009	.0001
#3	.0179	.0054	-0.656	-0.384	-0.005	-0.003	.0035	-0.007	.0001
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040	
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	0.008	-0.010	0.003	0.024	0.000	-0.010	0.011	0.009	
Stddev	.0002	.0003	.0001	.0006	.0003	.0001	.0007	.0007	
%RSD	23.02	33.59	42.66	23.30	744.3	5.091	61.77	84.81	
#1	.0006	-0.006	.0002	.0030	-0.003	-0.010	.0005	.0000	
#2	.0007	-0.012	.0004	.0023	.0001	-0.010	.0009	.0014	
#3	.0009	-0.012	.0003	.0019	.0002	-0.010	.0018	.0012	

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11.2
11

Sample Name: MP17761-MB1CONF Acquired: 10/9/2019 15:06:14 Type: Unk
 Method: SGS 3 NO Valve(v283) Mode: CONC Corr. Factor: 1.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	211700.	32489.	9445.9	13027.
Stddev	1974.	97.	8.7	14.
%RSD	.93224	.29828	.09162	.10597
#1	209510.	32378.	9449.1	13027.
#2	212240.	32531.	9452.5	13041.
#3	213340.	32558.	9436.1	13013.

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Sample Name: MP17761-B1CONF Acquired: 10/9/2019 15:11:17 Type: Unk
 Method: SGS 3 NO Valve(v283) Mode: CONC Corr. Factor: 1.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.959	1.943	2.013	2.027	1.985	1.980	2.024	2.031
Stddev	.004	.005	.002	.002	.009	.012	.009	.003
%RSD	.1875	.2651	.0883	.1088	4.695	.6053	.4663	.1219
#1	1.955	1.938	2.015	2.028	1.977	1.969	2.035	2.033
#2	1.963	1.948	2.012	2.024	1.995	1.993	2.016	2.028
#3	1.960	1.944	2.012	2.028	1.983	1.980	2.022	2.030
Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	0.809	1.993	2.033	2.046	2.098	2.046	2.045	2.069
Stddev	.0003	.007	.002	.002	.002	.002	.001	.002
%RSD	.3643	.3759	.1110	.0924	.0806	.0798	.0397	.0995
#1	.8006	1.985	2.034	2.048	2.100	2.047	2.046	2.071
#2	.812	2.000	2.035	2.044	2.097	2.044	2.045	2.067
#3	.8010	1.994	2.031	2.046	2.099	2.047	2.044	2.068
Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	24.81	25.43	25.08	25.27	24.83	25.33	2.038	2.035
Stddev	.06	.06	.03	.05	.02	.01	.001	.000
%RSD	.2384	.2496	.1350	.1911	.0778	.0579	.0637	.0112
#1	24.74	25.37	25.05	25.22	24.82	25.31	2.040	2.035
#2	24.86	25.49	25.11	25.31	24.81	25.34	2.037	2.035
#3	24.82	25.43	25.08	25.30	24.85	25.32	2.038	2.036
Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	0.970	2.102	1.997	2.015	1.784	2.051	-0.214	F -0.357
Stddev	.0012	.001	.003	.015	.013	.009	.0020	.0002
%RSD	1.268	.0546	.1282	.7324	.7447	.4320	9.583	.4385
#1	.0956	2.102	1.994	2.001	1.770	2.041	-0.220	-0.355
#2	.0976	2.103	1.999	2.031	1.786	2.057	-0.230	-0.357
#3	.0978	2.101	1.998	2.012	1.796	2.054	-0.191	-0.359

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Sample Name: MP17761-B1CONF Acquired: 10/9/2019 15:11:17 Type: Unk
 Method: SGS 3 NO Valve(v283) Mode: CONC Corr. Factor: 1.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm
Avg	-0.016	2.004	W -.0723
Stddev	.0010	.003	.0022
%RSD	63.65	.1291	3.109
#1	-0.013	2.007	-0.713
#2	-0.026	2.003	-0.707
#3	-0.007	2.002	-0.749

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	204230.	31796.	9156.3	12213.
Stddev	357.	124.	5.4	5.
%RSD	.17459	.39067	.05940	.04181
#1	204620.	31939.	9159.5	12216.
#2	203920.	31734.	9150.0	12215.
#3	204150.	31715.	9159.4	12207.

Sample Name: JC96241-1CONF Acquired: 10/9/2019 15:16:14 Type: Unk
 Method: SGS 3 NO Valve(v283) Mode: CONC Corr. Factor: 1.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment: MP17761

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0452	.0007	.0001	.0018	.0008	.0152	.6848	.0283	-0.0000
Stddev	.0003	.0001	.0001	.0002	.0002	.0001	.0045	.0002	.0004
%RSD	.7243	10.31	131.7	13.10	30.97	.7802	.6637	.7937	886.9
#1	.0453	.0008	-.0001	.0015	.0008	.0153	.6797	.0285	.0002
#2	.0455	.0008	.0002	.0019	.0005	.0152	.6863	.0281	-.0005
#3	.0448	.0006	.0002	.0019	.0010	.0151	.6884	.0284	.0001

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0025	.0275	.0022	.0016	.0011	.0004	-0.0009	.3932	22.74
Stddev	.0004	.0001	.0003	.0007	.0006	.0009	.0005	.0049	.04
%RSD	17.19	.2781	15.33	41.81	59.17	218.6	55.04	1.249	.1541
#1	.0023	.0275	.0018	.0017	.0018	.0011	-.0004	.3962	22.77
#2	.0022	.0275	.0025	.0009	.0007	-.0006	-.0015	.3876	22.76
#3	.0030	.0274	.0022	.0022	.0007	.0006	-.0009	.3960	22.71

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sr1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7747	4.135	3.347	95.29	.0857	.0028	3.253	-0.0011	1.452
Stddev	.0024	.013	.027	.40	.0006	.0001	.005	.0001	.0004
%RSD	.3106	.3116	.7983	.4197	.0066	.0363	.1530	11.97	.2591
#1	.7771	4.120	3.316	95.73	.0865	.0028	3.259	-.0010	.1455
#2	.7746	4.144	3.360	95.18	.0854	.0029	3.251	-.0013	.1454
#3	.7723	4.142	3.364	94.95	.0853	.0028	3.249	-.0011	.1448

Elem	Tl3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0020	.0114	.0038	7.951	-0.0003	.0059	.0874	.0012
Stddev	.0001	.0012	.0005	.015	.0005	.0019	.0004	.0026
%RSD	5.639	10.33	12.78	.1841	158.3	31.66	.4671	219.1
#1	.0020	.0122	.0042	7.966	-.0005	.0079	.0870	.0026
#2	.0019	.0119	.0039	7.938	-.0003	.0042	.0874	.0028
#3	.0021	.0100	.0033	7.947	-.0008	.0055	.0878	-.0018

Sample Name: JC96241-1CONF Acquired: 10/9/2019 15:16:14 Type: Unk
 Method: SGS 3 NO Valve(v283) Mode: CONC Corr. Factor: 1.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment: MP17761

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	205080.	32619.	9184.9	12113.
Stddev	1761.	198.	12.3	14.
%RSD	.85867	.60620	.13359	.11198
#1	206700.	32838.	9178.5	12120.
#2	205350.	32453.	9177.2	12097.
#3	203210.	32567.	9199.1	12121.

Sample Name: JC96241-1CONF Acquired: 10/9/2019 15:21:17 Type: Unk
 Method: SGS 3 NO Valve(v283) Mode: CONC Corr. Factor: 1.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1851	.0002	.0001	.0006	.0021	.0097	.5926	.0153	-0.0004
Stddev	.0002	.0000	.0001	.0001	.0000	.0004	.0041	.0003	.0001
%RSD	.1138	7.472	91.61	20.84	2.013	4.564	.6929	2.251	31.41
#1	.1849	.0002	.0002	.0006	.0021	.0092	.5882	.0150	-.0005
#2	.1854	.0002	.0000	.0005	.0021	.0101	.5964	.0151	-.0005
#3	.1851	.0002	.0000	.0008	.0021	.0097	.5931	.0157	-.0003

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0026	.0441	.0016	.0011	.0006	-0.0010	-0.0002	.4362	90.20
Stddev	.0004	.0000	.0003	.0004	.0005	.0003	.0014	.0027	.24
%RSD	13.78	.1072	16.51	39.45	86.58	26.73	842.0	.6217	.2619
#1	.0023	.0441	.0013	.0008	.0012	-.0007	-.0007	.4391	90.43
#2	.0025	.0441	.0018	.0016	.0005	-.0012	-.0012	.4337	89.96
#3	.0030	.0442	.0018	.0009	.0001	-.0011	.0014	.4359	90.22

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sr1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.8668	12.66	6.024	83.87	.0903	.0012	8.810	-0.0023	3.404
Stddev	.0015	.07	.016	2.38	.0002	.0000	.007	.0003	.0004
%RSD	.1787	.5204	.2683	2.837	.2456	3.516	.0832	12.65	.1247
#1	.8664	12.60	6.043	82.12	.0901	.0012	8.814	-.0024	.3401
#2	.8685	12.64	6.015	82.92	.0905	.0012	8.815	-.0020	.3409
#3	.8655	12.73	6.014	86.58	.0902	.0013	8.802	-.0025	.3403

Elem	Tl3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0036	.0049	.0003	21.05	.0008	.0012	.1541	.0051
Stddev	.0005	.0004	.0000	.00	.0006	.0004	.0003	.0030
%RSD	14.65	7.168	18.77	.0206	78.08	36.52	2.196	58.62
#1	.0031	.0051	.0002	21.05	.0014	.0015	.1538	.0032
#2	.0035	.0051	.0003	21.06	.0005	.0014	.1542	.0086
#3	.0041	.0045	.0002	21.06	.0003	.0007	.1544	.0036

Sample Name: JC96241-11CONF Acquired: 10/9/2019 15:21:17 Type: Unk
Method: SGS 3 NO Valve(v283) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	199270.	31785.	8942.5	11831.
Stddev	1933.	257.	19.4	21.
%RSD	.97000	.80922	.21681	.17946
#1	201260.	31867.	8942.9	11823.
#2	197400.	31990.	8922.9	11815.
#3	199160.	31496.	8961.6	11855.

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Sample Name: JC96241-13 1 Acquired: 10/9/2019 15:26:29 Type: Unk
Method: SGS 3 NO Valve(v283) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0649	.0000	-0.000	.0001	.0138	.0010	.2621	.0084	-0.0003
Stddev	.0004	.0000	.0001	.0001	.0002	.0002	.0018	.0002	.0002
%RSD	.5932	161.2	1187.	99.63	1.737	21.43	.6882	2.269	61.35
#1	.0653	.0000	-0.001	.0000	.0140	.0009	.2624	.0082	-0.0001
#2	.0645	-0.0000	.0000	.0001	.0135	.0008	.2602	.0084	-0.0004
#3	.0650	.0001	.0000	.0003	.0139	.0012	.2638	.0086	-0.0004
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0017	.0207	.0012	.0010	-0.0001	.0000	-0.0005	.0261	99.94
Stddev	.0000	.0001	.0009	.0003	.0002	.0008	.0011	.0055	1.10
%RSD	1.458	.4428	71.06	26.18	144.3	10950.	210.9	21.29	1.102
#1	.0017	.0206	.0022	.0007	-0.001	-0.009	-0.015	.0286	98.91
#2	.0018	.0208	.0005	.0013	-0.0003	.0003	.0006	.0299	99.80
#3	.0017	.0207	.0010	.0011	.0001	.0006	-0.0006	.0197	101.1
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1158	13.57	1.816	31.63	.0665	.0007	9.919	-0.022	1.828
Stddev	.0012	.04	.025	.01	.0004	.0001	.010	.0004	.0002
%RSD	1.010	.2699	1.351	.0415	.6721	18.58	.0997	19.03	1.008
#1	.1162	13.56	1.824	31.62	.0665	.0007	9.908	-0.018	1.829
#2	.1145	13.60	1.789	31.65	.0661	.0009	9.923	-0.021	1.826
#3	.1168	13.53	1.836	31.63	.0670	.0007	9.927	-0.026	1.829
Elem	Tl3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040	
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	.0000	.0026	-0.004	27.57	-0.0005	.0049	.0937	.0005	
Stddev	.0001	.0009	.0001	.03	.0010	.0003	.0005	.0011	
%RSD	313.6	35.50	36.07	.0974	199.5	5.325	.5533	226.1	
#1	.0001	.0036	-0.003	27.54	.0005	.0047	.0942	-0.008	
#2	-0.0000	.0024	-0.005	27.58	-0.0015	.0052	.0938	.0010	
#3	-0.0000	.0018	-0.003	27.59	-0.0005	.0048	.0932	.0012	

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Sample Name: JC96241-13 1 Acquired: 10/9/2019 15:26:29 Type: Unk
Method: SGS 3 NO Valve(v283) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	201820.	31985.	9012.1	12066.
Stddev	503.	222.	10.9	7.
%RSD	.24916	.69467	.12049	.05999
#1	201790.	32092.	9022.7	12073.
#2	202340.	31729.	9001.0	12058.
#3	201330.	32133.	9012.5	12067.

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Sample Name: CCV Acquired: 10/9/2019 15:31:35 Type: QC
Method: SGS 3 NO Valve(v283) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.961	1.954	1.975	2.021	1.990	1.990	2.025	2.017	2.459
Stddev	.007	.004	.001	.001	.024	.025	.021	.000	.0030
%RSD	.3501	.2294	.0725	.0352	1.214	1.242	1.030	.0166	1.207
#1	1.964	1.957	1.975	2.022	2.008	2.009	2.045	2.017	2.481
#2	1.953	1.949	1.974	2.021	2.000	1.998	2.025	2.017	2.471
#3	1.966	1.955	1.977	2.021	1.962	1.962	2.004	2.018	2.425
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.001	1.987	2.001	2.055	2.001	1.983	2.004	38.79	39.68
Stddev	.025	.002	.003	.003	.003	.003	.003	.09	.09
%RSD	1.253	.0762	.1395	.1607	.1289	.1428	.1294	.2282	.2320
#1	2.020	1.988	2.000	2.054	1.998	1.981	2.002	38.86	39.77
#2	2.011	1.985	1.999	2.052	2.003	1.982	2.003	38.69	39.59
#3	1.972	1.987	2.004	2.058	2.003	1.986	2.007	38.81	39.69
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	39.24	39.31	38.75	39.63	1.999	2.021	5.268	2.045	2.005
Stddev	.05	.10	.09	.04	.003	.002	.006	.003	.002
%RSD	.1277	.2613	.2389	.0944	.1657	.0745	.1192	.1254	.1008
#1	39.29	39.38	38.85	39.66	1.998	2.021	5.262	2.043	2.006
#2	39.19	39.36	38.66	39.64	1.997	2.020	5.268	2.043	2.003
#3	39.24	39.19	38.75	39.59	2.003	2.023	5.274	2.048	2.007
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

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Zoom In
Zoom Out

Sample Name: CCV Acquired: 10/9/2019 15:31:35 Type: QC
Method: SGS 3 NO Valve(v283) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.006	1.991	2.051	1.968	1.996	1.939	1.980	1.986
Stddev	.024	.000	.027	.010	.001	.003	.003	.026
%RSD	1.201	.0206	1.296	.5023	.0378	.1597	.1312	1.289

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
Value
Range

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	197250.	31118.	8907.7	11760.
Stddev	2376.	219.	19.9	27.
%RSD	1.2045	.70441	.22363	.22630

High Limit
Low Limit

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0078	.0055	-.0511	.0174	.0014	.0010	.0022	.0005
Stddev	.0047	.0140	.0139	.0092	.0007	.0003	.0014	.0003
%RSD	60.20	254.9	27.14	53.09	49.53	33.85	62.10	61.41

High Limit
Low Limit

Sample Name: CCB Acquired: 10/9/2019 15:36:33 Type: QC
Method: SGS 3 NO Valve(v283) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0005	F .0069	F .0010	.0013	.0016	.0024	.0021	-.0009
Stddev	.0001	.0008	.0001	.0025	.0010	.0005	.0007	.0013
%RSD	23.30	12.18	7.806	190.5	63.08	22.47	33.45	141.9

Check ? Chk Pass Chk Fail Chk Fail Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
High Limit .0050 .0010
Low Limit -.0050 -.0010

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	210020.	31627.	9304.2	12743.
Stddev	2273.	273.	45.3	57.
%RSD	1.0824	.86325	.48644	.44350

#1	212340.	31940.	9306.9	12743.
#2	207800.	31440.	9257.6	12687.
#3	209910.	31501.	9348.0	12800.

Sample Name: CCB Acquired: 10/9/2019 15:36:33 Type: QC
Method: SGS 3 NO Valve(v283) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0001	.0004	.0004	.0004	.0007	.0008	.0008	.0004	-.0000
Stddev	.0002	.0002	.0003	.0002	.0002	.0002	.0002	.0000	.0001
%RSD	274.6	47.11	69.36	45.79	35.12	20.20	20.07	8.224	503.2

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
High Limit
Low Limit

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0006	.0002	.0005	.0013	.0005	.0025	-.0006	-.0069	.0096
Stddev	.0004	.0002	.0007	.0008	.0002	.0010	.0004	.0031	.0053
%RSD	61.21	70.29	142.9	65.57	27.70	38.57	75.50	44.35	55.36

High Limit
Low Limit

#1	.0005	.0004	.0010	.0006	.0004	.0028	-.0008	-.0052	.0035
#2	.0003	.0001	-.0003	.0010	.0005	.0014	-.0001	-.0105	.0131
#3	.0010	.0001	.0007	.0022	.0007	.0033	-.0009	-.0052	.0123

High Limit
Low Limit

Sample Name: MP17762-MB1 7 Acquired: 10/9/2019 15:41:36 Type: Unk
Method: SGS 3 NO Valve(v283) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0004	-.0000	-.0001	.0000	.0001	.0001	.0000	-.0001	-.0003
Stddev	.0004	.0000	.0000	.0001	.0002	.0003	.0000	.0003	.0003
%RSD	93.49	58.23	68.45	217.6	236.9	289.6	112.4	256.2	91.59

High Limit
Low Limit

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0001	.0029	-.0001	-.0000	.0006	.0020	-.0011	-.0068	.0028
Stddev	.0004	.0000	.0001	.0005	.0004	.0001	.0009	.0093	.0021
%RSD	409.3	1.724	42.15	1346.	66.97	6.715	80.65	136.0	76.10

#1	.0003	.0029	-.0002	.0005	.0002	.0021	-.0014	-.0166	.0034
#2	-.0003	.0028	-.0002	-.0003	.0010	.0020	-.0019	-.0055	.0004
#3	-.0003	.0029	-.0001	-.0004	.0006	.0018	-.0001	.0017	.0045

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0010	-.0035	-.0505	.0104	.0009	.0004	.0184	-.0004
Stddev	.0006	.0041	.0148	.0018	.0001	.0001	.0003	.0002
%RSD	61.80	116.9	29.29	17.69	14.69	16.89	1.868	43.09

#1	.0015	-.0005	-.0587	.0083	.0009	.0003	.0187	-.0005
#2	.0011	-.0082	-.0593	.0113	.0007	.0003	.0186	-.0002
#3	.0003	-.0018	-.0334	.0117	.0010	.0004	.0180	-.0005

Sample Name: MP17762-MB1 7 Acquired: 10/9/2019 15:41:36 Type: Unk
 Method: SGS 3 NO Valve(v283) Mode: CONC Corr. Factor: 1.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	210740.	32036.	9261.3	12684.
Stddev	1777.	65.	9.5	9.
%RSD	.84336	.20263	.10286	.07259
#1	208900.	32049.	9256.1	12676.
#2	210880.	32094.	9255.5	12681.
#3	212450.	31966.	9272.3	12694.

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Sample Name: MP17762-MB2 Acquired: 10/9/2019 15:46:37 Type: Unk
 Method: SGS 3 NO Valve(v283) Mode: CONC Corr. Factor: 1.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.005	-0.000	.001	-0.001	-0.000	.000	.001	-0.002	-0.001
Stddev	.002	.000	.000	.002	.001	.001	.000	.002	.002
%RSD	32.04	108.8	56.04	282.5	185.9	189.0	28.02	96.55	233.5
#1	-0.006	-0.001	.001	-0.002	-0.000	.001	.001	-0.000	.001
#2	-0.007	-0.000	.001	-0.001	-0.000	.000	.001	-0.004	-0.002
#3	-0.004	-0.000	.000	-0.001	-0.001	.000	.001	-0.002	-0.001
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.002	.0058	.0006	.0006	.0005	.0010	.0004	-0.0064	.0109
Stddev	.003	.000	.005	.004	.002	.003	.012	.0042	.0015
%RSD	180.8	.8079	80.26	59.14	53.78	33.44	302.1	65.72	13.62
#1	-0.002	.0058	.0004	.0005	.0002	.0014	-0.010	-0.031	.0117
#2	-0.004	.0058	.0002	.0010	.0005	.0009	.0008	-0.049	.0092
#3	.0002	.0057	.0011	.0003	.0007	.0007	.0013	-0.011	.0118
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0008	-0.0045	-0.0427	-0.011	-0.007	.0002	.0089	-0.0006	.0002
Stddev	.002	.0045	.0207	.0016	.0003	.001	.0006	.0001	.0000
%RSD	26.27	100.1	48.49	151.9	45.28	42.01	6.804	17.01	28.90
#1	.0007	-0.031	-0.219	-0.008	.0006	.0002	.0083	-0.005	.0002
#2	.0006	-0.009	-0.633	.0018	.0010	.0001	.0095	-0.006	.0001
#3	.0010	-0.0096	-0.429	.0022	.0004	.0002	.0088	-0.007	.0002
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040	
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	-0.002	.0054	.0004	.0034	-0.015	.0033	.0024	-0.014	
Stddev	.002	.002	.001	.028	.009	.0005	.0001	.0020	
%RSD	93.01	3.139	33.35	82.10	58.84	14.03	3.657	148.3	
#1	-0.000	.0056	.0005	.0063	-0.018	.0033	.0023	-0.010	
#2	-0.002	.0053	.0003	.0008	-0.023	.0028	.0025	-0.0035	
#3	-0.004	.0054	.0005	.0030	-0.005	.0038	.0024	.0005	

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Sample Name: MP17762-MB2 Acquired: 10/9/2019 15:46:37 Type: Unk
 Method: SGS 3 NO Valve(v283) Mode: CONC Corr. Factor: 1.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	208730.	31973.	9271.9	12698.
Stddev	1787.	88.	13.3	31.
%RSD	.85627	.27531	.14384	.24712
#1	207110.	32047.	9268.8	12696.
#2	210650.	31876.	9260.4	12668.
#3	208440.	31995.	9286.5	12731.

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Sample Name: MP17762-B1 Acquired: 10/9/2019 15:51:38 Type: Unk
 Method: SGS 3 NO Valve(v283) Mode: CONC Corr. Factor: 1.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.952	1.955	1.972	2.010	1.976	1.982	2.029	2.012
Stddev	.007	.006	.003	.002	.002	.021	.034	.001
%RSD	.3630	.3179	.1278	.0792	1.012	1.074	1.661	.0572
#1	1.957	1.957	1.970	2.011	1.967	1.973	1.999	2.011
#2	1.955	1.959	1.970	2.009	1.999	2.006	2.065	2.013
#3	1.944	1.948	1.975	2.012	1.961	1.966	2.022	2.013
Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.483	1.993	1.994	2.009	2.066	2.021	1.968	2.040
Stddev	.0025	.021	.003	.004	.002	.003	.003	.005
%RSD	1.020	1.033	.1562	.1911	.1044	.1571	.1493	.2284
#1	.2471	1.983	1.995	2.009	2.065	2.019	1.967	2.039
#2	.2512	2.017	1.991	2.005	2.069	2.019	1.966	2.036
#3	.2466	1.979	1.997	2.013	2.065	2.025	1.972	2.045
Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	24.65	25.27	25.04	25.04	24.59	25.26	1.986	2.056
Stddev	.07	.08	.07	.10	.05	.03	.003	.003
%RSD	.2799	.3072	.2634	.3810	.2089	.1253	.1714	.1272
#1	24.70	25.31	25.08	25.03	24.62	25.28	1.984	2.054
#2	24.67	25.31	25.08	25.15	24.62	25.28	1.984	2.055
#3	24.57	25.18	24.96	24.96	24.53	25.23	1.990	2.059
Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.003	2.090	1.997	2.019	1.890	2.071	-0.0228	F -.0384
Stddev	.0008	.003	.005	.021	.005	.023	.0012	.0009
%RSD	.7515	.1551	.2533	1.029	2.512	1.094	5.332	2.337
#1	.1001	2.090	2.001	2.012	1.886	2.063	-0.0242	-0.378
#2	.0996	2.087	1.998	2.043	1.890	2.097	-0.0222	-0.379
#3	.1011	2.094	1.991	2.003	1.895	2.053	-0.0219	-0.394

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Sample Name: MP17762-B1 Acquired: 10/9/2019 15:51:38 Type: Unk
Method: SGS 3 NO Valve(v283) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Table with 4 columns: Elem, Units, Avg, Stddev, %RSD. Data for elements Li6707, P_1774, Ce4040. Includes replicate data #1, #2, #3 and internal standard data (Int. Std.) for Y_3600, Y_3710, Y_2243, In2306.

Sample Name: MP17762-B2 Acquired: 10/9/2019 15:56:35 Type: Unk
Method: SGS 3 NO Valve(v283) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Table with 9 columns: Elem, Units, Avg, Stddev, %RSD. Data for elements Ba4554, Be3130, Cd2288, Co2286, Cr2677, Cu3247, Mn2576, Ni2316. Includes replicate data #1, #2, #3 and internal standard data for Ag3280, V_2924, Zn2062, As1890, Ti1908, Pb2203, Se1960, Sb2068, Al3961, Ca3179, Fe2599, Mg2790, K_7664, Na5895, B_2089, Mo2020, Si2124, Sn1899, Sr4077, Ti3349, W_2079, Zr3391, S_1820, Bi2230.

11.2
11

Sample Name: MP17762-B2 Acquired: 10/9/2019 15:56:35 Type: Unk
Method: SGS 3 NO Valve(v283) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Table with 4 columns: Elem, Units, Avg, Stddev, %RSD. Data for elements Li6707, P_1774, Ce4040. Includes replicate data #1, #2, #3 and internal standard data for Y_3600, Y_3710, Y_2243, In2306.

Sample Name: MP17762-S1 Acquired: 10/9/2019 16:01:32 Type: Unk
Method: SGS 3 NO Valve(v283) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Table with 9 columns: Elem, Units, Avg, Stddev, %RSD. Data for elements Ba4554, Be3130, Cd2288, Co2286, Cr2677, Cu3247, Mn2576, Ni2316. Includes replicate data #1, #2, #3 and internal standard data for Ag3280, V_2924, Zn2062, As1890, Ti1908, Pb2203, Se1960, Sb2068, Al3961, Ca3179, Fe2599, Mg2790, K_7664, Na5895, B_2089, Mo2020, Si2124, Sn1899, Sr4077, Ti3349, W_2079, Zr3391, S_1820, Bi2230.

Sample Name: MP17762-S1 Acquired: 10/9/2019 16:01:32 Type: Unk
Method: SGS 3 NO Valve(v283) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Li6707	P_1774	Ce4040	
Units	ppm	ppm	ppm	
Avg	.0145	2.925	W -.0444	
Stddev	.0010	.001	.0010	
%RSD	6.901	.0177	2.299	
#1	.0136	2.925	-.0432	
#2	.0143	2.924	-.0449	
#3	.0156	2.925	-.0451	
Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	199400.	31550.	8767.3	11442.
Stddev	1282.	98.	3.5	11.
%RSD	.64281	.30945	.03972	.09561
#1	197970.	31438.	8771.4	11446.
#2	199800.	31614.	8765.5	11430.
#3	200440.	31599.	8765.2	11451.

Sample Name: MP17762-S2 Acquired: 10/9/2019 16:06:54 Type: Unk
Method: SGS 3 NO Valve(v283) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	2.134	1.877	1.915	1.934	1.932	1.962	2.844	1.944	
Stddev	.003	.003	.001	.002	.029	.034	.031	.002	
%RSD	.1500	.1768	.0319	.0996	1.507	1.731	1.087	.0957	
#1	2.137	1.880	1.915	1.936	1.964	1.999	2.873	1.946	
#2	2.134	1.877	1.915	1.933	1.907	1.932	2.847	1.942	
#3	2.131	1.873	1.914	1.933	1.924	1.956	2.812	1.944	
Elem	Ag3280	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068	
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	2.447	1.933	2.049	1.982	1.941	2.005	1.910	1.956	
Stddev	.0032	.028	.001	.003	.002	.003	.003	.001	
%RSD	1.307	1.469	.0237	.1664	.1033	.1327	.1320	.0727	
#1	.2481	1.965	2.049	1.985	1.943	2.005	1.911	1.956	
#2	.2418	1.909	2.049	1.982	1.939	2.002	1.912	1.958	
#3	.2440	1.926	2.050	1.978	1.941	2.007	1.908	1.955	
Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	33.88	95.19	42.49	61.36	44.98	132.9	2.194	1.940	
Stddev	.04	1.60	.08	.08	.09	.6	.002	.001	
%RSD	.1109	1.678	.1998	.1261	.2054	.4451	.0991	.0625	
#1	33.92	94.14	42.56	61.45	45.08	132.9	2.196	1.941	
#2	33.87	97.03	42.50	61.32	44.97	133.5	2.194	1.939	
#3	33.84	94.40	42.39	61.31	44.90	132.3	2.192	1.939	
Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230	
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	F 25.29	1.949	2.440	2.131	1.819	1.991	5.204	F -.0365	
Stddev	.02	.001	.057	.042	.001	.031	.007	.0030	
%RSD	.0620	.0441	2.329	1.981	.0701	1.549	.1366	8.133	
#1	25.30	1.950	2.501	2.178	1.820	2.025	5.212	-.0334	
#2	25.27	1.948	2.388	2.095	1.820	1.965	5.202	-.0393	
#3	25.28	1.948	2.433	2.122	1.818	1.984	5.198	-.0368	

Sample Name: MP17762-S2 Acquired: 10/9/2019 16:06:54 Type: Unk
Method: SGS 3 NO Valve(v283) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Li6707	P_1774	Ce4040	
Units	ppm	ppm	ppm	
Avg	.0151	2.902	W -.0468	
Stddev	.0019	.001	.0013	
%RSD	12.53	.0426	2.732	
#1	.0130	2.903	-.0475	
#2	.0156	2.901	-.0454	
#3	.0167	2.901	-.0477	
Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	195950.	31599.	8768.1	11449.
Stddev	1935.	47.	11.7	15.
%RSD	.98750	.14800	.13321	.13531
#1	193810.	31545.	8774.5	11449.
#2	197580.	31625.	8777.1	11464.
#3	196460.	31627.	8755.7	11433.

Sample Name: JC96248-4 Acquired: 10/9/2019 16:12:16 Type: Unk
Method: SGS 3 NO Valve(v283) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.497	.0006	.0009	.0064	.0468	.0385	.9575	.0115	.0002
Stddev	.0008	.0001	.0002	.0003	.0004	.0004	.0067	.0004	.0003
%RSD	.3275	8.225	23.59	4.422	8.203	.9418	.7017	3.064	128.8
#1	.2495	.0006	.0008	.0063	.0465	.0381	.9501	.0111	.0005
#2	.2490	.0007	.0008	.0063	.0466	.0385	.9590	.0117	-.0000
#3	.2506	.0006	.0011	.0068	.0472	.0388	.9633	.0117	.0001
Elem	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0147	.1727	.0268	.0006	.0879	.0002	.0027	6.888	72.53
Stddev	.0004	.0004	.0009	.0007	.0004	.0012	.0004	.009	1.54
%RSD	2.857	.2056	3.319	118.5	.3983	785.1	13.93	.1274	2.125
#1	.0142	.1723	.0260	.0014	.0883	.0015	.0027	6.883	72.73
#2	.0150	.1728	.0278	.0002	.0876	-.0009	.0030	6.883	70.89
#3	.0149	.1730	.0267	.0002	.0878	-.0001	.0023	6.898	73.95
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	19.18	38.56	20.93	110.0	2882	.0040	19.88	.0055	.5309
Stddev	.03	.13	.05	1.7	.0005	.0002	.04	.0003	.0007
%RSD	.1446	.3250	.2220	1.527	.1871	6.071	.1897	4.746	.1403
#1	19.21	38.69	20.89	108.3	.2888	.0038	19.92	.0055	.5317
#2	19.16	38.45	20.91	109.9	.2879	.0042	19.87	.0053	.5304
#3	19.17	38.53	20.98	111.7	.2879	.0041	19.84	.0058	.5305
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040	
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	.1847	.0105	.0054	5.312	-0.014	.0150	1.025	.0238	
Stddev	.0013	.0008	.0002	.010	.0003	.0009	.000	.0016	
%RSD	.6837	7.785	3.891	.1799	22.41	6.112	.0370	6.581	
#1	.1833	.0096	.0055	5.322	-.0018	.0159	1.025	.0229	
#2	.1849	.0110	.0054	5.311	-.0014	.0151	1.025	.0256	
#3	.1858	.0110	.0051	5.303	-.0011	.0140	1.024	.0229	

Sample Name: JC96248-4 Acquired: 10/9/2019 16:12:16 Type: Unk
 Method: SGS 3 NO Valve(v283) Mode: CONC Corr. Factor: 1.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	199110.	31734.	8918.4	11626.
Stddev	1344.	251.	23.9	12.
%RSD	.67496	.79022	.26815	.10066
#1	200440.	31515.	8943.9	11638.
#2	199140.	32008.	8896.4	11615.
#3	197760.	31679.	8915.0	11624.

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Sample Name: MP17762-SD1 Acquired: 10/9/2019 16:17:28 Type: Unk
 Method: SGS 3 NO Valve(v283) Mode: CONC Corr. Factor: 5.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2483	.0008	.0001	0066	.0474	.0409	.9651	.0109	.0000
Stddev	.0001	.0002	.0003	.0010	.0017	.0011	.0129	.0013	.0006
%RSD	.0404	19.43	280.7	16.00	3.494	2.766	1.332	12.01	14070.
#1	2482	.0008	.0003	.0062	.0462	.0396	.9519	.0098	.0005
#2	2483	.0010	-.0002	.0077	.0493	.0416	.9775	.0123	-.0007
#3	2484	.0007	.0003	.0057	.0467	.0416	.9659	.0106	.0002
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0150	.1935	.0277	.0012	.0873	.0004	.0024	6.912	74.16
Stddev	.0004	.0001	.0061	.0043	.0004	.0045	.0050	.036	.09
%RSD	2.692	.0607	21.83	375.2	.4511	1231.	206.7	.5174	.1172
#1	.0146	.1934	.0307	.0036	.0869	-.0044	.0051	6.890	74.13
#2	.0150	.1936	.0317	.0038	.0873	.0010	-.0033	6.953	74.25
#3	.0154	.1935	.0208	-.0039	.0877	.0045	.0054	6.893	74.08
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	19.46	39.44	20.80	113.1	.3011	.0048	20.08	.0030	.5301
Stddev	.06	.06	.13	.2	.0003	.0009	.01	.0014	.0010
%RSD	.2996	.1630	.6400	.1423	.1002	17.91	.0362	47.21	.1948
#1	19.49	39.37	20.96	113.1	.3015	.0052	20.09	.0014	.5304
#2	19.49	39.46	20.73	113.3	.3011	.0053	20.07	.0040	.5309
#3	19.39	39.50	20.73	113.0	.3009	.0038	20.09	.0037	.5289
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040	
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	.1852	.0416	.0060	5.322	.0013	.0250	1.018	.0212	
Stddev	.0018	.0022	.0005	.015	.0027	.0046	.001	.0045	
%RSD	.9566	5.239	7.838	.2775	.213.3	18.45	.0891	21.20	
#1	.1833	.0439	.0065	5.339	.0044	.0294	1.018	.0180	
#2	.1869	.0412	.0055	5.313	-.0005	.0253	1.019	.0192	
#3	.1853	.0397	.0060	5.314	-.0001	.0202	1.017	.0263	

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Sample Name: MP17762-SD1 Acquired: 10/9/2019 16:17:28 Type: Unk
 Method: SGS 3 NO Valve(v283) Mode: CONC Corr. Factor: 5.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	205790.	31572.	9175.4	12345.
Stddev	2398.	43.	16.5	20.
%RSD	1.1650	.13708	.17940	.16507
#1	208480.	31619.	9156.6	12322.
#2	203860.	31561.	9187.4	12361.
#3	205040.	31535.	9182.2	12352.

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Sample Name: MP17762-S3 Acquired: 10/9/2019 16:22:25 Type: Unk
 Method: SGS 3 NO Valve(v283) Mode: CONC Corr. Factor: 1.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.089	1.958	1.995	2.011	1.951	1.982	2.718	2.019
Stddev	.005	.007	.004	.002	.015	.012	.023	.001
%RSD	.2372	.3347	.1823	.0876	.7627	.6051	.8460	.0678
#1	2.091	1.961	1.999	2.012	1.957	1.986	2.735	2.020
#2	2.092	1.962	1.994	2.012	1.934	1.968	2.692	2.020
#3	2.083	1.950	1.992	2.009	1.961	1.991	2.727	2.018
Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2511	1.984	1.977	2.056	2.025	2.004	1.994	2.063
Stddev	.0016	.014	.003	.002	.002	.001	.007	.004
%RSD	.6221	.6971	.1680	.1023	.0973	.0673	.3342	.1971
#1	.2517	1.993	1.979	2.058	2.024	2.005	2.001	2.068
#2	.2493	1.969	1.979	2.055	2.027	2.002	1.995	2.062
#3	.2522	1.992	1.973	2.054	2.024	2.004	1.987	2.060
Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	24.65	93.79	24.97	61.79	45.10	137.1	2.272	2.050
Stddev	.07	.61	.06	.14	.11	1.2	.004	.004
%RSD	.3001	.6505	.2215	.2298	.2408	.8761	.1801	.2169
#1	24.67	94.15	25.01	61.82	45.13	136.0	2.276	2.054
#2	24.71	94.14	25.01	61.91	45.18	138.4	2.271	2.050
#3	24.57	93.09	24.91	61.63	44.98	136.9	2.268	2.045
Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	9.172	2.032	2.476	2.009	2.010	2.063	4.542	F -.0425
Stddev	.022	.003	.014	.014	.005	.014	.008	.0006
%RSD	.2428	.1459	.5590	.7126	.2571	.6781	.1740	1.356
#1	9.197	2.033	2.487	2.010	2.015	2.072	4.546	-.0432
#2	9.163	2.035	2.479	1.994	2.012	2.047	4.547	-.0421
#3	9.155	2.029	2.460	2.022	2.005	2.070	4.533	-.0423

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Sample Name: MP17762-S3 Acquired: 10/9/2019 16:22:25 Type: Unk
 Method: SGS 3 NO Valve(v283) Mode: CONC Corr. Factor: 1.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm
Avg	.0061	2.034	W -.0749
Stddev	.0019	.002	.0022
%RSD	30.45	.1077	2.878

#1	.0042	2.037	-.0731
#2	.0063	2.034	-.0773
#3	.0079	2.032	-.0745

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	195890.	31312.	8716.2	11411.
Stddev	1506.	125.	12.2	14.
%RSD	.76878	40030	.13951	.12257

#1	194980.	31212.	8715.4	11419.
#2	197630.	31272.	8704.5	11395.
#3	195070.	31453.	8728.7	11419.

Sample Name: CCV Acquired: 10/9/2019 16:27:47 Type: QC
 Method: SGS 3 NO Valve(v283) Mode: CONC Corr. Factor: 1.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.959	1.963	1.970	1.994	1.973	1.961	2.012	2.010	2.431
Stddev	.004	.005	.001	.001	.002	.002	.017	.002	.0005
%RSD	.1982	.2463	.0481	.0555	.0943	.0883	.8423	.1158	.2050

#1	1.958	1.962	1.970	1.994	1.975	1.960	2.031	2.008	2.427
#2	1.964	1.968	1.971	1.992	1.971	1.960	2.006	2.010	2.431
#3	1.956	1.958	1.969	1.995	1.972	1.963	1.999	2.012	2.436

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.978	1.991	1.986	2.040	1.987	1.962	2.000	38.94	39.67
Stddev	.003	.002	.001	.003	.002	.002	.001	.07	.08
%RSD	.1665	.0870	.0511	.1471	.1022	.1115	.0354	.1888	.2087

#1	1.981	1.990	1.985	2.039	1.988	1.963	1.999	38.91	39.63
#2	1.977	1.990	1.986	2.043	1.985	1.964	1.999	39.02	39.77
#3	1.975	1.993	1.987	2.037	1.989	1.960	2.000	38.88	39.61

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	39.29	39.40	38.78	39.58	1.988	2.007	5.266	2.027	2.004
Stddev	.06	.12	.09	.04	.001	.002	.005	.002	.002
%RSD	.1539	.3014	.2394	.1085	.0232	.0731	.1036	.0782	.0728

#1	39.27	39.37	38.72	39.54	1.988	2.006	5.260	2.025	2.003
#2	39.36	39.54	38.89	39.63	1.989	2.006	5.270	2.029	2.006
#3	39.24	39.31	38.74	39.59	1.988	2.009	5.267	2.027	2.004

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Sample Name: CCV Acquired: 10/9/2019 16:27:47 Type: QC
 Method: SGS 3 NO Valve(v283) Mode: CONC Corr. Factor: 1.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.979	1.972	2.036	1.932	1.982	1.933	1.961	1.964
Stddev	.004	.003	.003	.001	.001	.004	.003	.002
%RSD	.1811	.1580	.1349	.0639	.0625	.2129	.1542	.0779

#1	1.981	1.970	2.038	1.932	1.981	1.932	1.958	1.966
#2	1.975	1.970	2.037	1.930	1.984	1.938	1.964	1.963
#3	1.982	1.975	2.033	1.933	1.982	1.930	1.961	1.963

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	199150.	30667.	8948.8	11883.
Stddev	625.	130.	2.2	2.
%RSD	.31407	.42266	.02474	.01570

#1	198570.	30769.	8951.3	11881.
#2	199060.	30521.	8947.1	11885.
#3	199810.	30710.	8948.0	11883.

Sample Name: CCB Acquired: 10/9/2019 16:32:46 Type: QC
 Method: SGS 3 NO Valve(v283) Mode: CONC Corr. Factor: 1.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0001	.0003	.0006	.0006	.0007	.0010	.0008	.0006	.0002
Stddev	.0001	.0000	.0002	.0002	.0001	.0004	.0001	.0001	.0004
%RSD	68.06	11.92	31.14	35.78	13.29	36.09	7.245	20.66	214.2

#1	.0000	.0003	.0007	.0008	.0006	.0015	.0007	.0005	-0.000
#2	.0001	.0003	.0007	.0004	.0007	.0009	.0008	.0006	.0006
#3	.0001	.0004	.0004	.0007	.0008	.0008	.0008	.0007	-0.000

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0004	.0005	.0004	.0011	.0008	.0029	.0005	.0028	.0060
Stddev	.0002	.0001	.0005	.0006	.0003	.0013	.0012	.0048	.0006
%RSD	56.27	18.73	120.8	57.31	44.69	44.23	224.6	171.0	9.195

#1	.0003	.0006	.0010	.0017	.0011	.0039	.0019	.0002	.0065
#2	.0002	.0006	-.0001	.0012	.0005	.0033	-.0003	.0083	.0054
#3	.0007	.0004	.0004	.0004	.0007	.0015	.0000	-.0001	.0060

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0081	.0029	.0070	.0279	.0030	.0012	.0022	.0007	.0004
Stddev	.0002	.0017	.0168	.0006	.0005	.0003	.0005	.0003	.0000
%RSD	2.857	56.69	238.9	2.140	17.84	25.69	23.52	44.86	10.92

#1	.0081	.0048	-.0121	.0281	.0033	.0015	.0017	.0003	.0005
#2	.0078	.0015	.0192	.0283	.0034	.0013	.0021	.0009	.0004
#3	.0083	.0025	.0140	.0272	.0024	.0009	.0027	.0008	.0004

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Sample Name: CCB Acquired: 10/9/2019 16:32:46 Type: QC
Method: SGS 3 NO Valve(v283) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Table with 9 columns: Elem, Units, Avg, Stddev, %RSD, and 8 element columns (Ti3349, W_2079, Zr3391, S_1820, Bi2230, Li6707, P_1774, Ce4040). Includes rows for #1, #2, #3 and Int. Std. Units.

Sample Name: MP17762-S4 Acquired: 10/9/2019 16:37:48 Type: Unk
Method: SGS 3 NO Valve(v283) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Table with 9 columns: Elem, Units, Avg, Stddev, %RSD, and 8 element columns (Ba4554, Be3130, Cd2288, Co2286, Cr2677, Cu3247, Mn2576, Ni2316). Includes rows for #1, #2, #3 and Int. Std. Units.

11.2

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Sample Name: MP17762-S4 Acquired: 10/9/2019 16:37:48 Type: Unk
Method: SGS 3 NO Valve(v283) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Table with 4 columns: Elem, Units, Avg, Stddev, %RSD, and 3 element columns (Li6707, P_1774, Ce4040). Includes rows for #1, #2, #3 and Int. Std. Units.

Sample Name: JC96248-4F Acquired: 10/9/2019 16:43:08 Type: Unk
Method: SGS 3 NO Valve(v283) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Table with 9 columns: Elem, Units, Avg, Stddev, %RSD, and 8 element columns (Ba4554, Be3130, Cd2288, Co2286, Cr2677, Cu3247, Mn2576, Ni2316). Includes rows for #1, #2, #3 and Int. Std. Units.

Sample Name: JC96248-4F Acquired: 10/9/2019 16:43:08 Type: Unk
Method: SGS 3 NO Valve(v283) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	197360.	31468.	8777.3	11569.
Stddev	1828.	171.	33.8	45.
%RSD	.92617	.54383	.38468	.38497
#1	195430.	31658.	8815.7	11618.
#2	199060.	31325.	8763.9	11559.
#3	197600.	31422.	8752.3	11531.

Sample Name: MP17762-SD2 Acquired: 10/9/2019 16:48:18 Type: Unk
Method: SGS 3 NO Valve(v283) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1407	.0003	-0.004	.0022	.0001	.0031	.7403	.0010	-0.0015
Stddev	.0005	.0000	.0006	.0008	.0004	.0010	.0064	.0011	.0013
%RSD	.3554	9.679	159.8	36.97	282.0	31.40	.8631	100.3	81.77
#1	.1411	.0003	-0.000	.0032	-0.003	.0034	.7475	.0020	-0.0021
#2	.1409	.0004	-0.011	.0020	.0004	.0039	.7354	.0012	-0.0001
#3	.1402	.0003	-0.001	.0016	.0003	.0020	.7380	-0.001	-0.0024
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0008	.0283	.0085	.0015	.0001	.0024	-0.0035	-0.0079	71.64
Stddev	.0011	.0000	.0022	.0034	.0032	.0029	.0064	.0149	.22
%RSD	133.4	.1639	25.77	226.2	2171.	119.9	183.7	188.5	.3033
#1	.0017	.0282	.0060	.0006	.0019	.0013	-0.0089	-0.243	71.74
#2	.0011	.0283	.0102	.0053	.0020	.0057	-0.0050	-0.0047	71.78
#3	-0.0004	.0283	.0092	-0.014	-0.0035	.0003	.0035	-0.0040	71.39
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sr1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2225	38.53	20.42	114.7	.2949	.0032	9.237	-0.0027	5.127
Stddev	.0042	.07	.02	.2	.0031	.0001	.010	.0008	.0009
%RSD	1.887	.1708	.1074	.1543	1.063	4.479	.1035	28.69	.1752
#1	.2181	38.48	20.44	114.7	.2915	.0034	9.237	-0.0019	.5137
#2	.2264	38.60	20.40	114.8	.2976	.0032	9.228	-0.0027	.5126
#3	.2230	38.51	20.40	114.5	.2957	.0031	9.247	-0.0035	.5119
Elem	Tl3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040	
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	-0.0012	.0273	.0025	4.506	.0036	.0217	.0453	.0045	
Stddev	.0017	.0007	.0004	.023	.0025	.0098	.0016	.0195	
%RSD	136.4	2.571	15.00	.5195	68.39	45.23	3.591	433.9	
#1	-0.0018	.0266	.0027	4.482	.0050	.0328	.0471	.0048	
#2	-0.0007	.0273	.0027	4.509	.0008	.0145	.0449	.0239	
#3	-0.0026	.0280	.0020	4.528	.0051	.0177	.0439	-0.0152	

11.2
11

Sample Name: MP17762-SD2 Acquired: 10/9/2019 16:48:18 Type: Unk
Method: SGS 3 NO Valve(v283) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	205750.	31650.	9145.7	12325.
Stddev	1383.	170.	5.6	12.
%RSD	.67220	.53686	.06131	.09586
#1	204180.	31719.	9142.7	12330.
#2	206270.	31456.	9142.2	12312.
#3	206800.	31774.	9152.2	12334.

Sample Name: JC96248-1 Acquired: 10/9/2019 16:53:16 Type: Unk
Method: SGS 3 NO Valve(v283) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0873	.0002	.0001	.0004	.0026	.0009	.7186	.0018	-0.0005
Stddev	.0003	.0000	.0001	.0002	.0001	.0000	0.105	.0002	.0003
%RSD	.3998	9.824	160.8	43.31	4.409	1.801	1.461	10.64	56.41
#1	.0876	.0003	.0001	.0005	.0026	.0009	.7105	.0017	-0.0006
#2	.0873	.0002	.0002	.0002	.0026	.0009	.7304	.0020	-0.0007
#3	.0869	.0002	-0.001	.0004	.0028	.0009	.7147	.0017	-0.0002
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0017	.0045	.0020	.0001	.0817	-0.0014	-0.0001	.1666	185.5
Stddev	.0001	.0000	.0003	.0006	.0007	.0007	.0007	.0048	2.5
%RSD	4.159	1.066	16.54	704.2	8322	52.77	478.1	2.899	1.341
#1	.0018	.0045	.0023	-0.003	.0817	-0.0007	-0.0006	.1720	182.6
#2	.0018	.0045	.0017	-0.008	.0824	-0.0013	-0.0007	.1629	186.8
#3	.0016	.0044	.0021	-0.002	.0810	-0.0022	-0.0003	.1649	187.1
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sr1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	12.54	80.87	17.02	20.45	4.142	.0010	16.46	-0.0031	1.211
Stddev	.02	.29	.06	.03	.0011	.0001	.03	.0001	.001
%RSD	.1514	.3550	.3335	.1667	.2701	9.622	.1634	3.970	.1133
#1	12.55	81.01	17.02	20.48	4.154	.0009	16.49	-0.0029	1.213
#2	12.54	81.06	17.08	20.44	4.141	.0011	16.44	-0.0032	1.210
#3	12.51	80.54	16.96	20.41	4.132	.0010	16.45	-0.0031	1.211
Elem	Tl3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040	
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	.0067	.0079	.0001	53.38	-0.0012	.1028	.2562	.0027	
Stddev	.0006	.0006	.0001	.13	.0014	.0015	.0009	.0047	
%RSD	8.885	7.334	129.9	.2462	121.0	1.458	.3455	174.2	
#1	.0066	.0077	.0002	53.52	-0.003	.1020	.2560	-0.0014	
#2	.0061	.0075	.0001	53.35	-0.014	.1018	.2571	.0078	
#3	.0073	.0086	-0.000	53.26	-0.025	.1045	.2554	.0017	

Sample Name: JC96248-1 Acquired: 10/9/2019 16:53:16 Type: Unk
 Method: SGS 3 NO Valve(v283) Mode: CONC Corr. Factor: 1.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	195120.	31079.	8650.8	11441.
Stddev	2231.	175.	4.5	8.
%RSD	1.1433	.56431	.05228	.07037
#1	196960.	31077.	8655.8	11449.
#2	192640.	30904.	8646.9	11441.
#3	195760.	31255.	8649.7	11433.

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Sample Name: JC96248-2 Acquired: 10/9/2019 16:58:21 Type: Unk
 Method: SGS 3 NO Valve(v283) Mode: CONC Corr. Factor: 1.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1988	.0002	-0.001	.0006	.0004	.0008	1.655	-0.000	-0.002
Stddev	.0005	.0000	.0000	.0002	.0000	.0000	.004	.0002	.0001
%RSD	.2588	10.56	36.50	31.35	6.265	3.593	.2647	339.2	53.08
#1	.1983	.0001	-.0002	.0008	.0004	.0008	1.657	-.0001	-.0002
#2	.1988	.0002	-.0001	.0007	.0004	.0008	1.650	-.0001	-.0003
#3	.1993	.0002	-.0001	.0004	.0004	.0009	1.658	.0001	-.0001
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0016	.0040	.0017	.0008	.0009	-.0008	.0003	.0190	149.0
Stddev	.0002	.0000	.0004	.0007	.0006	.0002	.0016	.0064	1.3
%RSD	13.01	.8422	22.73	89.26	60.97	20.57	563.1	33.41	8867
#1	.0018	.0040	.0014	-.0000	.0016	-.0008	-.0004	.0262	147.7
#2	.0014	.0040	.0016	.0014	.0006	-.0007	-.0009	.0140	150.4
#3	.0016	.0040	.0021	.0011	.0006	-.0010	.0021	.0169	149.0
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	27.95	83.31	17.70	37.94	3.773	.0006	15.01	-0.0026	1.082
Stddev	.08	.01	.02	.02	.0009	.0002	.02	.0002	.002
%RSD	.2969	.0175	.1211	.0441	.2256	31.99	.1397	7.766	.2114
#1	27.87	83.30	17.67	37.92	.3781	.0005	15.02	-.0024	1.080
#2	27.93	83.32	17.71	37.95	.3773	.0004	15.01	-.0026	1.082
#3	28.04	83.30	17.70	37.95	.3764	.0008	14.98	-.0028	1.084
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040	
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	-.0002	.0050	-.0003	52.06	-.0006	.1293	1.196	.0037	
Stddev	.0002	.0007	.0002	.11	.0009	.0009	.001	.0020	
%RSD	117.5	14.88	67.37	2033	143.8	6605	.0702	53.35	
#1	-.0005	.0049	-.0005	52.18	-.0014	.1291	1.197	.0014	
#2	-.0000	.0058	-.0003	52.02	.0003	.1286	1.195	.0050	
#3	-.0001	.0043	-.0001	51.98	-.0008	.1303	1.195	.0046	

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Sample Name: JC96248-2 Acquired: 10/9/2019 16:58:21 Type: Unk
 Method: SGS 3 NO Valve(v283) Mode: CONC Corr. Factor: 1.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	194700.	31053.	8699.2	11491.
Stddev	747.	97.	10.3	3.
%RSD	.38354	.31178	.11865	.02917
#1	195160.	31027.	8690.5	11489.
#2	193840.	30971.	8696.4	11490.
#3	195110.	31160.	8710.6	11495.

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Sample Name: JC96248-3 Acquired: 10/9/2019 17:03:32 Type: Unk
 Method: SGS 3 NO Valve(v283) Mode: CONC Corr. Factor: 1.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.133	.0002	-0.001	.0005	.0006	.0009	1.430	.0001	-0.004
Stddev	.0004	.0000	.0001	.0001	.0001	.0003	.003	.0001	.0002
%RSD	.3417	16.57	195.3	12.46	11.49	34.03	.2158	97.91	61.29
#1	.1131	.0002	-.0001	.0005	.0006	.0008	1.427	.0003	-.0001
#2	.1137	.0001	-.0001	.0005	.0005	.0006	1.433	.0000	-.0003
#3	.1130	.0002	.0001	.0006	.0006	.0012	1.429	.0001	-.0006
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0013	.0031	.0050	-.0003	-.0006	-.0016	-.0005	.0567	178.2
Stddev	.0003	.0000	.0006	.0005	.0006	.0015	.0004	.0069	1.9
%RSD	21.23	1.136	12.71	157.8	100.8	88.97	81.91	12.17	1.063
#1	.0016	.0030	.0043	-.0009	-.0001	-.0002	-.0005	.0494	177.9
#2	.0013	.0030	.0056	-.0001	-.0008	-.0015	-.0001	.0575	180.3
#3	.0010	.0031	.0049	-.0002	-.0011	-.0031	-.0008	.0631	176.5
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	18.94	82.14	16.50	32.80	4.007	.0050	13.01	-0.0026	1.055
Stddev	.01	.11	.02	.05	.0003	.0000	.02	.0002	.001
%RSD	.0698	.1285	.1427	.1512	.0627	.0928	.1249	8.398	.0715
#1	18.95	82.26	16.48	32.81	4.010	.0050	13.03	-.0027	1.056
#2	18.93	82.08	16.50	32.74	4.006	.0050	13.00	-.0027	1.054
#3	18.95	82.07	16.53	32.83	4.005	.0050	13.00	-.0023	1.056
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040	
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	.0013	.0022	.0002	72.22	.0003	.0968	.3296	.0066	
Stddev	.0003	.0004	.0000	.11	.0009	.0006	.0018	.0018	
%RSD	26.71	19.53	10.19	1554	299.9	.6702	.5483	27.53	
#1	.0017	.0020	.0002	72.34	-.0008	.0960	.3314	.0054	
#2	.0012	.0027	.0002	72.20	.0007	.0973	.3294	.0087	
#3	.0010	.0020	.0002	72.11	.0010	.0970	.3278	.0057	

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Sample Name: JC96248-3 Acquired: 10/9/2019 17:03:32 Type: Unk
 Method: SGS 3 NO Valve(v283) Mode: CONC Corr. Factor: 1.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	194260.	31063.	8642.2	11430.
Stddev	566.	128.	6.7	5.
%RSD	.29117	.41241	.07746	.04807
#1	194800.	30952.	8638.5	11428.
#2	193680.	31034.	8650.0	11437.
#3	194310.	31203.	8638.2	11426.

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Sample Name: JC96248-5 Acquired: 10/9/2019 17:08:43 Type: Unk
 Method: SGS 3 NO Valve(v283) Mode: CONC Corr. Factor: 1.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1097	.0000	-0.0003	.0014	.0030	.0006	5.836	.0017	-0.0001
Stddev	.0003	.0000	.0001	.0002	.0002	.0003	.081	.0002	.0002
%RSD	.3078	81.00	22.08	13.52	6.239	56.75	1.384	11.43	172.3
#1	.1097	.0000	-0.0002	.0016	.0029	.0007	5.765	.0015	-0.0004
#2	.1094	.0000	-0.0003	.0014	.0029	.0002	5.820	.0018	.0001
#3	.1101	.0000	-0.0003	.0012	.0032	.0009	5.924	.0018	-0.0001
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0036	.0101	.0052	.0004	-0.0001	-0.0017	-0.0004	.0344	122.5
Stddev	.0002	.0001	.0004	.0019	.0006	.0012	.0007	.0094	1.1
%RSD	6.715	1.330	7.885	426.0	778.4	70.18	174.7	27.36	9080
#1	.0034	.0101	.0056	.0025	-0.0006	-0.0008	-0.0003	.0245	121.3
#2	.0035	.0099	.0048	-0.0012	-0.0001	-0.0030	-0.0012	.0355	123.4
#3	.0039	.0102	.0053	.0001	.0005	-0.0012	.0002	.0433	122.8
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.626	73.32	7.190	33.59	3.075	.0015	16.75	-0.0030	5.163
Stddev	.005	.06	.032	.03	.0040	.0000	.20	.0002	.0002
%RSD	.1356	.0761	.4462	.0793	1.287	1.578	1.190	6.241	0.365
#1	3.621	73.26	7.153	33.58	.3092	.0015	16.86	-0.0032	.5164
#2	3.627	73.34	7.212	33.62	.3030	.0016	16.52	-0.0028	.5164
#3	3.631	73.37	7.205	33.58	.3103	.0015	16.87	-0.0031	.5161
Elem	Tl3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040	
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	.0002	.0018	-0.0003	2.286	-0.0009	.0060	2.487	-0.0018	
Stddev	.0001	.0002	.0001	.030	.0005	.0005	.029	.0015	
%RSD	73.67	10.48	29.24	1.306	58.18	7.982	1.187	82.71	
#1	.0002	.0020	-0.0003	2.304	-0.0011	.0066	2.502	-0.0006	
#2	.0003	.0016	-0.0002	2.251	-0.0003	.0057	2.453	-0.0013	
#3	.0000	.0019	-0.0002	2.302	-0.0012	.0057	2.505	-0.0034	

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Sample Name: JC96248-5 Acquired: 10/9/2019 17:08:43 Type: Unk
 Method: SGS 3 NO Valve(v283) Mode: CONC Corr. Factor: 1.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	197700.	31333.	8865.8	11661.
Stddev	2353.	102.	113.4	134.
%RSD	1.1903	.32540	1.2789	1.1481
#1	199960.	31449.	8798.7	11585.
#2	197880.	31262.	8996.7	11816.
#3	195260.	31286.	8801.9	11583.

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Sample Name: JC96248-6 Acquired: 10/9/2019 17:13:56 Type: Unk
 Method: SGS 3 NO Valve(v283) Mode: CONC Corr. Factor: 1.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0948	.0001	.0000	.0006	.0014	.0003	1.059	-0.0004	.0001
Stddev	.0002	.0000	.0001	.0004	.0002	.0003	.007	.0003	.0002
%RSD	.2171	18.27	229.8	63.06	13.07	80.14	.6963	68.74	309.5
#1	.0950	.0001	.0001	.0008	.0012	.0001	1.052	-0.0007	-0.0002
#2	.0946	.0001	.0000	.0002	.0016	.0006	1.067	-0.0001	.0002
#3	.0947	.0001	.0000	.0008	.0014	.0002	1.058	-0.0005	.0001
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0011	.0019	.0027	-0.0008	-0.0006	-0.0002	.0006	.0035	105.1
Stddev	.0001	.0000	.0002	.0007	.0001	.0010	.0012	.0049	.4
%RSD	9.382	.9992	6.047	94.05	14.74	500.5	204.6	138.1	.4039
#1	.0012	.0019	.0025	-0.0014	-0.0005	-0.0011	.0017	.0021	105.3
#2	.0011	.0019	.0029	-0.0009	-0.0006	-0.0004	.0009	.0090	104.6
#3	.0010	.0019	.0028	.0000	-0.0007	.0009	-0.0008	-0.0005	105.3
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	25.58	29.94	7.874	13.22	2.149	.0001	17.48	-0.0034	6.379
Stddev	.05	.01	.020	.00	.0001	.0000	.02	.0005	.0007
%RSD	.1941	.0440	.2474	.0174	.0534	12.43	.0926	13.72	.1034
#1	25.54	29.94	7.856	13.22	2.149	.0001	17.50	-0.0032	6.382
#2	25.55	29.93	7.872	13.22	2.151	.0001	17.47	-0.0039	6.371
#3	25.63	29.96	7.895	13.22	2.149	.0001	17.49	-0.0031	6.383
Elem	Tl3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040	
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	-0.0007	.0022	-0.0004	37.03	-0.0012	.0339	5.245	.0012	
Stddev	.0002	.0001	.0001	.01	.0002	.0008	.0008	.0015	
%RSD	23.51	6.314	29.01	.0287	13.18	2.296	.1489	128.3	
#1	-0.0008	.0022	-0.0003	37.02	-0.0012	.0338	5.236	-0.0000	
#2	-0.0005	.0023	-0.0003	37.04	-0.0013	.0331	5.250	.0006	
#3	-0.0006	.0021	-0.0005	37.03	-0.0010	.0347	5.250	.0028	

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Zoom In
Zoom Out

Sample Name: JC96248-6 Acquired: 10/9/2019 17:13:56 Type: Unk
Method: SGS 3 NO Valve(v283) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	201350.	31380.	8896.5	11875.
Stddev	1315.	142.	9.0	14.
%RSD	.65297	.45261	.10080	.11942
#1	202550.	31456.	8886.8	11860.
#2	199950.	31469.	8904.6	11888.
#3	201570.	31216.	8898.0	11876.

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Zoom In
Zoom Out

Sample Name: JC96248-7 Acquired: 10/9/2019 17:19:02 Type: Unk
Method: SGS 3 NO Valve(v283) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0850	.0002	.0000	.0000	.0025	.0011	.6992	.0003	-0.004
Stddev	.0003	.0001	.0001	.0001	.0003	.0003	.0053	.0001	.0004
%RSD	.3246	25.98	506.7	442.5	11.99	27.33	.7533	46.90	101.1
#1	.0853	.0003	-0.0000	.0001	.0023	.0008	.6978	.0001	-0.0003
#2	.0847	.0002	.0001	.0001	.0029	.0011	.7050	.0004	-0.0000
#3	.0850	.0002	-0.0000	-0.0001	.0024	.0014	.6948	.0003	-0.0008
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0017	.0045	.0015	-0.0002	.0827	-0.0018	.0000	.1546	177.5
Stddev	.0001	.0000	.0005	.0001	.0005	.0003	.0014	.0040	1.9
%RSD	4.278	.7524	34.10	78.45	6.481	18.51	5791.	2.578	1.069
#1	.0017	.0045	.0013	-0.0002	.0830	-0.0019	-0.0013	.1511	178.9
#2	.0017	.0044	.0012	-0.0003	.0830	-0.0020	.0014	.1538	178.3
#3	.0016	.0045	.0021	-0.0000	.0821	-0.0014	.0000	.1590	175.3
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	12.24	79.07	16.59	20.00	4.037	.0009	16.08	-0.0030	1.185
Stddev	.03	.02	.06	.02	.0003	.0002	.01	.0004	.002
%RSD	.2401	.0231	.3849	.1038	.0817	23.01	.0620	11.95	.1345
#1	12.28	79.06	16.66	20.00	4.034	.0007	16.09	-0.0027	1.187
#2	12.24	79.07	16.57	19.98	4.040	.0009	16.08	-0.0030	1.184
#3	12.22	79.09	16.54	20.02	4.039	.0012	16.07	-0.0034	1.184
Elem	Tl3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040	
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	.0057	.0051	-0.0003	52.17	-0.0004	.0982	.2507	.0039	
Stddev	.0000	.0011	.0001	.16	.0003	.0006	.0017	.0016	
%RSD	.5099	22.40	23.82	.3018	60.82	6.566	.6781	40.10	
#1	.0056	.0045	-0.0004	52.31	-0.0003	.0990	.2524	.0032	
#2	.0056	.0064	-0.0003	52.20	-0.0003	.0979	.2490	.0057	
#3	.0057	.0044	-0.0002	52.00	-0.0007	.0979	.2508	.0028	

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Zoom In
Zoom Out

Sample Name: JC96248-7 Acquired: 10/9/2019 17:19:02 Type: Unk
Method: SGS 3 NO Valve(v283) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	195950.	31167.	8658.3	11447.
Stddev	1167.	8.	9.4	10.
%RSD	.59562	.02473	.10868	.08999
#1	195920.	31165.	8652.1	11435.
#2	194800.	31175.	8669.1	11454.
#3	197130.	31161.	8653.6	11452.

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Zoom In
Zoom Out

Sample Name: CCV Acquired: 10/9/2019 17:29:35 Type: QC
Method: SGS 3 NO Valve(v283) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.962	1.961	1.933	1.970	1.953	1.940	1.988	1.982	2.407
Stddev	.006	.007	.032	.026	.016	.016	.023	.026	.0019
%RSD	.2968	.3445	1.666	1.337	.8403	.8015	1.135	1.328	.7791
#1	1.958	1.956	1.951	1.984	1.969	1.957	2.013	1.996	.2428
#2	1.960	1.958	1.951	1.985	1.937	1.926	1.978	1.998	.2391
#3	1.969	1.969	1.896	1.939	1.952	1.938	1.971	1.951	.2404
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value Range									
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.957	1.965	1.953	2.005	1.962	1.936	1.983	38.74	39.58
Stddev	.015	.031	.030	.030	.026	.028	.032	.02	.01
%RSD	.7532	1.583	1.545	1.519	1.342	1.454	1.634	.0416	.0214
#1	1.971	1.986	1.971	2.024	1.979	1.952	1.981	38.72	39.59
#2	1.942	1.979	1.971	2.021	1.975	1.951	1.982	38.76	39.58
#3	1.957	1.929	1.918	1.970	1.931	1.903	1.926	38.75	39.57
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value Range									
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	39.17	39.12	38.82	39.41	1.954	1.980	5.176	1.998	1.994
Stddev	.10	.07	.11	.04	.032	.033	.084	.033	.005
%RSD	.2449	.1667	.2952	.1064	1.618	1.648	1.617	1.631	.2494
#1	39.09	39.13	38.73	39.38	1.972	1.999	5.220	2.019	1.990
#2	39.13	39.18	38.77	39.45	1.973	1.998	5.229	2.014	1.992
#3	39.27	39.05	38.95	39.38	1.918	1.942	5.080	2.010	1.960
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value Range									

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Sample Name: CCV Acquired: 10/9/2019 17:29:35 Type: QC
 Method: SGS 3 NO Valve(v283) Mode: CONC Corr. Factor: 1.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.965	1.937	2.010	1.910	1.954	1.934	1.931	1.948
Stddev	.017	.033	.015	.033	.032	.007	.029	.015
%RSD	.8839	1.700	.7610	1.699	1.643	.3698	1.529	.7642
#1	1.981	1.959	2.024	1.926	1.972	1.930	1.949	1.964
#2	1.946	1.953	1.994	1.932	1.972	1.931	1.948	1.934
#3	1.966	1.900	2.011	1.873	1.917	1.942	1.897	1.947

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
 Value High Limit
 Range Low Limit

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	200100.	30621.	9030.2	11967.
Stddev	1585.	94.	131.2	144.
%RSD	.79190	.30731	1.4531	1.1998
#1	198280.	30651.	8933.2	11864.
#2	201170.	30515.	8977.8	11906.
#3	200850.	30695.	9179.5	12131.

Sample Name: CCB Acquired: 10/9/2019 17:39:03 Type: QC
 Method: SGS 3 NO Valve(v283) Mode: CONC Corr. Factor: 1.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.006	.0000	.0001	.0001	-0.002	.0003	.0001	-0.001	-0.001
Stddev	.0001	.0000	.0001	.0001	.0002	.0001	.0000	.0003	.0002
%RSD	8.813	70.96	197.3	129.2	81.78	40.15	44.59	300.9	128.7
#1	-0.005	.0001	.0001	.0001	-0.004	.0003	.0001	-0.002	-0.002
#2	-0.006	.0000	.0001	.0002	-0.001	.0004	.0001	-0.003	-0.002
#3	-0.006	.0001	-0.001	-0.000	-0.001	.0002	.0000	.0002	.0001

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
 Value High Limit
 Range Low Limit

Elem	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0002	-0.0002	.0003	.0007	.0001	.0014	-0.0007	-0.0071	-0.0019
Stddev	.0001	.0000	.0006	.0002	.0003	.0004	.0005	.0083	.0011
%RSD	36.93	5.351	178.0	30.19	326.7	28.12	75.06	116.3	60.33
#1	.0001	-0.002	.0008	.0007	-0.001	.0018	-0.006	-0.161	-0.018
#2	.0003	-0.002	-0.003	.0010	-0.001	.0010	-0.013	-0.055	-0.008
#3	.0002	-0.002	.0004	.0006	.0005	.0014	-0.002	.0002	-0.030

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
 Value High Limit
 Range Low Limit

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.005	-0.008	.0242	.0196	.0010	.0002	.0000	-0.000	.0001
Stddev	.0007	.0034	.0262	.0007	.0001	.0002	.0011	.0003	.0000
%RSD	129.6	42.04	108.4	3.430	12.73	99.77	2925.	2338.	22.77
#1	-0.012	-0.050	.0136	.0192	.0011	.0003	.0014	-0.001	.0001
#2	-0.007	-0.117	.0049	.0192	.0009	.0003	-0.006	-0.003	.0001
#3	.0002	-0.074	.0540	.0204	.0009	-0.000	-0.006	.0003	.0001

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
 Value High Limit
 Range Low Limit

Sample Name: CCB Acquired: 10/9/2019 17:39:03 Type: QC
 Method: SGS 3 NO Valve(v283) Mode: CONC Corr. Factor: 1.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000	.0015	.0002	.0002	.0008	.0026	.0004	-0.0010
Stddev	.0001	.0008	.0001	.0009	.0008	.0005	.0003	.0004
%RSD	1054.	55.93	35.09	552.3	109.0	20.90	86.98	40.08
#1	-0.001	.0024	.0002	.0012	.0016	.0022	.0007	-0.005
#2	-0.001	.0011	.0001	-0.006	.0000	.0032	.0004	-0.013
#3	.0002	.0009	.0003	-0.001	.0006	.0023	.0000	-0.012

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
 Value High Limit
 Range Low Limit

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	213190.	32192.	9399.9	12940.
Stddev	984.	241.	18.6	14.
%RSD	.46171	.74919	.19787	.10631
#1	212310.	32468.	9411.3	12947.
#2	214250.	32089.	9410.0	12948.
#3	213000.	32019.	9378.5	12924.

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
Ba 455.403 { 74}	<input checked="" type="checkbox"/>	1	Zr	0.001245	0.000000	No
Be 313.042 {108}	<input checked="" type="checkbox"/>	11	V	0.001130	0.000000	No
			Mo	-0.000047	0.000000	No
			Ti	-0.000242	0.000000	No
			Mn	0.000010	0.000000	No
			Cu	0.000014	0.000000	No
			Bi	0.000060	0.000000	No
			Fe	-0.000001	0.000000	No
			Al	-0.000001	0.000000	No
			Mg	0.000000	0.000000	No
			Ca	0.000000	0.000000	No
			Sr	-0.000200	0.000000	No
Cd 228.802 {448}	<input checked="" type="checkbox"/>	11	As	0.008520	0.000000	No
			Ni	-0.000678	0.000000	No
			Fe	0.000000	0.000000	No
			V	0.000091	0.000000	No
			Ba	0.000064	0.000000	No
			Co	-0.000650	0.000000	No
			Sr	-0.000020	0.000000	No
			Mn	0.000050	0.000000	No
			Cu	-0.000026	0.000000	No
			Zn	-0.000018	0.000000	No
			W	-0.000482	0.000000	No
Co 228.616 {448}	<input checked="" type="checkbox"/>	7	Fe	0.000004	0.000000	No
			Mo	-0.001710	0.000000	No
			Ni	0.000091	0.000000	No
			Ti	0.002272	0.000000	No
			Ba	0.000140	0.000000	No
			W	0.000327	0.000000	No
			Cd	-0.000510	0.000000	No
Cr 267.716 {126}	<input checked="" type="checkbox"/>	9	Mn	0.000458	0.000000	No
			V	-0.000010	0.000000	No
			Mo	-0.000082	0.000000	No
			Fe	-0.000010	0.000000	No
			Ti	0.000060	0.000000	No
			Ba	0.000045	0.000000	No
			Cu	0.000100	0.000000	No
			Sr	-0.000100	0.000000	No
			W	0.000404	0.000000	No
Cu 324.754 {104}2	<input checked="" type="checkbox"/>	14	Cr	-0.000099	0.000000	No
			V	-0.000306	0.000000	No
			Mo	0.000544	0.000000	No
			Ti	-0.000208	0.000000	No
			Fe	-0.000234	0.000000	No
			Zn	-0.000041	0.000000	No
			Co	-0.000860	0.000000	No
			Si	0.000016	0.000000	No
			Mn	0.000003	0.000000	No
			Se	0.000050	0.000000	No
			Sb	0.000069	0.000000	No
			W	0.000000	0.000000	No
			Al	0.000010	0.000000	No
			Zr	-0.002300	0.000000	No
Mn 257.610 {131}	<input checked="" type="checkbox"/>	5	Fe	0.000012	0.000000	No
			Si	0.000010	0.000000	No
			Ba	0.000004	0.000000	No
			Ni	0.000028	0.000000	No

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Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
Ni 231.604 {446}	<input checked="" type="checkbox"/>	8	Al	0.000006	0.000000	No
			Fe	0.000035	0.000000	No
			Zn	-0.000013	0.000000	No
			Be	0.000213	0.000000	No
			Co	-0.000220	0.000000	No
			Tl	0.000209	0.000000	No
			Mo	0.000026	0.000000	No
			Cu	0.000050	0.000000	No
Ag 328.068 {103}	<input checked="" type="checkbox"/>	15	Se	0.000100	0.000000	No
			Mn	0.000152	0.000000	No
			Mo	0.000012	-0.000003	No
			Ti	-0.000190	0.000000	No
			Fe	-0.000275	0.000000	No
			Zn	-0.000120	0.000000	No
			Ca	0.000001	0.000000	No
			Zr	0.006915	0.000000	No
			Sr	-0.000020	0.000000	No
			Mg	0.000000	0.000000	No
			Ba	0.000071	0.000000	No
			Cr	0.000022	0.000000	No
			V	-0.003016	0.000000	No
			Al	-0.000002	0.000000	No
			W	0.000000	0.000000	No
V 292.402 {115}	<input checked="" type="checkbox"/>	7	Ce	-0.001100	0.000000	No
			Ti	0.000689	0.000000	No
			Mo	-0.000100	0.000000	No
			Fe	-0.000006	0.000000	No
			Sr	-0.000100	0.000000	No
			Cr	-0.012422	0.000000	No
			Mn	-0.000990	0.000000	No
Zn 206.200 {464}	<input checked="" type="checkbox"/>	10	Al	0.000000	0.000000	No
			Cr	-0.000772	0.000000	No
			Fe	0.000011	0.000000	No
			Si	0.000015	0.000000	No
			Mn	-0.000045	0.000000	No
			Ba	-0.000060	0.000000	No
			Sn	-0.000023	0.000000	No
			Cu	0.000148	0.000000	No
			As	0.000055	0.000000	No
			Be	0.000058	0.000000	No
As 189.042 {478}	<input checked="" type="checkbox"/>	20	Ca	0.000005	0.000000	No
			Al	-0.000001	0.000000	No
			Fe	-0.000040	0.000000	No
			Ca	-0.000005	0.000000	No
			Mo	0.002040	0.000000	No
			Cr	0.001254	0.000000	No
			Ba	-0.000114	0.000000	No
			Sn	-0.000130	0.000000	No
			Cd	-0.000328	0.000000	No
			Si	0.000024	0.000000	No
			Zn	-0.000082	0.000000	No
			Sr	-0.000045	0.000000	No
			W	0.001546	0.000000	No
			Cu	-0.000058	0.000000	No
			Co	-0.000045	0.000000	No
Zr	0.000036	0.000000	No			
Mn	-0.000158	0.000000	No			

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Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
			S	0.000003	0.000000	No
			Ti	-0.000018	0.000000	No
			Mg	0.000006	0.000000	No
			Ce	-0.000600	0.000000	No
Tl 190.856 {477}	<input checked="" type="checkbox"/>	25	Cr	0.000308	0.000000	No
			Mo	-0.009900	0.000000	No
			Al	0.000003	0.000000	No
			Fe	-0.000041	0.000000	No
			V	-0.026295	0.000000	No
			Mn	0.001891	0.000000	No
			Si	-0.000018	0.000000	No
			Ca	0.000000	0.000000	No
			Ti	-0.002254	0.000000	No
			Mg	0.000000	0.000000	No
			Co	0.005080	0.000000	No
			Sr	0.000010	0.000000	No
			B	-0.000003	0.000000	No
			Ba	0.000034	0.000000	No
			Zn	-0.000053	0.000000	No
			As	0.000068	0.000000	No
			W	-0.025182	0.000000	No
			Cu	0.000142	0.000000	No
			Pb	-0.000020	0.000000	No
			S	0.000010	0.000000	No
			Sn	-0.000086	0.000000	No
			Li	0.000000	0.000000	No
			K	0.000000	0.000000	No
			Zr	0.000000	0.000000	No
			Ce	-0.000600	0.000000	No
Pb 220.353 {453}	<input checked="" type="checkbox"/>	21	Al	-0.000153	0.000000	No
			Fe	0.000040	0.000000	No
			Ca	0.000003	0.000000	No
			Mn	0.000174	0.000000	No
			Mo	-0.000590	0.000000	No
			Cu	0.000145	0.000000	No
			Co	0.000064	0.000000	No
			Ti	-0.000018	0.000000	No
			Si	0.000015	0.000000	No
			Ba	-0.000022	0.000000	No
			Sb	-0.000084	0.000000	No
			Sr	-0.000033	0.000000	No
			W	-0.010000	0.000000	No
			Mg	0.000007	0.000000	No
			Cd	0.000012	0.000000	No
			Cr	-0.000031	0.000000	No
			Zr	-0.000281	0.000000	No
			Ni	0.000371	0.000000	No
			S	0.000002	0.000000	No
			Zn	-0.000106	0.000000	No
			Ce	0.000300	0.000000	No
Se 196.090 {472}	<input checked="" type="checkbox"/>	24	Al	0.000000	0.000000	No
			Ca	0.000003	0.000000	No
			Mn	0.000844	0.000000	No
			Mo	0.000100	0.000000	No
			Fe	-0.000154	0.000000	No
			Co	-0.000473	0.000000	No
			Sr	-0.000011	0.000000	No

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Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
			Cu	-0.000087	0.000000	No
			W	0.000000	0.000000	No
			Si	0.000054	0.000000	No
			Be	-0.000347	0.000000	No
			Zn	0.000050	0.000000	No
			B	0.000028	0.000000	No
			Ti	0.000107	0.000000	No
			Cd	0.000090	0.000000	No
			Zr	-0.000297	0.000000	No
			Ba	-0.000046	0.000000	No
			Mg	-0.000000	0.000000	No
			Pb	-0.000078	0.000000	No
			Ni	-0.000100	0.000000	No
			Cr	-0.000024	0.000000	No
			S	0.000013	0.000000	No
			V	0.000535	0.000000	No
Sb 206.833 {463}	<input checked="" type="checkbox"/>	18	Ce	-0.001400	0.000000	No
			Fe	0.000001	0.000000	No
			Al	0.000002	0.000000	No
			Ca	0.000001	0.000000	No
			Ni	-0.000516	0.000000	No
			Cr	0.020609	0.000000	No
			V	-0.003258	0.000000	No
			Zn	-0.000115	0.000000	No
			Mo	0.000969	0.000000	No
			Ti	0.000739	0.000000	No
			Sn	-0.009700	0.000000	No
			Mg	0.000001	0.000000	No
			Zr	-0.000463	0.000000	No
			Sr	0.000031	0.000000	No
			B	-0.000100	0.000000	No
			Co	-0.000142	0.000000	No
			W	0.000000	0.000000	No
			Si	-0.000052	0.000000	No
Al 396.152 {85}	<input checked="" type="checkbox"/>	5	Ce	-0.001300	0.000000	No
			Si	0.000652	0.000000	No
			Ca	0.000018	0.000000	No
			Mo	0.043916	0.000000	No
			Zr	0.005268	0.000000	No
Ca 317.933 {106}	<input checked="" type="checkbox"/>	14	Ti	-0.000583	0.000000	No
			Fe	0.000012	0.000000	No
			W	0.003960	0.000000	No
			Tl	-0.000152	0.000000	No
			Be	0.001840	0.000000	No
			Ba	-0.001224	0.000000	No
			Cu	-0.000822	0.000000	No
			Cd	-0.007593	0.000000	No
			Ni	0.000667	0.000000	No
			B	-0.000210	0.000000	No
			Se	0.000923	0.000000	No
			Co	-0.000408	0.000000	No
			Cr	0.000640	0.000000	No
			Al	-0.000000	0.000000	No
Fe 259.940 {130}	<input checked="" type="checkbox"/>	10	As	0.010000	0.000000	No
			Si	0.000819	0.000000	No
			Tl	-0.000051	0.000000	No
			Cr	0.000310	0.000000	No

11.2.1
11

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
			Mn	-0.000196	0.000000	No
			V	-0.000064	0.000000	No
			Cu	-0.000015	0.000000	No
			Zn	0.000046	0.000000	No
			Ti	-0.000631	0.000000	No
			Ca	0.000020	0.000000	No
			Ba	0.001000	0.000000	No
Mg 279.079 {121}	<input checked="" type="checkbox"/>	3	Mo	-0.013702	0.000000	No
			W	-0.006578	0.000000	No
			Mn	-0.002445	0.000000	No
K 766.490 { 44}	<input checked="" type="checkbox"/>	11	Fe	-0.000440	0.000000	No
			Al	0.000077	0.000000	No
			Ca	-0.000121	0.000000	No
			Mn	-0.007074	0.000000	No
			Si	-0.003000	0.000000	No
			V	-0.002000	0.000000	No
			Sn	-0.004700	0.000000	No
			Ba	-0.010574	0.000000	No
			Mo	-0.000850	0.000000	No
			Cu	-0.011483	0.000000	No
			Ni	-0.010000	0.000000	No
Na 589.592 { 57}	<input checked="" type="checkbox"/>	4	K	-0.000560	0.000000	No
			Ba	0.000900	0.000000	No
			Ca	0.000180	0.000000	No
			V	-0.005000	0.000000	No
B 208.959 {462}	<input checked="" type="checkbox"/>	1	Mo	0.045137	0.000000	No
Mo 202.030 {467}	<input checked="" type="checkbox"/>	2	Al	-0.000004	0.000000	No
			Fe	-0.000010	0.000000	No
Si 212.412 {459}	<input checked="" type="checkbox"/>	12	Sr	0.000366	0.000000	No
			Ni	0.002092	0.000000	No
			Mo	0.034932	0.000000	No
			V	0.002950	0.000000	No
			Ti	0.002230	0.000000	No
			Al	-0.000010	0.000000	No
			Cd	0.001043	0.000000	No
			Ba	0.001987	0.000000	No
			Sn	0.007500	0.000000	No
			Zn	0.000385	0.000000	No
			Be	-0.000048	0.000000	No
			W	0.000000	0.000000	No
Sn 189.989 {478}	<input checked="" type="checkbox"/>	4	Ti	-0.002964	0.000000	No
			Fe	0.000004	0.000000	No
			Si	0.000131	0.000000	No
			Zr	0.000908	0.000000	No
Sr 407.771 { 83}	<input checked="" type="checkbox"/>	2	Ca	0.000018	0.000000	No
			Si	0.000033	0.000000	No
Ti 334.904 {101}	<input checked="" type="checkbox"/>	3	Cr	0.000189	0.000000	No
			Mo	0.001351	0.000000	No
			Si	0.000035	0.000000	No
Y 360.073 { 94}* Y 371.030 { 91}* Y 224.306 {451}* In 230.606 {446}* W 207.911 {462}	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	None None None None 20				
			Si	0.000105	0.000000	No
			As	0.000100	0.000000	No
			Mn	0.000066	0.000000	No
			Mo	-0.000300	0.000000	No

11.2.1
11

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
			Ti	0.000080	0.000000	No
			Sr	-0.000850	0.000000	No
			V	-0.000140	0.000000	No
			Cd	-0.000650	0.000000	No
			Cr	-0.000390	0.000000	No
			Zn	0.013026	0.000000	No
			Sn	0.001300	0.000000	No
			Zr	0.000061	0.000000	No
			B	0.000009	0.000000	No
			Sb	-0.000300	0.000000	No
			Co	-0.001000	0.000000	No
			Ni	-0.003000	0.000000	No
			Be	-0.000185	0.000000	No
			Se	-0.000105	0.000000	No
			Cu	-0.000138	0.000000	No
			Tl	-0.000220	0.000000	No
Zr 339.198 { 99}	<input checked="" type="checkbox"/>	6	Mo	0.001069	0.000000	No
			Ti	0.000203	0.000000	No
			Fe	-0.000035	0.000000	No
			Si	0.000074	0.000000	No
			S	-0.000002	0.000000	No
			Cr	-0.000700	0.000000	No
S 182.034 {485}	<input checked="" type="checkbox"/>	7	Mo	0.001779	0.000000	No
			Al	-0.000033	0.000000	No
			Fe	0.000117	0.000000	No
			Mn	0.004620	0.000000	No
			W	-0.032564	0.000000	No
			Ca	-0.000218	0.000000	No
			Mg	0.000005	0.000000	No
Bi 223.061 {451}	<input checked="" type="checkbox"/>	10	Ti	-0.032865	0.000000	No
			V	-0.000704	0.000000	No
			Co	-0.002380	0.000000	No
			Ca	-0.000002	0.000000	No
			Mg	-0.000000	0.000000	No
			Fe	0.000187	0.000000	No
			Cr	0.001595	0.000000	No
			Cu	-0.001148	0.000000	No
			W	0.020000	0.000000	No
			Ce	-0.007100	0.000000	No
Li 670.784 { 50}	<input checked="" type="checkbox"/>	2	Ca	0.000023	0.000000	No
			Fe	0.000081	0.000000	No
P 177.495 {490}	<input checked="" type="checkbox"/>	9	Mn	-0.006184	0.000000	No
			Al	0.000040	0.000000	No
			V	-0.001953	0.000000	No
			Si	-0.001622	0.000000	No
			Ti	0.000000	-0.001185	No
			Mo	-0.001880	0.000000	No
			S	-0.000189	0.000000	No
			Co	-0.002198	0.000000	No
			Cu	-0.023500	0.000000	No
Ce 404.076 { 83}	<input checked="" type="checkbox"/>	2	Mn	-0.005600	0.000000	No
			Fe	0.000250	0.000000	No

Element, Wavelength and Order	Date of Fit	Date of Cal.	Type of Fit	Weighting	A0	A1	A2	n (Exponent)
Ba 455.403 { 74}	10/9/2019 19:30:26	10/9/2019 12:00:08	Linear	None	0.010535	2.008298	0.000000	1.000000
Be 313.042 {108}	10/9/2019 19:30:26	10/9/2019 12:00:08	Linear	None	-0.001143	3.331318	0.000000	1.000000
Cd 228.802 {448}	10/9/2019 19:30:26	10/9/2019 12:00:08	Linear	None	0.000289	1.054266	0.000000	1.000000
Co 228.616 {448}	10/9/2019 19:30:26	10/9/2019 12:00:08	Linear	None	0.000130	0.681395	0.000000	1.000000
Cr 267.716 {126}	10/9/2019 19:30:26	10/9/2019 12:00:08	Linear	None	-0.000012	0.154938	0.000000	1.000000
Cu 324.754 {104}2	10/9/2019 19:30:26	10/9/2019 12:00:08	Linear	None	0.002803	0.253223	0.000000	1.000000
Mn 257.610 {131}	10/9/2019 19:30:26	10/9/2019 12:00:08	Linear	None	-0.000044	0.809561	0.000000	1.000000
Ni 231.604 {446}	10/9/2019 19:30:26	10/9/2019 12:00:08	Linear	None	0.000024	0.584634	0.000000	1.000000
Ag 328.068 {103}	10/9/2019 19:30:26	10/9/2019 12:00:08	Linear	None	-0.000291	0.148126	0.000000	1.000000
V 292.402 {115}	10/9/2019 19:30:26	10/9/2019 12:00:08	Linear	None	0.000552	0.199106	0.000000	1.000000
Zn 206.200 {464}	10/9/2019 19:30:26	10/9/2019 12:00:08	Linear	None	0.000487	1.555511	0.000000	1.000000
As 189.042 {478}	10/9/2019 19:30:26	10/9/2019 12:00:08	Linear	None	-0.000280	0.116348	0.000000	1.000000
Tl 190.856 {477}	10/9/2019 19:30:26	10/9/2019 12:00:08	Linear	None	-0.000074	0.097962	0.000000	1.000000
Pb 220.353 {453}	10/9/2019 19:30:26	10/9/2019 12:00:08	Linear	None	0.000052	0.272846	0.000000	1.000000
Se 196.090 {472}	10/9/2019 19:30:26	10/9/2019 12:00:08	Linear	None	-0.000108	0.092582	0.000000	1.000000
Sb 206.833 {463}	10/9/2019 19:30:26	10/9/2019 12:00:08	Linear	None	0.000213	0.145455	0.000000	1.000000
Al 396.152 { 85}	10/9/2019 19:30:26	10/9/2019 12:00:08	Linear	None	0.000892	0.045598	0.000000	1.000000
Ca 317.933 {106}	10/9/2019 19:30:26	10/9/2019 12:00:08	Linear	None	0.009553	0.111884	0.000000	1.000000
Fe 259.940 {130}	10/9/2019 19:30:26	10/9/2019 12:00:08	Linear	None	0.000251	0.067468	0.000000	1.000000
Mg 279.079 {121}	10/9/2019 19:30:26	10/9/2019 12:00:08	Linear	None	-0.000012	0.011722	0.000000	1.000000
K 766.490 { 44}	10/9/2019 19:30:26	10/9/2019 12:00:08	Linear	None	0.001525	0.023352	0.000000	1.000000
Na 589.592 { 57}	10/9/2019 19:30:26	10/9/2019 12:00:08	Linear	None	-0.004060	0.080998	0.000000	1.000000
B 208.959 {462}	10/9/2019 19:30:26	10/9/2019 12:00:08	Linear	None	0.000340	0.222341	0.000000	1.000000
Mo 202.030 {467}	10/9/2019 19:30:26	10/9/2019 12:00:08	Linear	None	0.000113	0.756341	0.000000	1.000000
Si 212.412 {459}	10/9/2019 19:30:26	10/9/2019 12:00:08	Linear	None	0.000934	0.184662	0.000000	1.000000
Sn 189.989 {478}	10/9/2019 19:30:26	10/9/2019 12:00:08	Linear	None	0.000227	0.231253	0.000000	1.000000
Sr 407.771 { 83}	10/9/2019 19:30:26	10/9/2019 12:00:08	Linear	None	-0.001468	3.419172	0.000000	1.000000
Ti 334.904 {101}	10/9/2019 19:30:26	10/9/2019 12:00:08	Linear	None	0.000057	0.163054	0.000000	1.000000
Y 360.073 { 94}*	10/9/2019 19:30:26	12/23/2009 10:44:16	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000
Y 371.030 { 91}*	10/9/2019 19:30:26	12/23/2009 10:44:16	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000
Y 224.306 {451}*	10/9/2019 19:30:26	12/23/2009 10:44:16	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000
In 230.606 {446}*	10/9/2019 19:30:26	12/23/2009 10:44:16	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000
W 207.911 {462}	10/9/2019 19:30:26	10/9/2019 12:00:08	Linear	None	0.001155	0.363729	0.000000	1.000000
Zr 339.198 { 99}	10/9/2019 19:30:26	10/9/2019 12:00:08	Linear	None	-0.000507	0.475921	0.000000	1.000000
S 182.034 {485}	10/9/2019 19:30:26	10/9/2019 12:00:08	Linear	None	-0.001483	0.055049	0.000000	1.000000
Bi 223.061 {451}	10/9/2019 19:30:26	10/9/2019 12:00:08	Linear	None	0.000129	0.160173	0.000000	1.000000
Li 670.784 { 50}	10/9/2019 19:30:26	10/9/2019 12:00:08	Linear	None	-0.006909	0.516013	0.000000	1.000000
P 177.495 {490}	10/9/2019 19:30:26	10/9/2019 12:00:08	Linear	1/Conc	-0.012983	0.147560	0.000000	1.000000
Ce 404.076 { 83}	10/9/2019 19:30:26	10/9/2019 12:00:08	Linear	1/Conc	0.000631	0.035303	0.000000	1.000000

Element, Wavelength and Order	Correlation	Std Error of Est	Predicted MDL	Predicted MQL	Status	Reslope		QC Norm	
						Slope	Y-int	Slope factor	Offset
Ba 455.403 { 74}	1.000000	0.000000	0.000214	0.000715	OK	1.000000	0.000000	1	0
Be 313.042 {108}	1.000000	0.000000	0.000051	0.000169	OK	1.000000	0.000000	1	0
Cd 228.802 {448}	1.000000	0.000000	0.000153	0.000510	OK	1.000000	0.000000	1	0
Co 228.616 {448}	1.000000	0.000000	0.000198	0.000660	OK	1.000000	0.000000	1	0
Cr 267.716 {126}	1.000000	0.000000	0.000233	0.000777	OK	1.000000	0.000000	1	0
Cu 324.754 {104}2	1.000000	0.000000	0.000323	0.001077	OK	1.000000	0.000000	1	0
Mn 257.610 {131}	1.000000	0.000000	0.000049	0.000165	OK	1.000000	0.000000	1	0
Ni 231.604 {446}	1.000000	0.000000	0.000268	0.000895	OK	1.000000	0.000000	1	0
Ag 328.068 {103}	1.000000	0.000000	0.000361	0.001203	OK	1.000000	0.000000	1	0
V 292.402 {115}	1.000000	0.000000	0.000298	0.000992	OK	1.000000	0.000000	1	0
Zn 206.200 {464}	1.000000	0.000000	0.000087	0.000290	OK	1.000000	0.000000	1	0
As 189.042 {478}	1.000000	0.000000	0.000880	0.002932	OK	1.000000	0.000000	1	0
Tl 190.856 {477}	1.000000	0.000000	0.000916	0.003052	OK	1.000000	0.000000	1	0
Pb 220.353 {453}	1.000000	0.000000	0.000812	0.002705	OK	1.000000	0.000000	1	0
Se 196.090 {472}	1.000000	0.000000	0.001533	0.005111	OK	1.000000	0.000000	1	0
Sb 206.833 {463}	1.000000	0.000000	0.001214	0.004045	OK	1.000000	0.000000	1	0
Al 396.152 { 85}	1.000000	0.000000	0.007920	0.026401	OK	1.000000	0.000000	1	0
Ca 317.933 {106}	1.000000	0.000000	0.001857	0.006190	OK	1.000000	0.000000	1	0
Fe 259.940 {130}	1.000000	0.000000	0.001545	0.005151	OK	1.000000	0.000000	1	0
Mg 279.079 {121}	1.000000	0.000000	0.011172	0.037239	OK	1.000000	0.000000	1	0
K 766.490 { 44}	1.000000	0.000000	0.028147	0.093823	OK	1.000000	0.000000	1	0
Na 589.592 { 57}	1.000000	0.000000	0.008467	0.028224	OK	1.000000	0.000000	1	0
B 208.959 {462}	1.000000	0.000000	0.000554	0.001846	OK	1.000000	0.000000	1	0
Mo 202.030 {467}	1.000000	0.000000	0.000205	0.000685	OK	1.000000	0.000000	1	0
Si 212.412 {459}	1.000000	0.000000	0.000946	0.003152	OK	1.000000	0.000000	1	0
Sn 189.989 {478}	1.000000	0.000000	0.000449	0.001495	OK	1.000000	0.000000	1	0
Sr 407.771 { 83}	1.000000	0.000000	0.000086	0.000286	OK	1.000000	0.000000	1	0
Ti 334.904 {101}	1.000000	0.000000	0.000287	0.000958	OK	1.000000	0.000000	1	0
Y 360.073 { 94}*	0.000000	0.000000	-1.000000	-1.000000	Warnin	1.000000	0.000000	1	0
Y 371.030 { 91}*	0.000000	0.000000	-1.000000	-1.000000	Warnin	1.000000	0.000000	1	0
Y 224.306 {451}*	0.000000	0.000000	-1.000000	-1.000000	Warnin	1.000000	0.000000	1	0
In 230.606 {446}*	0.000000	0.000000	-1.000000	-1.000000	Warnin	1.000000	0.000000	1	0
W 207.911 {462}	1.000000	0.000000	0.000830	0.002768	OK	1.000000	0.000000	1	0
Zr 339.198 { 99}	1.000000	0.000000	0.000141	0.000469	OK	1.000000	0.000000	1	0
S 182.034 {485}	1.000000	0.000000	0.002020	0.006733	OK	1.000000	0.000000	1	0
Bi 223.061 {451}	1.000000	0.000000	0.001459	0.004864	OK	1.000000	0.000000	1	0
Li 670.784 { 50}	1.000000	0.000000	0.001357	0.004523	OK	1.000000	0.000000	1	0
P 177.495 {490}	1.000000	0.000000	0.000868	0.002893	OK	1.000000	0.000000	1	0
Ce 404.076 { 83}	1.000000	0.000000	0.002493	0.008311	OK	1.000000	0.000000	1	0

Zoom In
Zoom Out

Sample Name: STDA Acquired: 10/9/2019 18:40:52 Type: Cal
Method: SGS 3 NO Valve(v284) Mode: IR Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.0094	-0.012	.0002	.0001	-0.0000	.0028	-0.0001	-0.0001	.0002
Stddev	.0003	.0001	.0001	.0001	.0000	.0000	.0000	.0001	.0000
%RSD	3.043	8.195	23.51	74.45	36.68	1.150	7.763	74.71	6.167

#1	.0097	-0.013	.0002	.0000	-0.0000	.0028	-0.0001	-0.0001	.0002
#2	.0091	-0.011	.0002	.0001	-0.0001	.0028	-0.0001	-0.0002	.0002
#3	.0095	-0.012	.0003	.0002	-0.0000	.0029	-0.0000	-0.0000	.0002

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.0005	.0000	-0.0004	-0.0001	.0001	.0000	.0001	.0006	.0094
Stddev	.0000	.0001	.0000	.0001	.0002	.0001	.0001	.0003	.0001
%RSD	6.580	407.1	12.09	131.0	168.9	766.4	143.4	53.18	.7175

#1	.0005	.0000	-0.0004	-0.0000	.0004	.0000	.0002	.0006	.0095
#2	.0005	.0001	-0.0003	-0.0001	.0001	-0.0001	.0001	.0008	.0094
#3	.0005	-0.001	-0.0004	.0000	-0.0000	.0001	-0.0000	.0002	.0095

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.0002	.0000	.0004	-0.0046	.0001	.0001	.0010	.0002	-0.0013
Stddev	.0000	.0001	.0011	.0004	.0000	.0001	.0004	.0001	.0001
%RSD	7.149	356.0	277.8	8.592	5.752	106.2	39.75	52.43	9.499

#1	.0002	-0.0000	.0008	-0.0045	.0001	.0002	.0010	.0002	-0.0013
#2	.0002	.0000	.0012	-0.0042	.0001	.0000	.0014	.0003	-0.0015
#3	.0002	.0001	-0.0008	-0.0050	.0001	.0000	.0006	.0001	-0.0012

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	-0.0000	.0013	-0.0005	-0.0014	.0002	-0.0063	-0.0129	.0005
Stddev	.0000	.0002	.0000	.0001	.0002	.0003	.0001	.0001
%RSD	296.6	16.59	3.100	3.985	92.53	4.154	6.062	13.63

#1	-0.0000	.0014	-0.0005	-0.0015	.0002	-0.0062	-0.0130	.0005
#2	.0000	.0011	-0.0005	-0.0013	.0000	-0.0062	-0.0128	.0004
#3	.0000	.0015	-0.0004	-0.0014	.0004	-0.0066	-0.0129	.0006

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Zoom In
Zoom Out

Sample Name: STDA Acquired: 10/9/2019 18:40:52 Type: Cal
Method: SGS 3 NO Valve(v284) Mode: IR Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	215890.	32252.	9484.9	13051.
Stddev	1424.	124.	81.4	98.
%RSD	.65958	.38493	.85854	.75340

#1	216860.	32136.	9428.1	12986.
#2	214250.	32237.	9448.4	13004.
#3	216560.	32383.	9578.2	13164.

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Zoom In
Zoom Out

Sample Name: STDb Acquired: 10/9/2019 18:45:54 Type: Cal
Method: SGS 3 NO Valve(v284) Mode: IR Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7.732	12.71	4.151	2.639	.5967	.9965	3.169	2.270	.0521
Stddev	.015	.18	.005	.001	.0043	.0098	.040	.001	.0005
%RSD	.1996	1.383	.1315	.0261	.7266	.9880	1.255	.0579	1.052

#1	7.721	12.72	4.154	2.639	.5952	.9938	3.158	2.271	.0520
#2	7.749	12.88	4.154	2.640	.5934	.9883	3.119	2.269	.0516
#3	7.725	12.53	4.145	2.639	.6016	1.007	3.199	2.268	.0527

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.7625	5.935	.4510	.3618	1.045	.3579	.5733	3.520	8.637
Stddev	.0058	.005	.0005	.0002	.002	.0004	.0004	.002	.046
%RSD	.7607	.0925	.1084	.0549	.1409	.1025	.0636	.0657	.5319

#1	.7609	5.941	.4510	.3619	1.046	.3582	.5734	3.523	8.588
#2	.7576	5.935	.4515	.3619	1.047	.3581	.5736	3.518	8.678
#3	.7689	5.930	.4505	.3616	1.044	.3575	.5729	3.520	8.646

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5.172	.8940	1.791	6.292	.9049	2.921	1.832	.8924	13.54
Stddev	.007	.0015	.003	.004	.0011	.003	.002	.0007	.15
%RSD	.1413	.1689	.1641	.0662	.1271	.1045	.1108	.0799	1.072

#1	5.181	.8938	1.795	6.291	.9052	2.923	1.833	.8932	13.38
#2	5.167	.8926	1.790	6.289	.9059	2.922	1.833	.8919	13.56
#3	5.170	.8956	1.789	6.297	.9037	2.918	1.830	.8920	13.67

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.6281	1.417	1.869	.2066	.6144	1.980	.5342	.1372
Stddev	.0058	.001	.031	.0003	.0007	.003	.0002	.0014
%RSD	.9286	.0341	1.640	.1433	.1111	.1426	.0383	.9884

#1	.6254	1.417	1.850	.2069	.6151	1.983	.5340	.1366
#2	.6240	1.417	1.853	.2063	.6141	1.979	.5344	.1363
#3	.6348	1.416	1.904	.2066	.6138	1.977	.5344	.1388

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Zoom In
Zoom Out

Sample Name: STDb Acquired: 10/9/2019 18:45:54 Type: Cal
Method: SGS 3 NO Valve(v284) Mode: IR Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	197510.	31378.	8851.1	11717.
Stddev	912.	86.	3.0	2.
%RSD	.46191	.27255	.03428	.01954

#1	197820.	31431.	8849.1	11719.
#2	198230.	31424.	8849.6	11715.
#3	196480.	31279.	8854.6	11718.

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Sample Name: CCVCONF Acquired: 10/9/2019 18:51:34 Type: QC
 Method: SGS 3 NO Valve(v284) Mode: CONC Corr. Factor: 1.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.045	2.058	2.011	2.044	2.041	2.016	2.060	2.051	2.043
Stddev	.005	.004	.002	.003	.024	.024	.034	.003	.0027
%RSD	.2504	.2065	.1055	.1500	1.186	1.169	1.630	.1220	1.094
#1	2.040	2.054	2.008	2.041	2.048	2.020	2.054	2.048	2.049
#2	2.045	2.058	2.012	2.046	2.062	2.037	2.096	2.051	2.016
#3	2.050	2.063	2.011	2.047	2.015	1.991	2.030	2.053	2.043

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
 Value Range

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.032	2.049	2.034	2.081	2.036	2.013	2.036	40.22	40.88
Stddev	.025	.001	.004	.006	.004	.003	.006	.04	.09
%RSD	1.204	.0297	.2004	.2769	.1720	.1544	.2981	.1013	.2219
#1	2.038	2.049	2.029	2.076	2.032	2.010	2.031	40.17	40.79
#2	2.053	2.050	2.036	2.087	2.036	2.015	2.043	40.22	40.97
#3	2.005	2.049	2.036	2.081	2.039	2.015	2.036	40.25	40.87

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
 Value Range

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	40.69	40.64	40.28	40.58	2.035	2.058	5.381	2.081	2.019
Stddev	.05	.10	.08	.06	.003	.003	.014	.003	.001
%RSD	.1244	.2482	.1893	.1476	.1246	.1672	.2628	.1220	.0541
#1	40.64	40.63	40.20	40.57	2.033	2.054	5.365	2.078	2.019
#2	40.74	40.74	40.36	40.64	2.038	2.061	5.391	2.083	2.019
#3	40.70	40.54	40.28	40.53	2.035	2.058	5.387	2.081	2.021

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
 Value Range

Sample Name: CCVCONF Acquired: 10/9/2019 18:51:34 Type: QC
 Method: SGS 3 NO Valve(v284) Mode: CONC Corr. Factor: 1.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Tl3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.062	2.015	2.075	1.982	2.028	2.016	2.007	2.041
Stddev	.024	.003	.025	.005	.006	.008	.003	.023
%RSD	1.154	.1248	1.208	.2706	.2920	.3886	.1385	1.113
#1	2.071	2.012	2.080	1.979	2.025	2.007	2.006	2.048
#2	2.079	2.017	2.098	1.988	2.034	2.016	2.011	2.059
#3	2.035	2.015	2.048	1.980	2.024	2.023	2.006	2.015

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
 Value Range

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	201970.	31804.	9090.6	12034.
Stddev	2570.	334.	4.1	4.
%RSD	1.2722	1.0502	.04553	.03493
#1	201410.	31808.	9090.8	12038.
#2	199720.	31468.	9086.4	12036.
#3	204770.	32136.	9094.6	12030.

Sample Name: CCBCONF Acquired: 10/9/2019 18:56:32 Type: QC
 Method: SGS 3 NO Valve(v284) Mode: CONC Corr. Factor: 1.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0002	.0004	F .0008	.0007	.0004	.0003	.0005	.0007	.0002
Stddev	.0000	.0001	.0001	.0002	.0002	.0002	.0000	.0002	.0003
%RSD	20.00	23.28	12.57	27.75	60.64	55.34	10.96	31.26	215.9
#1	.0003	.0003	.0007	.0005	.0003	.0002	.0005	.0006	-.0002
#2	.0003	.0004	.0009	.0008	.0007	.0002	.0005	.0010	.0005
#3	.0002	.0004	.0008	.0009	.0002	.0005	.0004	.0005	.0002

Check ? Chk Pass Chk Pass Chk Fail Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
 High Limit Low Limit

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0006	.0009	.0011	.0004	.0005	.0000	.0007	-.0026	.0081
Stddev	.0003	.0002	.0002	.0002	.0005	.0006	.0007	.0054	.0034
%RSD	48.48	22.91	21.03	36.42	103.5	1493.	107.8	206.3	41.46
#1	.0002	.0007	.0008	.0003	.0003	-.0007	.0007	-.0085	.0051
#2	.0007	.0011	.0011	.0006	.0010	.0006	.0014	.0020	.0074
#3	.0007	.0008	.0013	.0004	.0001	.0002	-.0001	-.0014	.0117

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
 High Limit Low Limit

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0078	-.0029	.0308	.0355	.0043	.0013	.0030	.0009	.0004
Stddev	.0020	.0196	.0366	.0048	.0005	.0003	.0010	.0002	.0001
%RSD	25.46	666.1	118.8	13.62	10.43	21.30	33.01	24.55	25.48
#1	.0057	-.0103	.0311	.0408	.0048	.0013	.0029	.0006	.0004
#2	.0082	.0193	-.0059	.0312	.0043	.0015	.0040	.0010	.0003
#3	.0096	-.0178	.0674	.0345	.0039	.0010	.0020	.0010	.0005

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
 High Limit Low Limit

Sample Name: CCBCONF Acquired: 10/9/2019 18:56:32 Type: QC
 Method: SGS 3 NO Valve(v284) Mode: CONC Corr. Factor: 1.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Tl3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0005	.0011	.0005	-.0003	.0002	.0031	.0008	.0029
Stddev	.0001	.0007	.0001	.0003	.0005	.0005	.0008	.0029
%RSD	28.37	65.44	22.80	99.05	217.3	16.73	108.1	102.3
#1	.0006	.0020	.0004	.0000	-.0000	.0030	.0006	.0057
#2	.0005	.0008	.0006	-.0003	.0008	.0026	.0016	.0030
#3	.0003	.0006	.0005	-.0006	-.0001	.0037	.0000	-.0001

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
 High Limit Low Limit

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	215700.	32370.	9362.3	12899.
Stddev	1577.	211.	165.1	219.
%RSD	.73102	.65244	1.7629	1.6955
#1	217520.	32613.	9431.4	12992.
#2	214750.	32275.	9174.0	12649.
#3	214830.	32224.	9481.6	13055.

Sample Name: ICCV 1 Acquired: 10/9/2019 19:14:50 Type: QC
 Method: SGS 3 NO Valve(v284) Mode: CONC Corr. Factor: 1.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.043	2.056	2.010	2.039	2.037	2.011	2.055	2.047	2.479
Stddev	.004	.003	.005	.005	.029	.031	.028	.005	.0034
%RSD	.2065	.1635	.2459	.2625	1.407	1.522	1.342	.2553	1.357
#1	2.041	2.055	2.013	2.040	2.017	1.988	2.034	2.048	2.453
#2	2.049	2.059	2.010	2.040	2.038	2.016	2.077	2.049	2.488
#3	2.044	2.057	2.013	2.044	2.077	2.052	2.080	2.052	2.523
#4	2.039	2.051	2.002	2.031	2.017	1.988	2.028	2.040	2.453

Check ? Value Range Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.023	2.043	2.032	2.079	2.034	2.016	2.036	40.23	40.82
Stddev	.028	.006	.007	.004	.004	.006	.007	.04	.04
%RSD	1.389	.3185	.3573	.2077	.1748	.2925	.3371	.1077	.1045
#1	2.000	2.046	2.035	2.079	2.034	2.017	2.038	40.26	40.87
#2	2.027	2.045	2.034	2.079	2.036	2.017	2.035	40.23	40.82
#3	2.062	2.047	2.037	2.084	2.037	2.021	2.043	40.26	40.84
#4	2.004	2.033	2.021	2.074	2.029	2.007	2.027	40.17	40.77

Check ? Value Range Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass

Sample Name: ICCV 1 Acquired: 10/9/2019 19:14:50 Type: QC
 Method: SGS 3 NO Valve(v284) Mode: CONC Corr. Factor: 1.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	40.57	40.53	40.19	40.45	2.032	2.051	5.372	2.072	2.014
Stddev	.05	.07	.05	.06	.006	.006	.016	.006	.003
%RSD	.1283	.1711	.1174	.1520	.2888	.3142	.2936	.2982	.1361
#1	40.59	40.62	40.18	40.49	2.037	2.056	5.384	2.074	2.015
#2	40.60	40.46	40.26	40.46	2.033	2.052	5.373	2.074	2.015
#3	40.60	40.54	40.17	40.47	2.035	2.056	5.381	2.076	2.015
#4	40.49	40.49	40.17	40.36	2.024	2.042	5.349	2.062	2.009

Check ? Value Range Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Fail 5.000 5.000% Chk Pass Chk Pass

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.061	2.018	2.069	1.980	2.025	2.010	2.005	2.041
Stddev	.028	.007	.029	.007	.008	.004	.008	.028
%RSD	1.348	.3342	1.402	.3555	.3877	.2035	.3792	1.386
#1	2.042	2.025	2.046	1.980	2.023	2.011	2.007	2.022
#2	2.063	2.018	2.071	1.984	2.024	2.013	2.006	2.042
#3	2.099	2.019	2.109	1.986	2.035	2.011	2.011	2.080
#4	2.039	2.009	2.049	1.970	2.016	2.004	1.994	2.020

Check ? Value Range Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass

11.3
11

Sample Name: ICCV 1 Acquired: 10/9/2019 19:14:50 Type: QC
 Method: SGS 3 NO Valve(v284) Mode: CONC Corr. Factor: 1.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	202690.	31620.	9130.0	12082.
Stddev	2743.	212.	29.3	30.
%RSD	1.3533	.67175	.32119	.24796
#1	204160.	31468.	9115.8	12077.
#2	202700.	31895.	9111.7	12059.
#3	198840.	31680.	9118.8	12067.
#4	205060.	31438.	9173.8	12126.

Sample Name: CCB 7 Acquired: 10/9/2019 19:23:53 Type: QC
 Method: SGS 3 NO Valve(v284) Mode: CONC Corr. Factor: 1.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.000	.0000	.0001	-0.001	.0002	.0002	.0000	.0002	.0004
Stddev	.0003	.0000	.0001	.0001	.0001	.0001	.0000	.0001	.0002
%RSD	549.1	363.8	56.24	240.3	88.84	58.60	81.57	53.79	67.60
#1	-0.001	-0.000	.0001	-0.000	.0003	.0001	.0000	.0004	.0003
#2	-0.002	.0000	.0002	-0.002	.0002	.0002	.0000	.0002	.0002
#3	-0.002	.0000	.0001	.0001	.0000	.0004	.0001	.0002	.0006

Check ? High Limit Low Limit Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000	.0013	.0008	.0009	.0000	.0012	.0009	-0.002	.0015
Stddev	.0003	.0001	.0008	.0005	.0005	.0009	.0014	.0048	.0017
%RSD	1877.	5.936	96.90	58.68	969.0	71.55	169.3	2193.	117.1
#1	.0003	.0013	.0001	.0011	.0006	.0018	.0025	.0024	.0032
#2	-0.001	.0014	.0007	.0003	-0.001	.0017	-0.003	.0027	.0013
#3	-0.002	.0013	.0017	.0012	-0.004	.0002	.0004	-0.058	-0.002

Check ? High Limit Low Limit Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.009	-0.065	.0224	.0099	.0030	.0001	-0.005	.0001	.0000
Stddev	.0006	.0062	.0110	.0047	.0000	.0000	.0004	.0001	.0001
%RSD	67.85	94.54	48.98	47.71	1.304	87.67	73.32	205.9	366.1
#1	-0.003	-0.010	.0348	.0092	.0030	-0.000	-0.001	-0.000	-0.000
#2	-0.015	-0.132	.0189	.0055	.0031	.0001	-0.008	-0.000	.0001
#3	-0.010	-0.054	.0137	.0148	.0030	.0001	-0.006	.0002	.0000

Check ? High Limit Low Limit Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass

Sample Name: CCB 7 Acquired: 10/9/2019 19:23:53 Type: QC
 Method: SGS 3 NO Valve(v284) Mode: CONC Corr. Factor: 1.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0001	.0014	.0001	-.0017	-.0005	.0010	-.0001	.0020
Stddev	.0004	.0012	.0002	.0014	.0005	.0002	.0008	.0041
%RSD	328.8	90.78	194.7	80.70	95.50	22.41	1615.	211.8
#1	.0005	.0028	.0000	-.0002	-.0010	.0013	-.0008	.0030
#2	-.0004	.0006	.0003	-.0021	-.0002	.0010	-.0001	-.0026
#3	.0002	.0007	-.0000	-.0028	-.0002	.0008	.0008	.0055

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
 High Limit
 Low Limit

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	213300.	32218.	9456.9	13028.
Stddev	1607.	169.	6.8	10.
%RSD	.75348	.52564	.07222	.07489
#1	213780.	32123.	9461.6	13038.
#2	214600.	32118.	9460.0	13029.
#3	211500.	32414.	9449.1	13019.

Sample Name: CRID Acquired: 10/9/2019 19:28:24 Type: QC
 Method: SGS 3 NO Valve(v284) Mode: CONC Corr. Factor: 1.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0041	.0010	.0011	.0031	.0021	F .0006	.0033	.0044
Stddev	.0001	.0000	.0000	.0001	.0004	.0001	.0000	.0000
%RSD	3.537	2.532	3.489	3.153	18.35	9.681	.6511	.9757
#1	.0040	.0011	.0010	.0032	.0022	.0005	.0033	.0044
#2	.0043	.0010	.0011	.0030	.0024	.0006	.0033	.0043
#3	.0040	.0011	.0011	.0031	.0016	.0006	.0032	.0044

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Fail Chk Pass Chk Pass
 Value
 Range -0.00%

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F .0005	.0022	.0105	.0034	F .0029	F -.0001	.0040	F .0002
Stddev	.0005	.0002	.0000	.0007	.0004	.0011	.0007	.0013
%RSD	98.99	7.438	4.213	19.57	14.33	1322.	17.57	666.9
#1	-.0001	.0023	.0106	.0042	.0033	-.0005	.0045	.0008
#2	.0008	.0023	.0105	.0029	.0030	-.0009	.0043	.0011
#3	.0007	.0020	.0105	.0031	.0025	.0012	.0032	-.0013

Check ? Chk Fail Chk Pass Chk Pass Chk Pass Chk Fail Chk Fail Chk Pass Chk Fail
 Value
 Range -20.00%

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1041	1.046	.0035	.0995	2.048	1.061	.0023	.0002
Stddev	.0049	.004	.0012	.0044	.007	.007	.0003	.0002
%RSD	4.661	.3761	35.19	4.433	3.673	6.890	14.50	108.2
#1	.0985	1.047	.0022	.0955	2.046	1.063	.0025	.0001
#2	.1072	1.050	.0047	.0990	2.056	1.066	.0025	.0003
#3	.1066	1.042	.0038	.1042	2.041	1.052	.0019	-.0000

Check ? Chk Pass Chk Pass None Chk Pass Chk Pass Chk Pass None None
 Value
 Range

Sample Name: CRID Acquired: 10/9/2019 19:28:24 Type: QC
 Method: SGS 3 NO Valve(v284) Mode: CONC Corr. Factor: 1.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0002	.0000	.0000	.0001	.0016	.0002	.0039	-.0010
Stddev	.0006	.0001	.0001	.0000	.0004	.0001	.0016	.0010
%RSD	348.0	248.3	401.8	29.75	24.92	23.47	40.27	97.04
#1	.0004	.0000	-.0001	.0001	.0012	.0002	.0022	-.0003
#2	.0006	.0002	.0001	.0001	.0020	.0003	.0044	-.0022
#3	-.0005	-.0001	.0000	.0002	.0016	.0002	.0052	-.0006

Check ? Value
 Range None None None None None None None None

Elem	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm
Avg	.0016	.0004	.0029
Stddev	.0004	.0007	.0021
%RSD	26.80	191.1	73.29
#1	.0012	.0012	.0006
#2	.0017	-.0002	.0047
#3	.0020	.0001	.0034

Check ? Value
 Range None None None

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	210630.	31891.	9407.7	12925.
Stddev	1214.	183.	8.1	16.
%RSD	.57612	.57322	.08603	.12715
#1	211220.	31747.	9414.5	12940.
#2	209240.	31829.	9409.8	12929.
#3	211440.	32097.	9398.8	12907.

Sample Name: CRI Acquired: 10/9/2019 19:34:08 Type: QC
 Method: SGS 3 NO Valve(v284) Mode: CONC Corr. Factor: 1.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2013	.0020	.0030	.0507	.0104	.0099	.0159	.0105	.0044
Stddev	.0001	.0000	.0000	.0001	.0003	.0002	.0001	.0003	.0001
%RSD	.0536	.8706	1.134	.2005	2.740	2.209	.5903	2.818	1.583
#1	.2014	.0020	.0030	.0507	.0106	.0101	.0160	.0106	.0043
#2	.2014	.0020	.0030	.0506	.0101	.0097	.0159	.0102	.0044
#3	.2012	.0020	.0030	.0508	.0104	.0098	.0158	.0107	.0045

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
 Value
 Range

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0509	.0221	.0093	.0105	.0026	.0097	.0065	.2129	5.213
Stddev	.0005	.0001	.0001	.0002	.0004	.0011	.0012	.0044	.001
%RSD	.9735	.3124	.7071	2.216	16.91	11.11	18.34	2.059	.0144
#1	.0510	.0222	.0093	.0105	.0031	.0085	.0070	2.163	5.213
#2	.0514	.0221	.0093	.0104	.0023	.0101	.0074	2.144	5.212
#3	.0504	.0221	.0092	.0108	.0024	.0105	.0051	.2079	5.214

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
 Value
 Range

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1032	5.254	5.085	5.210	.1026	.0213	2.175	.0103	.0099
Stddev	.0005	.018	.041	.018	.0003	.0002	.0010	.0002	.0001
%RSD	.4647	.3446	.8063	.3457	.3065	1.100	.4738	2.335	.5676
#1	.1028	5.246	5.060	5.191	.1024	.0212	2.177	.0105	.0099
#2	.1038	5.275	5.132	5.226	.1025	.0216	2.164	.0103	.0099
#3	.1032	5.242	5.062	5.212	.1030	.0211	2.184	.0100	.0100

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
 Value
 Range

Zoom In

Zoom Out

Sample Name: ICSAB Acquired: 10/9/2019 19:44:23 Type: QC
Method: SGS 3 NO Valve(v284) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Table with 8 columns (Elem, Units, Avg, Stddev, %RSD) and 8 rows of element data (Ti3349, W_2079, Zr3391, S_1820, Bi2230, Li6707, P_1774, Ce4040).

Table with 9 columns (Check? Value Range) and 9 rows of element data (#1, #2, #3).

Table with 10 columns (Int. Std. Units) and 10 rows of element data (Y_3600, Y_3710, Y_2243, In2306).

Table with 8 columns (Elem, Units, Avg, Stddev, %RSD) and 8 rows of element data (Y_3600, Y_3710, Y_2243, In2306).

Table with 9 columns (Check? Value Range) and 9 rows of element data (#1, #2, #3).

Table with 10 columns (Int. Std. Units) and 10 rows of element data (Y_3600, Y_3710, Y_2243, In2306).

Table with 8 columns (Elem, Units, Avg, Stddev, %RSD) and 8 rows of element data (Fe2599, Mg2790, K_7664, Na5895, B_2089, Mo2020, Si2124, Sn1899, Sr4077).

Table with 9 columns (Check? Value Range) and 9 rows of element data (#1, #2, #3).

Table with 10 columns (Int. Std. Units) and 10 rows of element data (Y_3600, Y_3710, Y_2243, In2306).

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Zoom In

Zoom Out

Sample Name: HSTD Acquired: 10/9/2019 19:49:38 Type: QC
Method: SGS 3 NO Valve(v284) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Table with 11 columns (Elem, Units, Avg, Stddev, %RSD) and 11 rows of element data (Ba4554, Be3130, Cd2288, Co2286, Cr2677, Cu3247, Mn2576, Ni2316, Ag3280).

Table with 12 columns (Check? Value Range) and 12 rows of element data (#1, #2, #3).

Table with 13 columns (Elem, Units, Avg, Stddev, %RSD) and 13 rows of element data (V_2924, Zn2062, As1890, Tl1908, Pb2203, Se1960, Sb2068, Al3961, Ca3179).

Table with 11 columns (Elem, Units, Avg, Stddev, %RSD) and 11 rows of element data (V_2924, Zn2062, As1890, Tl1908, Pb2203, Se1960, Sb2068, Al3961, Ca3179).

Table with 12 columns (Check? Value Range) and 12 rows of element data (#1, #2, #3).

Table with 13 columns (Elem, Units, Avg, Stddev, %RSD) and 13 rows of element data (Fe2599, Mg2790, K_7664, Na5895, B_2089, Mo2020, Si2124, Sn1899, Sr4077).

Table with 9 columns (Check? Value Range) and 9 rows of element data (#1, #2, #3).

Table with 11 columns (Elem, Units, Avg, Stddev, %RSD) and 11 rows of element data (Fe2599, Mg2790, K_7664, Na5895, B_2089, Mo2020, Si2124, Sn1899, Sr4077).

Table with 9 columns (Check? Value Range) and 9 rows of element data (#1, #2, #3).

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11.3

11

Zoom In

Zoom Out

Sample Name: HSTD Acquired: 10/9/2019 19:49:38 Type: QC
Method: SGS 3 NO Valve(v284) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Table with 8 columns (Elem, Units, Avg, Stddev, %RSD) and 8 rows of element data (Ti3349, W_2079, Zr3391, S_1820, Bi2230, Li6707, P_1774, Ce4040).

Table with 9 columns (Check? Value Range) and 9 rows of element data (#1, #2, #3).

Table with 10 columns (Int. Std. Units) and 10 rows of element data (Y_3600, Y_3710, Y_2243, In2306).

Table with 8 columns (Elem, Units, Avg, Stddev, %RSD) and 8 rows of element data (Y_3600, Y_3710, Y_2243, In2306).

Table with 9 columns (Check? Value Range) and 9 rows of element data (#1, #2, #3).

Table with 10 columns (Int. Std. Units) and 10 rows of element data (Y_3600, Y_3710, Y_2243, In2306).

Table with 8 columns (Elem, Units, Avg, Stddev, %RSD) and 8 rows of element data (Fe2599, Mg2790, K_7664, Na5895, B_2089, Mo2020, Si2124, Sn1899, Sr4077).

Table with 9 columns (Check? Value Range) and 9 rows of element data (#1, #2, #3).

Table with 10 columns (Int. Std. Units) and 10 rows of element data (Y_3600, Y_3710, Y_2243, In2306).

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Zoom In

Zoom Out

Sample Name: HSTD Acquired: 10/9/2019 19:55:46 Type: QC
Method: SGS 3 NO Valve(v284) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Table with 11 columns (Elem, Units, Avg, Stddev, %RSD) and 11 rows of element data (Ba4554, Be3130, Cd2288, Co2286, Cr2677, Cu3247, Mn2576, Ni2316, Ag3280).

Table with 12 columns (Check? Value Range) and 12 rows of element data (#1, #2, #3).

Table with 13 columns (Elem, Units, Avg, Stddev, %RSD) and 13 rows of element data (V_2924, Zn2062, As1890, Tl1908, Pb2203, Se1960, Sb2068, Al3961, Ca3179).

Table with 11 columns (Elem, Units, Avg, Stddev, %RSD) and 11 rows of element data (V_2924, Zn2062, As1890, Tl1908, Pb2203, Se1960, Sb2068, Al3961, Ca3179).

Table with 12 columns (Check? Value Range) and 12 rows of element data (#1, #2, #3).

Table with 13 columns (Elem, Units, Avg, Stddev, %RSD) and 13 rows of element data (Fe2599, Mg2790, K_7664, Na5895, B_2089, Mo2020, Si2124, Sn1899, Sr4077).

Table with 9 columns (Check? Value Range) and 9 rows of element data (#1, #2, #3).

Table with 11 columns (Elem, Units, Avg, Stddev, %RSD) and 11 rows of element data (Fe2599, Mg2790, K_7664, Na5895, B_2089, Mo2020, Si2124, Sn1899, Sr4077).

Table with 9 columns (Check? Value Range) and 9 rows of element data (#1, #2, #3).

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Sample Name: HSTD Acquired: 10/9/2019 19:55:46 Type: QC
 Method: SGS 3 NO Valve(v284) Mode: CONC Corr. Factor: 1.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	0.005	0.032	0.011	-0.150	0.007	-0.004	-0.090	0.219
Stddev	.0003	.0008	.0001	.0039	.0010	.0003	.0011	.0015
%RSD	52.38	25.28	12.23	25.80	146.9	89.37	11.86	6.955

#1	.0006	.0026	.0011	-.0110	.0005	-.0001	-.0097	.0234
#2	.0008	.0029	.0009	-.0153	-.0002	-.0003	-.0096	.0219
#3	.0002	.0041	.0012	-.0187	.0018	-.0007	-.0078	.0204

Check ? Value Range
 None None None None None None None None

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	187430.	30803.	8512.4	10994.
Stddev	607.	186.	13.2	12.
%RSD	.32391	.60353	.15523	.10477

#1	186820.	30983.	8498.2	10982.
#2	187430.	30612.	8524.4	10996.
#3	188040.	30812.	8514.5	11004.

Sample Name: CCV Acquired: 10/9/2019 20:01:16 Type: QC
 Method: SGS 3 NO Valve(v284) Mode: CONC Corr. Factor: 1.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.039	2.051	1.993	2.025	2.001	1.977	2.022	2.034	2.420
Stddev	.003	.003	.011	.010	.006	.004	.016	.009	.0003
%RSD	.1218	.1201	.5612	.5109	.3059	.2097	.8053	.4518	.1194

#1	2.040	2.051	1.997	2.027	2.000	1.977	2.004	2.038	2.419
#2	2.039	2.053	1.980	2.014	1.995	1.971	2.036	2.024	2.419
#3	2.036	2.048	2.002	2.034	2.008	1.979	2.026	2.040	2.424

Check ? Value Range
 Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.989	2.029	2.018	2.060	2.015	1.991	2.018	40.17	40.65
Stddev	.002	.010	.010	.013	.009	.011	.013	.04	.05
%RSD	.1175	.4759	.5006	.6448	.4639	.5696	.6176	.0964	.1285

#1	1.988	2.036	2.021	2.063	2.019	1.994	2.023	40.18	40.63
#2	1.988	2.018	2.006	2.045	2.005	1.979	2.004	40.21	40.71
#3	1.992	2.034	2.026	2.075	2.022	2.001	2.028	40.13	40.62

Check ? Value Range
 Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	40.48	40.44	40.19	40.47	2.018	2.037	5.343	2.053	2.013
Stddev	.04	.04	.04	.03	.012	.010	.029	.008	.002
%RSD	.1101	.1060	.0920	.0822	.5728	.5105	.5403	.4014	.1160

#1	40.48	40.39	40.22	40.49	2.019	2.042	5.351	2.057	2.015
#2	40.53	40.45	40.21	40.49	2.006	2.025	5.311	2.044	2.014
#3	40.44	40.47	40.15	40.43	2.029	2.044	5.367	2.059	2.011

Check ? Value Range
 Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass

Sample Name: CCV Acquired: 10/9/2019 20:01:16 Type: QC
 Method: SGS 3 NO Valve(v284) Mode: CONC Corr. Factor: 1.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.017	1.994	2.040	1.959	2.009	2.007	1.989	2.001
Stddev	.009	.010	.001	.013	.009	.002	.012	.008
%RSD	.4416	.5023	.0456	.6421	.4211	.0772	.6186	.3862

#1	2.017	1.996	2.041	1.961	2.011	2.008	1.994	2.000
#2	2.008	1.983	2.039	1.945	1.999	2.007	1.975	1.994
#3	2.025	2.002	2.040	1.970	2.016	2.005	1.998	2.009

Check ? Value Range
 Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	205910.	31737.	9176.3	12147.
Stddev	808.	134.	38.0	46.
%RSD	.39252	.42090	.41436	.37911

#1	206270.	31878.	9145.6	12116.
#2	206470.	31612.	9218.8	12200.
#3	204980.	31722.	9164.5	12125.

Sample Name: CCB Acquired: 10/9/2019 20:06:15 Type: QC
 Method: SGS 3 NO Valve(v284) Mode: CONC Corr. Factor: 1.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	0.006	0.005	0.003	0.001	0.008	0.008	0.008	0.004	0.004
Stddev	.0005	.0002	.0002	.0003	.0001	.0003	.0001	.0002	.0004
%RSD	79.00	52.41	55.22	220.1	18.26	42.14	17.14	50.34	98.85

#1	.0001	.0002	.0005	.0005	.0008	.0005	.0009	.0005	.0004
#2	.0005	.0005	.0002	-.0002	.0010	.0011	.0007	.0005	.0000
#3	.0010	.0007	.0002	.0001	.0007	.0007	.0007	.0002	.0009

Check ? Value Range
 High Limit Low Limit Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	0.007	0.015	0.011	0.009	-0.000	0.001	0.014	0.045	0.061
Stddev	.0002	.0001	.0005	.0008	.0008	.0014	.0010	.0044	.0064
%RSD	23.32	7.344	49.67	90.96	8606.	1764.	73.00	96.73	39.92

#1	.0009	.0016	.0009	.0006	.0008	.0013	.0004	-.0005	.0101
#2	.0006	.0014	.0017	.0018	-.0007	.0004	.0025	.0071	.0154
#3	.0006	.0014	.0007	.0003	-.0001	-.0015	.0014	.0070	.0229

Check ? Value Range
 High Limit Low Limit Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	0.109	0.028	0.720	0.717	0.054	0.009	0.024	0.003	0.005
Stddev	.0058	.0043	.0369	.0095	.0004	.0001	.0003	.0002	.0003
%RSD	53.78	153.6	51.18	13.24	8.273	9.956	11.49	60.09	59.62

#1	.0043	.0001	.0600	.0621	.0057	.0010	.0027	.0006	.0002
#2	.0127	.0078	.0427	.0811	.0055	.0010	.0022	.0002	.0004
#3	.0156	.0006	.1134	.0719	.0049	.0008	.0023	.0002	.0007

Check ? Value Range
 High Limit Low Limit Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass

Sample Name: CCB Acquired: 10/9/2019 20:06:15 Type: QC
 Method: SGS 3 NO Valve(v284) Mode: CONC Corr. Factor: 1.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0006	.0008	.0007	-0.0010	-0.0010	F .0045	.0004	.0022
Stddev	.0001	.0004	.0001	.0003	.0006	.0005	.0007	.0014
%RSD	12.67	52.84	16.14	30.94	61.21	11.19	181.7	62.59
#1	.0007	.0005	.0006	-0.0007	-0.0018	.0039	.0012	.0031
#2	.0006	.0012	.0008	-0.0012	-0.0005	.0048	-0.0002	.0006
#3	.0005	.0006	.0007	-0.0012	-0.0009	.0048	.0001	.0028

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
High Limit						.0040		
Low Limit						-.0040		

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	213660.	32325.	9491.2	13083.
Stddev	1646.	145.	15.2	18.
%RSD	.77040	.44832	.15991	.13422

#1	215210.	32208.	9491.6	13084.
#2	211930.	32487.	9475.8	13065.
#3	213850.	32280.	9506.1	13100.

Sample Name: FECONF Acquired: 10/9/2019 20:11:18 Type: Unk
 Method: SGS 3 NO Valve(v284) Mode: CONC Corr. Factor: 1.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0001	.0003	.0010	-0.0005	-0.0002	-0.0023	.0014	.0025	.0007
Stddev	.0001	.0001	.0001	.0001	.0003	.0028	.0002	.0002	.0041
%RSD	69.49	21.07	13.26	13.81	135.2	124.9	10.82	8.070	627.0
#1	.0000	.0002	.0012	-0.0004	.0001	-0.0001	.0014	.0027	.0033
#2	.0001	.0003	.0009	-0.0005	-0.0006	-0.0054	.0016	.0023	-.0041
#3	.0001	.0003	.0010	-0.0005	-0.0003	-0.0012	.0014	.0026	.0028

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0009	-0.0002	.0017	.0026	.0003	-0.0019	.0004	.0058	.0324
Stddev	.0002	.0000	.0002	.0001	.0006	.0011	.0008	.0003	.0006
%RSD	22.11	23.01	12.46	3.697	217.6	56.97	175.8	4.977	1.767
#1	.0012	-0.0001	.0018	.0026	.0010	-0.0012	-0.0004	.0061	.0325
#2	.0008	-0.0002	.0018	.0024	-0.0002	-0.0032	.0011	.0057	.0318
#3	.0008	-0.0002	.0014	.0026	.0001	-0.0014	.0005	.0056	.0329

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 202.2	.0082	.1041	.0426	.0017	.0012	.0122	.0002	.0000
Stddev	1.9	.0031	.0510	.0019	.0005	.0001	.0008	.0004	.0000
%RSD	.9206	37.91	48.96	4.345	27.38	6.526	6.609	200.7	97.40
#1	204.2	.0116	.0568	.0421	.0020	.0011	.0131	-0.0003	.0000
#2	200.6	.0055	.0975	.0447	.0020	.0012	.0119	.0003	.0000
#3	201.7	.0074	.1580	.0411	.0012	.0012	.0116	.0006	.0001

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0005	.0035	.0003	-0.0236	.0059	-0.0142	-0.0081	.0196
Stddev	.0001	.0010	.0006	.0018	.0009	.0012	.0004	.0078
%RSD	29.42	28.64	202.9	7.815	15.03	8.785	5.287	39.91
#1	.0006	.0029	.0006	-0.0218	.0065	-0.0153	-0.0078	.0162
#2	.0006	.0047	-0.0004	-0.0234	.0064	-0.0144	-0.0079	.0286
#3	.0003	.0030	.0008	-0.0255	.0049	-0.0129	-0.0086	.0141

Sample Name: FECONF Acquired: 10/9/2019 20:11:18 Type: Unk
 Method: SGS 3 NO Valve(v284) Mode: CONC Corr. Factor: 1.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	206140.	32086.	9341.0	13165.
Stddev	12228.	127.	22.5	31.
%RSD	5.9318	.39552	.24138	.23211

#1	213150.	32001.	9350.8	13190.
#2	192020.	32026.	9315.3	13131.
#3	213250.	32232.	9357.1	13174.

Sample Name: CRCONF Acquired: 10/9/2019 20:16:28 Type: Unk
 Method: SGS 3 NO Valve(v284) Mode: CONC Corr. Factor: 1.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000	.0000	.0001	.0017	F 10.32	.0012	.0000	.0001	.0002
Stddev	.0001	.0000	.0001	.0001	.05	.0003	.0000	.0002	.0002
%RSD	346.9	305.6	54.93	6.993	.4556	27.05	45.53	229.6	84.60
#1	.0000	.0000	.0001	.0018	10.33	.0014	.0001	.0003	.0001
#2	.0000	.0000	.0001	.0016	10.37	.0013	.0000	.0001	.0005
#3	-0.0002	-0.0000	.0002	.0016	10.27	.0008	.0000	-0.0001	.0002

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0017	.0363	-0.0013	.0004	-0.0001	.0001	.0000	-0.0013	.0058
Stddev	.0002	.0003	.0003	.0005	.0004	.0008	.0005	.0063	.0007
%RSD	12.94	.7092	20.72	131.2	304.5	523.5	104.5	475.2	11.80
#1	-0.0015	.0363	-0.0010	.0009	-0.0001	-0.0000	.0000	.0042	.0052
#2	-0.0018	.0366	-0.0016	-0.0000	.0003	-0.0005	.0005	-0.082	.0065
#3	-0.0019	.0361	-0.0012	.0002	-0.0006	.0010	-0.0004	.0000	.0056

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0177	-0.0069	.0242	.0206	.0032	.0006	.0132	-0.0007	.0000
Stddev	.0163	.0026	.0196	.0072	.0004	.0002	.0008	.0003	.0000
%RSD	91.69	37.33	80.84	34.87	11.45	37.63	5.841	38.17	60.46
#1	.0075	-0.0099	.0061	.0163	.0035	.0003	.0124	-0.0009	.0000
#2	.0092	-0.0059	.0450	.0288	.0032	.0007	.0140	-0.0004	.0000
#3	.0365	-0.0050	.0215	.0166	.0028	.0007	.0132	-0.0008	.0001

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0014	.0027	.0035	.0018	.0006	.0007	-0.0018	.0038
Stddev	.0002	.0007	.0001	.0027	.0007	.0015	.0010	.0030
%RSD	14.40	24.16	3.493	152.5	129.0	214.0	57.46	79.23
#1	-0.0015	.0033	.0034	.0030	.0014	.0024	-0.0018	.0047
#2	-0.0016	.0028	.0036	.0036	-0.0000	-0.0002	-0.0008	.0004
#3	-0.0012	.0020	.0034	-0.0013	.0003	-0.0002	-0.0028	.0063

Sample Name: CRCONF Acquired: 10/9/2019 20:16:28 Type: Unk
Method: SGS 3 NO Valve(v284) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	216100.	32267.	9265.2	13053.
Stddev	574.	110.	11.9	18.
%RSD	.26572	.34176	.12805	.13526

#1	216070.	32230.	9255.3	13040.
#2	215540.	32181.	9278.3	13073.
#3	216690.	32392.	9262.0	13045.

Sample Name: ASCONF Acquired: 10/9/2019 20:21:39 Type: Unk
Method: SGS 3 NO Valve(v284) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000	.0000	.0001	.0001	.0024	.0004	.0001	.0002	.0004
Stddev	.0001	.0001	.0001	.0001	.0002	.0001	.0000	.0001	.0003
%RSD	265.7	234.6	70.70	158.8	9.724	31.34	14.02	75.54	81.81

#1	-.0000	-.0000	.0000	.0002	.0022	.0005	.0001	.0001	.0004
#2	.0000	-.0000	.0002	.0000	.0026	.0004	.0001	.0001	.0007
#3	.0001	.0001	.0002	.0000	.0023	.0002	.0001	.0004	.0001

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000	-.0003	5.120	.0000	.0004	-.0003	-.0011	.0001	-.0479
Stddev	.0002	.0001	.004	.0002	.0007	.0012	.0007	.0039	.0011
%RSD	22070.	43.29	.0752	771.9	164.4	423.1	59.44	3131.	2.376

#1	-.0002	-.0004	5.119	-.0002	.0012	.0008	-.0013	-.0003	-.0491
#2	.0002	-.0002	5.117	.0001	-.0001	-.0001	-.0004	.0042	-.0476
#3	.0000	-.0003	5.124	.0001	-.0002	-.0015	-.0016	-.0035	-.0469

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0041	-.0097	.0006	.0146	.0023	.0000	.0069	-.0000	-.0000
Stddev	.0017	.0103	.0152	.0029	.0005	.0000	.0007	.0003	.0001
%RSD	40.51	106.7	2405.	19.97	20.70	76.89	10.23	678.7	433.4

#1	.0031	.0006	-.0170	.0167	.0029	.0000	.0077	-.0003	.0000
#2	.0032	-.0096	.0090	.0159	.0023	.0000	.0068	-.0000	.0000
#3	.0060	-.0200	.0098	.0113	.0019	.0000	.0063	.0002	-.0001

Elem	Tl3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0005	-.0014	.0002	-.0015	-.0003	.0023	-.0008	.0027
Stddev	.0002	.0011	.0001	.0003	.0013	.0008	.0004	.0013
%RSD	32.97	78.88	67.47	18.41	432.6	34.77	46.49	47.97

#1	.0003	-.0022	.0002	-.0017	-.0009	.0016	-.0005	.0029
#2	.0005	-.0017	.0003	-.0012	.0012	.0032	-.0012	.0038
#3	.0007	-.0002	.0000	-.0016	-.0012	.0021	-.0008	.0013

Sample Name: ASCONF Acquired: 10/9/2019 20:21:39 Type: Unk
Method: SGS 3 NO Valve(v284) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	214790.	32203.	9499.7	13083.
Stddev	913.	150.	22.7	29.
%RSD	.42529	.46600	.23851	.21851

#1	215720.	32246.	9476.4	13054.
#2	213890.	32327.	9501.1	13083.
#3	214760.	32036.	9521.6	13112.

Sample Name: MP17762-MB1conf Acquired: 10/9/2019 20:26:37 Type: Unk
Method: SGS 3 NO Valve(v284) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0001	.0001	-.0001	.0000	.0003	.0004	.0001	.0001	.0005
Stddev	.0001	.0000	.0001	.0003	.0002	.0001	.0000	.0002	.0008
%RSD	66.85	85.93	157.7	965.5	52.26	34.29	51.29	244.5	149.8

#1	-.0000	.0001	-.0001	-.0001	.0005	.0002	.0000	-.0001	-.0004
#2	-.0001	.0000	-.0001	-.0002	.0002	.0004	.0001	.0000	.0011
#3	-.0001	.0000	.0000	.0003	.0003	.0005	.0001	.0003	.0010

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0002	.0032	.0009	-.0000	-.0003	.0000	.0008	-.0006	.0044
Stddev	.0002	.0000	.0009	.0005	.0008	.0007	.0006	.0081	.0014
%RSD	86.91	.4316	91.80	1255.	286.9	74830.	80.47	1374.	31.71

#1	.0000	.0032	.0018	-.0005	-.0005	-.0008	.0002	-.0021	.0039
#2	.0003	.0032	.0010	.0005	.0006	.0006	.0014	.0082	.0034
#3	.0003	.0032	.0000	-.0001	-.0009	.0002	.0007	-.0078	.0060

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0009	-.0019	.0051	.0160	-.0027	-.0000	.0122	.0000	.0000
Stddev	.0004	.0036	.0204	.0045	.0003	.0002	.0008	.0003	.0000
%RSD	42.75	190.3	402.0	28.32	12.52	7107.	6.772	2589.	115.5

#1	.0007	-.0057	.0226	.0143	.0031	-.0001	.0116	-.0003	-.0000
#2	.0014	.0016	-.0173	.0212	.0024	-.0000	.0118	.0002	.0000
#3	.0007	-.0016	.0099	.0126	.0028	.0002	.0131	.0002	.0001

Elem	Tl3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0003	-.0008	.0003	.0014	-.0013	.0011	.0007	.0035
Stddev	.0002	.0008	.0001	.0009	.0003	.0004	.0007	.0009
%RSD	56.85	97.87	31.92	65.02	26.50	36.18	103.7	26.52

#1	.0001	-.0011	.0002	.0021	-.0017	.0008	.0003	.0026
#2	.0004	.0001	.0004	.0004	-.0011	.0011	.0016	.0036
#3	.0004	-.0014	.0004	.0017	-.0011	.0016	.0003	.0044

Sample Name: MP17762-MB1conf Acquired: 10/9/2019 20:26:37 Type: Unk
Method: SGS 3 NO Valve(v284) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Table with 5 columns: Int. Std., Y_3600, Y_3710, Y_2243, In2306. Rows include Units, Avg, Stddev, %RSD.

Table with 4 columns: #1, #2, #3. Rows include 213440, 216070, 214880.

Sample Name: MP17762-B1conf Acquired: 10/9/2019 20:31:38 Type: Unk
Method: SGS 3 NO Valve(v284) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Table with 9 columns: Elem, Ba4554, Be3130, Cd2288, Co2286, Cr2677, Cu3247, Mn2576, Ni2316. Rows include Units, Avg, Stddev, %RSD.

Table with 9 columns: #1, #2, #3. Rows include 2.018, 2.015, 2.012.

Table with 9 columns: Elem, Ag3280, V_2924, Zn2062, As1890, Tl1908, Pb2203, Se1960, Sb2068. Rows include Units, Avg, Stddev, %RSD.

Table with 9 columns: #1, #2, #3. Rows include .2532, .2505, .2501.

Table with 9 columns: Elem, Al3961, Ca3179, Fe2599, Mg2790, K_7664, Na5895, B_2089, Mo2020. Rows include Units, Avg, Stddev, %RSD.

Table with 9 columns: #1, #2, #3. Rows include 25.30, 25.22, 25.20.

Table with 9 columns: Elem, Si2124, Sn1899, Sr4077, Ti3349, W_2079, Zr3391, S_1820, Bi2230. Rows include Units, Avg, Stddev, %RSD.

Table with 9 columns: #1, #2, #3. Rows include .0935, .0966, .0945.

11.3 11

Sample Name: MP17762-B1conf Acquired: 10/9/2019 20:31:38 Type: Unk
Method: SGS 3 NO Valve(v284) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Table with 4 columns: Elem, Li6707, P_1774, Ce4040. Rows include Units, Avg, Stddev, %RSD.

Table with 4 columns: #1, #2, #3. Rows include .0013, .0008, .0032.

Table with 5 columns: Int. Std., Y_3600, Y_3710, Y_2243, In2306. Rows include Units, Avg, Stddev, %RSD.

Table with 4 columns: #1, #2, #3. Rows include 205280, 207220, 207420.

Sample Name: CCV Acquired: 10/9/2019 20:36:37 Type: QC
Method: SGS 3 NO Valve(v284) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Table with 10 columns: Elem, Ba4554, Be3130, Cd2288, Co2286, Cr2677, Cu3247, Mn2576, Ni2316, Ag3280. Rows include Units, Avg, Stddev, %RSD.

Table with 10 columns: #1, #2, #3. Rows include 2.040, 2.039, 2.040.

Table with 10 columns: Check ? Value Range, Chk Pass, Chk Pass, Chk Pass, Chk Pass, Chk Pass, Chk Pass, Chk Pass, Chk Pass, Chk Pass.

Table with 10 columns: Elem, V_2924, Zn2062, As1890, Tl1908, Pb2203, Se1960, Sb2068, Al3961, Ca3179. Rows include Units, Avg, Stddev, %RSD.

Table with 10 columns: #1, #2, #3. Rows include 2.028, 2.026, 2.011.

Table with 10 columns: Check ? Value Range, Chk Pass, Chk Pass, Chk Pass, Chk Pass, Chk Pass, Chk Pass, Chk Pass, Chk Pass, Chk Pass.

Table with 10 columns: Elem, Fe2599, Mg2790, K_7664, Na5895, B_2089, Mo2020, Si2124, Sn1899, Sr4077. Rows include Units, Avg, Stddev, %RSD.

Table with 10 columns: #1, #2, #3. Rows include 40.43, 40.46, 40.41.

Table with 10 columns: Check ? Value Range, Chk Pass, Chk Pass, Chk Pass, Chk Pass, Chk Pass, Chk Pass, Chk Pass, Chk Pass, Chk Pass.

Sample Name: CCV Acquired: 10/9/2019 20:36:37 Type: QC
Method: SGS 3 NO Valve(v284) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.053	1.995	2.075	1.947	1.999	2.006	1.974	2.034
Stddev	.011	.043	.011	.044	.040	.001	.039	.012
%RSD	.5445	2.143	.5060	2.245	1.999	.0680	1.998	.6018
#1	2.062	2.021	2.082	1.973	2.019	2.007	1.998	2.043
#2	2.056	2.018	2.080	1.971	2.025	2.005	1.997	2.039
#3	2.040	1.946	2.063	1.896	1.953	2.005	1.929	2.020

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
High Limit
Low Limit

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	203210.	31825.	9232.7	12235.
Stddev	883.	101.	169.8	205.
%RSD	.43428	.31656	1.8396	1.6723
#1	202580.	31922.	9132.0	12110.
#2	202830.	31834.	9137.2	12122.
#3	204220.	31721.	9428.8	12471.

Sample Name: CCB Acquired: 10/9/2019 20:41:36 Type: QC
Method: SGS 3 NO Valve(v284) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0001	.0002	.0002	.0001	.0005	.0004	.0002	.0002	.0001
Stddev	.0002	.0000	.0001	.0001	.0001	.0003	.0000	.0003	.0003
%RSD	284.6	18.78	46.24	74.89	18.93	68.63	17.56	159.7	235.2
#1	.0004	.0001	.0001	.0002	.0006	.0001	.0002	.0005	.0004
#2	-.0000	.0002	.0002	.0001	.0004	.0006	.0002	.0002	.0003
#3	-.0001	.0002	.0003	.0000	.0004	.0006	.0002	-.0001	-.0003

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
High Limit
Low Limit

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0003	.0011	.0014	.0009	.0001	-.0001	.0010	.0005	.0049
Stddev	.0001	.0000	.0000	.0007	.0006	.0004	.0012	.0052	.0002
%RSD	29.77	3.177	3.392	83.14	423.1	529.7	112.0	966.3	4.175
#1	.0003	.0011	.0014	.0004	.0004	-.0005	-.0003	.0042	.0051
#2	.0003	.0011	.0013	.0017	-.0006	-.0002	.0018	.0028	.0049
#3	.0002	.0011	.0014	.0005	.0006	.0004	.0017	-.0054	.0047

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
High Limit
Low Limit

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0029	-.0049	.0048	.0182	.0043	.0007	.0009	.0004	.0001
Stddev	.0010	.0031	.0287	.0046	.0005	.0001	.0009	.0005	.0000
%RSD	34.87	64.01	598.4	25.10	11.59	10.36	109.7	116.1	40.73
#1	.0020	-.0078	-.0207	.0156	.0048	.0007	-.0001	.0004	.0001
#2	.0040	-.0016	-.0007	.0155	.0038	.0008	.0018	.0009	.0002
#3	.0026	-.0054	.0358	.0234	.0042	.0007	.0010	-.0001	.0001

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
High Limit
Low Limit

Sample Name: CCB Acquired: 10/9/2019 20:41:36 Type: QC
Method: SGS 3 NO Valve(v284) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0001	.0047	.0005	-.0012	-.0008	.0012	-.0006	.0017
Stddev	.0003	.0006	.0001	.0020	.0004	.0007	.0008	.0002
%RSD	295.2	12.58	9.912	166.7	51.18	59.47	135.0	13.42
#1	.0001	.0046	.0005	-.0030	-.0005	.0010	-.0009	.0015
#2	-.0002	.0053	.0006	.0010	-.0006	.0006	-.0011	.0019
#3	.0004	.0042	.0005	-.0016	-.0013	.0019	.0003	.0018

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
High Limit
Low Limit

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	217440.	32218.	9480.0	13081.
Stddev	162.	168.	14.0	16.
%RSD	.07462	.52173	.14725	.11914
#1	217620.	32046.	9467.4	13069.
#2	217360.	32227.	9477.6	13075.
#3	217330.	32382.	9495.0	13099.

Sample Name: JC96248-8-7 Acquired: 10/9/2019 20:46:40 Type: Unk
Method: SGS 3 NO Valve(v284) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment: MP17762

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0002	.0000	.0001	.0001	.0005	.0004	.0001	.0001	.0006
Stddev	.0003	.0000	.0001	.0002	.0001	.0003	.0000	.0002	.0000
%RSD	171.8	116.1	46.33	321.9	20.69	70.05	33.29	352.4	3.413
#1	-.0002	.0000	.0002	.0002	.0004	.0001	.0001	-.0001	.0006
#2	.0001	.0000	.0001	-.0001	.0004	.0004	.0000	.0003	.0006
#3	-.0005	.0001	.0001	.0001	.0006	.0007	.0001	-.0000	.0006

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
High Limit
Low Limit

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000	.0037	.0006	-.0003	-.0003	-.0001	.0003	.0028	.0076
Stddev	.0001	.0001	.0001	.0007	.0004	.0008	.0008	.0042	.0018
%RSD	161.4	1.413	22.81	243.2	122.9	694.3	272.1	148.3	23.62
#1	.0001	.0037	.0006	.0001	-.0007	-.0003	-.0006	.0053	.0057
#2	-.0000	.0037	.0005	.0002	-.0002	.0008	.0009	.0052	.0093
#3	.0000	.0038	.0007	-.0011	.0000	-.0008	.0006	-.0020	.0079

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0006	-.0030	.0234	.0250	.0035	.0003	.0065	-.0002	.0000
Stddev	.0013	.0092	.0170	.0015	.0002	.0000	.0007	.0001	.0000
%RSD	234.1	309.3	72.83	6.029	4.459	12.93	10.09	62.78	74.32
#1	.0020	-.0038	.0330	.0233	-.0037	.0003	.0058	-.0004	.0001
#2	.0004	-.0117	.0037	.0256	.0034	.0003	.0065	-.0001	.0000
#3	-.0006	.0066	.0335	.0262	.0034	.0003	.0071	-.0002	.0000

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0002	.0046	.0006	.0058	-.0014	.0029	.0009	.0004
Stddev	.0001	.0007	.0001	.0017	.0012	.0015	.0003	.0006
%RSD	50.89	14.75	17.89	28.94	90.93	52.71	34.62	140.7
#1	.0001	.0048	.0008	.0059	-.0000	.0028	.0008	.0009
#2	.0003	.0051	.0006	.0075	-.0016	.0045	.0012	-.0002
#3	.0003	.0038	.0005	.0041	-.0025	.0015	.0006	.0005

Sample Name: JC96248-8 7 Acquired: 10/9/2019 20:46:40 Type: Unk
Method: SGS 3 NO Valve(v284) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment: MP17762

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	216580.	32505.	9521.8	13110.
Stddev	735.	200.	7.6	4.
%RSD	.33915	.61556	.08027	.02812
#1	217270.	32545.	9530.6	13112.
#2	216660.	32288.	9517.9	13106.
#3	215800.	32683.	9516.9	13113.

Sample Name: JC96248-1F Acquired: 10/9/2019 20:51:42 Type: Unk
Method: SGS 3 NO Valve(v284) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0672	.0002	.0001	.0001	.0013	.0011	.7096	.0001	-.0001
Stddev	.0059	.0001	.0001	.0001	.0003	.0003	.0039	.0002	.0002
%RSD	8.743	28.62	99.45	57.28	22.20	23.81	.5467	182.7	110.9
#1	.0740	.0003	.0002	.0002	.0010	.0009	.7053	.0002	-.0000
#2	.0637	.0002	-.0000	.0001	.0015	.0014	.7105	.0003	-.0003
#3	.0639	.0002	.0001	.0001	.0013	.0010	.7129	-.0001	-.0001
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0012	.0026	.0014	-.0004	-.0023	-.0013	.0026	.0028	191.5
Stddev	.0003	.0001	.0005	.0005	.0010	.0016	.0004	.0024	14.8
%RSD	21.36	4.857	36.64	141.4	43.07	123.7	14.39	87.40	7.711
#1	.0011	.0025	.0016	-.0008	-.0024	-.0001	.0026	.0052	208.5
#2	.0010	.0025	.0017	-.0006	-.0032	-.0006	.0023	.0027	183.4
#3	.0015	.0027	.0008	.0002	-.0012	-.0031	.0030	.0004	182.5
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2237	87.51	18.50	22.02	4.233	.0007	15.91	-.0026	1.257
Stddev	.0202	7.72	1.55	1.89	.0007	.0002	.02	.0002	.109
%RSD	9.051	8.819	8.381	8.601	.1599	31.63	.0991	5.824	8.659
#1	.2471	96.42	20.29	24.21	4.230	.0009	15.91	-.0027	1.383
#2	.2109	82.98	17.63	20.93	4.229	.0005	15.89	-.0028	1.196
#3	.2132	83.13	17.58	20.92	4.241	.0005	15.93	-.0025	1.192
Elem	Tl3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040	
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	-.0014	.0062	.0003	54.12	-.0026	.1105	.0485	.0053	
Stddev	.0003	.0003	.0001	.04	.0005	.0092	.0005	.0003	
%RSD	22.91	4.359	35.43	.0653	17.40	8.338	1.039	5.595	
#1	-.0011	.0060	.0002	54.12	-.0031	.1212	.0479	.0054	
#2	-.0018	.0065	.0004	54.09	-.0026	.1055	.0487	.0056	
#3	-.0013	.0062	.0002	54.16	-.0021	.1049	.0488	.0050	

11.3
11

Sample Name: JC96248-1F Acquired: 10/9/2019 20:51:42 Type: Unk
Method: SGS 3 NO Valve(v284) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	199500.	30348.	8817.4	11684.
Stddev	562.	2224.	6.5	4.
%RSD	.28183	7.3293	.07404	.03851
#1	199800.	27782.	8818.3	11686.
#2	199560.	31730.	8810.5	11679.
#3	198920.	31532.	8823.5	11688.

Sample Name: JC96248-2F Acquired: 10/9/2019 20:56:50 Type: Unk
Method: SGS 3 NO Valve(v284) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0999	.0002	.0001	.0007	.0005	.0010	1.516	-.0001	.0007
Stddev	.0007	.0000	.0001	.0002	.0001	.0004	.017	.0001	.0007
%RSD	.6695	17.83	200.6	26.67	24.25	35.02	1.099	108.3	101.7
#1	.1007	.0002	.0002	.0009	.0004	.0012	1.527	-.0000	.0001
#2	.0995	.0001	-.0000	.0006	.0006	.0012	1.523	-.0002	.0015
#3	.0995	.0002	-.0000	.0007	.0006	.0006	1.497	-.0000	.0004
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0017	.0049	.0011	.0001	-.0025	-.0018	.0024	.0052	144.2
Stddev	.0001	.0000	.0006	.0005	.0007	.0011	.0014	.0060	1.2
%RSD	3.818	.1223	52.54	931.5	28.99	63.21	57.12	115.3	.8385
#1	.0017	.0049	.0016	.0005	-.0021	-.0030	.0038	.0011	145.6
#2	.0017	.0049	.0005	.0002	-.0020	-.0015	.0010	.0025	143.4
#3	.0018	.0049	.0014	-.0005	-.0033	-.0008	.0024	.0121	143.5
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.863	83.74	17.85	38.05	3.806	.0006	13.90	-.0026	1.016
Stddev	.005	.17	.05	.02	.0010	.0002	.01	.0002	.001
%RSD	.2498	.1992	.2701	.0430	.2644	30.88	.0769	6.949	.1206
#1	1.869	83.72	17.88	38.05	3.818	.0004	13.90	-.0024	1.017
#2	1.859	83.58	17.80	38.05	3.803	.0008	13.90	-.0027	1.014
#3	1.862	83.91	17.88	38.03	3.798	.0005	13.88	-.0028	1.016
Elem	Tl3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040	
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	-.0010	.0044	-.0003	49.16	-.0010	.1310	.0621	.0047	
Stddev	.0004	.0002	.0001	.01	.0009	.0005	.0004	.0013	
%RSD	43.56	3.712	24.27	.0292	89.03	.3655	.6572	26.92	
#1	-.0014	.0045	-.0003	49.14	-.0002	.1316	.0625	.0039	
#2	-.0005	.0042	-.0002	49.17	-.0020	.1310	.0617	.0061	
#3	-.0009	.0045	-.0004	49.16	-.0008	.1306	.0619	.0040	

Sample Name: JC96248-2F Acquired: 10/9/2019 20:56:50 Type: Unk Method: SGS 3 NO Valve(v284) Mode: CONC Corr. Factor: 1.000000 User: admin Custom ID1: Custom ID2: Custom ID3: Comment:

Table with 5 columns: Int. Std., Y_3600, Y_3710, Y_2243, In2306. Rows include Units, Avg, Stddev, %RSD, and sample numbers #1, #2, #3.

Sample Name: JC96248-3F Acquired: 10/9/2019 21:02:04 Type: Unk Method: SGS 3 NO Valve(v284) Mode: CONC Corr. Factor: 1.000000 User: admin Custom ID1: Custom ID2: Custom ID3: Comment:

Large table with 11 columns for elements: Ba4554, Be3130, Cd2288, Co2286, Cr2677, Cu3247, Mn2576, Ni2316, Ag3280, V_2924, Zn2062, As1890, Ti1908, Pb2203, Se1960, Sb2068, Al3961, Ca3179, Fe2599, Mg2790, K_7664, Na5895, B_2089, Mo2020, Si2124, Sn1899, Sr4077, Ti3349, W_2079, Zr3391, S_1820, Bi2230, Li6707, P_1774, Ce4040. Rows include Units, Avg, Stddev, %RSD, and sample numbers #1, #2, #3.

Sample Name: JC96248-3F Acquired: 10/9/2019 21:02:04 Type: Unk Method: SGS 3 NO Valve(v284) Mode: CONC Corr. Factor: 1.000000 User: admin Custom ID1: Custom ID2: Custom ID3: Comment:

Table with 5 columns: Int. Std., Y_3600, Y_3710, Y_2243, In2306. Rows include Units, Avg, Stddev, %RSD, and sample numbers #1, #2, #3.

Sample Name: JC96248-5F Acquired: 10/9/2019 21:07:16 Type: Unk Method: SGS 3 NO Valve(v284) Mode: CONC Corr. Factor: 1.000000 User: admin Custom ID1: Custom ID2: Custom ID3: Comment:

Large table with 11 columns for elements: Ba4554, Be3130, Cd2288, Co2286, Cr2677, Cu3247, Mn2576, Ni2316, Ag3280, V_2924, Zn2062, As1890, Ti1908, Pb2203, Se1960, Sb2068, Al3961, Ca3179, Fe2599, Mg2790, K_7664, Na5895, B_2089, Mo2020, Si2124, Sn1899, Sr4077, Ti3349, W_2079, Zr3391, S_1820, Bi2230, Li6707, P_1774, Ce4040. Rows include Units, Avg, Stddev, %RSD, and sample numbers #1, #2, #3.

Sample Name: JC96248-5F Acquired: 10/9/2019 21:07:16 Type: Unk
 Method: SGS 3 NO Valve(v284) Mode: CONC Corr. Factor: 1.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	203520.	32219.	8978.3	11878.
Stddev	2657.	114.	14.6	20.
%RSD	1.3056	.35474	.16258	.16639
#1	204050.	32349.	8962.0	11856.
#2	205870.	32168.	8982.6	11889.
#3	200630.	32138.	8990.2	11891.

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Sample Name: JC96248-6F Acquired: 10/9/2019 21:12:29 Type: Unk
 Method: SGS 3 NO Valve(v284) Mode: CONC Corr. Factor: 1.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0646	.0001	-0.001	.0005	.0009	.0006	1.005	-0.001	.0006
Stddev	.0003	.0000	.0000	.0002	.0003	.0004	.005	.0001	.0002
%RSD	.4267	31.54	45.02	46.11	29.99	72.36	.4577	203.6	29.75
#1	.0644	.0001	-0.001	.0004	.0011	.0004	1.011	-0.000	.0007
#2	.0649	.0001	-0.000	.0007	.0010	.0011	1.004	-0.002	.0007
#3	.0644	.0001	-0.001	.0003	.0006	.0003	1.002	.0000	.0004
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0012	.0164	.0016	-0.004	-0.0026	-0.0019	.0028	-0.0014	104.1
Stddev	.0003	.0001	.0001	.0004	.0007	.0004	.0010	.0073	1.3
%RSD	21.84	.7177	5.150	101.9	26.22	22.34	34.17	509.7	1.222
#1	.0012	.0165	.0017	-0.008	-0.023	-0.019	.0031	-0.072	102.7
#2	.0009	.0163	.0016	-0.004	-0.021	-0.023	.0037	.0068	104.2
#3	.0014	.0165	.0016	-0.000	-0.033	-0.014	.0018	-0.039	105.2
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	7.663	29.73	7.727	13.06	2.157	.0000	16.30	-0.0034	6.012
Stddev	.012	.06	.025	.01	.0011	.0000	.09	.0004	.0006
%RSD	.1587	.1999	.3231	.1015	.0501	159.0	.5780	11.59	.1069
#1	7.649	29.67	7.699	13.05	2.156	.0001	16.31	-0.031	.6004
#2	7.667	29.79	7.741	13.08	2.148	.0000	16.21	-0.038	.6015
#3	7.673	29.73	7.743	13.06	2.169	-0.000	16.39	-0.032	.6016
Elem	Tl3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040	
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	-0.0011	.0000	-0.0005	36.26	-0.0025	.0325	.0582	.0047	
Stddev	.0002	.0006	.0001	.20	.0013	.0009	.0008	.0015	
%RSD	15.83	2392.	22.53	.5428	53.00	2.777	1.459	31.73	
#1	-0.0012	-0.0007	-0.0006	36.22	-0.0038	.0318	.0591	.0046	
#2	-0.0009	.0004	-0.0005	36.08	-0.0012	.0335	.0574	.0032	
#3	-0.0011	.0004	-0.0004	36.47	-0.0024	.0322	.0582	.0062	

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Sample Name: JC96248-6F Acquired: 10/9/2019 21:12:29 Type: Unk
 Method: SGS 3 NO Valve(v284) Mode: CONC Corr. Factor: 1.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	206590.	32375.	9083.2	12173.
Stddev	1335.	114.	44.4	58.
%RSD	.64630	.35322	.48830	.47253
#1	205350.	32486.	9080.5	12159.
#2	206410.	32381.	9128.9	12236.
#3	208000.	32257.	9040.3	12123.

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Sample Name: JC96248-7F Acquired: 10/9/2019 21:17:33 Type: Unk
 Method: SGS 3 NO Valve(v284) Mode: CONC Corr. Factor: 1.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0653	.0002	.0000	.0001	.0009	.0010	.7014	.0001	.0001
Stddev	.0044	.0000	.0001	.0002	.0001	.0001	.0047	.0001	.0000
%RSD	6.775	9.161	250.9	172.3	15.60	5.072	.6751	107.1	48.23
#1	.0628	.0002	.0001	-0.001	.0009	.0009	.6961	.0002	.0001
#2	.0628	.0002	.0000	.0002	.0008	.0010	.7053	.0002	.0001
#3	.0705	.0002	-0.000	.0002	.0011	.0010	.7027	-0.000	.0001
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0012	.0036	.0017	-0.002	-0.0028	-0.0018	.0035	.0037	189.9
Stddev	.0000	.0001	.0010	.0004	.0007	.0012	.0008	.0041	12.8
%RSD	2.547	1.574	56.26	230.2	25.62	64.45	21.72	112.4	6.750
#1	.0012	.0036	.0015	-0.001	-0.023	-0.006	.0037	.0023	182.7
#2	.0012	.0036	.0009	.0002	-0.024	-0.020	.0026	.0083	182.2
#3	.0011	.0035	.0028	-0.006	-0.036	-0.029	.0041	.0004	204.7
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.969	85.94	18.13	21.66	4.217	.0007	15.81	-0.0032	1.236
Stddev	0.141	5.98	1.16	1.44	.0006	.0002	.01	.0002	.079
%RSD	7.141	6.959	6.409	6.636	.1516	30.31	.0648	5.458	6.398
#1	.1863	82.65	17.45	20.85	4.224	.0009	15.81	-0.030	1.191
#2	.1915	82.32	17.48	20.81	4.214	.0006	15.82	-0.033	1.190
#3	.2128	92.84	19.48	23.32	4.213	.0005	15.80	-0.033	1.328
Elem	Tl3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040	
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	-0.0001	.0031	-0.0006	54.19	-0.0014	.1101	.0481	.0031	
Stddev	.0003	.0006	.0001	.02	.0007	.0050	.0003	.0029	
%RSD	321.6	20.37	11.33	.0347	49.33	4.554	.5675	95.05	
#1	-0.0004	.0028	-0.0005	54.21	-0.0021	.1073	.0480	.0048	
#2	-0.0001	.0027	-0.0007	54.20	-0.0013	.1072	.0484	-0.003	
#3	.0002	.0038	-0.0006	54.17	-0.0007	.1159	.0479	.0048	

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Sample Name: JC96248-7F Acquired: 10/9/2019 21:17:33 Type: Unk
Method: SGS 3 NO Valve(v284) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	200760.	30704.	8800.8	11674.
Stddev	1391.	1847.	24.4	20.
%RSD	.69276	6.0141	.27772	.16819
#1	202060.	31725.	8807.3	11680.
#2	199290.	31814.	8821.4	11690.
#3	200930.	28572.	8773.8	11652.

Sample Name: JC96248-8F Acquired: 10/9/2019 21:22:40 Type: Unk
Method: SGS 3 NO Valve(v284) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.001	-0.000	.000	.001	.004	.004	.001	.000	-0.000
Stddev	.002	.001	.001	.001	.003	.004	.001	.001	.003
%RSD	192.0	159.9	290.5	128.5	81.08	100.9	68.49	1086.	1099.
#1	-0.002	-0.001	.000	.001	.004	.009	.000	.001	-0.002
#2	.001	.000	.002	.001	.001	.003	.001	-0.001	.003
#3	-0.001	-0.001	-0.001	-0.001	.007	.001	.001	-0.001	-0.002
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.001	.0035	.0041	-0.006	-0.002	.0028	.0017	-0.002	.0130
Stddev	.001	.000	.006	.003	.008	.018	.006	.0057	.0028
%RSD	115.4	.3630	13.99	49.73	377.3	64.98	36.28	2790.	21.32
#1	-0.000	.0035	.0048	-0.003	.006	.041	.017	-0.029	.0162
#2	-0.003	.0035	.0040	-0.008	-0.009	.007	.023	.0063	.0112
#3	-0.001	.0035	.0036	-0.007	-0.002	.036	.011	-0.040	.0116
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0045	-0.047	.0083	.0503	.0021	.0031	.0098	.0007	-0.000
Stddev	.0006	.0032	.0180	.0068	.001	.001	.003	.003	.001
%RSD	14.05	67.55	216.2	13.61	4.094	3.910	2.658	38.98	745.9
#1	.0051	-0.077	.0178	.0434	.0020	.0032	.0101	.0009	.0000
#2	.0039	-0.014	-0.124	.0505	.0021	.0030	.0097	.0004	-0.001
#3	.0043	-0.051	.0196	.0571	.0022	.0030	.0096	.0007	.0001
Elem	Tl3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040	
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	.0005	.0142	.0003	.0128	-0.006	.0024	.0019	.0025	
Stddev	.001	.007	.002	.023	.012	.007	.004	.0024	
%RSD	17.87	4.998	53.85	17.87	212.3	29.57	23.64	96.47	
#1	.0004	.0142	.0002	.0104	-0.016	.0026	.0017	.0051	
#2	.0006	.0149	.0002	.0130	-0.007	.0016	.0024	.0002	
#3	.0004	.0135	.0005	.0150	.0007	.0030	.0016	.0023	

Sample Name: JC96248-8F Acquired: 10/9/2019 21:22:40 Type: Unk
Method: SGS 3 NO Valve(v284) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	214180.	32464.	9461.5	13045.
Stddev	2439.	107.	19.7	28.
%RSD	1.1389	.32991	.20789	.21520
#1	211360.	32373.	9449.9	13039.
#2	215540.	32437.	9484.2	13075.
#3	215640.	32582.	9450.5	13020.

Sample Name: JC96283-2 Acquired: 10/9/2019 21:27:41 Type: Unk
Method: SGS 3 NO Valve(v284) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4647	.0001	.0002	.0009	.0018	.0070	.4137	.0007	.0010
Stddev	.0010	.0000	.0000	.0002	.0002	.0000	.0050	.0001	.0004
%RSD	.2233	33.23	27.46	21.51	13.09	.4312	1.218	15.90	36.52
#1	.4648	.0001	.0002	.0011	.0020	.0070	.4109	.0009	.0009
#2	.4658	.0001	.0001	.0007	.0016	.0070	.4107	.0007	.0014
#3	.4637	.0001	.0001	.0008	.0016	.0070	.4195	.0006	.0007
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0101	.0110	-0.002	.0002	-0.0021	-0.0020	.0055	1.891	29.10
Stddev	.0003	.0002	.0004	.0009	.0002	.0015	.0005	.005	.05
%RSD	3.429	1.378	234.7	548.1	7.336	74.56	9.426	.2628	.1641
#1	.0098	.0110	-0.005	.0011	-0.0020	-0.005	.0056	1.896	29.13
#2	.0101	.0109	-0.002	-0.001	-0.0022	-0.0020	.0049	1.886	29.13
#3	.0105	.0112	-0.002	-0.006	-0.0023	-0.0035	.0059	1.891	29.05
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	13.97	18.77	1.199	80.32	.0610	.0004	F 25.32	-0.037	2407
Stddev	.02	.05	.031	.41	.0006	.0003	.32	.0004	.0004
%RSD	.1296	.2776	2.573	.5122	1.048	68.74	1.261	9.690	.1478
#1	13.99	18.81	1.232	80.78	.0605	.0003	25.18	-0.035	2406
#2	13.98	18.78	1.192	80.20	.0607	.0002	25.09	-0.036	2411
#3	13.95	18.71	1.172	79.98	.0617	.0007	25.68	-0.042	2404
Elem	Tl3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040	
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	.0559	-0.0028	-0.013	6.726	-0.0007	.0051	.1757	.0046	
Stddev	.0006	.0004	.0001	.087	.0015	.0013	.0028	.0010	
%RSD	1.017	13.62	6.640	1.292	221.6	25.67	1.602	21.13	
#1	.0553	-0.0027	-0.013	6.688	-0.0019	.0042	.1745	.0044	
#2	.0559	-0.0025	-0.012	6.664	-0.0010	.0045	.1737	.0038	
#3	.0564	-0.0033	-0.014	6.825	.0009	.0066	.1790	.0057	

Sample Name: JC96283-2 Acquired: 10/9/2019 21:27:41 Type: Unk
 Method: SGS 3 NO Valve(v284) Mode: CONC Corr. Factor: 1.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	208270.	32237.	9113.4	12126.
Stddev	2375.	212.	89.8	111.
%RSD	1.1405	.65652	.98543	.91941
#1	209850.	32027.	9144.6	12171.
#2	209420.	32233.	9183.4	12207.
#3	205540.	32451.	9012.1	11998.

Sample Name: JC96283-4 Acquired: 10/9/2019 21:32:47 Type: Unk
 Method: SGS 3 NO Valve(v284) Mode: CONC Corr. Factor: 1.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4001	.0001	.0001	.0020	.0005	.0007	2.376	.0002
Stddev	.0011	.0000	.0001	.0003	.0000	.0001	.023	.0000
%RSD	.2725	71.75	114.5	15.26	5.320	16.15	.9739	24.41
#1	.4010	.0000	.0002	.0021	.0005	.0007	2.360	.0001
#2	.3989	.0001	.0002	.0017	.0005	.0006	2.365	.0002
#3	.4004	.0001	-.0000	.0023	.0005	.0008	2.402	.0002
Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0012	.0025	.0041	.0013	.0006	F -.0033	-.0014	.0065
Stddev	.0002	.0002	.0001	.0004	.0006	.0005	.0008	.0008
%RSD	18.59	5.931	1.376	29.21	108.2	14.91	53.75	11.77
#1	.0015	.0024	.0040	.0018	.0013	-.0029	-.0008	.0062
#2	.0010	.0026	.0041	.0011	.0002	-.0032	-.0023	.0059
#3	.0012	.0026	.0041	.0011	.0003	-.0039	-.0013	.0073
Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0719	40.05	12.77	28.30	.7751	86.11	.0883	.0013
Stddev	.0110	.05	.02	.03	.0249	1.13	.0002	.0002
%RSD	15.27	.1164	.1926	.1204	3.214	1.308	.2249	16.05
#1	.0789	40.09	12.79	28.29	.7572	85.47	.0885	.0011
#2	.0774	40.05	12.74	28.34	.7646	87.41	.0882	.0013
#3	.0592	40.00	12.76	28.27	.8035	85.45	.0882	.0015
Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 29.16	-.0047	.3389	.0020	-.0029	-.0018	8.336	-.0030
Stddev	.02	.0001	.0006	.0007	.0006	.0001	.003	.0014
%RSD	.0634	1.487	.1677	37.35	21.90	4.068	.0396	46.46
#1	29.17	-.0048	.3394	.0017	-.0034	-.0018	8.338	-.0014
#2	29.17	-.0047	.3383	.0014	-.0031	-.0017	8.337	-.0037
#3	29.14	-.0048	.3388	.0028	-.0022	-.0018	8.332	-.0038

Sample Name: JC96283-4 Acquired: 10/9/2019 21:32:47 Type: Unk
 Method: SGS 3 NO Valve(v284) Mode: CONC Corr. Factor: 1.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Li6707	P_1774	Ce4040	
Units	ppm	ppm	ppm	
Avg	.0048	.4057	.0026	
Stddev	.0002	.0018	.0011	
%RSD	4.826	.4465	41.93	
#1	.0047	.4048	.0028	
#2	.0045	.4045	.0014	
#3	.0050	.4078	.0035	
Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	205660.	31896.	9074.2	12082.
Stddev	1713.	303.	27.7	30.
%RSD	.83297	.95083	.30516	.24474
#1	205750.	31838.	9068.9	12081.
#2	207330.	31625.	9049.5	12053.
#3	203910.	32223.	9104.1	12112.

Sample Name: CCV Acquired: 10/9/2019 21:38:03 Type: QC
 Method: SGS 3 NO Valve(v284) Mode: CONC Corr. Factor: 1.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.048	2.062	2.029	2.044	2.008	1.982	2.034	2.058	.2441
Stddev	.003	.004	.001	.002	.003	.003	.003	.001	.0039
%RSD	.1496	.2151	.0292	.0783	1.521	1.673	1.856	.0461	1.604
#1	2.046	2.062	2.029	2.043	2.009	1.983	2.022	2.057	.2437
#2	2.052	2.066	2.029	2.043	2.039	2.016	2.077	2.059	.2482
#3	2.047	2.058	2.030	2.046	1.978	1.949	2.005	2.057	.2404
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.998	2.063	2.044	2.091	2.044	2.025	2.052	40.41	40.88
Stddev	.033	.001	.002	.001	.001	.002	.000	.08	.11
%RSD	1.649	.0224	.0890	.0633	.0449	.1124	.0063	.1942	.2588
#1	1.998	2.063	2.043	2.090	2.043	2.024	2.052	40.36	40.86
#2	2.031	2.063	2.043	2.092	2.044	2.023	2.052	40.50	40.99
#3	1.965	2.062	2.046	2.090	2.045	2.027	2.052	40.36	40.79
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	40.68	40.66	40.40	40.87	2.044	2.066	5.419	2.090	2.028
Stddev	.06	.10	.08	.06	.003	.002	.004	.004	.002
%RSD	.1438	.2479	.1991	.1355	.1279	.0743	.0743	.1752	.0764
#1	40.66	40.63	40.35	40.82	2.041	2.064	5.415	2.087	2.027
#2	40.75	40.77	40.50	40.93	2.046	2.067	5.422	2.094	2.030
#3	40.64	40.58	40.36	40.85	2.046	2.067	5.421	2.088	2.027
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In
Zoom Out

Sample Name: CCV Acquired: 10/9/2019 21:38:03 Type: QC
 Method: SGS 3 NO Valve(v284) Mode: CONC Corr. Factor: 1.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.023	2.027	2.048	1.993	2.036	2.019	2.018	2.001
Stddev	.031	.003	.033	.002	.003	.002	.003	.029
%RSD	1.532	.1489	1.592	.0780	.1285	.1184	.1291	1.442

#1	2.024	2.024	2.047	1.991	2.033	2.019	2.015	2.000
#2	2.053	2.030	2.081	1.993	2.038	2.021	2.020	2.031
#3	1.991	2.028	2.016	1.994	2.036	2.017	2.018	1.973

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
 Value High Limit
 Range Low Limit

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	205440.	31419.	9057.6	12029.
Stddev	3197.	146.	9.0	14.
%RSD	1.5560	.46574	.09941	.12053

#1	205460.	31514.	9047.3	12012.
#2	202240.	31251.	9061.1	12035.
#3	208630.	31494.	9064.2	12039.

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Zoom In
Zoom Out

Sample Name: CCB Acquired: 10/9/2019 21:43:02 Type: QC
 Method: SGS 3 NO Valve(v284) Mode: CONC Corr. Factor: 1.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0003	.0003	.0007	.0006	.0006	.0005	.0004	.0006	.0002
Stddev	.0002	.0001	.0000	.0001	.0001	.0005	.0000	.0003	.0001
%RSD	78.93	23.98	6.051	10.87	8.314	97.63	3.704	47.86	65.65

#1	.0000	.0002	.0007	.0006	.0006	.0010	.0004	.0006	.0002
#2	.0004	.0002	.0007	.0007	.0006	-.0000	.0004	.0003	.0003
#3	.0003	.0003	.0006	.0005	.0007	.0006	.0004	.0009	.0001

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
 Value High Limit
 Range Low Limit

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0004	.0015	.0014	.0007	.0006	.0012	.0003	.0008	.0073
Stddev	.0003	.0001	.0010	.0005	.0008	.0010	.0007	.0028	.0018
%RSD	74.08	5.742	69.63	78.67	124.7	85.24	273.0	373.7	24.96

#1	.0007	.0015	.0019	.0005	-.0001	.0022	-.0003	-.0021	.0052
#2	.0003	.0016	.0020	.0002	.0014	.0012	.0000	.0036	.0083
#3	.0002	.0015	.0003	.0012	.0006	.0001	.0010	.0007	.0085

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
 Value High Limit
 Range Low Limit

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0049	-.0111	.0482	.0471	.0028	.0009	.0016	.0008	.0002
Stddev	.0016	.0043	.0135	.0114	.0003	.0003	.0007	.0009	.0001
%RSD	32.36	38.26	27.96	24.12	11.36	27.89	47.09	113.3	31.30

#1	.0038	-.0089	.0341	.0367	.0025	.0011	.0008	.0017	.0001
#2	.0041	-.0085	.0495	.0454	.0028	.0006	.0016	.0007	.0002
#3	.0067	-.0161	.0609	.0592	.0031	.0010	.0023	-.0000	.0002

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
 Value High Limit
 Range Low Limit

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Zoom In
Zoom Out

Sample Name: CCB Acquired: 10/9/2019 21:43:02 Type: QC
 Method: SGS 3 NO Valve(v284) Mode: CONC Corr. Factor: 1.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0006	.0003	.0005	.0010	-.0008	.0029	.0004	.0039
Stddev	.0001	.0001	.0002	.0009	.0000	.0011	.0007	.0017
%RSD	18.08	30.34	31.79	90.16	4.224	38.57	174.7	43.62

#1	.0006	.0004	.0006	.0003	-.0008	.0042	.0001	.0043
#2	.0006	.0003	.0003	.0020	-.0008	.0027	.0011	.0020
#3	.0008	.0002	.0005	.0007	-.0007	.0019	-.0001	.0053

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
 Value High Limit
 Range Low Limit

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	214300.	32099.	9452.8	13032.
Stddev	617.	30.	11.1	5.
%RSD	.28812	.09300	.11747	.03473

#1	213600.	32111.	9465.6	13037.
#2	214790.	32120.	9446.2	13029.
#3	214500.	32065.	9446.6	13030.

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Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
Ba 455.403 { 74}	<input checked="" type="checkbox"/>	1	Zr	0.001245	0.000000	No
Be 313.042 {108}	<input checked="" type="checkbox"/>	11	V	0.001130	0.000000	No
			Mo	-0.000047	0.000000	No
			Ti	-0.000271	0.000000	No
			Mn	0.000010	0.000000	No
			Cu	0.000014	0.000000	No
			Bi	0.000060	0.000000	No
			Fe	-0.000001	0.000000	No
			Al	-0.000001	0.000000	No
			Mg	0.000000	0.000000	No
			Ca	0.000000	0.000000	No
			Sr	-0.000200	0.000000	No
Cd 228.802 {448}	<input checked="" type="checkbox"/>	11	As	0.008800	0.000000	No
			Ni	-0.000678	0.000000	No
			Fe	-0.000003	0.000000	No
			V	0.000091	0.000000	No
			Ba	0.000064	0.000000	No
			Co	-0.000950	0.000000	No
			Sr	-0.000020	0.000000	No
			Mn	0.000050	0.000000	No
			Cu	-0.000026	0.000000	No
			Zn	-0.000018	0.000000	No
			W	-0.000482	0.000000	No
Co 228.616 {448}	<input checked="" type="checkbox"/>	7	Fe	0.000004	0.000000	No
			Mo	-0.001710	0.000000	No
			Ni	0.000091	0.000000	No
			Ti	0.002390	0.000000	No
			Ba	0.000140	0.000000	No
			W	0.000327	0.000000	No
			Cd	-0.000510	0.000000	No
Cr 267.716 {126}	<input checked="" type="checkbox"/>	9	Mn	0.000458	0.000000	No
			V	-0.000010	0.000000	No
			Mo	-0.000082	0.000000	No
			Fe	-0.000010	0.000000	No
			Ti	0.000060	0.000000	No
			Ba	0.000045	0.000000	No
			Cu	0.000100	0.000000	No
			Sr	-0.000100	0.000000	No
			W	0.000404	0.000000	No
Cu 324.754 {104}2	<input checked="" type="checkbox"/>	14	Cr	-0.000099	0.000000	No
			V	-0.000306	0.000000	No
			Mo	0.000544	0.000000	No
			Ti	-0.000208	0.000000	No
			Fe	-0.000219	0.000000	No
			Zn	-0.000041	0.000000	No
			Co	-0.000860	0.000000	No
			Si	0.000016	0.000000	No
			Mn	0.000003	0.000000	No
			Se	0.000050	0.000000	No
			Sb	0.000069	0.000000	No
			W	0.000000	0.000000	No
			Al	0.000002	0.000000	No
			Zr	-0.002300	0.000000	No
Mn 257.610 {131}	<input checked="" type="checkbox"/>	5	Fe	0.000005	0.000000	No
			Si	0.000010	0.000000	No
			Ba	0.000004	0.000000	No
			Ni	0.000028	0.000000	No

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Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
Ni 231.604 {446}	<input checked="" type="checkbox"/>	8	Al	0.000006	0.000000	No
			Fe	0.000023	0.000000	No
			Zn	-0.000013	0.000000	No
			Be	0.000213	0.000000	No
			Co	-0.000220	0.000000	No
			Tl	0.000209	0.000000	No
			Mo	0.000026	0.000000	No
			Cu	0.000050	0.000000	No
Ag 328.068 {103}	<input checked="" type="checkbox"/>	15	Se	0.000100	0.000000	No
			Mn	0.000052	0.000000	No
			Mo	0.000012	-0.000003	No
			Ti	-0.000190	0.000000	No
			Fe	-0.000290	0.000000	No
			Zn	-0.000120	0.000000	No
			Ca	0.000001	0.000000	No
			Zr	0.006915	0.000000	No
			Sr	-0.000020	0.000000	No
			Mg	0.000000	0.000000	No
			Ba	0.000071	0.000000	No
			Cr	0.000022	0.000000	No
			V	-0.004700	0.000000	No
			Al	-0.000002	0.000000	No
			W	0.000000	0.000000	No
V 292.402 {115}	<input checked="" type="checkbox"/>	7	Ce	-0.001100	0.000000	No
			Ti	0.000689	0.000000	No
			Mo	-0.000100	0.000000	No
			Fe	-0.000006	0.000000	No
			Sr	-0.000100	0.000000	No
			Cr	-0.012200	0.000000	No
			Mn	-0.001250	0.000000	No
Zn 206.200 {464}	<input checked="" type="checkbox"/>	10	Al	0.000004	0.000000	No
			Cr	-0.004225	0.000000	No
			Fe	0.000011	0.000000	No
			Si	0.000015	0.000000	No
			Mn	-0.000045	0.000000	No
			Ba	-0.000060	0.000000	No
			Sn	-0.000023	0.000000	No
			Cu	0.000148	0.000000	No
			As	0.000055	0.000000	No
			Be	0.000058	0.000000	No
As 189.042 {478}	<input checked="" type="checkbox"/>	20	Ca	0.000005	0.000000	No
			Al	-0.000004	0.000000	No
			Fe	-0.000040	0.000000	No
			Ca	-0.000005	0.000000	No
			Mo	0.002540	0.000000	No
			Cr	0.001600	0.000000	No
			Ba	-0.000114	0.000000	No
			Sn	-0.000130	0.000000	No
			Cd	-0.000328	0.000000	No
			Si	0.000024	0.000000	No
			Zn	-0.000082	0.000000	No
			Sr	-0.000045	0.000000	No
			W	0.001546	0.000000	No
			Cu	-0.000058	0.000000	No
			Co	-0.000045	0.000000	No
Zr	0.000036	0.000000	No			
Mn	-0.000158	0.000000	No			

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
			S	-0.000008	0.000000	No
			Ti	0.000100	0.000000	No
			Mg	0.000006	0.000000	No
			Ce	-0.000600	0.000000	No
Tl 190.856 {477}	<input checked="" type="checkbox"/>	25	Cr	0.000182	0.000000	No
			Mo	-0.008700	0.000000	No
			Al	-0.000001	0.000000	No
			Fe	-0.000055	0.000000	No
			V	-0.026400	0.000000	No
			Mn	0.001741	0.000000	No
			Si	-0.000018	0.000000	No
			Ca	0.000000	0.000000	No
			Ti	-0.002890	0.000000	No
			Mg	0.000000	0.000000	No
			Co	0.004280	0.000000	No
			Sr	0.000010	0.000000	No
			B	-0.000003	0.000000	No
			Ba	0.000034	0.000000	No
			Zn	-0.000053	0.000000	No
			As	0.000068	0.000000	No
			W	-0.025182	0.000000	No
			Cu	0.000142	0.000000	No
			Pb	-0.000020	0.000000	No
			S	0.000010	0.000000	No
			Sn	-0.000086	0.000000	No
			Li	0.000000	0.000000	No
			K	0.000000	0.000000	No
			Zr	0.000000	0.000000	No
			Ce	-0.000600	0.000000	No
Pb 220.353 {453}	<input checked="" type="checkbox"/>	21	Al	-0.000149	0.000000	No
			Fe	0.000035	0.000000	No
			Ca	0.000003	0.000000	No
			Mn	0.000024	0.000000	No
			Mo	-0.000590	0.000000	No
			Cu	0.000145	0.000000	No
			Co	0.000064	0.000000	No
			Ti	-0.000200	0.000000	No
			Si	0.000133	0.000000	No
			Ba	-0.000022	0.000000	No
			Sb	-0.000084	0.000000	No
			Sr	-0.000033	0.000000	No
			W	-0.010000	0.000000	No
			Mg	0.000005	0.000000	No
			Cd	0.000012	0.000000	No
			Cr	-0.000031	0.000000	No
			Zr	-0.000281	0.000000	No
			Ni	0.000371	0.000000	No
			S	0.000010	0.000000	No
			Zn	-0.000106	0.000000	No
			Ce	0.000300	0.000000	No
Se 196.090 {472}	<input checked="" type="checkbox"/>	24	Al	-0.000008	0.000000	No
			Ca	0.000003	0.000000	No
			Mn	0.000924	0.000000	No
			Mo	0.000100	0.000000	No
			Fe	-0.000149	0.000000	No
			Co	-0.000473	0.000000	No
			Sr	-0.000011	0.000000	No

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
			Cu	-0.000087	0.000000	No
			W	0.000000	0.000000	No
			Si	0.000054	0.000000	No
			Be	-0.000347	0.000000	No
			Zn	0.000050	0.000000	No
			B	0.000028	0.000000	No
			Ti	-0.000020	0.000000	No
			Cd	0.000090	0.000000	No
			Zr	-0.000297	0.000000	No
			Ba	-0.000046	0.000000	No
			Mg	-0.000000	0.000000	No
			Pb	-0.000078	0.000000	No
			Ni	-0.000100	0.000000	No
			Cr	-0.000024	0.000000	No
			S	-0.000014	0.000000	No
			V	0.000188	0.000000	No
			Ce	-0.001400	0.000000	No
Sb 206.833 {463}	<input checked="" type="checkbox"/>	18	Fe	0.000001	0.000000	No
			Al	-0.000001	0.000000	No
			Ca	0.000001	0.000000	No
			Ni	-0.000516	0.000000	No
			Cr	0.021100	0.000000	No
			V	-0.003658	0.000000	No
			Zn	-0.000115	0.000000	No
			Mo	0.000969	0.000000	No
			Ti	0.000630	0.000000	No
			Sn	-0.010500	0.000000	No
			Mg	0.000001	0.000000	No
			Zr	-0.000463	0.000000	No
			Sr	0.000031	0.000000	No
			B	-0.000100	0.000000	No
			Co	-0.000142	0.000000	No
			W	0.000000	0.000000	No
			Si	-0.000170	0.000000	No
			Ce	-0.001300	0.000000	No
Al 396.152 {85}	<input checked="" type="checkbox"/>	5	Si	0.000652	0.000000	No
			Ca	0.000018	0.000000	No
			Mo	0.043916	0.000000	No
			Zr	0.005268	0.000000	No
			Ti	-0.000583	0.000000	No
Ca 317.933 {106}	<input checked="" type="checkbox"/>	14	Fe	0.000012	0.000000	No
			W	0.003960	0.000000	No
			Tl	-0.000152	0.000000	No
			Be	0.001840	0.000000	No
			Ba	-0.001224	0.000000	No
			Cu	-0.000822	0.000000	No
			Cd	-0.007593	0.000000	No
			Ni	0.000667	0.000000	No
			B	-0.000210	0.000000	No
			Se	0.000923	0.000000	No
			Co	-0.000408	0.000000	No
			Cr	0.000640	0.000000	No
			Al	-0.000000	0.000000	No
			As	0.010000	0.000000	No
Fe 259.940 {130}	<input checked="" type="checkbox"/>	10	Si	0.000819	0.000000	No
			Tl	-0.000051	0.000000	No
			Cr	0.000310	0.000000	No

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
			Mn	-0.000196	0.000000	No
			V	-0.000064	0.000000	No
			Cu	-0.000015	0.000000	No
			Zn	0.000046	0.000000	No
			Ti	-0.000631	0.000000	No
			Ca	0.000020	0.000000	No
			Ba	0.001000	0.000000	No
Mg 279.079 {121}	<input checked="" type="checkbox"/>	3	Mo	-0.013702	0.000000	No
			W	-0.006578	0.000000	No
			Mn	-0.002445	0.000000	No
K 766.490 { 44}	<input checked="" type="checkbox"/>	11	Fe	-0.000440	0.000000	No
			Al	0.000077	0.000000	No
			Ca	-0.000121	0.000000	No
			Mn	-0.007074	0.000000	No
			Si	-0.003000	0.000000	No
			V	-0.002000	0.000000	No
			Sn	-0.004700	0.000000	No
			Ba	-0.010574	0.000000	No
			Mo	-0.000850	0.000000	No
			Cu	-0.011483	0.000000	No
			Ni	-0.010000	0.000000	No
Na 589.592 { 57}	<input checked="" type="checkbox"/>	4	K	-0.000560	0.000000	No
			Ba	0.000900	0.000000	No
			Ca	0.000180	0.000000	No
			V	-0.005000	0.000000	No
B 208.959 {462}	<input checked="" type="checkbox"/>	1	Mo	0.045137	0.000000	No
Mo 202.030 {467}	<input checked="" type="checkbox"/>	2	Al	-0.000004	0.000000	No
			Fe	-0.000010	0.000000	No
Si 212.412 {459}	<input checked="" type="checkbox"/>	12	Sr	0.000366	0.000000	No
			Ni	0.002092	0.000000	No
			Mo	0.034932	0.000000	No
			V	0.002950	0.000000	No
			Ti	0.004593	0.000000	No
			Al	-0.000010	0.000000	No
			Cd	0.001043	0.000000	No
			Ba	0.001987	0.000000	No
			Sn	0.007500	0.000000	No
			Zn	0.000385	0.000000	No
			Be	-0.000048	0.000000	No
			W	0.000000	0.000000	No
Sn 189.989 {478}	<input checked="" type="checkbox"/>	4	Ti	-0.002964	0.000000	No
			Fe	0.000004	0.000000	No
			Si	0.000131	0.000000	No
			Zr	0.000908	0.000000	No
Sr 407.771 { 83}	<input checked="" type="checkbox"/>	2	Ca	0.000018	0.000000	No
			Si	0.000033	0.000000	No
Ti 334.904 {101}	<input checked="" type="checkbox"/>	3	Cr	0.000189	0.000000	No
			Mo	0.001351	0.000000	No
			Si	0.000035	0.000000	No
Y 360.073 { 94}* Y 371.030 { 91}* Y 224.306 {451}* In 230.606 {446}* W 207.911 {462}	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	None None None None 20				
			Si	0.000105	0.000000	No
			As	0.000100	0.000000	No
			Mn	0.000066	0.000000	No
			Mo	-0.000300	0.000000	No

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
			Ti	0.000080	0.000000	No
			Sr	-0.000850	0.000000	No
			V	-0.000140	0.000000	No
			Cd	-0.000650	0.000000	No
			Cr	-0.000390	0.000000	No
			Zn	0.013026	0.000000	No
			Sn	0.001300	0.000000	No
			Zr	0.000061	0.000000	No
			B	0.000009	0.000000	No
			Sb	-0.000300	0.000000	No
			Co	-0.001000	0.000000	No
			Ni	-0.003000	0.000000	No
			Be	-0.000185	0.000000	No
			Se	-0.000105	0.000000	No
			Cu	-0.000138	0.000000	No
			Tl	-0.000220	0.000000	No
Zr 339.198 { 99}	<input checked="" type="checkbox"/>	6	Mo	0.001069	0.000000	No
			Ti	0.000203	0.000000	No
			Fe	-0.000035	0.000000	No
			Si	0.000074	0.000000	No
			S	-0.000002	0.000000	No
			Cr	-0.000700	0.000000	No
S 182.034 {485}	<input checked="" type="checkbox"/>	7	Mo	0.001779	0.000000	No
			Al	-0.000033	0.000000	No
			Fe	0.000117	0.000000	No
			Mn	0.004620	0.000000	No
			W	-0.032564	0.000000	No
			Ca	-0.000218	0.000000	No
			Mg	0.000005	0.000000	No
Bi 223.061 {451}	<input checked="" type="checkbox"/>	10	Tl	-0.072020	0.000000	No
			V	-0.000704	0.000000	No
			Co	-0.002380	0.000000	No
			Ca	-0.000002	0.000000	No
			Mg	-0.000000	0.000000	No
			Fe	0.000187	0.000000	No
			Cr	0.001595	0.000000	No
			Cu	-0.001148	0.000000	No
			W	0.020000	0.000000	No
			Ce	-0.007100	0.000000	No
Li 670.784 { 50}	<input checked="" type="checkbox"/>	2	Ca	0.000023	0.000000	No
			Fe	0.000081	0.000000	No
P 177.495 {490}	<input checked="" type="checkbox"/>	9	Mn	-0.006184	0.000000	No
			Al	0.000040	0.000000	No
			V	-0.001953	0.000000	No
			Si	-0.001622	0.000000	No
			Ti	0.000000	-0.001185	No
			Mo	-0.001880	0.000000	No
			S	-0.000189	0.000000	No
			Co	-0.002198	0.000000	No
			Cu	-0.023500	0.000000	No
Ce 404.076 { 83}	<input checked="" type="checkbox"/>	2	Mn	-0.005600	0.000000	No
			Fe	0.000250	0.000000	No

Element, Wavelength and Order	Date of Fit	Date of Cal.	Type of Fit	Weighting	A0	A1	A2	n (Exponent)
Ba 455.403 { 74}	10/10/2019 9:13:26	10/9/2019 18:51:28	Linear	None	0.009416	1.928195	0.000000	1.000000
Be 313.042 {108}	10/10/2019 9:13:26	10/9/2019 18:51:28	Linear	None	-0.001206	3.175962	0.000000	1.000000
Cd 228.802 {448}	10/10/2019 9:13:26	10/9/2019 18:51:28	Linear	None	0.000225	1.030688	0.000000	1.000000
Co 228.616 {448}	10/10/2019 9:13:26	10/9/2019 18:51:28	Linear	None	0.000110	0.659318	0.000000	1.000000
Cr 267.716 {126}	10/10/2019 9:13:26	10/9/2019 18:51:28	Linear	None	-0.000043	0.149092	0.000000	1.000000
Cu 324.754 {104}2	10/10/2019 9:13:26	10/9/2019 18:51:28	Linear	None	0.002835	0.250284	0.000000	1.000000
Mn 257.610 {131}	10/10/2019 9:13:26	10/9/2019 18:51:28	Linear	None	-0.000053	0.789442	0.000000	1.000000
Ni 231.604 {446}	10/10/2019 9:13:26	10/9/2019 18:51:28	Linear	None	-0.000119	0.566944	0.000000	1.000000
Ag 328.068 {103}	10/10/2019 9:13:26	10/9/2019 18:51:28	Linear	None	0.000202	0.107990	0.000000	1.000000
V 292.402 {115}	10/10/2019 9:13:26	10/9/2019 18:51:28	Linear	None	0.000494	0.193004	0.000000	1.000000
Zn 206.200 {464}	10/10/2019 9:13:26	10/9/2019 18:51:28	Linear	None	0.000023	1.489400	0.000000	1.000000
As 189.042 {478}	10/10/2019 9:13:26	10/9/2019 18:51:28	Linear	None	-0.000360	0.112450	0.000000	1.000000
Tl 190.856 {477}	10/10/2019 9:13:26	10/9/2019 18:51:28	Linear	None	-0.000052	0.096091	0.000000	1.000000
Pb 220.353 {453}	10/10/2019 9:13:26	10/9/2019 18:51:28	Linear	None	0.000129	0.264561	0.000000	1.000000
Se 196.090 {472}	10/10/2019 9:13:26	10/9/2019 18:51:28	Linear	None	0.000014	0.089874	0.000000	1.000000
Sb 206.833 {463}	10/10/2019 9:13:26	10/9/2019 18:51:28	Linear	None	0.000080	0.142517	0.000000	1.000000
Al 396.152 { 85}	10/10/2019 9:13:26	10/9/2019 18:51:28	Linear	None	0.000575	0.043886	0.000000	1.000000
Ca 317.933 {106}	10/10/2019 9:13:26	10/9/2019 18:51:28	Linear	None	0.009446	0.107808	0.000000	1.000000
Fe 259.940 {130}	10/10/2019 9:13:26	10/9/2019 18:51:28	Linear	None	0.000236	0.064643	0.000000	1.000000
Mg 279.079 {121}	10/10/2019 9:13:26	10/9/2019 18:51:28	Linear	None	0.000021	0.011187	0.000000	1.000000
K 766.490 { 44}	10/10/2019 9:13:26	10/9/2019 18:51:28	Linear	None	0.000393	0.022459	0.000000	1.000000
Na 589.592 { 57}	10/10/2019 9:13:26	10/9/2019 18:51:28	Linear	None	-0.004565	0.078758	0.000000	1.000000
B 208.959 {462}	10/10/2019 9:13:26	10/9/2019 18:51:28	Linear	None	0.000067	0.216446	0.000000	1.000000
Mo 202.030 {467}	10/10/2019 9:13:26	10/9/2019 18:51:28	Linear	None	0.000111	0.730449	0.000000	1.000000
Si 212.412 {459}	10/10/2019 9:13:26	10/9/2019 18:51:28	Linear	None	0.000991	0.179108	0.000000	1.000000
Sn 189.989 {478}	10/10/2019 9:13:26	10/9/2019 18:51:28	Linear	None	0.000187	0.223416	0.000000	1.000000
Sr 407.771 { 83}	10/10/2019 9:13:26	10/9/2019 18:51:28	Linear	None	-0.001311	3.383232	0.000000	1.000000
Ti 334.904 {101}	10/10/2019 9:13:26	10/9/2019 18:51:28	Linear	None	-0.000006	0.156764	0.000000	1.000000
Y 360.073 { 94}*	10/10/2019 9:13:26	12/23/2009 10:44:16	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000
Y 371.030 { 91}*	10/10/2019 9:13:26	12/23/2009 10:44:16	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000
Y 224.306 {451}*	10/10/2019 9:13:26	12/23/2009 10:44:16	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000
In 230.606 {446}*	10/10/2019 9:13:26	12/23/2009 10:44:16	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000
W 207.911 {462}	10/10/2019 9:13:26	10/9/2019 18:51:28	Linear	None	0.001324	0.351195	0.000000	1.000000
Zr 339.198 { 99}	10/10/2019 9:13:26	10/9/2019 18:51:28	Linear	None	-0.000452	0.467366	0.000000	1.000000
S 182.034 {485}	10/10/2019 9:13:26	10/9/2019 18:51:28	Linear	None	-0.001389	0.053538	0.000000	1.000000
Bi 223.061 {451}	10/10/2019 9:13:26	10/9/2019 18:51:28	Linear	None	0.000210	0.163002	0.000000	1.000000
Li 670.784 { 50}	10/10/2019 9:13:26	10/9/2019 18:51:28	Linear	None	-0.006343	0.495501	0.000000	1.000000
P 177.495 {490}	10/10/2019 9:13:26	10/9/2019 18:51:28	Linear	1/Conc	-0.012934	0.143076	0.000000	1.000000
Ce 404.076 { 83}	10/10/2019 9:13:26	10/9/2019 18:51:28	Linear	1/Conc	0.000492	0.034196	0.000000	1.000000

Element, Wavelength and Order	Correlation	Std Error of Est	Predicted MDL	Predicted MLQ	Status	Reslope		QC Norm	
						Slope	Y-int	Slope factor	Offset
Ba 455.403 { 74}	1.000000	0.000000	0.000210	0.000700	OK	1.000000	0.000000	1	0
Be 313.042 {108}	1.000000	0.000000	0.000050	0.000166	OK	1.000000	0.000000	1	0
Cd 228.802 {448}	1.000000	0.000000	0.000148	0.000494	OK	1.000000	0.000000	1	0
Co 228.616 {448}	1.000000	0.000000	0.000193	0.000644	OK	1.000000	0.000000	1	0
Cr 267.716 {126}	1.000000	0.000000	0.000226	0.000754	OK	1.000000	0.000000	1	0
Cu 324.754 {104}2	1.000000	0.000000	0.000305	0.001018	OK	1.000000	0.000000	1	0
Mn 257.610 {131}	1.000000	0.000000	0.000048	0.000158	OK	1.000000	0.000000	1	0
Ni 231.604 {446}	1.000000	0.000000	0.000262	0.000873	OK	1.000000	0.000000	1	0
Ag 328.068 {103}	1.000000	0.000000	0.000463	0.001545	OK	1.000000	0.000000	1	0
V 292.402 {115}	1.000000	0.000000	0.000287	0.000957	OK	1.000000	0.000000	1	0
Zn 206.200 {464}	1.000000	0.000000	0.000086	0.000288	OK	1.000000	0.000000	1	0
As 189.042 {478}	1.000000	0.000000	0.000864	0.002881	OK	1.000000	0.000000	1	0
Tl 190.856 {477}	1.000000	0.000000	0.000885	0.002950	OK	1.000000	0.000000	1	0
Pb 220.353 {453}	1.000000	0.000000	0.000791	0.002638	OK	1.000000	0.000000	1	0
Se 196.090 {472}	1.000000	0.000000	0.001493	0.004978	OK	1.000000	0.000000	1	0
Sb 206.833 {463}	1.000000	0.000000	0.001174	0.003914	OK	1.000000	0.000000	1	0
Al 396.152 { 85}	1.000000	0.000000	0.007738	0.025792	OK	1.000000	0.000000	1	0
Ca 317.933 {106}	1.000000	0.000000	0.001805	0.006016	OK	1.000000	0.000000	1	0
Fe 259.940 {130}	1.000000	0.000000	0.001512	0.005039	OK	1.000000	0.000000	1	0
Mg 279.079 {121}	1.000000	0.000000	0.010981	0.036605	OK	1.000000	0.000000	1	0
K 766.490 { 44}	1.000000	0.000000	0.027581	0.091936	OK	1.000000	0.000000	1	0
Na 589.592 { 57}	1.000000	0.000000	0.008160	0.027200	OK	1.000000	0.000000	1	0
B 208.959 {462}	1.000000	0.000000	0.000539	0.001796	OK	1.000000	0.000000	1	0
Mo 202.030 {467}	1.000000	0.000000	0.000202	0.000672	OK	1.000000	0.000000	1	0
Si 212.412 {459}	1.000000	0.000000	0.000924	0.003078	OK	1.000000	0.000000	1	0
Sn 189.989 {478}	1.000000	0.000000	0.000440	0.001467	OK	1.000000	0.000000	1	0
Sr 407.771 { 83}	1.000000	0.000000	0.000082	0.000272	OK	1.000000	0.000000	1	0
Ti 334.904 {101}	1.000000	0.000000	0.000278	0.000927	OK	1.000000	0.000000	1	0
Y 360.073 { 94}*	0.000000	0.000000	-1.000000	-1.000000	Warnin	1.000000	0.000000	1	0
Y 371.030 { 91}*	0.000000	0.000000	-1.000000	-1.000000	Warnin	1.000000	0.000000	1	0
Y 224.306 {451}*	0.000000	0.000000	-1.000000	-1.000000	Warnin	1.000000	0.000000	1	0
In 230.606 {446}*	0.000000	0.000000	-1.000000	-1.000000	Warnin	1.000000	0.000000	1	0
W 207.911 {462}	1.000000	0.000000	0.000813	0.002711	OK	1.000000	0.000000	1	0
Zr 339.198 { 99}	1.000000	0.000000	0.000134	0.000447	OK	1.000000	0.000000	1	0
S 182.034 {485}	1.000000	0.000000	0.001974	0.006580	OK	1.000000	0.000000	1	0
Bi 223.061 {451}	1.000000	0.000000	0.001357	0.004523	OK	1.000000	0.000000	1	0
Li 670.784 { 50}	1.000000	0.000000	0.001329	0.004431	OK	1.000000	0.000000	1	0
P 177.495 {490}	1.000000	0.000000	0.000864	0.002881	OK	1.000000	0.000000	1	0
Ce 404.076 { 83}	1.000000	0.000000	0.002397	0.007991	OK	1.000000	0.000000	1	0

Sample Name: STDA Acquired: 10/10/2019 10:32:39 Type: Cal
 Method: SGS 070219(v291) Mode: IR Corr. Factor: 1.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.0038	-0.001	.0003	-0.004	.0000	.0035	.0000	-0.001	-0.003
Stddev	.0003	.0000	.0001	.0001	.0000	.0000	.0000	.0001	.0000
%RSD	8.164	39.49	52.90	22.57	42.85	4.306	24.76	174.9	11.66
#1	.0041	-0.002	.0003	-0.003	.0000	.0035	.0000	-0.002	-0.002
#2	.0034	-0.001	.0004	-0.004	.0000	.0035	.0000	.0001	-0.003
#3	.0038	-0.001	.0001	-0.005	.0000	.0035	.0000	-0.001	-0.003
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.0000	-0.0035	-0.0002	-0.0001	-0.0003	.0002	-0.0001	-0.0019	.0056
Stddev	.0000	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001
%RSD	116.4	3.557	45.34	39.93	39.11	65.11	102.9	4.415	1.283
#1	.0001	.0036	-0.001	-0.001	-0.003	.0003	-0.002	-0.019	.0055
#2	.0000	.0034	-0.002	-0.002	-0.002	.0001	-0.001	-0.018	.0057
#3	.0000	.0036	-0.003	-0.001	-0.004	.0004	.0000	-0.020	.0056
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.0001	.0000	-0.0023	-0.0044	.0001	-0.0000	.0024	.0001	.0006
Stddev	.0000	.0000	.0009	.0002	.0000	.0002	.0003	.0001	.0002
%RSD	53.01	301.4	41.10	4.678	27.93	1338.	13.08	123.5	35.43
#1	.0001	-0.000	-0.033	-0.043	.0001	.0002	.0023	-0.000	.0007
#2	.0001	-0.000	-0.020	-0.047	.0001	-0.002	.0021	.0002	.0007
#3	.0000	-0.000	-0.015	-0.043	.0001	-0.000	.0027	.0001	.0003
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040	
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	
Avg	.0000	.0015	-0.0001	-0.0010	-0.0002	-0.0032	-0.0058	-0.0002	
Stddev	.0000	.0001	.0000	.0001	.0001	.0006	.0001	.0000	
%RSD	53.22	9.892	12.49	15.24	63.93	19.42	8.588	21.94	
#1	.0000	.0016	-0.001	-0.008	-0.004	-0.029	-0.059	-0.003	
#2	.0001	.0013	-0.001	-0.009	-0.002	-0.039	-0.058	-0.002	
#3	.0000	.0015	-0.001	-0.011	-0.001	-0.028	-0.058	-0.002	

Sample Name: STDA Acquired: 10/10/2019 10:32:39 Type: Cal
 Method: SGS 070219(v291) Mode: IR Corr. Factor: 1.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	100650	14542	3388.8	8057.2
Stddev	448	15	12.6	32.3
%RSD	.44513	.10630	.37182	.40040
#1	100670	14536	3375.6	8022.6
#2	100200	14559	3390.3	8062.5
#3	101090	14530	3400.6	8086.4

Sample Name: STDB Acquired: 10/10/2019 10:37:47 Type: Cal
 Method: SGS 070219(v291) Mode: IR Corr. Factor: 1.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7.464	4.379	3.495	1.811	1.150	.6209	.7995	1.377	.0452
Stddev	.038	.020	.012	.005	.003	.0009	.0018	.004	.0000
%RSD	.5040	.4453	.3404	.2522	.2052	.1454	.2236	.2907	.0408
#1	7.476	4.386	3.492	1.809	1.153	.6219	.8011	1.376	.0453
#2	7.494	4.394	3.486	1.807	1.151	.6203	.7998	1.373	.0452
#3	7.422	4.357	3.509	1.816	1.157	.6205	.7975	1.381	.0452
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.3413	4.353	4.377	2.183	.6097	.3586	.6568	2.837	2.984
Stddev	.0006	.013	.0012	.0005	.0017	.0011	.0014	.013	.015
%RSD	.1849	.2899	.2723	.2466	.2785	.3021	.2073	.4418	.4859
#1	.3419	4.360	4.372	2.182	.6089	.3580	.6554	2.838	2.986
#2	.3414	4.338	4.368	2.178	.6085	.3579	.6569	2.849	2.997
#3	.3407	4.360	4.390	2.188	.6116	.3598	.6581	2.824	2.968
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.7925	1.158	2.176	7.186	.8060	3.253	2.065	7.158	12.49
Stddev	.0030	.0007	.011	.034	.0039	.010	.005	.0020	.07
%RSD	.3849	.3732	.4926	4.717	4.854	.2977	.2457	.2746	.5596
#1	.7922	1.160	2.178	7.196	8033	3.250	2.061	7.169	12.52
#2	.7956	1.164	2.186	7.215	8043	3.245	2.062	7.136	12.54
#3	.7896	1.151	2.164	7.149	8105	3.264	2.070	7.171	12.41
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040	
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	
Avg	.2536	1.627	1.153	1.776	.7461	2.515	.3576	.1283	
Stddev	.0005	.007	.002	.0005	.0025	.010	.0014	.0002	
%RSD	.1884	.4057	.1537	.2933	.3383	.3871	.3899	.1641	
#1	.2539	1.626	1.155	1.773	.7447	2.518	.3572	.1285	
#2	.2539	1.621	1.152	1.772	.7446	2.524	.3565	.1284	
#3	.2531	1.634	1.152	1.782	.7490	2.505	.3592	.1281	

Sample Name: STDB Acquired: 10/10/2019 10:37:47 Type: Cal
 Method: SGS 070219(v291) Mode: IR Corr. Factor: 1.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	96231.	14587.	3249.7	7150.6
Stddev	318.	41.	7.1	15.4
%RSD	.33026	.28213	.21727	.21598
#1	95955.	14597.	3251.2	7157.7
#2	96159.	14541.	3255.8	7161.3
#3	96578.	14622.	3242.0	7132.9

Sample Name: cvconf Acquired: 10/10/2019 10:42:33 Type: QC
Method: SGS 070219(v291) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Table with columns: Elem, Units, Avg, Stddev, %RSD, and 10 elements (Ba4554 to Ag3280). Includes rows for #1, #2, #3.

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
Value Range

Table with columns: Elem, Units, Avg, Stddev, %RSD, and 10 elements (V_2924 to Ca3179). Includes rows for #1, #2, #3.

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
Value Range

Table with columns: Elem, Units, Avg, Stddev, %RSD, and 10 elements (Fe2599 to Sr4077). Includes rows for #1, #2, #3.

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
Value Range

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Sample Name: cvconf Acquired: 10/10/2019 10:42:33 Type: QC
Method: SGS 070219(v291) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Table with columns: Elem, Units, Avg, Stddev, %RSD, and 10 elements (Ti3349 to Ce4040). Includes rows for #1, #2, #3.

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
Value Range

Table with columns: Int. Std. Units, Avg, Stddev, %RSD, and 4 elements (Y_3600 to In2306). Includes rows for #1, #2, #3.

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
Value Range

Table with columns: Int. Std. Units, Avg, Stddev, %RSD, and 4 elements (Y_3600 to In2306). Includes rows for #1, #2, #3.

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11.4 11

Sample Name: ccbconf Acquired: 10/10/2019 10:47:19 Type: QC
Method: SGS 070219(v291) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Table with columns: Elem, Units, Avg, Stddev, %RSD, and 10 elements (Ba4554 to Ag3280). Includes rows for #1, #2, #3.

Check ? Chk Pass Chk Fail Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
High Limit Low Limit

Table with columns: Elem, Units, Avg, Stddev, %RSD, and 10 elements (V_2924 to Ca3179). Includes rows for #1, #2, #3.

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
High Limit Low Limit

Table with columns: Elem, Units, Avg, Stddev, %RSD, and 10 elements (Fe2599 to Sr4077). Includes rows for #1, #2, #3.

Check ? Chk Fail Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
High Limit Low Limit

Raw Data MA47607 page 7 of 141

Sample Name: ccbconf Acquired: 10/10/2019 10:47:19 Type: QC
Method: SGS 070219(v291) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Table with columns: Elem, Units, Avg, Stddev, %RSD, and 10 elements (Ti3349 to Ce4040). Includes rows for #1, #2, #3.

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
High Limit Low Limit

Table with columns: Int. Std. Units, Avg, Stddev, %RSD, and 4 elements (Y_3600 to In2306). Includes rows for #1, #2, #3.

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
High Limit Low Limit

Table with columns: Int. Std. Units, Avg, Stddev, %RSD, and 4 elements (Y_3600 to In2306). Includes rows for #1, #2, #3.

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Sample Name: icv 1 Acquired: 10/10/2019 11:14:10 Type: QC
 Method: SGS 070219(v291) Mode: CONC Corr. Factor: 1.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.977	2.017	2.004	1.908	1.994	1.958	1.983	1.968
Stddev	.003	.001	.002	.002	.009	.003	.005	.001
%RSD	.1582	.0318	.0883	.0847	.4678	.1325	.2782	.0721
#1	1.973	2.017	2.005	1.909	1.984	1.959	1.977	1.969
#2	1.978	2.016	2.005	1.908	2.002	1.960	1.987	1.969
#3	1.978	2.017	2.002	1.906	1.996	1.955	1.986	1.967
Check ? Value Range	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.504	2.048	1.971	2.003	2.007	1.941	2.007	2.006
Stddev	.005	.004	.004	.007	.003	.004	.006	.004
%RSD	.1807	.1793	.2134	.3725	.1367	.2163	.2934	.2246
#1	.2499	2.044	1.975	2.004	2.010	1.944	2.008	2.010
#2	.2507	2.050	1.967	2.009	2.004	1.936	2.013	2.007
#3	.2506	2.051	1.971	1.995	2.006	1.943	2.001	2.001
Check ? Value Range	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	38.50	39.43	39.53	38.87	39.61	40.44	2.030	2.008
Stddev	.03	.10	.03	.12	.10	.07	.011	.004
%RSD	.0687	.2447	.0779	.3122	.2505	.1744	.5581	.1761
#1	38.48	39.38	39.52	39.01	39.52	40.37	2.031	2.010
#2	38.49	39.37	39.51	38.80	39.60	40.45	2.041	2.010
#3	38.53	39.55	39.56	38.81	39.72	40.51	2.019	2.004
Check ? Value Range	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass

Sample Name: icv 1 Acquired: 10/10/2019 11:14:10 Type: QC
 Method: SGS 070219(v291) Mode: CONC Corr. Factor: 1.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 5.393	2.009	1.968	2.006	F 1.899	1.992	1.959	2.046
Stddev	.014	.007	.002	.007	.004	.003	.011	.007
%RSD	.2507	.3499	.0940	.3519	.2097	.1538	.5404	.3502
#1	5.389	2.016	1.966	1.998	1.894	1.989	1.961	2.048
#2	5.408	2.009	1.969	2.008	1.899	1.994	1.969	2.052
#3	5.381	2.002	1.968	2.011	1.902	1.994	1.948	2.038
Check ? Value Range	Chk Fail 5.000%	Chk Pass	Chk Pass	Chk Pass	Chk Fail 2.000 -5.000%	Chk Pass	Chk Pass	Chk Pass
Elem	Li6707	P_1774	Ce4040					
Units	ppm	ppm	ppm					
Avg	2.031	1.929	F -.0677					
Stddev	.004	.005	.0009					
%RSD	.1852	.2562	1.365					
#1	2.027	1.935	-.0680					
#2	2.031	1.928	-.0685					
#3	2.034	1.925	-.0667					
Check ? Value Range	Chk Pass	Chk Pass	Chk Fail 2.000 -5.000%					
Int. Std.	Y_3600	Y_3710	Y_2243	In2306				
Units	Cts/S	Cts/S	Cts/S	Cts/S				
Avg	98031.	14717.	3327.4	7431.1				
Stddev	396.	18.	1.8	5.0				
%RSD	.40366	.12562	.05372	.06676				
#1	98486.	14731.	3325.4	7431.6				
#2	97836.	14723.	3328.0	7435.8				
#3	97771.	14696.	3328.8	7425.9				

Sample Name: icb 7 Acquired: 10/10/2019 11:23:35 Type: QC
 Method: SGS 070219(v291) Mode: CONC Corr. Factor: 1.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0001	.0001	.0001	.0003	-.0001	.0008	-.0000	.0001	.0005
Stddev	.0001	.0001	.0002	.0001	.0003	.0004	.0001	.0001	.0001
%RSD	107.2	73.08	314.1	22.58	237.6	52.09	543.8	118.7	15.58
#1	.0002	.0002	.0003	.0004	-.0004	.0013	.0000	.0000	.0006
#2	-.0000	.0000	-.0001	.0003	-.0003	.0007	-.0001	.0001	.0004
#3	.0001	.0001	-.0000	.0002	.0002	.0005	.0000	.0002	.0005
Check ? High Limit Low Limit	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0001	-.0006	.0007	-.0006	-.0003	.0022	-.0004	.0020	-.0011
Stddev	.0003	.0000	.0005	.0010	.0008	.0015	.0013	.0020	.0023
%RSD	401.4	7.612	65.93	171.2	247.7	69.75	301.0	100.6	214.6
#1	-.0003	-.0006	.0007	-.0017	.0006	.0039	-.0014	.0008	-.0007
#2	.0001	-.0006	.0012	-.0004	-.0010	.0011	.0011	.0044	-.0036
#3	.0004	-.0006	.0003	.0003	-.0005	.0015	-.0010	.0009	.0010
Check ? High Limit Low Limit	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0004	-.0139	.0337	-.0192	.0023	.0003	-.0002	-.0001	-.0000
Stddev	.0018	.0190	.0159	.0049	.0005	.0002	.0005	.0008	.0000
%RSD	491.6	136.8	47.26	25.24	20.08	66.64	345.2	1085.	72.30
#1	-.0005	-.0149	.0218	-.0139	.0020	.0003	-.0005	.0005	-.0000
#2	.0024	-.0056	.0518	-.0234	.0029	.0001	-.0004	.0002	-.0000
#3	-.0008	-.0323	.0275	-.0205	.0021	.0006	-.0005	-.0010	-.0000
Check ? High Limit Low Limit	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass

Sample Name: icb 7 Acquired: 10/10/2019 11:23:35 Type: QC
 Method: SGS 070219(v291) Mode: CONC Corr. Factor: 1.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0001	F .0106	.0004	-.0019	-.0014	.0011	-.0018	.0032
Stddev	.0003	.0007	.0001	.0024	.0009	.0008	.0011	.0005
%RSD	333.9	7.057	12.80	126.1	64.19	74.44	58.81	15.09
#1	.0002	.0100	.0004	.0008	-.0004	.0020	-.0023	.0027
#2	.0003	.0114	.0005	-.0026	-.0022	.0008	-.0006	.0037
#3	-.0002	.0103	.0004	-.0039	-.0015	.0005	-.0026	.0033
Check ? High Limit Low Limit	Chk Pass	Chk Fail .0063 -.0063	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Int. Std.	Y_3600	Y_3710	Y_2243	In2306				
Units	Cts/S	Cts/S	Cts/S	Cts/S				
Avg	101500.	14581.	3418.8	8151.3				
Stddev	429.	61.	9.7	25.7				
%RSD	.42310	.42112	.28281	.31507				
#1	101170.	14567.	3429.8	8180.7				
#2	101350.	14648.	3415.2	8140.0				
#3	101980.	14528.	3411.5	8133.3				

Sample Name: iccv 1 Acquired: 10/10/2019 11:29:07 Type: QC
 Method: SGS 070219(v291) Mode: CONC Corr. Factor: 1.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.991	2.001	2.006	1.965	2.045	1.958	2.034	1.997	2.476
Stddev	.012	.012	.003	.002	.006	.004	.002	.002	.0005
%RSD	.6088	.6088	.1509	.0922	.3071	.1912	.1096	.1057	.1927
#1	2.008	2.019	2.008	1.967	2.051	1.959	2.035	2.000	2.472
#2	1.988	1.999	2.002	1.963	2.049	1.955	2.033	1.997	2.474
#3	1.984	1.991	2.005	1.965	2.042	1.963	2.036	1.996	2.483
#4	1.982	1.994	2.008	1.964	2.037	1.955	2.031	1.995	2.476

Check ? Value Range Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.021	2.022	1.986	2.025	2.020	1.968	2.001	40.10	40.73
Stddev	.003	.004	.004	.004	.007	.005	.003	.25	.26
%RSD	.1417	.2112	.1889	.1946	.3256	.2551	.1715	.6315	.6406
#1	2.024	2.026	1.990	2.028	2.020	1.975	2.005	40.48	41.10
#2	2.022	2.022	1.983	2.022	2.012	1.964	1.998	40.03	40.68
#3	2.021	2.023	1.989	2.029	2.019	1.967	2.001	39.91	40.48
#4	2.017	2.016	1.983	2.029	2.028	1.965	1.998	39.99	40.67

Check ? Value Range Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass

Sample Name: iccv 1 Acquired: 10/10/2019 11:29:07 Type: QC
 Method: SGS 070219(v291) Mode: CONC Corr. Factor: 1.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	40.76	40.41	40.22	40.20	2.005	2.032	5.396	2.048	1.985
Stddev	.30	.26	.19	.22	.003	.001	.007	.003	.012
%RSD	.7412	.6496	.4621	.5457	.1224	.0600	.1248	.1294	.5970
#1	41.22	40.78	40.49	40.53	2.004	2.033	5.394	2.049	2.002
#2	40.60	40.28	40.15	40.15	2.003	2.030	5.388	2.051	1.982
#3	40.61	40.18	40.08	40.04	2.008	2.032	5.400	2.046	1.979
#4	40.64	40.38	40.16	40.10	2.007	2.031	5.403	2.046	1.976

Check ? Value Range Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Fail 5.000% Chk Pass Chk Pass

Elem	Tl3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.050	2.026	2.019	1.934	2.002	1.991	1.985	2.047
Stddev	.003	.001	.002	.008	.005	.011	.006	.004
%RSD	.1205	.0514	.1070	.4048	.2403	.5699	.3059	.2021
#1	2.050	2.026	2.021	1.935	2.004	2.007	1.992	2.050
#2	2.052	2.026	2.018	1.925	1.995	1.991	1.986	2.049
#3	2.052	2.028	2.018	1.944	2.005	1.982	1.977	2.048
#4	2.047	2.026	2.016	1.933	2.005	1.985	1.985	2.041

Check ? Value Range Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass

Sample Name: iccv 1 Acquired: 10/10/2019 11:29:07 Type: QC
 Method: SGS 070219(v291) Mode: CONC Corr. Factor: 1.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	97584.	14527.	3332.4	7453.6
Stddev	205.	89.	3.8	8.8
%RSD	.21025	.61605	.11404	.11838
#1	97518.	14438.	3327.1	7440.8
#2	97367.	14587.	3334.6	7460.5
#3	97595.	14620.	3332.4	7454.9
#4	97858.	14464.	3335.6	7458.2

Sample Name: ccb 7 Acquired: 10/10/2019 11:38:58 Type: QC
 Method: SGS 070219(v291) Mode: CONC Corr. Factor: 1.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0002	F .0004	.0001	.0003	.0001	.0006	.0002	-.0001	.0002
Stddev	.0001	.0001	.0001	.0001	.0001	.0004	.0001	.0002	.0001
%RSD	48.04	23.25	265.3	27.10	694.2	69.12	45.13	371.8	93.52
#1	.0001	.0004	.0001	.0003	-.0002	.0006	.0003	.0001	-.0000
#2	.0003	.0004	.0002	.0003	.0005	.0010	.0003	-.0003	.0002
#3	.0002	.0003	-.0001	.0002	-.0002	.0002	.0001	.0000	.0003

Check ? High Limit Low Limit Chk Pass Chk Fail Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0003	-.0003	.0003	.0002	.0009	.0019	-.0003	.0045	.0026
Stddev	.0001	.0001	.0010	.0012	.0006	.0032	.0004	.0033	.0042
%RSD	35.93	31.04	350.6	515.6	69.38	164.0	133.0	72.89	158.9
#1	.0004	-.0003	-.0003	-.0004	.0015	.0055	-.0003	.0058	.0002
#2	.0002	-.0004	.0015	-.0005	.0005	.0008	.0001	.0069	.0075
#3	.0004	-.0002	-.0003	.0016	.0005	-.0005	-.0008	.0008	.0003

Check ? High Limit Low Limit Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0091	-.0089	.0386	-.0020	.0031	.0006	.0009	.0001	.0003
Stddev	.0041	.0235	.0153	.0089	.0003	.0001	.0018	.0006	.0000
%RSD	45.73	263.9	39.48	450.6	10.44	10.24	204.5	400.9	17.55
#1	.0080	-.0344	.0368	-.0022	.0033	.0007	.0003	.0002	.0003
#2	.0055	-.0043	.0244	.0070	.0032	.0006	.0028	.0007	.0003
#3	.0136	.0120	.0547	-.0107	.0027	.0006	-.0006	-.0004	.0002

Check ? High Limit Low Limit Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass

Sample Name: ccb 7 Acquired: 10/10/2019 11:38:58 Type: QC
 Method: SGS 070219(v291) Mode: CONC Corr. Factor: 1.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0004	.0046	.0003	-.0043	-.0009	.0015	-.0013	.0008
Stddev	.0000	.0005	.0001	.0016	.0012	.0006	.0016	.0010
%RSD	9.696	11.68	39.64	37.40	128.3	38.95	125.4	125.4
#1	.0004	.0040	.0005	-.0045	-.0010	.0015	-.0003	.0006
#2	.0005	.0051	.0003	-.0059	.0003	.0010	-.0032	-.0001
#3	.0004	.0048	.0003	-.0027	-.0021	.0022	-.0004	.0018

Check ? High Limit Low Limit
 Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	101220.	14683.	3436.8	8175.3
Stddev	57.	52.	7.5	20.9
%RSD	.05606	.35499	.21923	.25554
#1	101280.	14673.	3439.7	8182.4
#2	101170.	14740.	3428.2	8151.7
#3	101210.	14637.	3442.5	8191.6

Sample Name: cri Acquired: 10/10/2019 11:49:57 Type: QC
 Method: SGS 070219(v291) Mode: CONC Corr. Factor: 1.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2004	.0021	.0031	.0495	.0108	.0110	.0162	.0101	.0052
Stddev	.0005	.0001	.0002	.0001	.0005	.0000	.0001	.0004	.0004
%RSD	.2701	4.805	5.301	.2475	4.863	.1598	.4155	3.829	8.071
#1	.1998	.0020	.0029	.0494	.0103	.0110	.0162	.0106	.0055
#2	.2006	.0022	.0032	.0495	.0109	.0110	.0162	.0099	.0047
#3	.2008	.0021	.0032	.0497	.0113	.0110	.0161	.0099	.0054

Check ? Value Range
 Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0525	.0199	.0084	.0101	.0025	.0112	.0061	.2070	5.376
Stddev	.0001	.0002	.0013	.0004	.0006	.0015	.0009	.0087	.030
%RSD	.2611	.8572	15.37	4.016	23.48	13.76	15.55	4.224	.5666
#1	.0526	.0200	.0086	.0100	.0026	.0100	.0057	.1977	5.341
#2	.0524	.0197	.0071	.0106	.0019	.0129	.0072	.2083	5.390
#3	.0525	.0201	.0096	.0098	.0031	.0107	.0054	.2150	5.396

Check ? Value Range
 Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1131	5.248	5.151	5.142	.1053	.0218	.2239	.0103	.0098
Stddev	.0075	.010	.024	.020	.0001	.0001	.0017	.0009	.0001
%RSD	6.645	.1917	.4559	.3927	.1036	.6282	.7610	9.243	.6656
#1	.1119	5.237	5.127	5.120	.1052	.0218	.2219	.0097	.0098
#2	.1063	5.253	5.174	5.147	.1053	.0216	.2247	.0114	.0099
#3	.1212	5.256	5.150	5.160	.1054	.0219	.2251	.0097	.0098

Check ? Value Range
 Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass

Sample Name: cri Acquired: 10/10/2019 11:49:57 Type: QC
 Method: SGS 070219(v291) Mode: CONC Corr. Factor: 1.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0101	.0548	.0114	.0546	.0233	.0567	.0478	.0025
Stddev	.0005	.0013	.0002	.0013	.0006	.0018	.0013	.0018
%RSD	4.520	2.376	1.829	2.321	2.670	3.209	2.759	73.41
#1	.0097	.0545	.0114	.0549	.0234	.0547	.0494	.0040
#2	.0101	.0536	.0116	.0532	.0238	.0581	.0471	.0031
#3	.0106	.0562	.0112	.0557	.0226	.0574	.0471	.0004

Check ? Value Range
 Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass None

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	98877.	14547.	3386.9	7957.0
Stddev	270.	73.	6.0	9.3
%RSD	.27286	.50332	.17772	.11630
#1	98654.	14631.	3393.8	7967.2
#2	98800.	14512.	3383.9	7949.1
#3	99177.	14498.	3382.9	7954.8

Sample Name: crid Acquired: 10/10/2019 11:55:06 Type: QC
 Method: SGS 070219(v291) Mode: CONC Corr. Factor: 1.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0040	.0010	.0010	.0031	.0019	F .0013	.0032	.0039
Stddev	.0002	.0001	.0002	.0004	.0001	.0004	.0001	.0003
%RSD	3.779	8.297	18.15	12.24	6.624	28.16	1.847	6.766
#1	.0039	.0009	.0009	.0034	.0019	.0012	.0032	.0037
#2	.0040	.0010	.0012	.0033	.0018	.0010	.0031	.0038
#3	.0042	.0011	.0008	.0027	.0020	.0017	.0033	.0042

Check ? Value Range
 Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Fail -30.00% Chk Pass Chk Pass

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F .0000	.0019	.0079	.0029	F .0025	F .0008	.0049	F .0006
Stddev	.0002	.0002	.0001	.0015	.0011	.0008	.0007	.0006
%RSD	709.4	8.328	.7868	52.42	43.46	107.2	14.38	99.15
#1	.0001	.0018	.0078	.0013	.0015	-.0002	.0050	.0007
#2	.0003	.0021	.0079	.0030	.0036	.0012	.0041	.0010
#3	-.0002	.0019	.0080	.0044	.0025	.0014	.0055	-.0001

Check ? Value Range
 Chk Fail .0020 Chk Pass Chk Pass Chk Pass Chk Fail .0020 Chk Fail .0025 Chk Pass Chk Fail .0300

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0977	1.039	.0052	.0798	2.033	.9995	F .0012	.0003
Stddev	.0013	.006	.0050	.0379	.009	.0077	.0013	.0002
%RSD	1.317	.6223	96.23	47.43	.4405	.7708	107.8	81.04
#1	.0991	1.034	.0103	.0419	2.023	1.008	.0027	.0000
#2	.0966	1.037	.0052	.0800	2.037	.9941	.0002	.0004
#3	.0973	1.047	.0002	.1176	2.039	.9961	.0007	.0004

Check ? Value Range
 Chk Pass Chk Pass None Chk Pass Chk Pass Chk Pass Chk Fail .0100 -30.00%

Sample Name: ICSAB Acquired: 10/10/2019 12:05:24 Type: QC
Method: SGS 070219(v291) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Table with 9 columns: Elem, Ti3349, W_2079, Zr3391, S_1820, Bi2230, Li6707, P_1774, Ce4040. Rows include Units, Avg, Stddev, %RSD.

Table with 9 columns: #1, #2, #3 and 9 data columns corresponding to the elements above.

Check ? Value Range table with 9 columns: Chk Pass, Chk Pass, Chk Pass, Chk Pass, Chk Pass, Chk Pass, Chk Pass, Chk Pass, None.

Int. Std. Units table with 4 columns: Y_3600, Y_3710, Y_2243, In2306. Rows include Avg, Stddev, %RSD.

Table with 4 columns: #1, #2, #3 and 4 data columns corresponding to the elements above.

Sample Name: hstd 7 Acquired: 10/10/2019 12:10:19 Type: QC
Method: SGS 070219(v291) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Table with 12 columns: Elem, Ba4554, Be3130, Cd2288, Co2286, Cr2677, Cu3247, Mn2576, Ni2316, Ag3280. Rows include Units, Avg, Stddev, %RSD.

Table with 12 columns: #1, #2, #3 and 12 data columns corresponding to the elements above.

Check ? Value Range table with 12 columns: Chk Pass, Chk Pass, Chk Pass, Chk Pass, Chk Pass, Chk Pass, Chk Pass, Chk Pass, Chk Pass, Chk Pass, Chk Pass, Chk Pass.

Table with 11 columns: Elem, V_2924, Zn2062, As1890, Tl1908, Pb2203, Se1960, Sb2068, Al3961, Ca3179. Rows include Units, Avg, Stddev, %RSD.

Table with 11 columns: #1, #2, #3 and 11 data columns corresponding to the elements above.

Check ? Value Range table with 11 columns: Chk Pass, Chk Pass, Chk Pass, Chk Pass, Chk Pass, Chk Pass, Chk Pass, Chk Pass, None, None.

Table with 10 columns: Elem, Fe2599, Mg2790, K_7664, Na5895, B_2089, Mo2020, Si2124, Sn1899, Sr4077. Rows include Units, Avg, Stddev, %RSD.

Table with 10 columns: #1, #2, #3 and 10 data columns corresponding to the elements above.

Check ? Value Range table with 10 columns: None, None, None, None, Chk Pass, Chk Pass, Chk Fail, Chk Pass, Chk Pass, 25.00%.

Sample Name: hstd 7 Acquired: 10/10/2019 12:10:19 Type: QC
Method: SGS 070219(v291) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Table with 9 columns: Elem, Ti3349, W_2079, Zr3391, S_1820, Bi2230, Li6707, P_1774, Ce4040. Rows include Units, Avg, Stddev, %RSD.

Table with 9 columns: #1, #2, #3 and 9 data columns corresponding to the elements above.

Check ? Value Range table with 9 columns: Chk Pass, Chk Pass, Chk Pass, Chk Pass, Chk Pass, Chk Pass, Chk Pass, Chk Pass, None.

Int. Std. Units table with 4 columns: Y_3600, Y_3710, Y_2243, In2306. Rows include Avg, Stddev, %RSD.

Table with 4 columns: #1, #2, #3 and 4 data columns corresponding to the elements above.

Sample Name: hstd Acquired: 10/10/2019 12:15:32 Type: QC
Method: SGS 070219(v291) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Table with 12 columns: Elem, Ba4554, Be3130, Cd2288, Co2286, Cr2677, Cu3247, Mn2576, Ni2316, Ag3280. Rows include Units, Avg, Stddev, %RSD.

Table with 12 columns: #1, #2, #3 and 12 data columns corresponding to the elements above.

Check ? Value Range table with 12 columns: None, None, None, None, None, None, None, None, None, None, None, None.

Table with 11 columns: Elem, V_2924, Zn2062, As1890, Tl1908, Pb2203, Se1960, Sb2068, Al3961, Ca3179. Rows include Units, Avg, Stddev, %RSD.

Table with 11 columns: #1, #2, #3 and 11 data columns corresponding to the elements above.

Check ? Value Range table with 11 columns: None, None, None, None, None, None, None, None, Chk Pass, Chk Pass.

Table with 10 columns: Elem, Fe2599, Mg2790, K_7664, Na5895, B_2089, Mo2020, Si2124, Sn1899, Sr4077. Rows include Units, Avg, Stddev, %RSD.

Table with 10 columns: #1, #2, #3 and 10 data columns corresponding to the elements above.

Check ? Value Range table with 10 columns: Chk Pass, Chk Pass, Chk Pass, Chk Pass, None, None, None, None, Chk Pass, Chk Pass.

Sample Name: hstd Acquired: 10/10/2019 12:15:32 Type: QC
Method: SGS 070219(v291) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.004	.0069	-0.002	-0.0153	-0.008	.0047	.0021	.0557
Stddev	.0003	.0008	.0002	.0018	.0004	.0014	.0002	.0016
%RSD	77.95	10.97	114.1	11.96	51.74	30.94	8.433	2.944
#1	-0.007	.0074	.0001	-0.0142	-0.011	.0057	.0022	.0554
#2	-0.003	.0074	-0.003	-0.0174	-0.003	.0030	.0022	.0575
#3	-0.001	.0061	-0.003	-0.0142	-0.010	.0053	.0019	.0542
Check ?	None	None	None	None	None	None	None	None
Value								
Range								
Int. Std.	Y_3600	Y_3710	Y_2243	In2306				
Units	Cts/S	Cts/S	Cts/S	Cts/S				
Avg	89783.	14140.	3151.9	6622.6				
Stddev	87.	253.	2.8	3.6				
%RSD	.09744	1.7919	.08982	.05404				
#1	89791.	13897.	3153.3	6626.3				
#2	89867.	14120.	3148.7	6619.2				
#3	89692.	14403.	3153.8	6622.2				

Sample Name: feconf Acquired: 10/10/2019 12:20:49 Type: Unk
Method: SGS 070219(v291) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000	.0004	.0004	-0.0011	-0.0011	-0.0012	.0004	-0.0006
Stddev	.0001	.0000	.0003	.0002	.0004	.0003	.0000	.0004
%RSD	320.4	5.229	63.78	16.86	32.65	27.36	6.871	54.68
#1	-0.000	.0004	.0007	-0.0010	-0.0016	-0.0013	.0004	-0.0006
#2	.0002	.0005	.0004	-0.0013	-0.0011	-0.0009	.0004	-0.0010
#3	-0.000	.0004	.0001	-0.0009	-0.0008	-0.0016	.0004	-0.0003
Elem	Ag3280	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0017	-0.0024	W -0.0032	-0.0006	.0033	.0004	.0013	.0035
Stddev	.0002	.0001	.0002	.0001	.0016	.0006	.0014	.0005
%RSD	10.51	5.671	7.754	17.09	46.73	138.6	108.8	15.30
#1	-0.0016	-0.0025	-0.0034	-0.0005	.0047	.0003	.0001	.0031
#2	-0.0016	-0.0022	-0.0029	-0.0007	.0036	-0.0001	.0009	.0033
#3	-0.0019	-0.0025	-0.0032	-0.0006	.0017	.0010	.0028	.0041
Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0028	-0.0254	F 203.3	-0.471	.1451	.0307	.0016	.0010
Stddev	.0056	.0009	.5	.0359	.0236	.0022	.0004	.0001
%RSD	203.8	3.654	.2675	76.05	16.24	7.115	24.01	11.78
#1	.0065	-0.0247	202.9	-0.0810	.1705	.0293	.0018	.0010
#2	-0.0037	-0.0250	203.0	-0.0096	.1238	.0333	.0012	.0010
#3	.0055	-0.0264	203.9	-0.0508	.1411	.0297	.0019	.0008
Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0022	.0001	-0.0005	.0002	.0031	-0.0008	.0040	.0026
Stddev	.0008	.0007	.0001	.0003	.0011	.0001	.0014	.0001
%RSD	36.31	588.2	11.94	146.2	33.70	6.544	33.60	5.518
#1	-0.0029	.0004	-0.0005	.0005	.0030	-0.0008	.0028	.0025
#2	-0.0022	.0006	-0.0004	-0.0001	.0043	-0.0009	.0038	.0025
#3	-0.0014	-0.0006	-0.0005	.0003	.0022	-0.0008	.0055	.0028

Sample Name: feconf Acquired: 10/10/2019 12:20:49 Type: Unk
Method: SGS 070219(v291) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Li6707	P_1774	Ce4040	
Units	ppm	ppm	ppm	
Avg	.0011	.0044	.0602	
Stddev	.0003	.0008	.0009	
%RSD	24.88	17.76	1.447	
#1	.0008	.0038	.0593	
#2	.0013	.0053	.0610	
#3	.0012	.0041	.0603	
Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	98299.	14789.	3418.4	8096.2
Stddev	489.	62.	5.8	10.5
%RSD	.49730	.41724	.17046	.13009
#1	97762.	14808.	3412.4	8084.5
#2	98717.	14802.	3418.9	8099.5
#3	98419.	14698.	3424.1	8104.7

Sample Name: crconf Acquired: 10/10/2019 12:26:00 Type: Unk
Method: SGS 070219(v291) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000	.0000	.0000	.0011	F 10.94	-0.0002	-0.0001	-0.0000	-0.0006
Stddev	.0002	.0001	.0003	.0002	.01	.0004	.0001	.0002	.0002
%RSD	1363.	207.0	620.5	22.22	.1050	240.9	45.97	1087.	38.98
#1	.0003	.0002	.0000	.0009	10.93	.0001	-0.0001	-0.0001	-0.0006
#2	-0.0002	.0000	.0003	.0013	10.93	.0000	-0.0002	-0.0002	-0.0004
#3	-0.0001	-0.0000	-0.0002	.0011	10.95	-0.0007	-0.0001	.0002	-0.0008
Elem	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0015	-0.0017	.0002	.0005	-0.0004	.0006	.0000	-0.0031	-0.0030
Stddev	.0003	.0001	.0003	.0007	.0006	.0009	.0002	.0051	.0021
%RSD	19.37	3.328	193.3	129.9	124.6	140.7	395.2	164.4	70.95
#1	.0016	-0.0017	-0.0001	.0013	-0.0010	-0.0001	-0.0001	-0.0062	-0.0010
#2	.0011	-0.0018	.0001	.0005	.0001	.0003	.0002	.0028	-0.0052
#3	.0016	-0.0016	.0005	-0.0001	-0.0005	.0016	.0001	-0.0059	-0.0027
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0159	-0.0124	.0795	.0119	.0029	.0007	.0058	-0.0011	.0001
Stddev	.0038	.0125	.0115	.0034	.0007	.0003	.0006	.0012	.0000
%RSD	24.10	100.8	14.46	28.17	23.73	46.29	11.10	104.7	70.88
#1	.0177	.0014	.0721	.0083	.0034	.0006	.0060	-0.0008	.0000
#2	.0185	-0.0158	.0736	.0126	.0032	.0005	.0063	-0.0002	.0001
#3	.0115	-0.0229	.0927	.0149	.0021	.0011	.0051	-0.0025	.0001
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040	
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	.0001	.0062	.0063	-0.0015	-0.0039	.0002	.0019	.0017	
Stddev	.0003	.0005	.0001	.0019	.0014	.0005	.0003	.0037	
%RSD	507.6	7.686	1.722	126.5	36.22	240.4	17.30	225.2	
#1	.0002	.0057	.0063	-0.0008	-0.0036	-0.0001	.0022	.0020	
#2	-0.0003	.0062	.0063	-0.0037	-0.0054	-0.0000	.0016	-0.0022	
#3	.0002	.0066	.0065	-0.0001	-0.0027	.0008	.0017	.0052	

Zoom In
Zoom Out

Sample Name: crconf Acquired: 10/10/2019 12:26:00 Type: Unk
Method: SGS 070219(v291) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	99792	14740	3406.2	8154.1
Stddev	36	74	3.5	7.4
%RSD	.03623	.50356	.10326	.09068
#1	99791	14799	3407.2	8147.3
#2	99829	14764	3402.3	8153.2
#3	99756	14656	3409.1	8162.0

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Zoom In
Zoom Out

Sample Name: asconf Acquired: 10/10/2019 12:31:10 Type: Unk
Method: SGS 070219(v291) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.001	0.000	-0.005	-0.006	-0.004	0.003	-0.001	0.001
Stddev	.0001	.0000	.0001	.0002	.0002	.0002	.0001	.0003
%RSD	184.1	138.6	26.68	37.19	38.70	57.62	83.48	204.8
#1	-0.001	-0.000	-0.004	-0.004	-0.003	.0002	-0.001	.0002
#2	-0.001	.0000	-0.006	-0.008	-0.006	.0002	-0.000	-0.002
#3	.0001	.0000	-0.005	-0.007	-0.003	.0005	-0.001	.0004

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.011	0.001	W -0.027	5.245	-0.005	-0.006	0.014	0.001
Stddev	.0001	.0004	.0002	.019	.0006	.0015	.0027	.0012
%RSD	12.82	296.4	5.974	.3683	104.4	275.6	197.0	1709.
#1	-0.010	.0005	-0.027	5.225	-0.003	.0003	.0005	-0.003
#2	-0.013	.0001	-0.026	5.263	-0.001	-.0023	.0044	.0014
#3	-0.012	-0.002	-0.029	5.248	-0.012	.0004	-0.008	-0.009

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	0.056	-0.071	0.049	-0.329	0.061	0.051	0.016	0.001
Stddev	.0062	.0011	.0043	.0201	.0180	.0024	.0007	.0003
%RSD	111.5	14.84	88.39	61.14	27.18	47.60	42.10	471.2
#1	-0.009	-0.064	.0029	-.0120	.0798	.0023	.0010	-0.002
#2	.0116	-0.067	.0019	-.0346	.0726	.0061	.0024	.0004
#3	.0060	-0.084	.0098	-.0520	.0458	.0069	.0015	.0000

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	0.053	-0.001	0.000	0.001	0.003	-0.001	-0.048	-0.012
Stddev	.0005	.0006	.0001	.0004	.0007	.0001	.0026	.0005
%RSD	9.882	617.1	145.4	313.8	229.5	193.9	55.18	41.12
#1	.0051	.0005	.0001	.0005	.0009	.0001	-.0046	-.0017
#2	.0049	-0.001	.0000	-.0002	-.0004	-.0001	-.0022	-.0012
#3	.0059	-0.008	.0000	.0001	.0003	-.0001	-.0075	-.0007

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11.4
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Zoom In
Zoom Out

Sample Name: asconf Acquired: 10/10/2019 12:31:10 Type: Unk
Method: SGS 070219(v291) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm
Avg	0.004	0.030	-0.009
Stddev	.0008	.0009	.0009
%RSD	180.1	29.83	94.38
#1	.0012	.0021	-.0014
#2	.0003	.0039	.0001
#3	-.0003	.0029	-.0014

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	100610.	14856.	3470.8	8160.3
Stddev	130.	74.	6.7	14.8
%RSD	.12965	.50132	.19254	.18154
#1	100590.	14802.	3472.8	8158.0
#2	100750.	14941.	3463.4	8146.9
#3	100490.	14826.	3476.3	8176.2

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Zoom In
Zoom Out

Sample Name: ccv Acquired: 10/10/2019 12:36:20 Type: QC
Method: SGS 070219(v291) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.955	2.013	1.989	2.047	2.126	2.005	2.095	2.021	2.509
Stddev	.007	.009	.003	.004	.008	.002	.006	.003	.0006
%RSD	.3353	.4392	.1318	.1829	.3972	.1008	.3077	.1678	.2578
#1	1.958	2.017	1.991	2.051	2.117	2.005	2.088	2.025	.2502
#2	1.960	2.020	1.988	2.046	2.130	2.003	2.097	2.020	.2515
#3	1.948	2.003	1.986	2.044	2.132	2.007	2.100	2.019	.2510

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.067	2.085	2.051	2.090	2.093	2.007	1.983	39.41	41.26
Stddev	.007	.002	.006	.005	.004	.001	.003	.15	.20
%RSD	.3384	.0765	.3116	.2515	.1812	.0716	.1486	.3718	.4850
#1	2.059	2.088	2.058	2.095	2.095	2.007	1.984	39.50	41.37
#2	2.070	2.085	2.046	2.085	2.096	2.005	1.985	39.48	41.38
#3	2.071	2.087	2.048	2.090	2.089	2.007	1.980	39.24	41.03

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	40.90	39.72	39.31	39.98	2.064	2.071	F 5.522	2.103	1.947
Stddev	.15	.23	.15	.15	.001	.002	.008	.002	.007
%RSD	.3575	.5672	.3808	.3738	.0291	.0887	.1434	.1014	.3584
#1	40.97	39.92	39.35	40.04	2.064	2.073	5.529	2.106	1.950
#2	41.00	39.76	39.43	40.10	2.065	2.071	5.522	2.102	1.951
#3	40.73	39.47	39.14	39.81	2.064	2.069	5.514	2.102	1.939

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
Value							5.000		
Range							10.00%		

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Sample Name: ccv Acquired: 10/10/2019 12:36:20 Type: QC
 Method: SGS 070219(v291) Mode: CONC Corr. Factor: 1.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.821	2.046	2.066	1.990	2.056	1.978	2.080	2.091
Stddev	.004	.003	.003	.002	.002	.008	.003	.005
%RSD	.1911	.1292	.1371	.0984	.0723	.3845	.1469	.2217

#1	#2	#3
1.817	2.049	2.063
1.823	2.045	2.067
1.822	2.044	2.069

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	96421.	14661.	3350.3	7389.3
Stddev	342.	90.	5.0	7.8
%RSD	.35489	.61466	.14955	.10544

#1	#2	#3
96815.	14595.	3348.1
96245.	14624.	3346.9
96203.	14764.	3356.1

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Sample Name: ccb Acquired: 10/10/2019 12:41:07 Type: QC
 Method: SGS 070219(v291) Mode: CONC Corr. Factor: 1.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0007	F_0006	.0002	.0003	.0003	.0008	.0004	.0005	-.0012
Stddev	.0001	.0001	.0002	.0004	.0001	.0001	.0001	.0002	.0003
%RSD	11.91	21.42	102.6	122.0	46.06	17.76	15.40	47.35	22.69

#1	#2	#3
.0006	.0008	.0004
.0007	.0006	.0003
.0007	.0005	-.0000

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit		.0002								
Low Limit		-.0002								

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0004	-.0003	.0007	.0009	.0004	.0030	.0006	.0078	.0052
Stddev	.0002	.0001	.0006	.0009	.0002	.0004	.0011	.0033	.0040
%RSD	55.73	36.21	76.66	97.02	50.08	14.40	177.3	42.82	75.97

#1	#2	#3
.0003	-.0003	.0011
.0006	-.0004	.0001
.0002	-.0002	.0010

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sr1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F_0148	.0269	.1039	.0162	.0036	.0006	.0021	.0001	.0004
Stddev	.0037	.0091	.0222	.0040	.0002	.0003	.0003	.0003	.0001
%RSD	24.72	33.84	21.34	24.70	6.317	43.17	15.36	496.2	16.31

#1	#2	#3
.0183	.0353	.1184
.0152	.0173	.0784
.0110	.0280	.1150

Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	.0100								
Low Limit	-.0100								

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Sample Name: ccb Acquired: 10/10/2019 12:41:07 Type: QC
 Method: SGS 070219(v291) Mode: CONC Corr. Factor: 1.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0002	.0017	.0005	-.0061	.0001	.0008	.0055	.0016
Stddev	.0001	.0004	.0001	.0022	.0006	.0015	.0011	.0025
%RSD	70.39	20.85	30.84	36.92	778.1	196.0	20.49	157.2

#1	#2	#3
.0003	.0014	.0006
.0003	.0017	.0004
.0000	.0021	.0004

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	99762.	14781.	3452.9	8107.3
Stddev	170.	53.	6.2	9.6
%RSD	.17057	.35773	.18032	.11807

#1	#2	#3
99725.	14746.	3449.6
99613.	14842.	3460.1
99947.	14756.	3449.1

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Sample Name: jc96164-1undconf Acquired: 10/10/2019 12:46:16 Type: Unk
 Method: SGS 070219(v291) Mode: CONC Corr. Factor: 1.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0011	.0001	-.0002	.0004	-.0004	.0010	.0008	.0003
Stddev	.0001	.0001	.0002	.0002	.0002	.0005	.0001	.0002
%RSD	10.10	59.36	82.22	43.71	61.35	48.71	10.97	52.63

#1	#2	#3
.0010	.0001	-.0001
.0010	.0001	-.0004
.0012	.0002	-.0002

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0013	-.0000	W_0027	.0012	.0021	.0006	.0007	-.0003
Stddev	.0002	.0001	.0001	.0002	.0006	.0003	.0012	.0012
%RSD	13.71	209.5	2.638	19.95	29.30	52.00	179.9	337.1

#1	#2	#3
-.0015	-.0001	-.0027
-.0011	-.0001	-.0028
-.0013	.0001	-.0027

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1950	.4865	.0024	.0013	.0954	.0242	.0111	.0000
Stddev	.0034	.0019	.0053	.0297	.0225	.0089	.0002	.0002
%RSD	1.755	.3963	216.9	2331.	23.63	36.81	1.946	715.8

#1	#2	#3
.1955	.4869	.0037
.1914	.4844	-.0034
.1982	.4881	.0070

Elem	Si2124	Sr1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.3779	-.0009	.0036	.0000	-.0005	-.0002	.0198	.0004
Stddev	.0001	.0003	.0001	.0006	.0006	.0001	.0012	.0021
%RSD	.0136	32.97	1.744	2363.	114.3	30.45	5.805	509.6

#1	#2	#3
.3778	-.0007	.0036
.3779	-.0007	.0035
.3779	-.0012	.0036

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Sample Name: jc96164-1undconf Acquired: 10/10/2019 12:46:16 Type: Unk
 Method: SGS 070219(v291) Mode: CONC Corr. Factor: 1.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm
Avg	-0.016	.0060	.0002
Stddev	.0012	.0005	.0014
%RSD	72.36	9.025	837.6
#1	-0.029	.0058	.0007
#2	-0.012	.0067	.0013
#3	-0.007	.0056	-0.015

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	100990.	15055.	3513.5	8319.5
Stddev	176.	26.	8.3	14.6
%RSD	.17406	.17181	.23494	.17571
#1	100830.	15030.	3522.0	8333.5
#2	100960.	15081.	3513.1	8320.7
#3	101180.	15054.	3505.5	8304.4

Sample Name: jc96248-8fundconf Acquired: 10/10/2019 12:51:23 Type: Unk
 Method: SGS 070219(v291) Mode: CONC Corr. Factor: 1.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000	.0000	-0.0003	.0002	-0.0003	.0008	-0.0001	.0002
Stddev	.0002	.0001	.0001	.0003	.0004	.0004	.0001	.0003
%RSD	480.0	1765.	41.73	125.1	120.8	47.34	135.5	138.7
#1	-0.002	.0001	-0.002	-0.001	-0.003	.0006	.0000	.0004
#2	.0000	-0.001	-0.004	.0005	.0001	.0013	-0.001	-0.001
#3	.0003	-0.000	-0.002	.0003	-0.007	.0006	-0.001	.0005

Elem	Ag3280	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0011	-0.0001	W -0.0024	.0024	.0012	.0004	-0.0005	-0.0003
Stddev	.0004	.0003	.0001	.0001	.0007	.0005	.0014	.0002
%RSD	40.22	449.4	5.420	3.187	56.06	124.2	301.4	92.87
#1	-0.011	.0003	-0.023	.0025	.0009	.0002	-0.020	-0.005
#2	-0.006	-0.003	-0.026	.0024	.0007	.0000	-0.003	-0.003
#3	-0.015	-0.002	-0.024	.0024	.0020	.0011	.0009	.0000

Sample Name: jc96248-8fundconf Acquired: 10/10/2019 12:51:23 Type: Unk
 Method: SGS 070219(v291) Mode: CONC Corr. Factor: 1.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm
Avg	-0.0005	.0040	.0016
Stddev	.0007	.0020	.0016
%RSD	130.1	50.22	101.5
#1	-0.011	.0019	.0017
#2	-0.006	.0044	-0.001
#3	.0002	.0059	.0031

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	101500.	15074.	3521.1	8329.9
Stddev	245.	121.	8.1	17.6
%RSD	.24174	.80344	.23020	.21183
#1	101430.	15048.	3513.4	8310.5
#2	101290.	14969.	3520.3	8334.1
#3	101770.	15206.	3529.5	8345.0

Sample Name: mp17763-mb1conf Acquired: 10/10/2019 12:56:31 Type: Unk
 Method: SGS 070219(v291) Mode: CONC Corr. Factor: 1.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0001	.0000	-0.0002	.0000	.0003	.0001	.0000	-0.0001	-0.0014
Stddev	.0002	.0001	.0002	.0001	.0004	.0003	.0001	.0002	.0002
%RSD	255.6	125.5	120.9	1486.	150.4	535.9	662.1	150.3	13.74
#1	-0.002	.0001	.0000	-0.001	-0.002	.0003	.0001	-0.003	-0.015
#2	-0.002	-0.000	-0.004	-0.002	.0003	.0002	-0.000	-0.001	-0.012
#3	.0001	.0000	-0.002	-0.000	.0007	-0.003	-0.000	.0001	-0.016

Elem	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0001	.0007	-0.0004	-0.0004	.0013	.0023	.0010	.0035	.0042
Stddev	.0002	.0002	.0004	.0005	.0010	.0013	.0014	.0168	.0006
%RSD	132.8	22.81	98.57	130.3	73.13	56.04	140.7	477.7	15.28
#1	-0.001	.0005	-0.001	-0.000	.0004	.0028	.0012	-0.146	.0045
#2	.0000	.0008	-0.008	-0.010	.0023	.0009	-0.005	.0186	.0046
#3	-0.003	.0008	-0.002	-0.002	.0012	.0034	.0022	.0066	.0034

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sr1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0014	-0.0050	.0668	.0082	.0017	.0001	.0118	.0003	-0.0001
Stddev	.0030	.0040	.0033	.0046	.0011	.0002	.0008	.0002	.0000
%RSD	207.3	81.15	4.914	56.05	63.97	157.4	6.939	47.66	13.64
#1	.0004	-0.081	.0702	.0034	.0012	-0.001	.0123	.0003	-0.001
#2	.0048	-0.064	.0636	.0125	.0030	.0002	.0123	.0002	-0.001
#3	-0.009	-0.004	.0665	.0088	.0010	.0003	.0108	.0005	-0.001

Sample Name: mp17763-mb1conf Acquired: 10/10/2019 12:56:31 Type: Unk
 Method: SGS 070219(v291) Mode: CONC Corr. Factor: 1.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	100540.	14976.	3457.7	8132.9
Stddev	331.	30.	4.1	8.8
%RSD	.32944	.20053	.11880	.10812
#1	100460.	14958.	3453.3	8127.9
#2	100260.	15011.	3458.5	8127.6
#3	100910.	14960.	3461.4	8143.0

Sample Name: jc96262-2 7 Acquired: 10/10/2019 13:01:41 Type: Unk
 Method: SGS 070219(v291) Mode: CONC Corr. Factor: 5.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.361	-0.002	-0.007	-0.008	.0034	.0072	5.403	.0039	-0.005
Stddev	.001	.0003	.0012	.0014	.0013	.0022	.0021	.0014	.0007
%RSD	.0968	192.5	164.4	169.2	39.73	30.68	.3802	34.67	132.1
#1	1.360	.0001	-.0017	-.0011	.0018	.0095	5.426	.0024	-.0004
#2	1.362	-.0005	-.0009	.0007	.0043	.0072	5.387	.0048	.0001
#3	1.362	-.0000	.0006	-.0020	.0040	.0050	5.397	.0046	-.0013
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0002	.0132	.0007	.0004	-.0062	.0022	.0038	.0038	F 1023.
Stddev	.0011	.0009	.0068	.0036	.0022	.0050	.0024	.0256	5.
%RSD	525.4	6.941	988.2	1020.	35.50	227.9	61.74	671.5	.5219
#1	.0014	.0122	-.0053	-.0033	-.0085	-.0031	.0012	.0333	1020.
#2	-.0008	.0140	-.0006	.0005	-.0041	.0028	.0058	-.0133	1029.
#3	.0001	.0135	.0080	.0039	-.0061	.0068	.0044	-.0086	1021.
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0572	132.3	6.937	F 2098.	.0860	-.0002	10.48	.0060	1.361
Stddev	.0130	.6	.117	.36.	.0027	.0008	.02	.0038	.003
%RSD	22.78	.4847	1.683	1.727	3.195	322.0	.2246	63.15	.1975
#1	.0717	131.8	6.856	2093.	.0876	.0004	10.50	.0024	1.362
#2	.0466	133.1	7.071	2137.	.0828	-.0011	10.47	.0099	1.362
#3	.0531	132.1	6.885	2065.	.0876	.0000	10.45	.0057	1.358
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040	
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	.0021	.0146	-.0006	9.276	-.0031	.0458	.1289	.0155	
Stddev	.0004	.0055	.0007	.008	.0132	.0091	.0069	.0158	
%RSD	18.75	37.64	110.7	.0901	433.7	19.88	5.372	101.8	
#1	.0022	.0124	-.0012	9.273	.0121	.0405	.1358	.0007	
#2	.0024	.0106	-.0008	9.285	-.0087	.0406	.1291	.0321	
#3	.0017	.0209	.0002	9.270	-.0126	.0563	.1219	.0136	

11.4

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Sample Name: jc96262-2 7 Acquired: 10/10/2019 13:01:41 Type: Unk
 Method: SGS 070219(v291) Mode: CONC Corr. Factor: 5.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	89351.	14281.	3139.6	6745.8
Stddev	293.	126.	6.3	12.8
%RSD	.32777	.88399	.20108	.18996
#1	89015.	14367.	3132.7	6735.7
#2	89493.	14136.	3145.1	6760.2
#3	89546.	14339.	3141.1	6741.4

Sample Name: jc96248-8f Acquired: 10/10/2019 13:06:54 Type: Unk
 Method: SGS 070219(v291) Mode: CONC Corr. Factor: 1.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0001	-.0000	-.0000	.0002	.0002	-.0001	-.0000	.0002	-.0013
Stddev	.0002	.0001	.0002	.0001	.0004	.0002	.0001	.0002	.0003
%RSD	151.6	419.2	946.1	50.64	285.2	261.9	388.3	96.01	21.22
#1	.0000	.0000	-.0002	.0003	-.0003	-.0002	-.0001	.0002	-.0016
#2	.0003	.0000	.0002	.0001	.0002	.0001	.0001	.0003	-.0010
#3	-.0000	-.0001	-.0001	.0003	.0006	-.0001	-.0001	.0000	-.0013
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000	.0007	-.0000	-.0005	-.0001	.0011	.0007	-.0029	.0474
Stddev	.0003	.0001	.0027	.0006	.0002	.0011	.0010	.0057	.0037
%RSD	2553.	9.488	76740.	122.4	376.8	101.2	132.8	198.8	7.852
#1	.0003	.0006	.0009	.0000	-.0002	-.0001	.0002	-.0020	.0440
#2	-.0002	.0007	-.0030	-.0004	.0002	.0021	.0018	-.0089	.0468
#3	-.0001	.0007	.0021	-.0012	-.0001	.0012	.0001	.0024	.0514
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000	-.0166	.1087	.0714	-.0020	.0001	.0069	.0002	.0000
Stddev	.0008	.0034	.0189	.0101	.0003	.0003	.0010	.0001	.0001
%RSD	2347.	20.50	17.37	14.11	15.79	330.7	15.26	66.35	359.9
#1	-.0000	-.0191	.1153	.0752	.0021	-.0002	.0079	.0002	-.0000
#2	.0009	-.0179	.0874	.0599	.0016	.0003	.0069	.0002	-.0000
#3	-.0008	-.0127	.1234	.0789	.0023	.0002	.0058	.0000	.0001
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040	
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	.0002	.0010	.0000	.0019	-.0008	.0016	.0045	.0012	
Stddev	.0004	.0005	.0002	.0036	.0003	.0004	.0016	.0006	
%RSD	227.6	50.36	1628.	187.9	34.05	27.82	35.12	48.22	
#1	-.0002	.0007	.0000	-.0008	-.0006	.0013	.0027	.0006	
#2	.0002	.0015	.0002	.0061	-.0007	.0014	.0055	.0014	
#3	.0006	.0007	-.0002	.0005	-.0011	.0021	.0053	.0017	

Sample Name: jc96248-8f Acquired: 10/10/2019 13:06:54 Type: Unk
 Method: SGS 070219(v291) Mode: CONC Corr. Factor: 1.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	99691.	14903.	3418.4	8042.6
Stddev	.846.	.88.	36.8	86.0
%RSD	.84911	.59369	1.0771	1.0690
#1	99858.	14932.	3375.9	7943.5
#2	100440.	14804.	3439.1	8097.8
#3	98774.	14974.	3440.2	8086.5

Sample Name: jc96248-1f Acquired: 10/10/2019 13:12:04 Type: Unk
 Method: SGS 070219(v291) Mode: CONC Corr. Factor: 1.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0624	-0.001	.0000	.0003	.0005	.0013	.7264	.0000	.0008
Stddev	.0003	.0001	.0002	.0003	.0008	.0002	.0006	.0001	.0004
%RSD	.4280	89.33	398.8	102.9	179.9	18.09	.0880	440.4	49.53
#1	.0626	-0.000	.0002	.0002	.0011	.0016	.7261	.0001	.0003
#2	.0624	-0.000	.0001	.0005	-0.005	.0011	.7271	-0.000	.0009
#3	.0621	-0.001	-0.002	.0000	.0008	.0014	.7259	-0.001	.0011

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0008	-0.0009	.0001	-0.0018	.0012	.0030	.0008	-0.0260	190.9
Stddev	.0002	.0001	.0006	.0001	.0007	.0023	.0010	.0138	.5
%RSD	18.55	11.21	409.1	5.696	57.57	76.32	127.9	52.98	2573
#1	-0.0008	-0.010	.0008	-0.019	.0017	.0008	-0.003	-0.0336	191.5
#2	-0.0007	-0.0008	-0.002	-0.017	.0014	.0028	.0016	-0.010	190.6
#3	-0.0010	-0.0009	-0.002	-0.018	.0004	.0054	.0010	-0.0342	190.6

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2301	82.95	17.05	20.58	4.335	.0002	16.07	-0.0033	1.163
Stddev	.0112	.18	.03	.08	.0013	.0002	.01	.0004	.003
%RSD	4.851	.2187	.2047	.3678	.2943	98.10	.0843	13.15	2.603
#1	.2174	83.02	17.09	20.66	4.347	.0004	16.07	-0.0038	1.166
#2	.2383	82.74	17.02	20.58	4.338	-0.0000	16.08	-0.0032	1.164
#3	.2347	83.09	17.03	20.51	4.321	.0002	16.06	-0.0030	1.160

Elem	Tl3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0015	.0211	-0.0009	58.16	-0.0035	.1005	.0651	.0026
Stddev	.0005	.0004	.0001	.08	.0015	.0002	.0007	.0026
%RSD	36.65	1.857	10.68	.1457	42.17	.1990	1.083	100.1
#1	-0.0018	.0213	-0.010	58.17	-0.0048	.1003	.0643	.0026
#2	-0.0009	.0207	-0.008	58.23	-0.0038	.1007	.0656	.0053
#3	-0.0017	.0214	-0.009	58.07	-0.0019	.1005	.0654	-0.0000

11.4
11

Sample Name: jc96248-1f Acquired: 10/10/2019 13:12:04 Type: Unk
 Method: SGS 070219(v291) Mode: CONC Corr. Factor: 1.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	93234.	14472.	3199.2	7157.5
Stddev	317.	62.	3.9	11.3
%RSD	.33992	.42700	.12062	.15763
#1	93563.	14421.	3200.3	7155.9
#2	93207.	14541.	3194.9	7147.1
#3	92931.	14455.	3202.3	7169.5

Sample Name: jc96248-5f Acquired: 10/10/2019 13:17:09 Type: Unk
 Method: SGS 070219(v291) Mode: CONC Corr. Factor: 1.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0590	.0002	-0.0001	.0014	.0028	.0011	5.841	.0014	.0001
Stddev	.0002	.0001	.0001	.0001	.0007	.0005	.017	.0010	.0002
%RSD	.3977	59.04	112.0	7.614	26.49	39.91	.2820	72.70	212.7
#1	.0589	.0001	-0.000	.0013	.0036	.0016	5.822	.0018	.0003
#2	.0593	.0003	-0.000	.0015	.0026	.0012	5.851	.0003	.0002
#3	.0589	.0001	-0.001	.0014	.0021	.0007	5.849	.0022	-0.0001

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0007	.0035	.0043	-0.0013	.0023	-0.0005	.0008	-0.0188	124.1
Stddev	.0003	.0002	.0008	.0010	.0007	.0016	.0005	.0056	.2
%RSD	45.87	5.737	18.26	79.63	30.43	332.9	71.68	29.68	.1662
#1	.0011	.0033	.0048	-0.001	.0027	-0.0009	.0004	-0.0144	123.9
#2	.0006	.0035	.0034	-0.019	.0027	-0.0019	.0014	-0.0168	124.3
#3	.0005	.0037	.0048	-0.019	.0015	.0013	.0005	-0.0250	124.1

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2700	72.19	6.868	32.81	3.155	.0015	16.85	-0.0029	4.774
Stddev	.0004	.28	.026	.04	.0019	.0002	.03	.0006	.0007
%RSD	.1331	.3895	.3856	.1134	.5970	15.70	.1512	19.74	.1556
#1	.2697	71.91	6.846	32.77	3.139	.0013	16.83	-0.0022	4.766
#2	.2699	72.47	6.861	32.84	3.150	.0017	16.88	-0.0033	4.781
#3	.2704	72.19	6.897	32.81	3.176	.0016	16.84	-0.0032	4.774

Elem	Tl3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0012	.0174	-0.0008	2.318	-0.0030	.0015	1.612	-0.0079
Stddev	.0006	.0007	.0001	.009	.0014	.0013	.005	.0010
%RSD	50.36	3.818	6.773	.3977	47.52	87.10	3.204	12.05
#1	-0.0007	.0173	-0.0009	2.307	-0.0042	.0028	1.606	-0.0068
#2	-0.0019	.0180	-0.0008	2.322	-0.0014	.0001	1.612	-0.0086
#3	-0.0010	.0167	-0.0008	2.323	-0.0035	.0017	1.617	-0.0083

Sample Name: jc96248-5f Acquired: 10/10/2019 13:17:09 Type: Unk
Method: SGS 070219(v291) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	94420.	14702.	3254.8	7272.6
Stddev	129.	55.	2.9	7.0
%RSD	.13682	.37291	.08964	.09592
#1	94569.	14680.	3257.7	7275.1
#2	94350.	14662.	3251.8	7278.1
#3	94341.	14764.	3254.9	7264.8

Sample Name: jc96248-7f Acquired: 10/10/2019 13:22:12 Type: Unk
Method: SGS 070219(v291) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0618	.0000	.0001	-0.001	.0014	.0009	.7158	.0001	.0012
Stddev	.0002	.0001	.0001	.0001	.0004	.0005	.0032	.0004	.0002
%RSD	.3111	642.3	152.5	49.02	28.89	59.15	.4472	474.5	18.30
#1	.0619	.0001	.0000	-0.001	.0012	.0009	.7192	-0.003	.0010
#2	.0619	-0.001	.0002	-0.001	.0011	.0015	.7129	.0001	.0011
#3	.0616	.0000	.0000	-0.002	.0018	.0004	.7152	.0005	.0014
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0001	.0002	-0.0001	-0.0005	.0023	.0009	-0.0000	-0.0308	188.8
Stddev	.0002	.0000	.0021	.0006	.0008	.0002	.0014	.0071	.3
%RSD	116.5	26.19	2952.	134.7	35.35	19.48	10600.	23.07	.1544
#1	.0000	.0001	.0020	.0002	.0033	.0007	.0016	-.0243	188.5
#2	-.0003	.0002	.0000	-.0010	.0017	.0011	-.0005	-.0384	188.9
#3	-.0002	.0002	-.0022	-.0006	.0021	.0009	-.0011	-.0297	189.1
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2105	82.12	16.88	20.39	4.329	.0002	15.98	-0.0031	1.155
Stddev	.0041	.35	.03	.02	.0016	.0001	.02	.0014	.004
%RSD	1.957	.4301	.1994	.0948	.3749	49.04	.1006	45.47	.3409
#1	.2070	81.88	16.91	20.41	4.329	.0002	15.98	-.0015	1.160
#2	.2095	81.95	16.85	20.37	4.345	.0004	16.00	-.0038	1.152
#3	.2150	82.52	16.89	20.38	4.313	.0002	15.97	-.0040	1.153
Elem	Tl3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040	
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	-0.0006	.0201	-0.0008	58.19	-0.0029	.0995	.0648	.0009	
Stddev	.0001	.0007	.0001	.09	.0019	.0009	.0008	.0013	
%RSD	21.61	3.281	11.67	.1567	64.06	9.353	1.193	145.4	
#1	-.0006	.0204	-.0007	58.23	-.0009	.0992	.0652	-.0004	
#2	-.0005	.0194	-.0009	58.26	-.0032	.0988	.0653	.0021	
#3	-.0008	.0206	-.0007	58.09	-.0046	.1006	.0640	.0010	

11.4
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Sample Name: jc96248-7f Acquired: 10/10/2019 13:22:12 Type: Unk
Method: SGS 070219(v291) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	93556.	14584.	3193.0	7138.2
Stddev	422.	124.	1.9	7.1
%RSD	.45086	.84792	.06032	.09959
#1	93074.	14726.	3194.4	7141.0
#2	93861.	14506.	3193.8	7143.4
#3	93731.	14519.	3190.8	7130.1

Sample Name: mp17762-mb1conf Acquired: 10/10/2019 13:27:16 Type: Unk
Method: SGS 070219(v291) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0002	.0001	-0.0001	.0003	.0000	.0004	-0.0001	.0002	-0.0011
Stddev	.0002	.0000	.0001	.0004	.0003	.0005	.0001	.0003	.0003
%RSD	87.05	29.57	103.6	107.6	907.7	135.0	124.3	138.0	26.51
#1	.0003	.0001	-0.0001	.0001	-0.000	.0010	-0.000	.0006	-0.0009
#2	.0000	.0000	-0.0002	.0007	-0.002	.0001	-0.0002	.0002	-0.0010
#3	.0003	.0001	-0.0000	.0001	.0004	.0001	-0.0000	-0.0001	-0.0015
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0002	.0023	-0.0005	-0.002	.0001	.0012	.0001	.0004	.0007
Stddev	.0002	.0012	.0001	.0012	.0006	.0010	.0010	.0059	.0043
%RSD	95.19	53.42	22.05	585.5	474.8	86.24	1808.	1346.	590.4
#1	-.0000	.0014	-.0005	-.0016	-.0004	.0011	-.0001	-.0037	-.0033
#2	.0003	.0037	-.0004	.0007	.0001	.0002	.0011	-.0022	.0002
#3	.0005	.0019	-.0007	.0002	.0007	.0022	-.0008	.0072	.0052
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0051	-0.0112	.0945	.0187	.0019	.0003	.0103	-0.0003	-0.0001
Stddev	.0027	.0416	.0048	.0050	.0004	.0004	.0013	.0002	.0000
%RSD	52.01	372.1	5.079	26.80	19.53	115.9	12.30	69.36	36.03
#1	.0077	.0087	.0937	.0158	.0019	.0001	.0092	-.0001	-0.0001
#2	.0024	-.0590	.0901	.0245	.0016	.0001	.0117	-.0003	-0.0001
#3	.0054	.0168	.0996	.0159	.0023	.0007	.0101	-.0005	-0.0001
Elem	Tl3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040	
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	.0002	.0007	.0000	-0.002	-0.0016	.0004	.0049	.0007	
Stddev	.0004	.0002	.0002	.0012	.0004	.0014	.0010	.0007	
%RSD	146.2	31.76	16220.	54.10	24.27	327.4	20.69	93.97	
#1	-.0001	.0007	.0001	-.0035	-.0016	-.0008	.0037	.0015	
#2	.0006	.0010	.0001	-.0020	-.0019	.0001	.0055	.0003	
#3	.0003	.0006	-.0002	-.0011	-.0012	.0020	.0055	.0003	

Zoom In
Zoom Out

Sample Name: mp17762-mb1conf Acquired: 10/10/2019 13:27:16 Type: Konk
Method: SGS 070219(v291) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	100390.	14829.	3454.6	8122.8
Stddev	.221	.69	2.6	8.0
%RSD	.22009	.46760	.07501	.09905
#1	100590.	14773.	3453.9	8119.6
#2	100440.	14808.	3452.4	8116.9
#3	100150.	14907.	3457.4	8132.0

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
Value Range

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.066	2.108	2.072	2.110	2.115	2.035	2.013	39.53	41.43
Stddev	.004	.003	.004	.002	.001	.009	.009	.07	.04
%RSD	.2139	.1518	.1982	.0869	.0674	.4399	.4438	.1883	.0863
#1	2.065	2.104	2.069	2.108	2.115	2.026	2.002	39.62	41.47
#2	2.063	2.108	2.071	2.111	2.117	2.036	2.018	39.48	41.39
#3	2.071	2.111	2.077	2.111	2.114	2.044	2.018	39.49	41.43

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
Value Range

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	41.22	39.98	39.41	40.12	2.089	2.099	5.580	2.126	1.968
Stddev	.04	.14	.06	.03	.004	.003	.016	.006	.001
%RSD	.0943	.3446	.1598	.0800	.2060	.1614	.2862	.2827	.0664
#1	41.26	39.96	39.47	40.13	2.086	2.096	5.572	2.122	1.969
#2	41.22	39.85	39.35	40.09	2.087	2.098	5.570	2.124	1.967
#3	41.18	40.12	39.40	40.15	2.094	2.103	5.598	2.133	1.969

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Fail Chk Pass Chk Pass
Value Range 5.000 10.00%

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11.4

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Sample Name: ccv Acquired: 10/10/2019 13:32:28 Type: QC
Method: SGS 070219(v291) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.826	2.067	2.070	2.011	2.075	1.985	2.126	2.091
Stddev	.002	.001	.004	.005	.005	.003	.005	.005
%RSD	.0981	.0288	.1739	.2536	.2320	.1255	.2514	.2238
#1	1.827	2.067	2.069	2.006	2.071	1.988	2.120	2.086
#2	1.824	2.068	2.067	2.011	2.073	1.983	2.131	2.091
#3	1.827	2.068	2.074	2.016	2.080	1.984	2.126	2.095

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
Value Range

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	96971.	14631.	3352.9	7384.0
Stddev	48.	37.	7.0	13.4
%RSD	.04916	.24989	.21025	.18160
#1	96920.	14672.	3357.7	7392.8
#2	97014.	14604.	3356.2	7390.7
#3	96980.	14617.	3344.8	7368.6

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Sample Name: ccb Acquired: 10/10/2019 13:37:13 Type: QC
Method: SGS 070219(v291) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0003	F .0003	-0.001	.0004	.0003	.0000	.0003	.0006	-0.0014
Stddev	.0002	.0001	.0000	.0002	.0004	.0002	.0001	.0001	.0001
%RSD	84.35	27.15	23.35	45.58	139.4	2930.	21.92	15.98	9.266
#1	.0002	.0003	-0.001	.0004	.0005	.0002	.0004	.0006	-0.0013
#2	.0001	.0002	-0.001	.0007	.0004	.0001	.0002	.0007	-0.0015
#3	.0005	.0003	-0.001	.0003	-0.001	-0.0003	.0003	.0005	-0.0013

Check ? Chk Pass Chk Fail Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
High Limit .0002
Low Limit -.0002

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0003	-0.003	.0001	.0010	.0012	-0.001	.0001	.0115	-0.0046
Stddev	.0002	.0001	.0013	.0009	.0006	.0027	.0021	.0112	.0014
%RSD	71.05	57.38	1116.	86.25	51.50	2338.	1475.	97.19	29.77
#1	.0004	-0.002	-0.009	.0017	.0012	.0005	.0025	-0.010	-0.0031
#2	.0001	-0.004	-0.003	.0013	.0006	.0022	-0.011	.0207	-0.0050
#3	.0004	-0.002	.0016	.0000	.0019	-0.0031	-0.009	.0149	-0.0058

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
High Limit
Low Limit

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0072	-0.070	.0934	.0123	.0027	.0009	.0014	.0004	.0003
Stddev	.0031	.0305	.0263	.0069	.0006	.0002	.0016	.0006	.0001
%RSD	42.96	432.5	28.20	56.26	23.32	21.85	115.9	140.7	29.39
#1	.0081	.0133	.1219	.0190	.0033	.0007	.0005	-0.001	.0002
#2	.0038	-.0421	.0699	.0126	.0026	.0011	.0004	.0002	.0003
#3	.0097	.0076	.0885	.0052	.0021	.0008	.0032	.0011	.0003

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
High Limit
Low Limit

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Zoom In
Zoom Out

Sample Name: ccb Acquired: 10/10/2019 13:37:13 Type: QC
 Method: SGS 070219(v291) Mode: CONC Corr. Factor: 1.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.001	0.001	0.002	-0.064	-0.008	0.003	0.039	0.015
Stddev	0.004	0.003	0.000	0.028	0.025	0.008	0.001	0.025
%RSD	488.1	228.9	20.94	43.09	302.4	277.1	2.275	172.1
#1	-0.004	0.004	0.003	-0.055	0.020	0.012	0.039	0.041
#2	0.003	-0.002	0.002	-0.042	-0.018	-0.003	0.039	-0.009
#3	-0.001	0.003	0.002	-0.095	-0.028	-0.001	0.038	0.011

Check ? High Limit Low Limit
 Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass

Int. Std. Units	Y_3600 Cts/S	Y_3710 Cts/S	Y_2243 Cts/S	In2306 Cts/S
Avg	100020.0	14751.0	3447.6	8083.6
Stddev	531.0	108.0	10.7	25.9
%RSD	53070	73130	31060	32060

#1	99485.0	14638.0	3448.2	8083.4
#2	100030.0	14853.0	3458.0	8109.6
#3	100550.0	14763.0	3436.6	8057.7

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Zoom In
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Sample Name: mp17718-mb2 Acquired: 10/10/2019 13:42:24 Type: Unk
 Method: SGS 070219(v291) Mode: CONC Corr. Factor: 5.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	0.061	0.000	-0.005	0.002	-0.008	0.029	0.006	0.008	-0.057
Stddev	0.004	0.003	0.004	0.012	0.014	0.012	0.004	0.011	0.005
%RSD	7.040	1147.0	87.62	510.7	169.7	40.69	70.76	148.6	8.683
#1	0.057	0.004	-0.010	0.014	-0.007	0.039	0.003	-0.004	-0.055
#2	0.061	-0.002	-0.004	0.002	-0.012	0.032	0.004	0.019	-0.063
#3	0.065	-0.002	-0.001	-0.009	-0.020	0.016	0.011	0.008	-0.054

Elem V_2924 Zn2062 As1890 Tl1908 Pb2203 Se1960 Sb2068 Al3961 Ca3179
 Units ppm ppm ppm ppm ppm ppm ppm ppm ppm
 Avg -0.010 0.609 -0.015 -0.001 0.024 0.066 0.020 0.110 0.1371
 Stddev 0.014 0.006 0.077 0.056 0.044 0.064 0.033 0.064 0.108
 %RSD 140.2 1.059 507.4 408.1 183.5 95.80 166.3 32.99 7.851

#1	-0.015	0.608	-0.104	0.063	0.004	0.139	-0.016	0.989	0.1247
#2	0.006	0.616	0.032	-0.010	-0.006	0.035	0.049	0.810	0.1429
#3	-0.020	0.603	0.027	-0.048	0.075	0.025	0.027	0.151	0.1438

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	0.7826	-0.0737	0.4979	-0.1616	0.0306	0.0006	16.08	0.012	0.051
Stddev	0.185	0.109	0.604	0.158	0.014	0.003	0.2	0.020	0.001
%RSD	2.364	148.0	12.13	9.779	45.41	0.003	1.302	170.6	2.380
#1	0.7804	-0.1394	0.4577	-0.1466	0.0320	0.006	16.10	0.022	0.051
#2	0.7654	0.0522	0.5674	-0.1781	0.0307	0.008	16.09	-0.012	0.052
#3	0.8022	-0.1337	0.4687	-0.1602	0.0292	0.003	16.06	0.025	0.050

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.009	0.122	-0.006	0.308	-0.045	-0.051	0.244	0.010
Stddev	0.010	0.011	0.006	0.130	0.034	0.009	0.010	0.055
%RSD	112.9	8.653	94.16	42.32	76.38	16.83	4.271	577.2
#1	-0.017	0.126	-0.000	0.229	-0.009	-0.050	0.253	-0.027
#2	-0.012	0.130	-0.012	0.236	-0.078	-0.044	0.233	0.073
#3	0.002	0.110	-0.007	0.458	-0.047	-0.061	0.246	-0.017

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Zoom In
Zoom Out

Sample Name: mp17718-mb2 Acquired: 10/10/2019 13:42:24 Type: Unk
 Method: SGS 070219(v291) Mode: CONC Corr. Factor: 5.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Int. Std. Units	Y_3600 Cts/S	Y_3710 Cts/S	Y_2243 Cts/S	In2306 Cts/S
Avg	100160.0	14925.0	3450.0	8101.6
Stddev	261.0	90.0	4.6	13.2
%RSD	26025	59978	13330	16277

#1	100370.0	14879.0	3447.5	8098.1
#2	100230.0	15029.0	3447.2	8090.5
#3	99867.0	14870.0	3455.3	8116.1

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Zoom In
Zoom Out

Sample Name: mp17718-b2 Acquired: 10/10/2019 13:47:35 Type: Unk
 Method: SGS 070219(v291) Mode: CONC Corr. Factor: 5.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.940	1.995	1.996	1.993	2.128	1.959	2.126	1.980
Stddev	0.01	0.01	0.05	0.07	0.07	0.06	0.05	0.08
%RSD	0.369	0.551	2.663	3.454	3.503	3.095	2.301	3.937
#1	1.941	1.994	2.000	2.000	2.130	1.954	2.123	1.988
#2	1.940	1.996	1.997	1.987	2.133	1.957	2.131	1.973
#3	1.939	1.996	1.990	1.992	2.119	1.966	2.123	1.977

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.465	2.072	2.123	2.064	2.113	2.081	2.033	2.041
Stddev	0.026	0.02	0.02	0.10	0.11	0.08	0.06	0.01
%RSD	1.041	1.111	0.795	4.724	5.005	3.843	2.899	0.421
#1	2.477	2.072	2.124	2.074	2.121	2.079	2.039	2.041
#2	2.481	2.075	2.121	2.062	2.101	2.074	2.027	2.042
#3	2.435	2.070	2.125	2.055	2.117	2.090	2.033	2.041

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	24.97	26.47	26.36	25.10	24.79	25.14	2.069	2.160
Stddev	1.0	0.5	0.7	1.5	1.0	0.6	0.06	0.05
%RSD	3.867	2.047	2.627	6.029	3.892	2.224	2.736	2.483
#1	24.87	26.45	26.37	25.15	24.84	25.16	2.062	2.166
#2	24.97	26.43	26.42	24.93	24.68	25.08	2.072	2.156
#3	25.07	26.53	26.29	25.22	24.86	25.19	2.072	2.157

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.352	2.191	1.921	1.851	2.053	2.043	W -0.721	-0.185
Stddev	0.18	0.01	0.04	0.12	0.06	0.05	0.165	0.051
%RSD	4.239	0.442	1.961	6.669	2.731	2.290	22.83	27.69
#1	4.373	2.191	1.917	1.836	2.060	2.040	-0.531	-0.145
#2	4.342	2.192	1.924	1.858	2.050	2.049	-0.815	-0.243
#3	4.339	2.190	1.921	1.857	2.050	2.041	-0.817	-0.168

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Sample Name: mp17718-b2 Acquired: 10/10/2019 13:47:35 Type: Unk
 Method: SGS 070219(v291) Mode: CONC Corr. Factor: 5.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm
Avg	-0.057	2.099	-0.0773
Stddev	.0038	.013	.0159
%RSD	66.93	.6258	20.61
#1	-0.025	2.113	-0.0957
#2	-0.046	2.098	-0.0682
#3	-0.099	2.087	-0.0681

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	99382.	14900.	3424.8	7927.5
Stddev	188.	44.	4.8	17.2
%RSD	.18917	.29424	.13915	.21649
#1	99396.	14949.	3421.9	7908.2
#2	99187.	14864.	3422.2	7933.3
#3	99563.	14887.	3430.3	7941.0

Sample Name: td45708-1 Acquired: 10/10/2019 13:52:31 Type: Unk
 Method: SGS 070219(v291) Mode: CONC Corr. Factor: 1.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0023	.0000	.0001	.0032	.0009	.5611	.0026	.0188
Stddev	.0002	.0001	.0001	.0001	.0002	.0002	.0001	.0003
%RSD	8.622	794.1	100.5	2.688	25.44	.0434	4.212	1.468
#1	.0021	-.0001	.0003	.0033	.0007	.5612	.0027	.0190
#2	.0025	.0001	.0000	.0033	.0009	.5609	.0025	.0189
#3	.0022	.0001	.0001	.0031	.0012	.5613	.0026	.0185

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.011	.0000	.0307	.1125	F -0.038	4.566	.0052	-0.006
Stddev	.0004	.0003	.0002	.0017	.0006	.008	.0027	.0015
%RSD	33.83	14810.	.7643	1.526	16.07	.1797	52.28	242.4
#1	-.0014	.0004	.0307	.1124	-.0033	4.565	.0075	-.0021
#2	-.0014	-.0001	.0309	.1109	-.0045	4.575	.0022	-.0007
#3	-.0007	-.0002	.0305	.1143	-.0036	4.559	.0059	.0010

11.4

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Sample Name: td45708-1 Acquired: 10/10/2019 13:52:31 Type: Unk
 Method: SGS 070219(v291) Mode: CONC Corr. Factor: 1.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm
Avg	.0210	.2399	-0.0017
Stddev	.0015	.0009	.0009
%RSD	7.180	.3579	48.88
#1	.0195	.2401	-.0024
#2	.0210	.2406	-.0020
#3	.0225	.2389	-.0008

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	84257.	14087.	3029.9	6345.6
Stddev	270.	63.	3.0	7.2
%RSD	.31986	.44724	.09915	.11334
#1	84063.	14048.	3030.4	6346.8
#2	84564.	14053.	3026.7	6337.9
#3	84142.	14159.	3032.7	6352.2

Sample Name: mp17717-mb2 Acquired: 10/10/2019 13:57:46 Type: Unk
 Method: SGS 070219(v291) Mode: CONC Corr. Factor: 5.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0043	.0002	-0.0006	.0002	-0.0007	.0074	.0011	.0059
Stddev	.0007	.0001	.0004	.0015	.0015	.0008	.0002	.0005
%RSD	16.19	60.16	63.55	739.9	219.0	11.49	19.65	8.780
#1	.0036	.0003	-.0002	-.0009	.0006	.0068	.0010	.0062
#2	.0045	.0002	-.0007	.0018	-.0023	.0084	.0009	.0061
#3	.0050	.0001	-.0010	-.0003	-.0003	.0070	.0013	.0053

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0056	.0005	-0.0029	.0059	-0.0031	-0.0005	.0149	-0.042
Stddev	.0015	.0021	.0012	.0059	.0060	.0036	.0057	.0055
%RSD	26.40	462.3	39.59	99.99	197.9	747.5	38.40	130.2
#1	-.0073	.0026	-.0017	.0074	-.0043	-.0040	.0140	-.0106
#2	-.0050	-.0016	-.0030	.0110	-.0084	.0032	.0210	-.0017
#3	-.0046	.0003	-.0040	-.0006	.0035	-.0006	.0097	-.0004

Sample Name: mp17717-mb2 Acquired: 10/10/2019 13:57:46 Type: Unk
 Method: SGS 070219(v291) Mode: CONC Corr. Factor: 5.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm
Avg	0.462	0.278	0.039
Stddev	.0073	.0088	.0069
%RSD	15.72	2.787	177.3
#1	.0539	.0272	.0114
#2	.0452	.0287	-.0021
#3	.0395	.0274	.0024

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	92506.	14484.	3251.2	7149.0
Stddev	418.	32.	9.4	21.7
%RSD	.45213	.21842	.28982	.30405
#1	92121.	14515.	3250.5	7144.8
#2	92447.	14485.	3260.9	7172.5
#3	92951.	14451.	3242.1	7129.6

Sample Name: mp17717-b2 Acquired: 10/10/2019 14:03:02 Type: Unk
 Method: SGS 070219(v291) Mode: CONC Corr. Factor: 5.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.977	2.046	1.972	1.998	2.093	1.927	2.096	1.999
Stddev	.020	.023	.011	.009	.005	.013	.005	.009
%RSD	.9949	1.141	.5535	.4765	.2244	.6633	.2206	.4620
#1	1.996	2.065	1.984	2.008	2.097	1.932	2.100	2.010
#2	1.979	2.053	1.963	1.997	2.088	1.935	2.097	1.997
#3	1.957	2.020	1.968	1.990	2.095	1.912	2.091	1.992

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.508	2.065	2.092	2.049	2.008	2.061	2.027	1.987
Stddev	.0034	.009	.009	.009	.010	.014	.017	.009
%RSD	1.375	.4399	.4111	.4398	.5191	.6790	.8135	.4614
#1	.2542	2.075	2.101	2.059	2.019	2.077	2.042	1.997
#2	.2507	2.062	2.090	2.049	1.998	2.053	2.029	1.979
#3	.2473	2.057	2.084	2.041	2.006	2.053	2.009	1.985

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	25.08	28.34	26.48	25.41	28.01	W 1393.	2.144	2.078
Stddev	.23	.33	.40	.34	.42	.18	.014	.013
%RSD	.9302	1.158	1.515	1.354	1.513	1.317	.6668	.6352
#1	25.30	28.69	26.79	25.64	28.47	1404.	2.160	2.091
#2	25.11	28.29	26.64	25.57	27.94	1403.	2.135	2.078
#3	24.84	28.04	26.03	25.01	27.63	1372.	2.136	2.065

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	6.573	2.070	1.975	1.895	1.933	2.037	.4017	-0.133
Stddev	.0067	.012	.022	.010	.014	.007	.0142	.0106
%RSD	1.027	.5623	1.092	.5450	.6963	.3492	3.531	79.67
#1	.6495	2.082	1.993	1.894	1.947	2.044	.3918	-.0182
#2	.6617	2.069	1.979	1.906	1.933	2.037	.4179	-.0011
#3	.6606	2.059	1.951	1.885	1.920	2.029	.3952	-.0205

Sample Name: mp17717-b2 Acquired: 10/10/2019 14:03:02 Type: Unk
 Method: SGS 070219(v291) Mode: CONC Corr. Factor: 5.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm
Avg	0.428	2.125	-0.827
Stddev	.0029	.008	.0165
%RSD	6.827	.3793	19.97
#1	.0461	2.134	-.0994
#2	.0419	2.119	-.0664
#3	.0404	2.122	-.0822

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	93743.	14560.	3290.4	7173.2
Stddev	181.	35.	5.7	9.2
%RSD	.19313	.24370	.17417	.12844
#1	93944.	14582.	3284.6	7163.0
#2	93693.	14519.	3296.1	7180.8
#3	93593.	14578.	3290.6	7175.9

Sample Name: jc96197-1a Acquired: 10/10/2019 14:08:03 Type: Unk
 Method: SGS 070219(v291) Mode: CONC Corr. Factor: 5.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.379	.0000	.0016	.0018	.0053	.0085	.6157	.0089
Stddev	.0018	.0002	.0002	.0019	.0014	.0010	.0014	.0022
%RSD	.4198	8386.	12.95	105.8	27.00	11.45	.2292	24.06
#1	.4387	.0000	.0017	.0005	.0061	.0075	.6173	.0074
#2	.4358	-.0002	.0017	.0009	.0036	.0094	.6148	.0114
#3	.4392	.0001	.0013	.0039	.0061	.0087	.6150	.0080

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.019	.0003	.1726	.0040	-0.073	.0041	.0138	.0024
Stddev	.0011	.0009	.0012	.0051	.0059	.0026	.0094	.0042
%RSD	55.93	291.3	.7082	127.9	81.21	64.32	68.22	178.5
#1	-.0010	.0012	.1726	.0060	-.0067	.0026	.0245	.0051
#2	-.0017	-.0006	.1713	.0077	-.0134	.0025	.0097	-.0025
#3	-.0031	.0003	.1738	-.0018	-.0017	.0071	.0071	.0045

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.197	616.6	.0275	9.247	6.939	W 1345.	.5219	-.004
Stddev	.0073	1.9	.0307	.178	.036	19.	.0022	.0005
%RSD	37.27	.3005	111.6	1.926	.5207	1.424	.4206	118.0
#1	-.0223	618.6	.0137	9.142	6.912	1342.	.5239	-.0008
#2	-.0114	616.4	.0627	9.146	6.924	1366.	.5196	-.0006
#3	-.0253	614.9	.0062	9.452	6.980	1328.	.5223	.0001

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.922	-0.046	1.816	-0.027	.0139	.0015	8.131	.004
Stddev	.014	.0045	.007	.0025	.0035	.0008	.046	.0079
%RSD	.4786	.9746	.3836	.9184	25.31	52.55	.5644	213.
#1	2.921	.0003	1.815	-.0006	.0176	.0022	8.153	-.0023
#2	2.936	-.0085	1.809	-.0021	.0132	.0006	8.161	.0092
#3	2.908	-.0057	1.823	-.0055	.0107	.0016	8.078	-.0058

Zoom In
Zoom Out

Sample Name: jc96197-1a Acquired: 10/10/2019 14:08:03 Type: Unk
Method: SGS 070219(v291) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm
Avg	.0439	.1533	.0079
Stddev	.0071	.0065	.0168
%RSD	16.29	4.247	212.9
#1	.0470	.1563	.0152
#2	.0490	.1579	-.0113
#3	.0357	.1459	.0198

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	91940.	14362.	3197.2	6962.3
Stddev	44.	48.	8.4	13.7
%RSD	.04834	.33766	.26206	.19658
#1	91923.	14388.	3193.9	6956.8
#2	91907.	14306.	3206.8	6977.8
#3	91991.	14392.	3191.0	6952.1

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Zoom In
Zoom Out

Sample Name: jc96197-3a Acquired: 10/10/2019 14:13:17 Type: Unk
Method: SGS 070219(v291) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.302	-0.000	-0.004	.0003	.0075	.0083	.3493	.0040
Stddev	.0018	.0003	.0005	.0002	.0012	.0006	.0031	.0021
%RSD	1.419	1942.	109.8	70.37	16.63	6.856	.8987	53.49
#1	.1323	-.0003	-.0003	.0001	.0069	.0089	.3524	.0016
#2	.1297	.0003	-.0010	.0003	.0089	.0081	.3494	.0047
#3	.1287	-.0000	-.0000	.0004	.0067	.0078	.3461	.0057

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0001	.0014	.0223	.0035	-0.017	-0.017	.0087	.0050
Stddev	.0018	.0027	.0003	.0069	.0053	.0055	.0084	.0056
%RSD	1394.	195.9	1.124	195.5	304.5	323.6	96.28	113.6
#1	.0002	-.0002	.0225	.0039	-.0062	-.0076	.0171	.0034
#2	.0019	.0045	.0224	.0103	-.0033	-.0008	.0003	.0112
#3	-.0017	-.0002	.0220	-.0036	.0042	-.0033	.0088	.0002

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.236	793.5	-0.035	7.222	5.483	W 1430.	.4614	-0.008
Stddev	.0272	9.1	.0141	.308	.109	8.	.0041	.0008
%RSD	115.4	1.152	404.0	4.265	1.991	.5411	.8833	96.64
#1	-.0440	801.4	-.0115	7.405	5.379	1436.	.4647	.0000
#2	.0073	795.7	-.0118	7.395	5.472	1433.	.4626	-.0009
#3	-.0342	783.5	.0128	6.866	5.597	1421.	.4568	-.0016

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.981	-0.056	2.029	-0.007	.0160	.0004	33.17	-0.034
Stddev	.029	.0032	.018	.0021	.0051	.0011	.27	.0121
%RSD	9802	57.44	8745	306.4	32.07	278.5	.8273	362.2
#1	3.000	-.0088	2.046	.0012	.0170	.0005	33.48	-.0154
#2	2.948	-.0059	2.032	-.0003	.0205	-.0007	33.02	-.0035
#3	2.997	-.0023	2.010	-.0030	.0104	.0015	33.00	.0088

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11.4
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Zoom In
Zoom Out

Sample Name: jc96197-3a Acquired: 10/10/2019 14:13:17 Type: Unk
Method: SGS 070219(v291) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm
Avg	.0404	.3118	.0149
Stddev	.0026	.0024	.0065
%RSD	6.337	.7554	43.18
#1	.0428	.3143	.0213
#2	.0408	.3115	.0084
#3	.0377	.3096	.0151

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	91831.	14345.	3178.5	6925.6
Stddev	22.	110.	5.9	15.4
%RSD	.02383	.76728	.18459	.22298
#1	91851.	14304.	3172.1	6908.2
#2	91808.	14262.	3183.5	6937.7
#3	91835.	14470.	3179.9	6930.8

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Zoom In
Zoom Out

Sample Name: jc96197-5a Acquired: 10/10/2019 14:18:29 Type: Unk
Method: SGS 070219(v291) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.623	.0014	.0012	.0413	.0026	.0178	7.517	.0374
Stddev	.0001	.0001	.0011	.0009	.0008	.0013	.062	.0005
%RSD	.0303	7.263	91.89	2.259	29.09	7.570	.8233	1.359
#1	.4622	.0014	.0010	.0404	.0021	.0162	7.579	.0373
#2	.4623	.0014	.0003	.0423	.0035	.0183	7.519	.0371
#3	.4625	.0016	.0025	.0411	.0023	.0187	7.455	.0380

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.028	.0002	.0366	.0001	-0.035	.0121	.0180	-0.021
Stddev	.0007	.0007	.0014	.0060	.0032	.0009	.0053	.0013
%RSD	24.89	293.0	3.910	11150.	90.65	7.440	29.41	60.73
#1	-.0021	.0007	.0374	-.0020	-.0018	.0114	.0145	-.0032
#2	-.0028	-.0006	.0349	.0069	-.0072	.0131	.0154	-.0007
#3	-.0035	.0006	.0374	-.0047	-.0016	.0119	.0241	-.0024

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.856	70.73	.0892	26.93	3.430	W 1319.	.2288	.0006
Stddev	.0229	.13	.0393	.29	.086	11.	.0039	.0004
%RSD	12.34	.1784	44.01	1.091	2.514	.8232	1.705	68.68
#1	.2105	70.87	.0848	26.85	3.335	1328.	.2275	.0006
#2	.1808	70.71	.0524	27.26	3.503	1321.	.2332	.0011
#3	.1655	70.62	.1305	26.70	3.451	1307.	.2257	.0002

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.961	.0049	.2673	.0001	.0156	.0001	1.031	-0.072
Stddev	.015	.0005	.0008	.0014	.0028	.0005	.005	.0058
%RSD	.3853	11.07	.3037	1526.	18.21	385.9	5254	80.91
#1	3.943	.0043	.2664	-.0014	.0164	-.0004	1.030	-.0005
#2	3.970	.0049	.2680	.0002	.0124	-.0003	1.037	-.0108
#3	3.968	.0054	.2674	.0015	.0179	.0005	1.026	-.0102

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Zoom In
Zoom Out

Sample Name: jc96197-5a Acquired: 10/10/2019 14:18:29 Type: Unk
Method: SGS 070219(v291) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm
Avg	.0427	.6452	.0213
Stddev	.0046	.0044	.0107
%RSD	10.83	.6875	49.92

#1	.0374	.6503	.0285
#2	.0446	.6432	.0265
#3	.0460	.6422	.0091

Int. Std.	Y_3600	Y_3710	Y_2243	ln2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	93647.	14533.	3267.9	7169.1
Stddev	437.	34.	1.9	6.3
%RSD	.46646	.23616	.05682	.08847

#1	93210.	14496.	3266.2	7168.2
#2	93648.	14539.	3267.6	7175.8
#3	94083.	14564.	3269.9	7163.2

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Zoom In
Zoom Out

Sample Name: jc96197-7a Acquired: 10/10/2019 14:23:42 Type: Unk
Method: SGS 070219(v291) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1538	.0003	.0011	.0019	.0089	.0187	.7064	.0094
Stddev	.0009	.0002	.0006	.0008	.0017	.0025	.0056	.0010
%RSD	.5842	68.14	55.16	42.21	18.62	13.58	.7913	10.28

#1	.1549	.0003	.0017	.0010	.0093	.0168	.7104	.0090
#2	.1532	.0005	.0011	.0026	.0071	.0215	.7087	.0105
#3	.1535	.0001	.0005	.0022	.0103	.0177	.7000	.0087

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0019	.0019	.0992	-0.0020	-0.0008	.0038	.0024	-0.0015
Stddev	.0005	.0004	.0057	.0071	.0013	.0042	.0127	.0025
%RSD	25.03	20.32	5.758	356.5	167.9	112.7	539.4	167.7

#1	-0.0014	.0016	.1047	-0.0099	.0004	.0079	.0044	.0013
#2	-0.0023	.0023	.0996	.0041	-0.0021	.0039	.0139	-0.0024
#3	-0.0020	.0017	.0933	-0.0002	-0.0006	-0.0005	-0.0112	-0.0034

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0152	721.2	.0454	6.499	8.343	1443.	.4905	-0.0009
Stddev	.0553	6.3	.0259	.249	.055	23.	.0016	.0011
%RSD	363.0	.8805	57.19	3.833	6534.	1.623	.3364	118.5

#1	-0.0070	726.7	.0297	6.466	8.286	1466.	.4894	-0.0017
#2	.0355	722.8	.0753	6.763	8.395	1444.	.4897	.0003
#3	-0.0743	714.3	.0311	6.268	8.348	1419.	.4924	-0.0013

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.490	-0.0040	2.130	-0.0009	.0114	-0.0000	34.89	-0.0046
Stddev	.018	.0009	.021	.0012	.0007	.0006	.10	.0035
%RSD	4.053	22.96	9.661	128.4	6.108	3218.	.2756	74.99

#1	4.495	-0.0039	2.148	-0.0020	.0112	-0.0007	35.01	-0.0006
#2	4.470	-0.0050	2.135	.0004	.0121	.0001	34.84	-0.0067
#3	4.505	-0.0032	2.108	-0.0012	.0108	.0005	34.84	-0.0066

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Zoom In
Zoom Out

Sample Name: jc96197-7a Acquired: 10/10/2019 14:23:42 Type: Unk
Method: SGS 070219(v291) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm
Avg	.0446	.0975	.0151
Stddev	.0036	.0030	.0055
%RSD	8.138	3.104	36.20

#1	.0481	.0942	.0214
#2	.0448	.0983	.0112
#3	.0408	.1001	.0128

Int. Std.	Y_3600	Y_3710	Y_2243	ln2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	91916.	14365.	3185.1	6934.6
Stddev	282.	46.	1.2	6.0
%RSD	.30689	.32268	.03683	.08719

#1	92162.	14361.	3184.0	6940.1
#2	91608.	14321.	3186.4	6928.1
#3	91978.	14413.	3184.9	6935.7

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Zoom In
Zoom Out

Sample Name: ccv Acquired: 10/10/2019 14:28:56 Type: QC
Method: SGS 070219(v291) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.034	2.084	2.011	2.052	2.153	2.048	2.138	2.036	.2560
Stddev	.025	.025	.006	.004	.033	.027	.029	.003	.0030
%RSD	1.253	1.176	.2874	.2159	1.509	1.329	1.368	.1511	1.158

#1	2.004	2.056	2.018	2.058	2.188	2.076	2.168	2.039	.2588
#2	2.047	2.097	2.008	2.050	2.146	2.045	2.136	2.033	.2562
#3	2.050	2.100	2.008	2.049	2.124	2.022	2.110	2.034	.2529

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.105	2.108	2.076	2.111	2.112	2.045	2.030	40.85	42.42
Stddev	.028	.007	.007	.005	.002	.007	.005	.52	.50
%RSD	1.319	.3388	.3466	.2348	.0767	.3222	.2285	1.269	1.183

#1	2.134	2.116	2.084	2.116	2.114	2.053	2.035	40.25	41.84
#2	2.103	2.103	2.074	2.109	2.111	2.044	2.029	41.13	42.70
#3	2.079	2.105	2.070	2.107	2.111	2.040	2.026	41.17	42.73

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	42.34	41.21	40.67	41.03	2.096	2.107	F 5.607	2.126	2.029
Stddev	.55	.47	.50	.53	.002	.006	.010	.007	.026
%RSD	1.306	1.135	1.236	1.296	.0933	.2923	.1795	.3238	1.284

#1	41.70	40.67	40.09	40.42	2.098	2.114	5.616	2.133	1.999
#2	42.63	41.45	40.93	41.33	2.096	2.106	5.610	2.123	2.042
#3	42.69	41.51	40.99	41.34	2.095	2.102	5.597	2.120	2.046

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
Value Range							5.000 10.00%		

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11.4
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Sample Name: ccv Acquired: 10/10/2019 14:28:56 Type: QC
 Method: SGS 070219(v291) Mode: CONC Corr. Factor: 1.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.924	2.080	2.106	2.021	2.081	2.047	2.138	2.132
Stddev	.021	.010	.027	.005	.004	.027	.004	.029
%RSD	1.120	.4691	1.296	.2616	.1840	1.301	.2046	1.378
#1	1.949	2.091	2.135	2.019	2.085	2.016	2.144	2.163
#2	1.915	2.080	2.101	2.027	2.080	2.062	2.136	2.127
#3	1.909	2.071	2.081	2.016	2.077	2.063	2.136	2.105

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
 Value Range

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	95182.	14345.	3338.4	7369.9
Stddev	1169.	134.	7.9	9.0
%RSD	1.2278	.93524	.23551	.12242

#1	94050.	14496.	3329.4	7359.7
#2	95110.	14239.	3344.2	7376.7
#3	96384.	14300.	3341.6	7373.5

Sample Name: ccb Acquired: 10/10/2019 14:33:42 Type: QC
 Method: SGS 070219(v291) Mode: CONC Corr. Factor: 1.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0007	F .0005	.0002	.0003	.0003	.0008	.0004	.0004	-.0011
Stddev	.0001	.0001	.0002	.0002	.0002	.0002	.0001	.0003	.0025
%RSD	21.05	18.54	67.86	80.85	74.20	22.83	20.04	69.03	36.24
#1	.0006	.0006	.0003	.0005	.0005	.0010	.0004	.0001	-.0009
#2	.0006	.0006	.0003	.0004	.0003	.0007	.0005	.0004	-.0016
#3	.0008	.0004	.0001	.0000	.0001	.0007	.0003	.0007	-.0009

Check ? Chk Pass Chk Fail Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
 High Limit
 Low Limit

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0006	-.0002	.0002	.0000	.0012	.0034	.0012	.0070	.0047
Stddev	.0003	.0000	.0011	.0006	.0004	.0020	.0009	.0073	.0048
%RSD	51.86	15.96	733.2	1767.	37.64	60.79	80.24	104.2	102.3

#1	.0009	-.0002	.0005	.0001	.0011	.0038	.0006	.0054	.0097
#2	.0006	-.0002	-.0011	-.0006	.0016	.0011	.0006	.0150	.0002
#3	.0003	-.0002	.0011	.0006	.0008	.0052	.0022	.0007	.0041

Sample Name: ccb Acquired: 10/10/2019 14:33:42 Type: QC
 Method: SGS 070219(v291) Mode: CONC Corr. Factor: 1.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0003	.0003	.0004	-.0045	.0001	.0016	.0031	-.0005
Stddev	.0002	.0009	.0001	.0023	.0008	.0005	.0020	.0015
%RSD	54.21	290.8	20.79	50.75	1458.	31.24	64.30	310.9
#1	.0005	.0002	.0005	-.0048	-.0008	.0022	.0011	-.0002
#2	.0003	.0013	.0005	-.0067	.0008	.0014	.0050	.0008
#3	.0002	-.0005	.0003	-.0021	.0001	.0013	.0031	-.0021

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
 High Limit
 Low Limit

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	98861.	14607.	3426.6	8033.2
Stddev	184.	47.	7.6	13.8
%RSD	.18656	.31837	.22313	.17193

#1	99062.	14615.	3419.4	8022.5
#2	98699.	14558.	3425.8	8028.2
#3	98823.	14650.	3434.6	8048.8

Sample Name: jc96219-1a Acquired: 10/10/2019 14:38:53 Type: Unk
 Method: SGS 070219(v291) Mode: CONC Corr. Factor: 5.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0574	.0000	.0004	.0006	.0045	.0207	.2780	.0112	-.0049
Stddev	.0002	.0004	.0013	.0008	.0015	.0017	.0043	.0012	.0031
%RSD	.3976	5785.	301.5	127.6	32.00	8.333	1.557	10.93	64.23
#1	.0575	-.0004	-.0010	.0014	.0062	.0200	.2827	.0111	-.0047
#2	.0575	.0002	.0015	.0006	.0036	.0227	.2773	.0124	-.0018
#3	.0571	.0002	.0007	-.0002	.0038	.0194	.2741	.0100	-.0080

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0013	.2710	.0019	.0014	.0084	.0116	.0017	.0411	61.09
Stddev	.0024	.0012	.0031	.0021	.0008	.0089	.0044	.0409	.43
%RSD	179.0	.4340	163.1	144.9	9.817	76.58	262.1	99.52	.7007

#1	.0030	.2703	.0016	.0006	.0090	.0201	-.0013	.0089	61.52
#2	-.0014	.2723	-.0010	.0038	.0074	.0123	-.0004	.0273	61.07
#3	.0023	.2703	.0051	-.0001	.0087	.0024	.0068	.0872	60.66

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sr1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0533	28.89	10.63	F 1512.	.3388	.0010	2.090	.0007	.4742
Stddev	.0060	.31	.04	13.	.0038	.0007	.016	.0007	.0036
%RSD	11.31	1.060	.3941	.8756	1.135	68.99	.7498	110.4	.7532

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0016	.0034	.0025	10.27	-.0074	.0390	.4617	-.0026
Stddev	.0005	.0022	.0008	.07	.0051	.0024	.0063	.0118
%RSD	32.91	64.23	32.63	693.3	69.37	6.125	1.372	457.3

#1	-.0022	.0038	.0025	10.24	-.0033	.0371	.4574	-.0068
#2	-.0012	.0054	.0016	10.35	-.0057	.0382	.4587	-.0117
#3	-.0013	.0010	.0032	10.22	-.0131	.0417	.4690	.0108

11.4
 11

Sample Name: jc96219-1a Acquired: 10/10/2019 14:38:53 Type: Unk
 Method: SGS 070219(v291) Mode: CONC Corr. Factor: 5.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	92256	14421	3246.3	7108.9
Stddev	244	115	11.6	17.7
%RSD	.26409	.79465	.35624	.24889
#1	91976	14404	3252.3	7116.6
#2	92420	14543	3232.9	7088.7
#3	92372	14316	3253.6	7121.5

Sample Name: jc96223-1 Acquired: 10/10/2019 14:44:07 Type: Unk
 Method: SGS 070219(v291) Mode: CONC Corr. Factor: 5.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5911	.0008	.0082	.0490	.0293	.0257	2.878	1.319
Stddev	.0002	.0003	.0006	.0005	.0006	.0041	.019	.0014
%RSD	.0417	40.48	7.394	.9687	2.108	15.86	.6516	1.084
#1	5914	.0008	.0076	.0485	.0298	.0263	2.896	1.303
#2	5909	.0010	.0088	.0493	.0294	.0294	2.881	1.324
#3	5910	.0004	.0082	.0493	.0286	.0213	2.859	1.330
Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.052	.0019	1.572	-0.0009	-0.057	.6688	.0091	-0.019
Stddev	.0020	.0021	.004	.0054	.0076	.0029	.0045	.0024
%RSD	39.46	108.5	2.695	634.7	132.8	4.262	49.36	126.4
#1	-0.028	.0038	1.571	-0.047	-0.028	.6697	.0064	.0046
#2	-0.064	.0021	1.577	.0053	-0.000	.6711	.0067	.0013
#3	-0.063	-0.003	1.568	-0.031	-0.144	.6656	.0144	-0.001
Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4615	167.9	4996	20.88	8.208	W 1326.	.2571	.0015
Stddev	.0230	.1	.0188	.14	.067	22.	.0040	.0012
%RSD	4.976	.0805	3.766	.6903	8.120	1.636	1.540	82.08
#1	4873	168.0	4816	20.76	8.196	1350.	.2601	.0028
#2	4536	167.7	4980	21.04	8.279	1320.	.2585	.0014
#3	4435	167.8	5192	20.83	8.148	1308.	.2526	.0003
Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.276	-0.001	4.390	.0043	.0107	.0008	7.412	-0.013
Stddev	.033	.0034	.0023	.0017	.0057	.0014	.016	.0083
%RSD	6.151	256.3	5.344	39.38	53.41	180.3	2.162	626.1
#1	5.254	.0035	4.417	.0059	.0044	.0020	7.397	-0.022
#2	5.314	-0.007	4.381	.0025	.0156	.0009	7.429	.0073
#3	5.262	-0.032	4.373	.0045	.0122	-0.007	7.410	-0.091

11.4
11

Sample Name: jc96223-1 Acquired: 10/10/2019 14:44:07 Type: Unk
 Method: SGS 070219(v291) Mode: CONC Corr. Factor: 5.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Li6707	P_1774	Ce4040	
Units	ppm	ppm	ppm	
Avg	.0377	.2749	.0204	
Stddev	.0050	.0011	.0076	
%RSD	13.28	.3991	37.03	
#1	.0327	.2747	.0287	
#2	.0375	.2739	.0138	
#3	.0427	.2761	.0189	
Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	91754	14382	3232.8	7055.7
Stddev	575	20	7.2	7.3
%RSD	.62693	.13634	.22342	.10357
#1	91173	14403	3228.8	7053.5
#2	91767	14364	3228.5	7049.7
#3	92323	14380	3241.2	7063.8

Sample Name: jc96223-2 Acquired: 10/10/2019 14:49:20 Type: Unk
 Method: SGS 070219(v291) Mode: CONC Corr. Factor: 5.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5159	.0004	.0040	.0198	.0062	.0158	2.976	.0238
Stddev	.0031	.0002	.0007	.0014	.0007	.0010	.021	.0016
%RSD	5.969	42.49	17.07	6.957	10.56	6.645	.7060	6.541
#1	5178	.0004	.0047	.0185	.0069	.0147	2.997	.0221
#2	5177	.0005	.0034	.0197	.0061	.0168	2.976	.0251
#3	5124	.0002	.0038	.0213	.0056	.0159	2.955	.0240
Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.056	.0010	1.126	-0.064	-0.045	.0867	.0128	.0058
Stddev	.0013	.0009	.001	.0057	.0042	.0082	.0021	.0082
%RSD	22.97	90.69	1.030	89.87	93.28	9.430	16.79	141.4
#1	-0.042	.0014	1.126	-0.047	-0.030	.0953	.0139	.0140
#2	-0.057	.0017	1.125	-0.127	-0.013	.0856	.0103	-0.024
#3	-0.068	-0.000	1.127	-0.016	-0.093	.0791	.0141	.0057
Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3854	270.1	1024	29.51	7.092	W 1394.	2.007	.0003
Stddev	.0155	1.9	.0115	.29	.138	13.	.0011	.0008
%RSD	4.014	.6888	11.28	.9956	1.943	.9633	.5242	256.5
#1	3842	271.8	.0896	29.77	6.996	1392.	.2017	.0012
#2	4014	270.2	.1053	29.19	7.030	1408.	.1996	-0.002
#3	3705	268.1	.1122	29.56	7.250	1382.	.2006	-0.001
Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	8.444	-0.045	5.398	-0.024	.0091	-0.010	6.425	-0.043
Stddev	.026	.0053	.0028	.0027	.0012	.0007	.041	.0027
%RSD	.3097	117.1	5.107	115.8	13.42	68.42	.6333	62.63
#1	8.446	-0.078	5.422	-0.054	.0093	-0.006	6.448	-0.012
#2	8.417	-0.074	5.405	-0.003	.0102	-0.018	6.378	-0.059
#3	8.469	.0016	5.368	-0.014	.0078	-0.006	6.450	-0.058

Sample Name: jc96223-2 Acquired: 10/10/2019 14:49:20 Type: Unk
 Method: SGS 070219(v291) Mode: CONC Corr. Factor: 5.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm
Avg	.0373	.2743	.0083
Stddev	.0063	.0120	.0071
%RSD	16.95	4.358	86.28
#1	.0376	.2874	.0073
#2	.0435	.2716	.0016
#3	.0308	.2640	.0158

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	91075.	14406.	3216.4	7007.7
Stddev	141.	24.	3.2	6.9
%RSD	.15444	.16709	.09915	.09830
#1	91141.	14433.	3218.1	7014.8
#2	91170.	14400.	3218.3	7007.1
#3	90913.	14386.	3212.7	7001.1

Sample Name: jc96223-3 Acquired: 10/10/2019 14:54:34 Type: Unk
 Method: SGS 070219(v291) Mode: CONC Corr. Factor: 5.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2958	.0007	.0002	.0257	.0021	.0253	1.385	.2706
Stddev	.0015	.0003	.0012	.0001	.0045	.0003	.007	.0031
%RSD	.4967	50.71	646.8	.4613	217.8	1.157	.4862	1.148
#1	.2975	.0010	.0004	.0258	.0045	.0255	1.393	.2678
#2	.2952	.0004	.0012	.0256	.0048	.0254	1.383	.2699
#3	.2948	.0006	-.0011	.0256	-.0031	.0250	1.380	.2739

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0069	.0027	.3102	.0016	-0.0037	.0601	.0065	.0044
Stddev	.0011	.0016	.0016	.0035	.0042	.0043	.0106	.0079
%RSD	16.38	58.74	5010	211.5	112.6	7.137	163.1	180.0
#1	-.0057	.0045	.3088	-.0023	-.0060	.0555	-.0016	.0053
#2	-.0074	.0013	.3119	.0043	-.0063	.0610	.0185	.0118
#3	-.0078	.0025	.3101	.0029	.0011	.0640	.0026	-.0039

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.8227	59.09	1.801	4.466	5.794	W 1388.	.3548	.0002
Stddev	.0158	.33	.029	.102	.088	10.	.0023	.0004
%RSD	1.918	.5578	1.591	2.289	1.519	.7422	.6600	233.4
#1	.8407	59.24	1.828	4.582	5.730	1400.	.3575	.0006
#2	.8155	59.33	1.804	4.389	5.758	1381.	.3534	-.0001
#3	.8117	58.72	1.771	4.427	5.894	1382.	.3535	.0000

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.432	-0.0052	.2134	.0080	.0095	-0.0001	7.615	-0.022
Stddev	.005	.0010	.0015	.0023	.0019	.0003	.022	.0166
%RSD	.0858	19.22	.7111	29.02	20.01	184.8	.2879	760.4
#1	5.427	-.0059	.2140	.0106	.0088	-.0003	7.641	-.0132
#2	5.436	-.0041	.2145	.0074	.0079	.0001	7.602	.0169
#3	5.433	-.0056	.2116	.0060	.0116	-.0002	7.603	-.0103

Sample Name: jc96223-3 Acquired: 10/10/2019 14:54:34 Type: Unk
 Method: SGS 070219(v291) Mode: CONC Corr. Factor: 5.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm
Avg	.0297	.1520	.0255
Stddev	.0042	.0047	.0166
%RSD	13.98	3.102	65.12
#1	.0269	.1473	.0068
#2	.0277	.1567	.0385
#3	.0345	.1521	.0311

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	92010.	14414.	3258.0	7135.5
Stddev	351.	86.	3.0	1.3
%RSD	.38183	.59548	.09173	.01868
#1	91659.	14378.	3261.5	7137.0
#2	92362.	14351.	3256.4	7134.4
#3	92008.	14512.	3256.2	7135.0

Sample Name: jc96223-4 Acquired: 10/10/2019 14:59:49 Type: Unk
 Method: SGS 070219(v291) Mode: CONC Corr. Factor: 5.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6203	.0005	.0067	.0506	2.328	.0294	2.405	.2589
Stddev	.0064	.0004	.0011	.0011	.020	.0011	.021	.0005
%RSD	1.026	79.78	16.77	2.127	.8477	3.802	.8929	.1921
#1	.6187	.0008	.0056	.0509	2.340	.0284	2.424	.2594
#2	.6149	.0007	.0067	.0494	2.338	.0306	2.411	.2590
#3	.6274	.0000	.0079	.0514	2.305	.0293	2.382	.2584

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0058	.0055	.3530	-0.0029	-0.0042	.0474	.0102	-0.0043
Stddev	.0014	.0016	.0010	.0047	.0021	.0063	.0070	.0025
%RSD	24.41	29.47	.2906	161.0	49.47	13.21	68.58	58.07
#1	-.0045	.0072	.3527	-.0040	-.0062	.0505	.0160	-.0048
#2	-.0073	.0039	.3541	-.0069	-.0043	.0515	.0025	-.0065
#3	-.0058	.0054	.3521	.0022	-.0020	.0402	.0120	-.0016

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	6.402	195.5	1210	30.40	8.217	W 1348.	.2023	.0003
Stddev	.0455	2.0	.0342	.47	.028	20.	.0031	.0005
%RSD	7.106	1.006	28.25	1.543	.3421	1.488	1.508	184.4
#1	6.277	195.5	.0819	30.40	8.234	1356.	.2004	-.0003
#2	6.023	193.5	.1357	29.93	8.185	1325.	.2058	.0004
#3	.6907	197.4	.1454	30.87	8.233	1363.	.2006	.0006

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	13.93	-0.0048	5.248	-0.0005	.0197	-0.0003	4.091	-0.092
Stddev	.05	.0025	.0057	.0032	.0036	.0007	.022	.0040
%RSD	.3491	52.02	1.089	676.9	18.00	227.4	.5457	43.03
#1	13.93	-.0054	5.230	.0030	.0218	-.0011	4.103	-.0103
#2	13.98	-.0021	5.202	-.0034	.0218	-.0001	4.105	-.0048
#3	13.89	-.0070	5.312	-.0011	.0156	.0003	4.065	-.0125

Sample Name: jc96223-4 Acquired: 10/10/2019 14:59:49 Type: Unk
 Method: SGS 070219(v291) Mode: CONC Corr. Factor: 5.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm
Avg	.0305	.2192	.0214
Stddev	.0051	.0038	.0117
%RSD	16.84	1.721	54.89
#1	.0257	.2148	.0282
#2	.0359	.2212	.0078
#3	.0300	.2215	.0281

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	90986.	14472.	3244.6	7059.7
Stddev	653.	120.	9.1	11.2
%RSD	.71817	.83120	.27978	.15920
#1	90484.	14459.	3241.1	7056.7
#2	90749.	14599.	3237.9	7050.2
#3	91725.	14359.	3255.0	7072.1

Sample Name: jc96251-5a Acquired: 10/10/2019 15:05:01 Type: Unk
 Method: SGS 070219(v291) Mode: CONC Corr. Factor: 5.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5901	.0003	-0.0002	.0001	.0047	.0153	.1958	.0115
Stddev	.0026	.0002	.0002	.0007	.0025	.0025	.0003	.0005
%RSD	.4369	62.89	104.7	144.9	53.26	16.40	1.479	4.320
#1	.5884	.0004	-0.0003	-0.0008	.0018	.0170	.1956	.0111
#2	.5888	.0001	.0000	.0003	.0061	.0164	.1961	.0121
#3	.5931	.0005	-0.0004	.0006	.0061	.0124	.1956	.0113

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.041	.0011	.0599	-0.0030	-0.0085	.0136	.0215	.0020
Stddev	.0014	.0004	.0011	.0024	.0115	.0082	.0102	.0066
%RSD	33.64	40.61	1.817	78.43	134.9	60.48	47.38	336.0
#1	-0.028	.0015	.0612	-0.003	-0.080	.0048	.0131	.0096
#2	-0.040	.0011	.0594	-0.048	-0.203	.0150	.0185	-0.026
#3	-0.055	.0006	.0593	-0.039	.0027	.0211	.0328	-0.011

Sample Name: jc96251-5a Acquired: 10/10/2019 15:05:01 Type: Unk
 Method: SGS 070219(v291) Mode: CONC Corr. Factor: 5.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm
Avg	.0531	.0728	.0216
Stddev	.0036	.0093	.0050
%RSD	6.853	12.79	23.19
#1	.0536	.0662	.0209
#2	.0492	.0689	.0170
#3	.0564	.0835	.0270

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	92003.	14464.	3233.0	7028.1
Stddev	372.	120.	5.7	3.4
%RSD	.40432	.82703	.17510	.04809
#1	91599.	14383.	3230.4	7025.8
#2	92078.	14602.	3239.5	7026.5
#3	92332.	14408.	3229.1	7032.0

Sample Name: mp17712-mb2 Acquired: 10/10/2019 15:10:16 Type: Unk
 Method: SGS 070219(v291) Mode: CONC Corr. Factor: 5.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0052	.0001	-0.0013	.0012	.0015	.0091	.0011	.0060
Stddev	.0004	.0001	.0007	.0004	.0013	.0010	.0002	.0013
%RSD	6.788	47.96	52.81	30.02	86.33	11.49	17.10	21.79
#1	.0056	.0001	-0.0012	.0008	.0002	.0096	.0011	.0064
#2	.0051	.0001	-0.0007	.0013	.0014	.0098	.0009	.0045
#3	.0049	.0002	-0.0020	.0015	.0028	.0079	.0013	.0070

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.062	-0.0016	.0134	.0021	-0.0047	.0026	.0151	.0024
Stddev	.0002	.0002	.0006	.0060	.0026	.0051	.0089	.0026
%RSD	3.701	14.43	4.647	289.9	55.26	193.2	58.98	106.4
#1	-0.062	-0.0017	.0132	.0079	-0.024	.0014	.0129	.0019
#2	-0.059	-0.0014	.0129	-0.041	-0.041	-0.017	.0075	.0001
#3	-0.064	-0.0018	.0141	.0024	-0.075	.0082	.0248	.0053

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0444	.0800	.0571	-0.741	3.185	W 1399.	.1629	-0.001
Stddev	.0283	.0264	.0237	.0746	.152	.24.	.0076	.0012
%RSD	63.81	32.95	41.55	100.7	4.758	1.701	4.695	1200.
#1	.0266	.0750	.0839	.0120	3.311	1427.	.1618	.0006
#2	.0296	.0565	.0387	-1.170	3.017	1384.	.1710	.0005
#3	.0771	.1086	.0488	-1.174	3.227	1387.	.1558	-0.014

Sample Name: mp17712-mb2 Acquired: 10/10/2019 15:10:16 Type: Unk
Method: SGS 070219(v291) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm
Avg	.0311	.0214	-.0011
Stddev	.0041	.0110	.0042
%RSD	13.35	51.50	366.2
#1	.0263	.0130	.0019
#2	.0339	.0173	-.0059
#3	.0330	.0339	.0006

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	92199.	14575.	3277.8	7183.9
Stddev	128.	50.	5.1	9.2
%RSD	.13927	.34535	.15629	.12796
#1	92347.	14540.	3278.4	7183.3
#2	92133.	14633.	3272.5	7175.1
#3	92117.	14552.	3282.7	7193.5

Sample Name: mp17712-b2 Acquired: 10/10/2019 15:15:33 Type: Unk
Method: SGS 070219(v291) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.984	2.062	1.886	1.939	2.069	1.885	2.041	1.921
Stddev	.043	.050	.008	.010	.028	.032	.023	.007
%RSD	2.185	2.429	4.009	.5174	1.333	1.682	1.143	.3467
#1	2.024	2.105	1.890	1.949	2.098	1.915	2.063	1.928
#2	1.989	2.073	1.877	1.930	2.065	1.887	2.044	1.914
#3	1.938	2.007	1.890	1.937	2.043	1.852	2.017	1.920

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.463	2.023	2.032	2.009	1.954	1.996	1.969	1.919
Stddev	.0034	.027	.012	.009	.016	.007	.006	.009
%RSD	1.376	1.313	.6014	.4619	.8060	.3306	.3192	.4534
#1	.2502	2.051	2.045	2.014	1.969	1.991	1.976	1.923
#2	.2452	2.020	2.021	1.998	1.956	1.994	1.967	1.926
#3	.2437	1.999	2.029	2.015	1.937	2.004	1.964	1.909

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	25.45	26.97	26.76	25.60	28.54	W 1418.	2.087	2.020
Stddev	.53	.65	.75	.67	.52	22.	.009	.008
%RSD	2.098	2.426	2.812	2.599	1.812	1.550	.4120	.3844
#1	25.94	27.60	27.44	26.12	29.04	1433.	2.078	2.028
#2	25.53	27.02	26.88	25.83	28.57	1429.	2.089	2.013
#3	24.88	26.29	25.95	24.85	28.01	1393.	2.094	2.021

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6172	2.019	1.971	1.782	1.865	1.999	.0557	-.0107
Stddev	.0014	.005	.043	.023	.012	.026	.0084	.0056
%RSD	2.288	.2653	2.178	1.302	.6361	1.318	15.01	52.56
#1	.6188	2.022	2.010	1.809	1.878	2.027	.0500	-.0056
#2	.6167	2.013	1.978	1.773	1.861	1.997	.0653	-.0098
#3	.6161	2.022	1.925	1.765	1.856	1.974	.0517	-.0168

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Sample Name: mp17712-b2 Acquired: 10/10/2019 15:15:33 Type: Unk
Method: SGS 070219(v291) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm
Avg	.0334	2.068	-.0767
Stddev	.0037	.018	.0140
%RSD	10.99	.8613	18.22
#1	.0318	2.087	-.0919
#2	.0376	2.064	-.0737
#3	.0307	2.052	-.0644

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	93524.	14520.	3310.3	7186.6
Stddev	161.	79.	9.7	22.2
%RSD	.17200	.54286	.29350	.30875
#1	93692.	14470.	3305.2	7175.4
#2	93371.	14478.	3321.5	7212.1
#3	93509.	14611.	3304.1	7172.2

Sample Name: jc95812-1a Acquired: 10/10/2019 15:20:35 Type: Unk
Method: SGS 070219(v291) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1790	.0007	.0022	.0312	.0071	.0602	.6247	.0860	-.0046
Stddev	.0011	.0009	.0010	.0012	.0015	.0003	.0062	.0016	.0017
%RSD	.6399	126.4	47.51	3.828	20.77	.5746	.9914	1.862	37.63
#1	.1794	.0010	.0024	.0307	.0065	.0605	.6303	.0867	-.0042
#2	.1800	-.0003	.0010	.0326	.0088	.0602	.6256	.0871	-.0031
#3	.1778	.0014	.0031	.0304	.0060	.0598	.6181	.0842	-.0065

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0298	1.130	.0225	.0015	.7898	.0048	-.0011	.5966	92.95
Stddev	.0005	.004	.0069	.0072	.0006	.0053	.0051	.0139	.55
%RSD	1.630	.3697	30.66	465.8	.0720	110.7	471.3	2.328	.5956
#1	.0303	1.135	0.185	-.0027	.7892	.0105	.0034	.5807	92.78
#2	.0293	1.127	.0305	-.0025	.7904	.0002	.0000	.6063	93.57
#3	.0300	1.129	0.186	-.0098	.7897	.0036	-.0067	.6027	92.50

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.8595	30.23	16.11	F 1525.	.7958	.0066	5.769	-.0056	.5566
Stddev	.0149	.29	.07	9.	.0042	.0011	.029	.0030	.0029
%RSD	1.737	.9577	.4567	.5605	.5229	17.00	.4946	53.48	.5274
#1	.8429	29.90	16.03	15.16	.7929	.0065	5.800	-.0032	.5569
#2	.8638	30.43	16.18	15.28	.7939	.0077	5.762	-.0045	.5594
#3	.8718	30.35	16.11	15.32	.8005	.0055	5.744	-.0089	.5536

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0053	.0084	.0021	19.37	-.0073	.0318	1.478	.0049
Stddev	.0031	.0044	.0008	.05	.0089	.0068	.0041	.0107
%RSD	57.62	52.69	39.61	2596	122.0	21.35	2.794	216.0
#1	.0065	.0049	.0014	19.40	.0029	.0261	.1430	-.0034
#2	.0076	.0070	.0019	19.40	-.0136	.0300	.1504	.0170
#3	.0018	.0133	.0030	19.31	-.0111	.0393	.1499	.0012

Zoom In
Zoom Out

Sample Name: jc95812-1a Acquired: 10/10/2019 15:20:35 Type: Unk
Method: SGS 070219(v291) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	91023.	14224.	3261.3	7125.2
Stddev	301.	140.	4.1	8.2
%RSD	.33096	.98534	.12488	.11535
#1	90822.	14386.	3256.9	7116.3
#2	90877.	14148.	3265.0	7126.8
#3	91369.	14139.	3262.0	7132.5

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Zoom In
Zoom Out

Sample Name: ccv Acquired: 10/10/2019 15:25:48 Type: QC
Method: SGS 070219(v291) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.979	2.038	2.011	2.082	2.157	2.036	2.130	2.044	2.542
Stddev	.001	.002	.005	.008	.007	.003	.005	.008	.003
%RSD	.0691	.0760	.2736	.3884	.3474	.1448	.2411	.3967	.1249
#1	1.978	2.039	2.013	2.085	2.166	2.038	2.133	2.047	2.542
#2	1.979	2.036	2.015	2.088	2.151	2.032	2.124	2.050	2.539
#3	1.980	2.039	2.005	2.073	2.155	2.037	2.133	2.035	2.546

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
Value Range

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.096	2.134	2.102	2.143	2.140	2.064	2.037	39.76	41.70
Stddev	.005	.008	.006	.009	.012	.009	.008	.05	.06
%RSD	.2356	.3944	.2707	.4139	.5504	.4572	.3758	.1295	.1466
#1	2.100	2.137	2.108	2.146	2.138	2.067	2.041	39.74	41.66
#2	2.091	2.142	2.102	2.150	2.152	2.071	2.041	39.72	41.66
#3	2.099	2.125	2.096	2.133	2.129	2.053	2.028	39.82	41.77

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
Value Range

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	41.29	39.94	39.73	40.20	2.127	2.130	5.671	2.153	1.968
Stddev	.08	.09	.12	.10	.010	.007	.021	.006	.001
%RSD	.1927	.2291	.3034	.2567	.4636	.3423	.3681	.2714	.0676
#1	41.21	39.97	39.62	40.15	2.129	2.133	5.682	2.154	1.969
#2	41.30	39.84	39.71	40.14	2.136	2.136	5.685	2.159	1.966
#3	41.36	40.01	39.86	40.32	2.116	2.122	5.647	2.147	1.968

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Fail Chk Pass Chk Pass
Value Range 5.000 10.00%

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Zoom In
Zoom Out

Sample Name: ccv Acquired: 10/10/2019 15:25:48 Type: QC
Method: SGS 070219(v291) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.824	2.102	2.097	2.042	2.099	2.005	2.171	2.122
Stddev	.003	.005	.002	.003	.006	.001	.009	.002
%RSD	.1704	.2519	.0947	.1658	.2779	.0611	.3941	.0954
#1	1.821	2.103	2.097	2.039	2.098	2.004	2.172	2.122
#2	1.824	2.107	2.094	2.046	2.106	2.006	2.179	2.123
#3	1.827	2.097	2.098	2.042	2.094	2.003	2.162	2.119

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
Value Range

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	95341.	14603.	3338.9	7339.0
Stddev	298.	57.	8.8	20.6
%RSD	.31279	.38734	.26274	.28050
#1	95053.	14635.	3334.7	7334.7
#2	95648.	14637.	3332.9	7320.9
#3	95322.	14538.	3348.9	7361.4

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Zoom In
Zoom Out

Sample Name: ccb Acquired: 10/10/2019 15:30:34 Type: QC
Method: SGS 070219(v291) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0004	F .0004	.0003	.0003	.0003	.0010	.0005	.0004	-.0014
Stddev	.0001	.0001	.0001	.0001	.0003	.0003	.0001	.0003	.0006
%RSD	25.62	19.78	29.50	22.89	106.4	31.80	14.22	73.65	43.98
#1	.0003	.0004	.0003	.0004	.0006	.0009	.0005	.0007	-.0019
#2	.0004	.0003	.0003	.0004	.0000	.0014	.0005	.0004	-.0007
#3	.0005	.0004	.0004	.0003	.0002	.0008	.0004	.0001	-.0017

Check ? Chk Pass Chk Fail Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
High Limit .0002
Low Limit -.0002

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0005	.0004	.0004	.0000	.0008	.0002	.0002	.0119	.0014
Stddev	.0004	.0001	.0003	.0006	.0005	.0015	.0004	.0154	.0026
%RSD	87.38	13780.	73.53	2143.	64.51	993.6	184.0	129.0	191.0
#1	.0003	-.0000	.0008	.0004	.0005	.0017	.0004	0.194	-.0016
#2	.0001	-.0001	.0002	-.0007	.0014	-.0013	.0004	-.0058	.0033
#3	.0009	.0002	.0003	.0004	.0005	.0000	-.0002	.0221	.0023

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
High Limit
Low Limit

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0080	-.0034	.1094	.0898	.0027	.0006	.0018	.0007	.0003
Stddev	.0046	.0357	.0164	.0059	.0005	.0002	.0003	.0002	.0001
%RSD	57.55	1043.	14.98	6.523	19.85	32.04	17.88	21.59	25.01
#1	.0115	-.0031	.1248	.0927	.0033	.0009	.0020	.0009	.0002
#2	.0028	-.0393	.0921	.0936	.0027	.0006	.0019	.0008	.0003
#3	.0096	.0321	.1114	.0830	.0022	.0004	.0014	.0006	.0003

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
High Limit
Low Limit

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Sample Name: ccb Acquired: 10/10/2019 15:30:34 Type: QC
 Method: SGS 070219(v291) Mode: CONC Corr. Factor: 1.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0007	.0004	.0002	-.0058	-.0019	-.0001	.0043	.0030
Stddev	.0002	.0005	.0001	.0039	.0006	.0005	.0005	.0012
%RSD	32.58	139.2	36.48	67.71	31.84	622.3	12.09	39.02

#1	.0009	.0006	.0001	-.0027	-.0022	-.0004	.0041	.0031
#2	.0005	.0007	.0002	-.0102	-.0023	.0005	.0049	.0040
#3	.0008	-.0002	.0003	-.0044	-.0012	-.0003	.0039	.0017

Check ? High Limit Low Limit
 Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass

Int. Std. Units	Y_3600 Cts/S	Y_3710 Cts/S	Y_2243 Cts/S	In2306 Cts/S
Avg	98564.	14671.	3439.0	8043.1
Stddev	42.	88.	3.5	5.8
%RSD	.04258	.60112	.10166	.07226

#1	98554.	14684.	3443.0	8049.8
#2	98610.	14577.	3436.3	8040.5
#3	98528.	14752.	3437.8	8039.0

Sample Name: jc95812-2a Acquired: 10/10/2019 15:35:45 Type: Unk
 Method: SGS 070219(v291) Mode: CONC Corr. Factor: 5.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2128	.0013	.0033	.0083	.0057	.0092	1.578	.0201
Stddev	.0023	.0004	.0008	.0005	.0022	.0009	.019	.0014
%RSD	1.100	29.57	22.95	6.373	37.57	10.04	1.180	7.159

#1	.2153	.0017	.0038	.0088	.0081	.0090	1.599	.0185
#2	.2124	.0013	.0024	.0081	.0052	.0102	1.569	.0212
#3	.2107	.0009	.0036	.0078	.0039	.0084	1.565	.0205

Elem Ag3280 V_2924 Zn2062 As1890 Tl1908 Pb2203 Se1960 Sb2068
 Units ppm ppm ppm ppm ppm ppm ppm ppm
 Avg -0.0064 -0.0000 .0968 .0089 -0.0032 .3286 .0133 -0.0030
 Stddev .0032 .0008 .0005 .0004 .0048 .0013 .0055 .0066
 %RSD 49.69 7835. 5.665 4.790 151.4 .3866 41.50 222.9

#1	-.0067	.0004	.0963	.0093	-.0082	.3300	.0071	-.0044
#2	-.0094	.0005	.0966	.0085	.0014	.3281	.0154	-.0042
#3	-.0030	-.0009	.0974	.0087	-.0028	.3276	.0175	-.0088

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.482	102.7	12.18	4.928	9.896	W 1337.	.5099	.0008
Stddev	.041	1.5	.15	.063	.072	32.	.0070	.0002
%RSD	2.770	1.498	1.236	1.271	.7308	2.374	1.369	27.31

#1	1.527	104.2	12.30	4.867	9.936	1364.	.5020	.0010
#2	1.472	102.7	12.23	4.992	9.938	1346.	.5125	.0007
#3	1.447	101.2	12.01	4.925	9.812	1302.	.5152	.0006

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	6.504	-.0019	.3532	.0075	.0080	.0008	3.026	-.0085
Stddev	.011	.0048	.0062	.0006	.0052	.0006	.026	.0110
%RSD	.1751	249.8	1.763	7.636	64.28	67.79	.8750	129.5

#1	6.509	-.0074	.3595	.0081	.0021	.0015	3.046	.0037
#2	6.491	.0009	.3532	.0073	.0116	.0004	2.996	-.0116
#3	6.513	.0008	.3470	.0070	.0103	.0006	3.035	-.0175

Sample Name: jc95812-2a Acquired: 10/10/2019 15:35:45 Type: Unk
 Method: SGS 070219(v291) Mode: CONC Corr. Factor: 5.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm
Avg	.0345	.1721	.1484
Stddev	.0038	.0016	.0051
%RSD	10.89	.9114	3.483

#1	.0360	.1716	.1424
#2	.0302	.1707	.1447
#3	.0373	.1738	.1521

Int. Std. Units	Y_3600 Cts/S	Y_3710 Cts/S	Y_2243 Cts/S	In2306 Cts/S
Avg	92861.	14617.	3292.2	7148.0
Stddev	600.	35.	15.1	24.1
%RSD	.64614	.23612	.45774	.33655

#1	92269.	14602.	3307.1	7172.3
#2	93469.	14592.	3292.5	7147.7
#3	92844.	14656.	3276.9	7124.2

Sample Name: jc95812-3a Acquired: 10/10/2019 15:40:57 Type: Unk
 Method: SGS 070219(v291) Mode: CONC Corr. Factor: 5.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1760	.0013	.0004	.0054	.0076	.0084	1.555	.0150
Stddev	.0030	.0002	.0011	.0013	.0025	.0003	.014	.0026
%RSD	1.725	18.90	289.7	24.07	32.93	3.319	.8954	17.15

#1	.1792	.0016	-.0005	.0065	.0063	.0088	1.570	.0149
#2	.1759	.0013	-.0000	.0056	.0105	.0083	1.550	.0125
#3	.1731	.0011	.0016	.0040	.0061	.0083	1.544	.0176

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0056	.0005	.1885	.0039	-0.0052	.0707	.0074	-0.0012
Stddev	.0011	.0011	.0023	.0022	.0036	.0016	.0058	.0031
%RSD	19.70	215.4	1.217	57.33	70.04	2.311	79.34	264.8

#1	-.0044	.0005	.1908	.0036	-.0027	.0715	.0141	.0011
#2	-.0066	.0016	.1884	.0018	-.0053	.0688	.0032	.0000
#3	-.0059	-.0006	.1862	.0062	-.0035	.0717	.0048	-.0046

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.8055	73.10	10.37	3.987	8.803	W 1057.	.5353	.0009
Stddev	.0375	.66	.09	.073	.147	13.	.0026	.0004
%RSD	4.653	.9065	.8441	1.837	1.669	1.267	.4886	46.77

#1	.8083	73.76	10.44	3.903	8.940	1072.	.5378	.0013
#2	.8415	73.13	10.39	4.028	8.821	1048.	.5326	.0005
#3	.7667	72.43	10.27	4.031	8.648	1050.	.5356	.0008

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.802	-.0043	.1412	.0032	.0045	.0007	1.927	-.0034
Stddev	.012	.0009	.0022	.0008	.0047	.0001	.014	.0089
%RSD	4.355	21.75	1.588	25.75	104.7	8.360	.7386	262.7

#1	2.792	-.0053	.1435	.0023	.0022	.0006	1.942	-.0108
#2	2.816	-.0035	.1411	.0033	.0099	.0006	1.925	-.0059
#3	2.798	-.0040	.1390	.0039	.0014	.0007	1.914	.0065

Sample Name: jc95812-3a Acquired: 10/10/2019 15:40:57 Type: Unk
 Method: SGS 070219(v291) Mode: CONC Corr. Factor: 5.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm
Avg	.0259	.1645	.1582
Stddev	.0018	.0067	.0165
%RSD	6.964	4.087	10.45
#1	.0275	.1623	.1399
#2	.0264	.1721	.1720
#3	.0240	.1592	.1626

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	93824.	14619.	3299.7	7225.1
Stddev	225.	73.	5.4	12.0
%RSD	23999	49874	.16312	.16545
#1	93571.	14554.	3299.8	7223.3
#2	94003.	14698.	3294.3	7214.2
#3	93897.	14606.	3305.1	7237.9

Sample Name: jc96009-1r Acquired: 10/10/2019 15:46:10 Type: Unk
 Method: SGS 070219(v291) Mode: CONC Corr. Factor: 5.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0774	.0004	-0.0002	.0113	.0131	.1199	.2372	.0482
Stddev	.0020	.0003	.0013	.0012	.0017	.0012	.0016	.0012
%RSD	2.559	81.93	867.0	10.40	13.18	.9847	.6842	2.549
#1	.0795	.0003	.0005	.0126	.0144	.1201	.2389	.0483
#2	.0771	.0007	-.0017	.0110	.0111	.1186	.2371	.0493
#3	.0756	.0001	.0007	.0103	.0139	.1210	.2356	.0469

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0036	.0024	17.45	-0.0019	-0.0070	.0422	.0261	.0048
Stddev	.0012	.0011	.04	.0062	.0047	.0060	.0008	.0045
%RSD	33.05	46.43	2368	320.2	67.69	14.30	3.233	94.53
#1	.0049	.0013	17.42	.0009	-.0119	.0471	.0254	.0096
#2	.0030	.0023	17.49	-.0091	-.0025	.0354	.0270	.0040
#3	.0028	.0035	17.43	.0024	-.0066	.0440	.0259	.0007

Sample Name: jc96009-1r Acquired: 10/10/2019 15:46:10 Type: Unk
 Method: SGS 070219(v291) Mode: CONC Corr. Factor: 5.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm
Avg	.0320	.4237	.0108
Stddev	.0050	.0108	.0020
%RSD	15.63	2.548	18.73
#1	.0330	.4185	.0102
#2	.0364	.4361	.0130
#3	.0266	.4165	.0091

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	91451.	14188.	3196.3	6998.4
Stddev	116.	95.	7.6	15.4
%RSD	.12675	.66832	.23749	.22004
#1	91400.	14200.	3204.0	7015.4
#2	91584.	14276.	3188.8	6985.5
#3	91370.	14088.	3196.0	6994.1

Sample Name: jc96009-3r Acquired: 10/10/2019 15:51:23 Type: Unk
 Method: SGS 070219(v291) Mode: CONC Corr. Factor: 5.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1524	.0001	.0003	.0054	.0092	.0559	1.050	.0122
Stddev	.0024	.0006	.0003	.0004	.0011	.0014	.012	.0010
%RSD	1.595	956.5	75.60	6.678	12.08	2.490	1.115	8.047
#1	.1551	.0005	.0001	.0052	.0091	.0550	1.064	.0125
#2	.1514	-.0005	.0006	.0057	.0081	.0575	1.047	.0129
#3	.1506	.0002	.0003	.0051	.0103	.0551	1.041	.0111

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0037	.0021	.1021	-0.0057	F -0.104	.0296	.0245	.0040
Stddev	.0011	.0015	.0020	.0047	.0062	.0054	.0162	.0033
%RSD	28.78	72.97	1.990	82.17	59.97	18.39	66.06	82.68
#1	.0047	.0014	.1022	-.0109	-.0121	.0354	.0416	.0059
#2	.0026	.0010	.1000	-.0045	-.0035	.0246	.0094	.0059
#3	.0039	.0038	.1040	-.0017	-.0155	.0286	.0226	.0002

Sample Name: jc96009-3r Acquired: 10/10/2019 15:51:23 Type: Unk
 Method: SGS 070219(v291) Mode: CONC Corr. Factor: 5.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm
Avg	.0607	1.194	.0133
Stddev	.0004	.004	.0029
%RSD	.6354	.3335	21.94
#1	.0602	1.195	.0144
#2	.0608	1.190	.0100
#3	.0610	1.197	.0154

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	90631.	14320.	3141.4	6884.2
Stddev	210.	48.	22.7	48.1
%RSD	.23166	.33478	.72344	.69877
#1	90511.	14305.	3153.7	6911.0
#2	90508.	14281.	3155.3	6913.0
#3	90873.	14373.	3115.2	6828.7

Sample Name: jc96040-5a Acquired: 10/10/2019 15:56:34 Type: Unk
 Method: SGS 070219(v291) Mode: CONC Corr. Factor: 5.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2693	.0009	.0005	.0349	.0015	.0099	2.152	.0355
Stddev	.0021	.0004	.0010	.0007	.0016	.0028	.014	.0008
%RSD	.7748	47.92	197.8	1.940	106.2	28.70	.6563	2.389
#1	.2701	.0004	.0012	.0341	.0008	.0107	2.168	.0349
#2	.2708	.0012	-.0006	.0352	.0004	.0123	2.147	.0352
#3	.2669	.0010	.0008	.0353	.0033	.0068	2.141	.0365

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0036	.0012	.0284	.0003	-0.0039	.0073	.0094	-0.0013
Stddev	.0023	.0004	.0004	.0023	.0040	.0026	.0067	.0087
%RSD	65.75	35.91	1.436	856.4	102.2	36.22	71.51	672.9
#1	-.0045	.0008	.0289	-.0023	-.0079	.0103	.0128	-.0070
#2	-.0053	.0012	.0284	.0010	.0001	.0058	.0016	-.0055
#3	-.0009	.0016	.0280	.0021	-.0038	.0057	.0136	.0087

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6094	77.38	.2853	28.66	2.637	W 1017.	.1487	.0013
Stddev	.0257	.49	.0174	.20	.162	5.	.0050	.0007
%RSD	4.216	.6300	6.103	.7126	6.139	.4437	3.335	56.98
#1	.5929	77.68	.2837	28.57	2.737	1017.	.1448	.0018
#2	.5963	77.66	.3035	28.89	2.725	1022.	.1469	.0005
#3	.6390	76.82	.2688	28.51	2.451	1013.	.1543	.0017

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.524	-0.0042	.5630	.0107	.0069	.0002	1.942	-0.0025
Stddev	.002	.0013	.0026	.0016	.0007	.0006	.012	.0032
%RSD	.0661	31.35	4.664	14.87	9.697	293.2	.6182	128.0
#1	3.521	-.0027	.5651	.0090	.0067	.0000	1.943	.0012
#2	3.524	-.0046	.5639	.0110	.0077	-.0003	1.929	-.0040
#3	3.526	-.0052	.5601	.0121	.0064	.0009	1.953	-.0047

Sample Name: jc96040-5a Acquired: 10/10/2019 15:56:34 Type: Unk
 Method: SGS 070219(v291) Mode: CONC Corr. Factor: 5.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm
Avg	.0310	.1997	-0.0012
Stddev	.0041	.0014	.0025
%RSD	13.17	.6831	217.1
#1	.0266	.1983	-.0005
#2	.0319	.1996	.0010
#3	.0346	.2011	-.0039

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	94114.	14584.	3294.7	7276.1
Stddev	306.	118.	4.1	10.8
%RSD	.32502	.80624	.12374	.14830
#1	93806.	14633.	3299.0	7284.5
#2	94417.	14450.	3294.2	7279.9
#3	94118.	14670.	3290.9	7264.0

Sample Name: jc96040-11a Acquired: 10/10/2019 16:01:49 Type: Unk
 Method: SGS 070219(v291) Mode: CONC Corr. Factor: 5.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2420	.0006	-0.0000	.0036	.0017	.0096	1.565	.0102
Stddev	.0042	.0002	.0009	.0004	.0030	.0020	.007	.0016
%RSD	1.723	37.64	6238.	9.749	171.1	21.22	.4459	15.24
#1	.2466	.0007	.0006	.0040	.0044	.0094	1.571	.0100
#2	.2412	.0008	-.0011	.0033	.0023	.0117	1.568	.0119
#3	.2384	.0004	.0004	.0036	-.0015	.0076	1.558	.0088

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0037	.0002	.0137	-0.0056	-0.0035	.0065	.0203	.0045
Stddev	.0017	.0007	.0004	.0019	.0032	.0060	.0081	.0020
%RSD	46.83	439.1	3.044	33.72	90.01	92.81	39.61	44.61
#1	-.0050	-.0006	.0132	-.0036	-.0040	.0113	.0148	.0030
#2	-.0043	.0008	.0139	-.0060	-.0001	.0085	.0296	.0038
#3	-.0017	.0003	.0140	-.0073	-.0064	-.0003	.0167	.0069

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.054	53.31	.2830	29.29	1.374	W 1185.	2.303	.0013
Stddev	.0229	.81	.0233	.34	.079	19.	.0046	.0012
%RSD	5.641	1.528	8.239	1.177	5.747	1.621	2.015	94.53
#1	.3963	54.16	.2734	29.59	1.353	1206.	.2267	.0016
#2	.3885	53.24	.3096	29.38	1.307	1180.	.2288	-.0001
#3	.4314	52.53	.2660	28.91	1.461	1168.	.2356	.0022

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	7.235	-0.0064	.2101	.0096	.0044	-0.0002	1.024	-0.0118
Stddev	.021	.0033	.0039	.0018	.0011	.0004	.014	.0055
%RSD	.2857	51.98	1.859	18.85	24.08	222.0	1.360	46.49
#1	7.219	-.0096	.2137	.0103	.0055	-.0001	1.040	-.0088
#2	7.227	-.0066	.2107	.0075	.0034	-.0002	1.015	-.0181
#3	7.258	-.0030	.2059	.0109	.0043	-.0007	1.017	-.0085

Sample Name: jc96040-11a Acquired: 10/10/2019 16:01:49 Type: Unk
 Method: SGS 070219(v291) Mode: CONC Corr. Factor: 5.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Li6707	P_1774	Ce4040	
Units	ppm	ppm	ppm	
Avg	.0379	.1811	-.0020	
Stddev	.0004	.0081	.0039	
%RSD	1.035	4.486	194.2	
#1	.0375	.1859	-.0027	
#2	.0382	.1717	-.0054	
#3	.0382	.1856	.0022	
Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	94086.	14470.	3301.7	7271.8
Stddev	74.	72.	5.6	8.4
%RSD	.07863	.49570	.16940	.11595
#1	94171.	14463.	3308.1	7281.5
#2	94040.	14545.	3298.5	7268.2
#3	94046.	14402.	3298.4	7265.8

Sample Name: mp17721-mb1conf Acquired: 10/10/2019 16:07:02 Type: Unk
 Method: SGS 070219(v291) Mode: CONC Corr. Factor: 1.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0003	.0001	-.0001	.0002	.0010	.0008	.0006	.0005	-.0005
Stddev	.0000	.0000	.0000	.0003	.0004	.0002	.0001	.0002	.0006
%RSD	6.354	1.955	39.44	147.0	36.57	29.73	10.54	38.62	106.9
#1	.0004	.0001	-.0001	.0005	.0011	.0005	.0006	.0003	.0001
#2	.0004	.0001	-.0001	-.0001	.0013	.0008	.0007	.0005	-.0008
#3	.0003	.0002	-.0002	.0002	.0006	.0010	.0006	.0006	-.0009
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0001	.0010	.0004	-.0008	.0010	.0012	-.0007	.0090	.0433
Stddev	.0002	.0002	.0011	.0002	.0006	.0027	.0015	.0095	.0044
%RSD	170.2	19.86	265.6	27.45	62.49	217.3	225.8	105.6	10.18
#1	-.0001	.0009	.0015	-.0007	.0015	.0030	-.0013	-.0005	.0387
#2	-.0003	.0012	-.0007	-.0010	.0012	-.0018	.0011	.0185	.0439
#3	.0001	.0009	.0005	-.0006	.0003	.0025	-.0018	.0089	.0474
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0258	-.0020	.0771	.1630	.0017	.0002	.0112	.0172	.0020
Stddev	.0009	.0179	.0177	.0085	.0001	.0002	.0007	.0003	.0001
%RSD	3.408	879.5	23.00	5.227	8.072	126.3	5.940	1.834	21.47
#1	.0249	-.0152	.0768	.1699	.0015	-.0001	.0119	.0175	.0002
#2	.0259	.0183	.0949	.1656	.0017	.0004	.0106	.0172	.0003
#3	.0267	-.0093	.0595	.1535	.0018	.0002	.0112	.0169	.0002
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040	
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	.0006	.0001	-.0001	.0019	-.0018	.0000	.0202	-.0005	
Stddev	.0006	.0005	.0002	.0012	.0006	.0014	.0013	.0017	
%RSD	98.69	572.3	154.6	62.78	30.73	3076.	6.351	364.9	
#1	.0012	.0006	.0001	.0011	-.0012	.0009	.0198	.0007	
#2	.0005	.0001	-.0001	.0013	-.0022	.0008	.0192	.0003	
#3	.0001	-.0004	-.0003	.0033	-.0020	-.0016	.0216	-.0024	

11.4
11

Sample Name: mp17721-mb1conf Acquired: 10/10/2019 16:07:02 Type: Unk
 Method: SGS 070219(v291) Mode: CONC Corr. Factor: 1.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	100810.	14828.	3447.3	8105.3
Stddev	321.	35.	13.5	32.6
%RSD	.31802	.23486	.39278	.40205
#1	100500.	14863.	3462.4	8140.1
#2	100790.	14827.	3443.4	8100.0
#3	101140.	14793.	3436.2	8075.6

Sample Name: jc96195-1 Acquired: 10/10/2019 16:12:12 Type: Unk
 Method: SGS 070219(v291) Mode: CONC Corr. Factor: 2.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.9279	.0114	.0187	9.809	.2331	.1598	3.871	.3189	.0009
Stddev	.0014	.0002	.0001	.021	.0003	.0005	.011	.0009	.0003
%RSD	.1552	1.363	.7095	2.102	.1202	.3426	.2720	.2708	28.71
#1	.9264	.0116	.0186	9.823	.2334	.1604	3.883	.3193	.0006
#2	.9278	.0113	.0188	9.817	.2331	.1593	3.866	.3196	.0010
#3	.9293	.0114	.0187	9.785	.2328	.1596	3.864	.3179	.0011
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1749	1.008	.1492	.0028	.4105	-.0003	.0048	93.75	19.36
Stddev	.0004	.004	.0041	.0020	.0006	.0014	.0024	.15	.04
%RSD	.2094	.4144	2.750	70.21	.1525	450.5	51.20	.1613	.2300
#1	.1746	1.004	.1446	.0036	.4098	-.0016	.0046	93.58	19.31
#2	.1747	1.012	.1504	.0006	.4107	-.0005	.0073	93.87	19.37
#3	.1753	1.007	.1525	.0044	.4109	.0012	.0024	93.80	19.39
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	250.4	52.65	20.28	.8927	1.244	.0203	2.414	.1176	20.17
Stddev	.3	.09	.02	.0073	.0003	.0004	.006	.0015	.0001
%RSD	.1181	.1775	.0902	.8227	.2230	1.918	.2459	1.305	.0535
#1	250.2	52.57	20.29	.8845	.1242	.0206	2.408	.1171	.2017
#2	250.7	52.62	20.29	.8988	.1247	.0199	2.417	.1194	.2015
#3	250.3	52.75	20.26	.8947	.1243	.0205	2.418	.1164	.2017
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040	
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	2.010	.0076	.0521	2.641	.0281	.3149	5.534	.4614	
Stddev	.005	.0008	.0000	.013	.0016	.0013	.018	.0009	
%RSD	.2536	10.54	.0787	.4855	5.551	4.254	.3247	.1958	
#1	2.016	.0086	.0521	2.640	.0294	.3161	5.526	.4624	
#2	2.007	.0071	.0521	2.654	.0284	.3151	5.555	.4606	
#3	2.006	.0072	.0521	2.628	.0264	.3134	5.522	.4613	

Sample Name: jc96195-1 Acquired: 10/10/2019 16:12:12 Type: Unk
 Method: SGS 070219(v291) Mode: CONC Corr. Factor: 2.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	98360.	14956.	3415.2	7703.2
Stddev	250.	80.	7.7	15.4
%RSD	.25432	.53234	.22528	.19960
#1	98073.	15046.	3415.4	7697.3
#2	98533.	14930.	3407.5	7691.7
#3	98474.	14893.	3422.8	7720.7

Sample Name: mp17725a-mb1conf Acquired: 10/10/2019 16:17:09 Type: Unk
 Method: SGS 070219(v291) Mode: CONC Corr. Factor: 1.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0001	-0.0000	-0.0001	.0004	-0.0002	.0003	-0.0000	-0.0002	-0.0004
Stddev	.0002	.0001	.0002	.0001	.0001	.0003	.0001	.0002	.0001
%RSD	126.5	1407.	202.2	30.06	46.69	86.69	244.7	109.5	34.18
#1	.0003	-0.0001	-0.0001	.0005	-0.0001	.0005	-0.0001	-0.0001	-0.0002
#2	.0002	.0000	-0.0003	.0005	-0.0003	.0000	-0.0000	-0.0000	-0.0005
#3	-0.0000	.0001	.0001	.0003	-0.0002	.0004	.0000	-0.0003	-0.0005
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000	.0006	-0.0006	-0.0017	.0006	.0013	.0007	.0012	.0080
Stddev	.0001	.0002	.0005	.0002	.0005	.0013	.0012	.0035	.0030
%RSD	455.6	27.79	88.49	11.44	83.98	95.40	168.5	304.6	38.23
#1	-0.0000	.0007	-0.0005	-0.0016	.0004	.0013	-0.0005	-0.0024	.0064
#2	-0.0000	.0007	-0.0001	-0.0015	.0002	.0001	.0020	.0046	.0061
#3	.0001	.0004	-0.0012	-0.0019	.0012	.0026	.0007	.0013	.0115
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0009	-0.0113	.0344	.0416	.0012	-0.0000	.0064	-0.0003	-0.0000
Stddev	.0042	.0104	.0277	.0036	.0006	.0002	.0011	.0001	.0000
%RSD	456.4	91.87	80.52	8.600	51.13	207.0	17.27	30.91	924.0
#1	-0.0004	-0.0229	.0396	.0389	.0006	-0.0000	.0051	-0.0003	-0.0000
#2	.0056	-0.0082	.0045	.0402	.0018	.0002	.0071	-0.0005	.0000
#3	-0.0025	-0.0028	.0591	.0456	.0013	-0.0002	.0070	-0.0003	-0.0000
Elem	Tl3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040	
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	.0015	-0.0001	-0.0000	.0002	-0.0013	.0013	.0027	.0011	
Stddev	.0007	.0005	.0002	.0047	.0006	.0013	.0006	.0028	
%RSD	48.66	381.6	621.3	2654.	42.58	99.30	20.89	246.5	
#1	.0016	-0.0006	.0002	.0011	-0.0007	-0.0001	.0033	.0026	
#2	.0007	.0005	-0.0002	.0044	-0.0018	.0016	.0025	.0028	
#3	.0022	-0.0003	-0.0002	-0.0049	-0.0015	.0025	.0022	-0.0021	

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Sample Name: mp17725a-mb1conf Acquired: 10/10/2019 16:17:09 Type: Unk
 Method: SGS 070219(v291) Mode: CONC Corr. Factor: 1.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	99764.	14757.	3428.4	8070.3
Stddev	387.	117.	9.8	15.1
%RSD	.38788	.79458	.28577	.18743
#1	99748.	14659.	3421.0	8062.7
#2	100160.	14724.	3424.8	8060.5
#3	99386.	14887.	3439.5	8087.8

Sample Name: ccv Acquired: 10/10/2019 16:22:20 Type: QC
 Method: SGS 070219(v291) Mode: CONC Corr. Factor: 1.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.018	2.074	2.031	2.067	2.172	2.062	2.159	2.057	2.580
Stddev	.015	.017	.004	.001	.026	.029	.025	.003	.0032
%RSD	.7593	.7976	.1712	.0677	1.220	1.405	1.162	.1274	1.257
#1	2.007	2.064	2.034	2.069	2.198	2.093	2.185	2.060	.2615
#2	2.012	2.065	2.030	2.067	2.174	2.058	2.158	2.056	.2576
#3	2.036	2.093	2.027	2.067	2.145	2.036	2.134	2.055	.2550
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.122	2.132	2.081	2.132	2.130	2.054	2.052	40.55	42.10
Stddev	.026	.003	.002	.004	.004	.008	.004	.32	.37
%RSD	1.251	.1511	.0844	.1623	.2012	.3997	.1767	.7809	.8710
#1	2.149	2.134	2.083	2.135	2.129	2.064	2.056	40.30	41.82
#2	2.122	2.134	2.081	2.128	2.134	2.049	2.050	40.43	41.96
#3	2.096	2.128	2.080	2.134	2.126	2.050	2.050	40.91	42.52
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	42.16	41.23	40.30	40.68	2.109	2.127	5.637	2.145	2.014
Stddev	.33	.31	.40	.36	.001	.002	.009	.003	.014
%RSD	.7872	.7561	.9818	.8857	.0492	.1047	.1682	.1411	.7136
#1	41.97	40.99	40.05	40.41	2.108	2.130	5.648	2.147	2.005
#2	41.97	41.12	40.10	40.54	2.110	2.126	5.630	2.146	2.006
#3	42.55	41.58	40.76	41.09	2.109	2.126	5.633	2.141	2.031
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
Value							5.000		
Range							10.00%		

Sample Name: mp17725a-b1conf Acquired: 10/10/2019 16:32:17 Type: Qc
 Method: SGS 070219(v291) Mode: CONC Corr. Factor: 1.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm
Avg	.0008	2.142	W -.0789
Stddev	.0007	.006	.0018
%RSD	98.89	.2928	2.327
#1	.0007	2.148	-.0799
#2	.0000	2.141	-.0800
#3	.0015	2.136	-.0768

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	96443.	14512.	3316.9	7441.4
Stddev	254.	27.	5.8	4.0
%RSD	.26347	.18261	.17573	.05341
#1	96674.	14520.	3319.1	7441.5
#2	96485.	14533.	3321.3	7445.4
#3	96171.	14482.	3310.3	7437.4

Sample Name: icsa Acquired: 10/10/2019 16:38:17 Type: QC
 Method: SGS 070219(v291) Mode: CONC Corr. Factor: 1.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.011	.0003	.0003	-0.016	.0000	-0.043	-0.011	-0.010	-0.021
Stddev	.0000	.0001	.0001	.0002	.0006	.0005	.0001	.0001	.0003
%RSD	4.088	46.13	21.41	14.30	1280.	11.45	13.76	10.42	13.23
#1	-.0011	.0002	.0003	-.0016	.0002	-.0046	-.0009	-.0011	-.0024
#2	-.0011	.0005	.0004	-.0014	.0006	-.0037	-.0012	-.0010	-.0019
#3	-.0011	.0003	.0003	-.0018	-.0006	-.0045	-.0010	-.0009	-.0020

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.029	.0008	-0.006	.0031	.0008	-0.0086	.0033	505.8	411.0
Stddev	.0005	.0001	.0012	.0003	.0022	.0062	.0038	2.7	1.1
%RSD	15.37	16.72	202.9	8.859	265.0	71.75	113.3	.5244	.2679
#1	-.0031	.0009	.0003	.0029	.0029	-.0111	.0056	507.6	411.8
#2	-.0033	.0007	-.0019	.0029	.0011	-.0016	-.0010	507.2	411.5
#3	-.0024	.0007	-.0001	.0034	-.0015	-.0131	.0054	502.8	409.8

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

11.4
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Sample Name: icsa Acquired: 10/10/2019 16:38:17 Type: QC
 Method: SGS 070219(v291) Mode: CONC Corr. Factor: 1.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Tl3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0007	.0133	-0.0002	-0.0350	-0.0015	-0.0013	-0.0066	.0617
Stddev	.0003	.0020	.0002	.0016	.0028	.0006	.0025	.0020
%RSD	36.60	15.29	122.8	4.614	183.6	43.99	37.59	3.262
#1	-0.0007	.0155	.0000	-.0366	.0009	-.0008	-.0092	.0640
#2	-0.0004	.0130	-.0002	-.0334	-.0009	-.0011	-.0063	.0609
#3	-0.0009	.0115	-.0004	-.0350	-.0046	-.0019	-.0043	.0603

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None
High Limit								
Low Limit								

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	87770.	14152.	3096.6	6478.8
Stddev	177.	56.	3	4.5
%RSD	.20109	.39480	.00956	.06946
#1	87575.	14100.	3096.4	6480.6
#2	87919.	14144.	3097.0	6473.7
#3	87817.	14211.	3096.5	6482.1

Sample Name: ICSAB Acquired: 10/10/2019 16:43:23 Type: QC
 Method: SGS 070219(v291) Mode: CONC Corr. Factor: 1.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.860	.4919	1.013	.5024	.5068	.5124	.5101	.9787	1.050
Stddev	.0005	.0009	.001	.0003	.0014	.0002	.0021	.0013	.002
%RSD	.0966	.1841	.1366	.0526	.2681	.0429	.4123	.1337	.1469
#1	.4862	.4929	1.015	.5027	.5054	.5126	.5104	.9773	1.052
#2	.4855	.4916	1.013	.5025	.5081	.5124	.5120	.9790	1.051
#3	.4863	.4911	1.012	.5021	.5068	.5122	.5079	.9798	1.049

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5017	.9787	1.098	.9920	.9773	1.025	1.031	500.6	393.6
Stddev	.0015	.0022	.001	.0047	.0017	.004	.001	6.0	1.2
%RSD	.2951	.2224	.1224	.4722	.1761	.4412	.1099	1.194	.3123
#1	.5012	.9772	1.097	.9946	.9755	1.025	1.031	507.4	394.7
#2	.5034	.9812	1.099	.9947	.9773	1.020	1.033	495.9	393.9
#3	.5005	.9778	1.098	.9865	.9790	1.029	1.031	498.6	392.3

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	192.8	507.5	-3.683	.0574	.4962	5.000	.5554	.4781	.4731
Stddev	.4	1.8	.0309	.0116	.0017	.0013	.0040	.0015	.0002
%RSD	.2045	.3542	8.403	20.31	.3508	.2574	.7196	.3070	.0399
#1	193.2	508.7	-.3329	.0528	.4975	4.986	.5508	.4776	.4734
#2	192.8	508.4	-.3814	.0487	.4942	5.011	.5575	.4797	.4730
#3	192.5	505.5	-.3905	.0706	.4968	5.002	.5579	.4769	.4730

Check ?	Chk Pass	Chk Pass	None	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value Range									

Sample Name: ccb Acquired: 10/10/2019 16:53:02 Type: QC
 Method: SGS 070219(v291) Mode: CONC Corr. Factor: 1.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774	Ce4040
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0002	.0020	.0002	-.0074	-.0008	-.0011	.0034	-.0014
Stddev	.0001	.0004	.0000	.0017	.0018	.0009	.0017	.0001
%RSD	47.41	21.35	14.61	22.78	233.0	81.44	48.69	10.38
#1	.0004	.0020	.0002	-.0075	-.0027	-.0006	.0019	-.0012
#2	.0002	.0024	.0003	-.0056	.0009	-.0005	.0031	-.0015
#3	.0002	.0015	.0003	-.0090	-.0005	-.0021	.0052	-.0015

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
 High Limit
 Low Limit

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	98851.	14606.	3448.4	8053.9
Stddev	191.	51.	4.4	1.2
%RSD	.19284	.34775	.12619	.01430
#1	98715.	14548.	3453.2	8054.3
#2	99069.	14631.	3447.2	8052.7
#3	98768.	14640.	3444.8	8054.9

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
Ba 455.403 { 74}	<input checked="" type="checkbox"/>	3	Mg	0.000001	0.000000	No
			Al	0.000002	0.000000	No
			Zr	0.000727	0.000000	No
Be 313.042 {108}	<input checked="" type="checkbox"/>	9	V	0.000144	0.000000	No
			Mo	-0.000030	0.000000	No
			Ti	-0.000950	0.000000	No
			Mn	-0.000018	0.000000	No
			Ni	0.000001	0.000000	No
			Ca	-0.000000	0.000000	No
			Cu	0.000014	0.000000	No
			Zn	-0.000010	0.000000	No
			Fe	-0.000002	0.000000	No
Cd 228.802 {448}	<input checked="" type="checkbox"/>	13	As	0.004240	0.000000	No
			Ni	-0.000800	0.000000	No
			Fe	-0.000016	0.000000	No
			V	0.000110	0.000000	No
			Ba	0.000054	0.000000	No
			Co	-0.000540	0.000000	No
			Ca	0.000000	0.000000	No
			Mn	0.000014	0.000000	No
			Cr	0.000007	0.000000	No
			Cu	0.000024	0.000000	No
			Al	0.000000	0.000000	No
			Mo	0.000004	0.000000	No
			W	0.000000	0.000000	No
Co 228.616 {448}	<input checked="" type="checkbox"/>	9	Fe	-0.000001	0.000000	No
			Cr	-0.000046	0.000000	No
			Mo	-0.001350	0.000000	No
			Ni	0.000084	0.000000	No
			Ti	0.002200	0.000000	No
			W	0.000160	0.000000	No
			Cd	-0.000188	0.000000	No
			Ca	0.000000	0.000000	No
			As	0.000150	0.000000	No
Cr 267.716 {126}	<input checked="" type="checkbox"/>	11	Mn	0.000474	0.000000	No
			Mo	0.000033	0.000000	No
			Fe	-0.000009	0.000000	No
			Cd	-0.000050	0.000000	No
			Al	-0.000000	0.000000	No
			Ca	0.000002	0.000000	No
			Mg	0.000001	0.000000	No
			Ti	0.000050	0.000000	No
			Ba	0.000013	0.000000	No
			Cu	0.000100	0.000000	No
			Sr	-0.000100	0.000000	No
Cu 324.754 {104}2	<input checked="" type="checkbox"/>	17	Cr	0.000000	0.000000	No
			V	-0.000408	0.000000	No
			Mo	0.000672	0.000000	No
			Ti	-0.000330	0.000000	No
			Fe	-0.000127	0.000000	No
			Al	0.000010	0.000000	No
			Sn	0.000103	0.000000	No
			Co	-0.000980	0.000000	No
			Zr	0.000100	0.000000	No
			Si	-0.000002	0.000000	No
			Mn	-0.000072	0.000000	No
			Se	0.000050	0.000000	No

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Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
			Ag	0.000166	0.000000	No
			Sb	0.000024	0.000000	No
			Pb	0.000040	0.000000	No
			Be	-0.000031	0.000000	No
			W	0.000000	0.000000	No
Mn 257.610 {131}	<input checked="" type="checkbox"/>	6	Fe	-0.000074	0.000000	No
			Si	0.000044	0.000000	No
			Ba	0.000012	0.000000	No
			Ni	0.000028	0.000000	No
			Mo	0.000000	0.000000	No
			Cr	-0.000114	0.000000	No
Ni 231.604 {446}	<input checked="" type="checkbox"/>	11	Fe	0.000030	0.000000	No
			Zn	-0.000021	0.000000	No
			Be	-0.000112	0.000000	No
			Co	-0.000260	0.000000	No
			Tl	0.000209	0.000000	No
			V	-0.000032	0.000000	No
			Cu	0.000100	0.000000	No
			Cr	-0.000014	0.000000	No
			Si	-0.000030	0.000000	No
			Sn	0.000079	0.000000	No
Ag 328.068 {103}	<input checked="" type="checkbox"/>	16	W	0.000830	0.000000	No
			Mn	0.000091	0.000000	No
			Mo	-0.000154	0.000000	No
			Ti	-0.000313	0.000000	No
			Fe	-0.000288	0.000000	No
			V	-0.000842	0.000000	No
			Zn	-0.000130	0.000000	No
			Ca	-0.000004	0.000000	No
			Al	-0.000002	0.000000	No
			Mg	-0.000000	0.000000	No
			Ba	-0.000189	0.000000	No
			Cr	-0.000038	0.000000	No
			Zr	0.007770	0.000000	No
			Sn	-0.000100	0.000000	No
			W	0.000000	0.000000	No
			K	-0.000080	0.000000	No
V 292.402 {115}	<input checked="" type="checkbox"/>	7	Ce	-0.000545	0.000000	No
			Tl	0.000776	0.000000	No
			Mo	-0.012600	0.000000	No
			Fe	0.000030	0.000000	No
			Sr	0.000000	0.000000	No
			Cr	-0.002890	0.000000	No
			Mn	-0.000940	0.000000	No
Zn 206.200 {464}	<input checked="" type="checkbox"/>	15	W	0.000050	0.000000	No
			Cr	-0.000874	0.000000	No
			Mo	-0.000228	0.000000	No
			Fe	0.000010	0.000000	No
			Al	0.000000	0.000000	No
			Si	0.000065	0.000000	No
			Ba	-0.000060	0.000000	No
			Ca	0.000004	0.000000	No
			Sr	0.000017	0.000000	No
			Sn	0.000069	0.000000	No
			Cu	0.000056	0.000000	No
			As	-0.000050	0.000000	No
			Be	0.000071	0.000000	No

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Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
			Bi	-0.000400	0.000000	No
			W	0.000000	0.000000	No
			Ti	0.000030	0.000000	No
As 189.042 {478}	<input checked="" type="checkbox"/>	24	Al	0.000005	0.000000	No
			Fe	-0.000123	0.000000	No
			Ca	-0.000003	0.000000	No
			Mn	-0.000010	0.000000	No
			Mo	0.003100	0.000000	No
			Cr	0.001450	0.000000	No
			V	0.000052	0.000000	No
			Co	-0.000029	0.000000	No
			W	0.012000	0.000000	No
			Sn	-0.000123	0.000000	No
			Cd	-0.000194	0.000000	No
			Tl	0.000385	0.000000	No
			Be	-0.000017	0.000000	No
			Mg	0.000002	0.000000	No
			Si	0.000007	0.000000	No
			Zn	0.000070	0.000000	No
			Sr	-0.000080	0.000000	No
			Zr	0.000074	0.000000	No
			Ti	0.000009	0.000000	No
			Cu	0.000077	0.000000	No
			K	0.000000	0.000000	No
			B	-0.000030	0.000000	No
			S	0.000010	0.000000	No
			Ce	-0.000364	0.000000	No
Tl 190.856 {477}	<input checked="" type="checkbox"/>	24	Cr	0.000190	0.000000	No
			Mo	-0.001700	0.000000	No
			Al	-0.000007	0.000000	No
			Fe	-0.000067	0.000000	No
			V	-0.019800	0.000000	No
			Mn	0.001400	0.000000	No
			Si	-0.000016	0.000000	No
			Ca	-0.000003	0.000000	No
			Tl	-0.003400	0.000000	No
			Mg	-0.000002	0.000000	No
			Co	0.004700	0.000000	No
			Sr	-0.000222	0.000000	No
			B	0.000120	0.000000	No
			Ba	0.000110	0.000000	No
			Zn	0.000025	0.000000	No
			As	0.000015	0.000000	No
			Ni	0.000051	0.000000	No
			Cu	-0.000032	0.000000	No
			W	0.000000	0.000000	No
			Sn	-0.000080	0.000000	No
			Se	0.000040	0.000000	No
			S	0.000010	0.000000	No
			K	0.000000	0.000000	No
			P	0.000000	0.000000	No
Pb 220.353 {453}	<input checked="" type="checkbox"/>	23	Al	-0.000140	0.000000	No
			Fe	0.000035	0.000000	No
			Ca	0.000000	0.000000	No
			Mn	-0.000055	0.000000	No
			Zn	-0.000036	0.000000	No
			Mo	-0.000400	0.000000	No

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
			Cu	0.000710	0.000000	No
			V	0.000013	0.000000	No
			Co	0.000116	0.000000	No
			Ti	0.000160	0.000000	No
			Si	0.000016	0.000000	No
			Ba	-0.000012	0.000000	No
			Sb	0.000006	0.000000	No
			Sr	-0.000100	0.000000	No
			W	0.000000	0.000000	No
			Mg	0.000003	0.000000	No
			Cd	0.000476	0.000000	No
			Zr	-0.000300	0.000000	No
			Ni	0.000320	0.000000	No
			S	-0.000010	0.000000	No
			Se	0.000036	0.000000	No
			As	0.000200	0.000000	No
			Cr	0.000050	0.000000	No
Se 196.090 {472}	<input checked="" type="checkbox"/>	23	Al	0.000016	0.000000	No
			Ca	0.000001	0.000000	No
			Mn	0.000651	0.000000	No
			Mo	0.000477	0.000000	No
			Fe	-0.000435	0.000000	No
			Co	-0.000629	0.000000	No
			V	0.000207	0.000000	No
			Sr	-0.000008	0.000000	No
			Cu	-0.000113	0.000000	No
			W	0.020000	0.000000	No
			Si	0.000157	0.000000	No
			Ti	0.000180	0.000000	No
			Be	-0.000143	0.000000	No
			Zn	-0.000250	0.000000	No
			B	-0.000141	0.000000	No
			Tl	0.000016	0.000000	No
			Cd	0.000090	0.000000	No
			Zr	-0.000280	0.000000	No
			Ba	-0.000220	0.000000	No
			Mg	-0.000002	0.000000	No
			Cr	-0.000039	0.000000	No
			S	-0.000012	0.000000	No
Sb 206.833 {463}	<input checked="" type="checkbox"/>	16	Ce	-0.001564	0.000000	No
			Fe	0.000018	0.000000	No
			Al	-0.000001	0.000000	No
			Ca	-0.000006	0.000000	No
			Ni	-0.001077	0.000000	No
			Cr	0.010700	0.000000	No
			V	-0.001200	0.000000	No
			Zn	-0.000200	0.000000	No
			Mo	0.000200	0.000000	No
			Ti	0.000200	0.000000	No
			Sn	-0.011800	0.000000	No
			Mg	-0.000004	0.000000	No
			Zr	-0.000627	0.000000	No
			Sr	0.000209	0.000000	No
			W	0.000000	0.000000	No
			Si	0.000000	0.000000	No
Al 396.152 { 85}	<input checked="" type="checkbox"/>	6	Ce	-0.000727	0.000000	No
			Si	0.000913	0.000000	No

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Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
			Ca	0.000078	0.000000	No
			Mo	0.046534	0.000000	No
			Zr	-0.006000	0.000000	No
			Ti	-0.000017	0.000000	No
			Ce	-0.005455	0.000000	No
Ca 317.933 {106}	<input checked="" type="checkbox"/>	13	Fe	0.000130	0.000000	No
			W	0.003960	0.000000	No
			Tl	0.004950	0.000000	No
			Be	0.001840	0.000000	No
			Ba	0.003500	0.000000	No
			Cu	-0.001800	0.000000	No
			Cd	0.003700	0.000000	No
			Ni	0.001513	0.000000	No
			B	-0.000210	0.000000	No
			Se	0.002000	0.000000	No
			Co	0.000540	0.000000	No
			Cr	0.000640	0.000000	No
			Al	0.000026	0.000000	No
Fe 259.940 {130}	<input checked="" type="checkbox"/>	13	Co	0.000004	0.000000	No
			Si	-0.000100	0.000000	No
			Tl	-0.002590	0.000000	No
			Se	-0.000050	0.000000	No
			Cr	-0.000566	0.000000	No
			Mn	-0.001433	0.000000	No
			V	-0.000064	0.000000	No
			Cu	0.000953	0.000000	No
			K	-0.000200	0.000000	No
			Zn	0.000046	0.000000	No
			Ti	-0.000631	0.000000	No
			Ca	0.000020	0.000000	No
			Ba	0.001000	0.000000	No
Mg 279.079 {121}	<input checked="" type="checkbox"/>	1	Mo	-0.020780	0.000000	No
K 766.490 { 44}	<input checked="" type="checkbox"/>	11	Fe	-0.000340	0.000000	No
			Al	0.000301	0.000000	No
			Ca	0.000448	0.000000	No
			Mn	0.001430	0.000000	No
			Si	-0.003000	0.000000	No
			V	-0.002000	0.000000	No
			Sn	-0.004700	0.000000	No
			Na	0.000300	0.000000	No
			Mo	-0.000850	0.000000	No
			Cu	-0.010000	0.000000	No
			Mg	0.000400	0.000000	No
Na 589.592 { 57}	<input checked="" type="checkbox"/>	5	K	0.000038	0.000000	No
			Ba	0.000900	0.000000	No
			Ca	0.000055	0.000000	No
			Al	0.000040	0.000000	No
			V	-0.005000	0.000000	No
B 208.959 {462}	<input checked="" type="checkbox"/>	1	Mo	0.036410	0.000000	No
Mo 202.030 {467}	<input checked="" type="checkbox"/>	5	Fe	-0.000010	0.000000	No
			Mg	-0.000001	0.000000	No
			Ca	0.000003	0.000000	No
			W	0.000000	0.000000	No
			V	-0.000230	0.000000	No
Si 212.412 {459}	<input checked="" type="checkbox"/>	14	Sr	0.000366	0.000000	No
			Ni	0.000106	0.000000	No
			Mo	0.028950	0.000000	No

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Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
			Ti	0.003820	0.000000	No
			Al	0.000012	0.000000	No
			Cd	0.001043	0.000000	No
			Ba	0.000170	0.000000	No
			Fe	0.000040	0.000000	No
			Sn	0.002213	0.000000	No
			Zn	0.000385	0.000000	No
			As	-0.000560	0.000000	No
			Pb	0.000471	0.000000	No
			V	0.006165	0.000000	No
			W	-0.025000	0.000000	No
Sn 189.989 {478}	<input checked="" type="checkbox"/>	6	Ti	-0.000621	0.000000	No
			Mo	0.000011	0.000000	No
			Fe	0.000005	0.000000	No
			Mn	0.000060	0.000000	No
			Si	0.000089	0.000000	No
			W	0.000000	0.000000	No
Sr 407.771 { 83}	<input checked="" type="checkbox"/>	2	Fe	0.000002	0.000000	No
			Ca	0.000023	0.000000	No
Ti 334.904 {101}	<input checked="" type="checkbox"/>	4	Cr	-0.000084	0.000000	No
			Mo	0.001569	0.000000	No
			Si	0.000035	0.000000	No
			Ca	-0.000003	0.000000	No
Y 360.073 { 94}*	<input checked="" type="checkbox"/>	None				
Y 371.030 { 91}*	<input checked="" type="checkbox"/>	None				
Y 224.306 {451}*	<input checked="" type="checkbox"/>	None				
In 230.606 {446}*	<input checked="" type="checkbox"/>	None				
W 207.911 {462}	<input checked="" type="checkbox"/>	25	Al	0.000002	0.000000	No
			Si	-0.000900	0.000000	No
			Fe	-0.000007	0.000000	No
			As	-0.000200	0.000000	No
			Mg	0.000000	0.000000	No
			Mn	-0.000110	0.000000	No
			Mo	-0.000300	0.000000	No
			Ti	0.000080	0.000000	No
			Sr	-0.000850	0.000000	No
			V	-0.000140	0.000000	No
			Cd	-0.000650	0.000000	No
			Cr	-0.000390	0.000000	No
			Zn	0.012200	0.000000	No
			Sn	0.000078	0.000000	No
			Zr	-0.050000	0.000000	No
			B	-0.001000	0.000000	No
			Sb	-0.003000	0.000000	No
			Co	0.000041	0.000000	No
			Ni	-0.000263	0.000000	No
			Be	-0.000130	0.000000	No
			Se	-0.000080	0.000000	No
			Cu	-0.000118	0.000000	No
			Ba	-0.000090	0.000000	No
			Tl	-0.000110	0.000000	No
Zr 339.198 { 99}	<input checked="" type="checkbox"/>	9	Ag	0.000224	0.000000	No
			Mo	0.000323	0.000000	No
			Tl	-0.000010	0.000000	No
			Fe	-0.000060	0.000000	No
			Si	0.000070	0.000000	No
			Bi	0.000295	0.000000	No

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
			Cr	-0.000900	0.000000	No
			V	0.000200	0.000000	No
			W	0.000000	0.000000	No
			Sn	-0.000400	0.000000	No
S 182.034 {485}	<input checked="" type="checkbox"/>	11	Ca	0.000001	0.000000	No
			Mo	-0.000040	0.000000	No
			Al	-0.000208	0.000000	No
			Fe	-0.000123	0.000000	No
			Mn	0.003900	0.000000	No
			W	0.000000	0.000000	No
			Zn	-0.001538	0.000000	No
			Cr	-0.000200	0.000000	No
			Mg	0.000015	0.000000	No
			Ti	0.000300	0.000000	No
			Li	0.000200	0.000000	No
Bi 223.061 {451}	<input checked="" type="checkbox"/>	9	V	-0.000680	0.000000	No
			Co	-0.002200	0.000000	No
			Ca	-0.000005	0.000000	No
			Mg	-0.000002	0.000000	No
			W	0.020000	0.000000	No
			Cu	-0.001186	0.000000	No
			Fe	0.000097	0.000000	No
			Cr	0.001500	0.000000	No
			Ti	-0.056349	0.000000	No
Li 670.784 { 50}	<input checked="" type="checkbox"/>	1	Ca	0.000014	0.000000	No
P 177.495 {490}	<input checked="" type="checkbox"/>	2	Mn	-0.083600	0.000000	No
			Ca	0.000034	0.000000	No
Ce 404.076 { 83}	<input checked="" type="checkbox"/>	2	V	-0.004000	0.000000	No
			Mn	-0.007800	0.000000	No

Element, Wavelength and Order	Date of Fit	Date of Cal.	Type of Fit	Weighting	A0	A1	A2	n (Exponent)
Ba 455.403 { 74}	10/11/2019 6:52:18	10/10/2019 10:42:27	Linear	1/Conc	0.003753	1.863555	0.000000	1.000000
Be 313.042 {108}	10/11/2019 6:52:18	10/10/2019 10:42:27	Linear	1/Conc	-0.000107	1.095823	0.000000	1.000000
Cd 228.802 {448}	10/11/2019 6:52:18	10/10/2019 10:42:27	Linear	1/Conc	0.000271	0.871352	0.000000	1.000000
Co 228.616 {448}	10/11/2019 6:52:18	10/10/2019 10:42:27	Linear	1/Conc	-0.000381	0.452310	0.000000	1.000000
Cr 267.716 {126}	10/11/2019 6:52:18	10/10/2019 10:42:27	Linear	1/Conc	0.000020	0.038989	0.000000	1.000000
Cu 324.754 {104}2	10/11/2019 6:52:18	10/10/2019 10:42:27	Linear	1/Conc	0.003527	0.154834	0.000000	1.000000
Mn 257.610 {131}	10/11/2019 6:52:18	10/10/2019 10:42:27	Linear	1/Conc	0.000021	0.200150	0.000000	1.000000
Ni 231.604 {446}	10/11/2019 6:52:18	10/10/2019 10:42:27	Linear	1/Conc	-0.000079	0.343725	0.000000	1.000000
Ag 328.068 {103}	10/11/2019 6:52:18	10/10/2019 10:42:27	Linear	1/Conc	-0.000254	0.092421	0.000000	1.000000
V 292.402 {115}	10/11/2019 6:52:18	10/10/2019 10:42:27	Linear	1/Conc	0.000029	0.086622	0.000000	1.000000
Zn 206.200 {464}	10/11/2019 6:52:18	10/10/2019 10:42:27	Linear	1/Conc	0.003525	1.088363	0.000000	1.000000
As 189.042 {478}	10/11/2019 6:52:18	10/10/2019 10:42:27	Linear	1/Conc	-0.000209	0.107958	0.000000	1.000000
Tl 190.856 {477}	10/11/2019 6:52:18	10/10/2019 10:42:27	Linear	1/Conc	-0.000126	0.055723	0.000000	1.000000
Pb 220.353 {453}	10/11/2019 6:52:18	10/10/2019 10:42:27	Linear	1/Conc	-0.000319	0.152629	0.000000	1.000000
Se 196.090 {472}	10/11/2019 6:52:18	10/10/2019 10:42:27	Linear	1/Conc	0.000228	0.088682	0.000000	1.000000
Sb 206.833 {463}	10/11/2019 6:52:18	10/10/2019 10:42:27	Linear	1/Conc	-0.000125	0.164916	0.000000	1.000000
Al 396.152 { 85}	10/11/2019 6:52:18	10/10/2019 10:42:27	Linear	1/Conc	-0.001893	0.035417	0.000000	1.000000
Ca 317.933 {106}	10/11/2019 6:52:18	10/10/2019 10:42:27	Linear	1/Conc	0.005591	0.037182	0.000000	1.000000
Fe 259.940 {130}	10/11/2019 6:52:18	10/10/2019 10:42:27	Linear	1/Conc	0.000072	0.009908	0.000000	1.000000
Mg 279.079 {121}	10/11/2019 6:52:18	10/10/2019 10:42:27	Linear	1/Conc	0.000011	0.002200	0.000000	1.000000
K 766.490 { 44}	10/11/2019 6:52:18	10/10/2019 10:42:27	Linear	1/Conc	-0.002268	0.027229	0.000000	1.000000
Na 589.592 { 57}	10/11/2019 6:52:18	10/10/2019 10:42:27	Linear	1/Conc	-0.004423	0.089891	0.000000	1.000000
B 208.959 {462}	10/11/2019 6:52:18	10/10/2019 10:42:27	Linear	1/Conc	0.000097	0.194407	0.000000	1.000000
Mo 202.030 {467}	10/11/2019 6:52:18	10/10/2019 10:42:27	Linear	1/Conc	-0.000013	0.813601	0.000000	1.000000
Si 212.412 {459}	10/11/2019 6:52:18	10/10/2019 10:42:27	Linear	1/Conc	0.002360	0.204662	0.000000	1.000000
Sn 189.989 {478}	10/11/2019 6:52:18	10/10/2019 10:42:27	Linear	1/Conc	0.000071	0.178984	0.000000	1.000000
Sr 407.771 { 83}	10/11/2019 6:52:18	10/10/2019 10:42:27	Linear	1/Conc	0.000559	3.119737	0.000000	1.000000
Ti 334.904 {101}	10/11/2019 6:52:18	10/10/2019 10:42:27	Linear	1/Conc	0.000035	0.063300	0.000000	1.000000
Y 360.073 { 94}*	10/11/2019 6:52:18	12/23/2009 10:44:16	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000
Y 371.030 { 91}*	10/11/2019 6:52:18	12/23/2009 10:44:16	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000
Y 224.306 {451}*	10/11/2019 6:52:18	12/23/2009 10:44:16	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000
In 230.606 {446}*	10/11/2019 6:52:18	12/23/2009 10:44:16	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000
W 207.911 {462}	10/11/2019 6:52:18	10/10/2019 10:42:27	Linear	1/Conc	0.001490	0.426676	0.000000	1.000000
Zr 339.198 { 99}	10/11/2019 6:52:18	10/10/2019 10:42:27	Linear	1/Conc	-0.000108	0.288643	0.000000	1.000000
S 182.034 {485}	10/11/2019 6:52:18	10/10/2019 10:42:27	Linear	1/Conc	-0.000955	0.044801	0.000000	1.000000
Bi 223.061 {451}	10/11/2019 6:52:18	10/10/2019 10:42:27	Linear	1/Conc	-0.000232	0.193771	0.000000	1.000000
Li 670.784 { 50}	10/11/2019 6:52:18	10/10/2019 10:42:27	Linear	1/Conc	-0.003204	0.629485	0.000000	1.000000
P 177.495 {490}	10/11/2019 6:52:18	10/10/2019 10:42:27	Linear	1/Conc	-0.005832	0.099086	0.000000	1.000000
Ce 404.076 { 83}	10/11/2019 6:52:18	10/10/2019 10:42:27	Linear	1/Conc	-0.000205	0.032513	0.000000	1.000000

Element, Wavelength and Order	Correlation	Std Error of Est	Predicted MDL	Predicted MQL	Status	Reslope		QC Norm	
						Slope	Y-int	Slope factor	Offset
Ba 455.403 { 74}	1.000000	0.000000	0.000216	0.000719	OK	1.000000	0.000000	1	0
Be 313.042 {108}	1.000000	0.000000	0.000110	0.000368	OK	1.000000	0.000000	1	0
Cd 228.802 {448}	1.000000	0.000000	0.000236	0.000788	OK	1.000000	0.000000	1	0
Co 228.616 {448}	1.000000	0.000000	0.000314	0.001046	OK	1.000000	0.000000	1	0
Cr 267.716 {126}	1.000000	0.000000	0.000572	0.001906	OK	1.000000	0.000000	1	0
Cu 324.754 {104}2	1.000000	0.000000	0.000428	0.001427	OK	1.000000	0.000000	1	0
Mn 257.610 {131}	1.000000	0.000000	0.000092	0.000308	OK	1.000000	0.000000	1	0
Ni 231.604 {446}	1.000000	0.000000	0.000354	0.001182	OK	1.000000	0.000000	1	0
Ag 328.068 {103}	1.000000	0.000000	0.000498	0.001660	OK	1.000000	0.000000	1	0
V 292.402 {115}	1.000000	0.000000	0.000394	0.001313	OK	1.000000	0.000000	1	0
Zn 206.200 {464}	1.000000	0.000000	0.000172	0.000575	OK	1.000000	0.000000	1	0
As 189.042 {478}	1.000000	0.000000	0.001397	0.004658	OK	1.000000	0.000000	1	0
Tl 190.856 {477}	1.000000	0.000000	0.001310	0.004368	OK	1.000000	0.000000	1	0
Pb 220.353 {453}	1.000000	0.000000	0.001186	0.003955	OK	1.000000	0.000000	1	0
Se 196.090 {472}	1.000000	0.000000	0.002267	0.007555	OK	1.000000	0.000000	1	0
Sb 206.833 {463}	1.000000	0.000000	0.001539	0.005131	OK	1.000000	0.000000	1	0
Al 396.152 { 85}	1.000000	0.000000	0.010228	0.034094	OK	1.000000	0.000000	1	0
Ca 317.933 {106}	1.000000	0.000000	0.004033	0.013443	OK	1.000000	0.000000	1	0
Fe 259.940 {130}	1.000000	0.000000	0.005825	0.019417	OK	1.000000	0.000000	1	0
Mg 279.079 {121}	1.000000	0.000000	0.036577	0.121925	OK	1.000000	0.000000	1	0
K 766.490 { 44}	1.000000	0.000000	0.029157	0.097191	OK	1.000000	0.000000	1	0
Na 589.592 { 57}	1.000000	0.000000	0.008647	0.028824	OK	1.000000	0.000000	1	0
B 208.959 {462}	1.000000	0.000000	0.000856	0.002852	OK	1.000000	0.000000	1	0
Mo 202.030 {467}	1.000000	0.000000	0.000270	0.000902	OK	1.000000	0.000000	1	0
Si 212.412 {459}	1.000000	0.000000	0.001197	0.003989	OK	1.000000	0.000000	1	0
Sn 189.989 {478}	1.000000	0.000000	0.000816	0.002719	OK	1.000000	0.000000	1	0
Sr 407.771 { 83}	1.000000	0.000000	0.000093	0.000310	OK	1.000000	0.000000	1	0
Tl 334.904 {101}	1.000000	0.000000	0.000648	0.002158	OK	1.000000	0.000000	1	0
Y 360.073 { 94}*	0.000000	0.000000	-1.000000	-1.000000	Warnin	1.000000	0.000000	1	0
Y 371.030 { 91}*	0.000000	0.000000	-1.000000	-1.000000	Warnin	1.000000	0.000000	1	0
Y 224.306 {451}*	0.000000	0.000000	-1.000000	-1.000000	Warnin	1.000000	0.000000	1	0
In 230.606 {446}*	0.000000	0.000000	-1.000000	-1.000000	Warnin	1.000000	0.000000	1	0
W 207.911 {462}	1.000000	0.000000	0.001030	0.003434	OK	1.000000	0.000000	1	0
Zr 339.198 { 99}	1.000000	0.000000	0.000195	0.000648	OK	1.000000	0.000000	1	0
S 182.034 {485}	1.000000	0.000000	0.003641	0.012136	OK	1.000000	0.000000	1	0
Bi 223.061 {451}	1.000000	0.000000	0.001708	0.005692	OK	1.000000	0.000000	1	0
Li 670.784 { 50}	1.000000	0.000000	0.001281	0.004270	OK	1.000000	0.000000	1	0
P 177.495 {490}	1.000000	0.000000	0.001640	0.005465	OK	1.000000	0.000000	1	0
Ce 404.076 { 83}	1.000000	0.000000	0.002803	0.009342	OK	1.000000	0.000000	1	0



Mercury Hot Block Digestion Log

Product HG / HGTCPL
Matrix: Aq / Liq / DW

MA Batch #: MA47587
Analyst: LL
Date: 10/8/2019
Balance ID: N/A
Reagents: See attached sheet
Auto pipet ID: M72

Methods (Circle as appropriate)

EPA 245.1

SW846 7470A

Required corrected Temp. Range is 90-95 C.

Hot Block # 8 Start Time: 8:39 End Time: 10:39 Tube # 1-47

Start Temp: 94 Corrected Start Temp: 94 Correction: 0 Thermometer ID: 6433436

End Temp: 94 Corrected Start Temp: 94 Correction: 0 Thermometer ID: 6433436

Hot Block # 8 Start Time: 10:39 End Time: 12:39 Tube # 48-74

Start Temp: 94 Corrected Start Temp: 94 Correction: 0 Thermometer ID: 6433436

End Temp: 94 Corrected Start Temp: 94 Correction: 0 Thermometer ID: 6433436

Bot #	Sample ID	pH <2 Y/N	Initial Sample Vol ml	Final Samp Vol ml	Spiked Used		Spikelot and Conc (mg/L)	MP Number	Comments/Lot # and Vendor
					Amount Spiked	Added Y or N			
1	MP17764-MB1	N	30	30				MP17764	
2	MP17764-B1	N	30	30	2.0 ml	Y	0.03		HG-19-148-305-HGA3, IN. V.
3	MP17764-S1	Y	30	30	2.0 ml	Y	0.03		JC96160-1, HG-19-148-305-HGA3, IN. V.
4	MP17764-S2	Y	30	30	2.0 ml	Y	0.03		JC96160-1, HG-19-148-305-HGA3, IN. V.
5	JC96160-1	Y	30	30					
6	JC96160-2	Y	30	30					BROWN SEDIMENT
7	JC96160-3	Y	30	30					PARTICLES
8	JC96160-4	Y	30	30					PARTICLES
9	JC96041-1F	Y	30	30					
10	JC96041-2F	Y	30	30					
11	JC96041-3F	Y	30	30					
12	JC96041-4F	Y	30	30					
13	JC96041-5F	Y	30	30					
14	JC96041-6F	Y	30	30					
15	JC96041-7F	Y	30	30					
16	JC96041-8F	Y	30	30					
17	JC96041-9F	Y	30	30					
18	JC96041-10F	Y	30	30					
19	JC96041-11F	Y	30	30					
20	JC96263-1F	Y	30	30					
21	JC96263-2F	Y	30	30					
22	JC96263-3F	Y	30	30					
23	JC96235-1	Y	30	30					
24	JC96244-1	Y	30	30					
25	MP17765-MB1	N	30	30				MP17765	
26	MP17765-B1	N	30	30	2.0 ml	Y	0.03		HG-19-148-305-HGA3, IN. V.
27	MP17765-S1	Y	30	30	2.0 ml	Y	0.03		JC96153-2F, HG-19-148-305-HGA3, I. V.
28	MP17765-S2	Y	30	30	2.0 ml	Y	0.03		JC96153-2F, HG-19-148-305-HGA3, I. V.
29	JC96153-2F	Y	30	30					YELLOW
30	JC96153-1F	Y	30	30					
31	JC96153-3F	Y	30	30					YELLOW
32	JC96153-4F	Y	30	30					YELLOW
33	JC96153-5F	Y	30	30					YELLOW
34	JC96153-6F	Y	30	30					
35	JC96153-7F	Y	30	30					

DAYT-MET-0113-01-FORM-HGWATERPREP
Revision Date: 8/28/18

ANALYST: LL
Spike witness: CM
QC REVIEWER: _____

DATE: 10/8/19
DATE: 10/8/19
DATE: _____

11.5.1
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Mercury Hot Block Digestion Log

Product **HG / HGTCLP**
Matrix: Aq / Liq / DW

MA Batch #: MA47587
Analyst: LL
Date: 10/8/2019
Balance ID: N/A
Reagents: See attached sheet
Auto pipet ID: M72

Methods (Circle as appropriate)
EPA 245.1 **SW846 7470A**

Required corrected Temp. Range is 90-95 C.

Hot Block # 8 Start Time: 8:39 End Time: 10:39 Tube # 1-47
Start Temp: 94 Corrected Start Temp: 94 Correction: 0 Thermometer ID: 6433436
End Temp: 94 Corrected Start Temp: 94 Correction: 0 Thermometer ID: 6433436
Hot Block # 8 Start Time: 10:39 End Time: 12:39 Tube # 48-74
Start Temp: 94 Corrected Start Temp: 94 Correction: 0 Thermometer ID: 6433436
End Temp: 94 Corrected Start Temp: 94 Correction: 0 Thermometer ID: 6433436

Bot #	Sample ID	pH <2 Y/N	Initial Sample Vol ml	Final Samp Vol ml	Spiked Used		Spikelot and Conc (mg/L)	MP Number	Comments/Lot # and Vendor
					Amount Spiked	Added Y or N			
36	JC96153-8F	Y	30	30					
37	JC96153-9F	Y	30	30					YELLOW
38	JC96153-10F	Y	30	30					
39	JC96153-11F	Y	30	30					YELLOW
40	JC96153-12F	Y	30	30					
41	JC96136-1	Y	30	30					SEDIMENT
42	JC96136-2	Y	30	30					ORANGE SEDIMENT
43	JC96136-3	Y	30	30					YELLOW SEDIMENT
44	JC96136-4	Y	30	30					
45	JC96136-5	Y	30	30					YELLOW
46	JC96136-6	Y	30	30					
47	JC96136-7	Y	30	30					
48	MP17766-MB1	N	30	30				MP17766	
49	MP17766-B1	N	30	30	2.0 ml	Y	0.03		HG-19-148-305-HGA3, IN. V.
50	MP17766-S1	Y	30	30	2.0 ml	Y	0.03		JC96248-4, HG-19-148-305-HGA3, IN. V.
51	MP17766-S2	Y	30	30	2.0 ml	Y	0.03		JC96248-4, HG-19-148-305-HGA3, IN. V.
52	JC96248-4	Y	30	30					BROWN SEDIMENT
53	MP17766-S3	Y	30	30	2.0 ml	Y	0.03		JC96248-4F, HG-19-148-305-HGA3, I. V.
54	MP17766-S4	Y	30	30	2.0 ml	Y	0.03		JC96248-4F, HG-19-148-305-HGA3, I. V.
55	JC96248-4F	Y	30	30					
56	JC96248-1	Y	30	30					
57	JC96248-1F	Y	30	30					
58	JC96248-2	Y	30	30					
59	JC96248-2F	Y	30	30					
60	JC96248-3	Y	30	30					
61	JC96248-3F	Y	30	30					
62	JC96248-5	Y	30	30					YELLOW
63	JC96248-5F	Y	30	30					
64	JC96248-6	Y	30	30					
65	JC96248-6F	Y	30	30					
66	JC96248-7	Y	30	30					SEDIMENT
67	JC96248-7F	Y	30	30					
68	JC96248-8	Y	30	30					
69	JC96248-8F	Y	30	30					
70	JC96260-1	Y	30	30					YELLOW

DAYT-MET-0113-01-FORM-HGWATERPREP
Revision Date: 8/28/18

ANALYST: LC
Spike witness: CU
QC: REVIEWER: _____

DATE: 10/8/19
DATE: 10/8/19
DATE: _____

11.5.1
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Mercury Hot Block Digestion Log

Product **HG / HGTCLP**
Matrix: Aq / Liq / DW

MA Batch #: MA47587
Analyst: LL
Date: 10/8/2019
Balance ID: N/A
Reagents: See attached sheet
Auto pipet ID: M72

Methods (Circle as appropriate)

EPA 245.1

SW846 7470A

Required corrected Temp. Range is 90-95 C.

Hot Block # 8 Start Time: 8:39 End Time: 10:39 Tube # 1-47

Start Temp: 94 Corrected Start Temp: 94 Correction: 0 Thermometer ID: 6433436

End Temp: 94 Corrected Start Temp: 94 Correction: 0 Thermometer ID: 6433436

Hot Block # 8 Start Time: 10:39 End Time: 12:39 Tube # 48-74

Start Temp: 94 Corrected Start Temp: 94 Correction: 0 Thermometer ID: 6433436

End Temp: 94 Corrected Start Temp: 94 Correction: 0 Thermometer ID: 6433436

Bot #	Sample ID	pH <2 Y/N	Initial Sample Vol ml	Final Samp Vol ml	Spiked Used		Spikelot and Conc (mg/L)	MP Number	Comments/Lot # and Vendor
					Amount Spiked	Added Y or N			
71	JC96260-2	Y	30	30					YELLOW
72	JC96260-3	Y	30	30					
73	MP17716-FMBCONF	N	30	30				MP17716	
74	MP17716-FLCCONF	N	30	30	2.0 ml	Y	0.03		HG-19-148-305-HGA3, IN. V.
75									
76									
77									
78									
79									
80									
81									
82									
83									
84									
85									
86									
87									
88									
89									
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92									
93									
94									
95									
96									
97									
98									
99									
100									
101									
102									
103									
104									
105									

DAYT-MET-0113-01-FORM-HGWATERPREP
Revision Date: 8/28/18

ANALYST: LL
Spike witness: CM
QC REVIEWER: _____

DATE: 10/8/19
DATE: 10/8/19
DATE: _____

11.5.1
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Mercury Hot Block Digestion Log

Product HG / EHG / HGTCLP
 Matrix: Aq / Liq / DW

MA Batch #: MA47587
 Analyst: LL
 Date: 10/8/2019
 Balance ID: B-24
 Reagents: See attached sheet
 Auto pipet ID: M-72

Methods (Circle as appropriate)

EPA 245.1 SW846 7470A

Required corrected Temp. Range is 90-95 C.

Hot Block # 7 Start Time: 8:02 End Time: 10:02 Tube # S1-CRI

Start Temp: 94 Corrected Start Temp: 94 Correction: 0 Thermometer ID: 3107658

End Temp: 95 Corrected Start Temp: 95 Correction: 0 Thermometer ID: 3107658

Bot #	Sample ID	pH <2 Y/N	Initial Sample Vol ml	Final Samp Vol ml	Spiked Used		Spikelet and Conc (mg/L)	MP Number	Comments/Lot # and Vendor
					Amount Spiked	Added- Y or N			
S-1	Calibration Blank	N	30 ml	30 ml	0.0 ml	N			
S-2	0.2 ug/l Standard	N	30 ml	30 ml	2.0 ml	Y	0.003		HG-19-148-306-HGA4, IN. V.
S-3	0.5 ug/l Standard	N	30 ml	30 ml	5.0 ml	Y	0.003		HG-19-148-306-HGA4, IN. V.
S-4	1.0 ug/l Standard	N	30 ml	30 ml	1.0 ml	Y	0.030		HG-19-148-305-HGA3, IN. V.
S-5	2.5 ug/l Standard	N	30 ml	30 ml	2.5 ml	Y	0.030		HG-19-148-305-HGA3, IN. V.
S-6	5.0 ug/l Standard	N	30 ml	30 ml	5.0 ml	Y	0.030		HG-19-148-305-HGA3, IN. V.
ICV	ICV MA47587	N	30 ml	30 ml	3.0 ml	Y	0.03		HG-19-148-307-HGB3, ULTRA
ICB	ICB MA47587	N	30 ml	30 ml	0.0 ml	N			
CCV	CCV MA47587	N	30 ml	30 ml	2.5 ml	Y	0.03		HG-19-148-305-HGA3, IN. V.
CCB	CCB MA47587	N	30 ml	30 ml	0.0 ml	N			
CRI	CRI MA47587	N	30 ml	30 ml	2.0 ml	Y	0.003		HG-19-148-306-HGA4, IN. V.



Reagent Information Log- Hg Waters

MA # 47587

Reagents	Exp. Date	Reagent # or manufacturer lot #
<u>Conc. Sulfuric Acid</u>	<u>10/4/2024</u>	<u>Fisher -193248</u>
<u>Conc. Nitric Acid</u>	<u>9/30/2021</u>	<u>Baker -234822</u>
<u>Sodium Chloride-Hydroxylamine Hydrochloride</u>	<u>4/7/2020</u>	<u>HG-19-147- 471 -HGHL</u>
<u>Potassium Permanganate 5%</u>	<u>4/7/2020</u>	<u>HG-19-147- 469 -HGKM2</u>
<u>Potassium Persulfate</u>	<u>4/7/2020</u>	<u>HG-19-147- 470 -HGKS</u>
<u>Stannous Chloride</u>	<u>10/9/2019</u>	<u>HG-19-148- 308 -HGS</u>
<u>STD Hg standard solution 1000 ppm</u>	<u>3/1/2020</u>	<u>Inorganic Ventures N2-HG669550</u>
<u>STD Hg standard solution 30 ppb</u>	<u>10/9/2019</u>	<u>HG-19-148- 305 -HGA3</u>
<u>STD Hg standard solution 3ppb</u>	<u>10/9/2019</u>	<u>HG-19-148- 306 -HGA4</u>
<u>ICV Hg standard solution 1000 ppm</u>	<u>6/30/2021</u>	<u>Ultra-T00601</u>
<u>ICV Hg standard solution 30ppb</u>	<u>10/9/2019</u>	<u>HG-19-148- 307 -HGB3</u>
<u>Dilution Acid</u>	<u>4/7/2020</u>	<u>HG-19-148- 304 HGD2</u>
<u>Digestion Tubes Lot</u>	<u>N/A</u>	<u>Environmental Express 1904119</u>
<u>ph Paper</u>	<u>6/15/2021</u>	<u>Hydriion: 217518</u>

Form:GN087A79-03
Rev. Date: 6/6/17

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Aqueous Metals Digestion Form

Batch Information						
Batch ID	Start Date	Start Time	End Date	End time	QC Samp 1	QC Samp 2
MP17762	10/8/2019	8:10	10/8/2019	13:45	JC96248-4	JC96248-4F

Temperature						
		Block ID1	Therm. ID#	Temperature	Correction	Corrected Temp
1	Start	3	5624823	95	0	95
1	End	3	5624823	94	0	94
2	Start					
2	End					

Methods and Equipment					
	Dig. Method	Heating Method	Auto Pipette #	Digestion Tube Lot #	
	SW846 3010A	Digestion Block	M-74	1904119	

Sample ID	Bottle Number	Pres (Y/N)	Initial Sample Volume	Final Volume in ML	Reagent Groups Added	Spike Groups Added	Comments
MP17762-MB1	N/A	N	50	50	ABCD		
MP17762-B1	N/A	N	50	50	ABCD	ABCD	
MP17762-S1	8	Y	50	50	ABCD	ABCD	
MP17762-S2	8	Y	50	50	ABCD	ABCD	
MP17762-SD1	8	Y	50	50	ABCD		
JC96248-1	3	Y	50	50	ABCD		
JC96248-1F	4	Y	50	50	ABCD		
JC96248-2	3	Y	50	50	ABCD		
JC96248-2F	4	Y	50	50	ABCD		
JC96248-3	3	Y	50	50	ABCD		
JC96248-3F	4	Y	50	50	ABCD		
JC96248-4	8	Y	50	50	ABCD		
JC96248-4F	10	Y	50	50	ABCD		
JC96248-5	3	Y	50	50	ABCD		
JC96248-5F	4	Y	50	50	ABCD		
JC96248-6	3	Y	50	50	ABCD		
JC96248-6F	4	Y	50	50	ABCD		
JC96248-7	3	Y	50	50	ABCD		
JC96248-7F	4	Y	50	50	ABCD		
JC96248-8	3	Y	50	50	ABCD		
JC96248-8F	4	Y	50	50	ABCD		
JC96283-11	3	Y	50	50	ABCD		
JC96283-2	3	Y	50	50	ABCD		
JC96283-4	3	Y	50	50	ABCD		
JC96283-8	3	Y	50	50	ABCD		
MP17762-B2	N/A	Y	50	50	ABCD	ABCD	*FILTERMET 10/4/19
MP17762-MB2	N/A	Y	50	50	ABCD		*FILTERMET 10/4/19
MP17762-S3	10	Y	50	50	ABCD	ABCD	
MP17762-S4	10	Y	50	50	ABCD	ABCD	
MP17762-SD2	10	Y	50	50	ABCD		

Reagents Groups		
Group	Description	MLs Used
A	CONC HNO3	3
B	1:1 HCL	5
C		
D		
E		
F		
G		
H		

Spike Groups		
Group	Description	MLs Used
A	ACCUTEST 13A REV1	0.5
B	ACCUTEST 14A REV1	0.5
C	MINERALS 5000PPM	0.25
D	AG 20PPM	0.625
E		
F		
G		
H		
I		

Comments: *SEE FILTRATION MP FOR SPIKE LOT INFORMATION

Analyst TAYLORG Approved by RAKESH P Approved on 10/8/2019

Note: Reagent traceability for batch Start Date can be seen on the reagent traceability page for this batch.
 Serial Dilution samples shown for QC purposes only.
 Acceptable Temperature range is 90-95 degrees C unless otherwise noted

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Metals Digestion Reagents Information Log

Digestion Batch ID: MP 17762 Date: 10/8/19
 Matrix: ALL

<u>Standard/Reagent Type</u>	<u>Exp. Date</u>	<u>Standard/Reagent ID</u>
Spiking Solution - (ACCUTEST-13A REV1)	3/26/2020	MP-015-1227
Spiking Solution - (ACCUTEST-14A REV1)	3/26/2020	MP-015-1228
Spiking Solution - 5000 mg/l Minerals	8/21/2020	P2-MEB681527 MFG: INO. VENT
Spiking Solution - Sulfur 1000ppm	9/25/2021	LOT: 092518 MFG: ABS. STANDARDS
Spiking Solution - Si 1000ppm	9/24/2020	P2-SI676242 MFG: INO. VENT
Spiking Solution - Bi 1000ppm	8/29/2020	N2-BI669548 MFG: INO. VENT
Spiking Solution - Se 20ppm	3/30/2020	MP-015-1230
Spiking Solution - Li 1000ppm	8/23/2020	P2-LI675235 MFG: INO. VENT
Spiking Solution- Ag 20 ppm	3/26/2020	MP-015-1229
Spiking Solution - (ACCUTEST-13B REV1)	3/18/2020	MP-015-1224
Spiking Solution - (ACCUTEST-14B REV1)	3/18/2020	MP-015-1225
Spiking Solution - 1000ppm Minerals	2/22/2020	MP-015-1213
Spiking Solution- P		
Nitric Acid	10/7/2021	LOT: 234822 MFG: J T. BAKER
Nitric Acid (1:1)	4/3/2020	MP-018-42-314 1:1 HNO3
Hydrochloric Acid	3/13/2022	LOT:4119020 MFG: FISHER
Hydrochloric Acid (1:1)	4/7/2020	MP-018-42-315 1:1 HCL
Hydrogen Peroxide	9/25/2021	LOT: 191365 MFG: FISHER
Soil Lab Control/Soil LC	10/31/2021	LOT: D101-540 MFG: ERA
Teflon Chips(For Soil MB and Blank Spike)	N/A	LOT: 24635764 MFG: SAINT-GOBAIN
Digestion Tubes	N/A	LOT: 1904119 MFG: ENV. EXPRESS
pH Paper	11/1/2021	LOT: 231018 MFG: HYDRION
Filter paper Q8	N/A	LOT: 16939084 MFG: FISHER
Filter paper 0.45µm	N/A	LOT: F9BA55973E MFG: FISHER

Spike witnessed By: LL

Validated By: _____

Validated On: _____

General Chemistry

QC Data Summaries

Includes the following where applicable:

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries
- Instrument Runlogs/QC

METHOD BLANK AND SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: JC96248
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
Cyanide	GP24356/GN1215	0.010	0.0	mg/l	0.0833	0.0855	102.6	90-110%
Solids, Total Dissolved	GN1010	10	0.0	mg/l				

Associated Samples:

Batch GN1010: JC96248-1, JC96248-4, JC96248-7

Batch GP24356: JC96248-1, JC96248-2, JC96248-3, JC96248-4, JC96248-5, JC96248-6, JC96248-7, JC96248-8, JC96248-1F, JC96248-2F, JC96248-3F, JC96248-4F, JC96248-5F, JC96248-6F, JC96248-7F, JC96248-8F

(*) Outside of QC limits

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DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: JC96248
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA

Analyte	Batch ID	QC Sample	Units	Original Result	DUP Result	RPD	QC Limits
Cyanide	GP24356/GN1215	JC96248-4	mg/l	0.14	0.12	15.4	0-32%
Solids, Total Dissolved	GN1010	JC96248-4	mg/l	710	730	2.8	0-16%

Associated Samples:

Batch GN1010: JC96248-1, JC96248-4, JC96248-7

Batch GP24356: JC96248-1, JC96248-2, JC96248-3, JC96248-4, JC96248-5, JC96248-6, JC96248-7, JC96248-8, JC96248-1F, JC96248-2F, JC96248-3F, JC96248-4F, JC96248-5F, JC96248-6F, JC96248-7F, JC96248-8F

(*) Outside of QC limits

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MATRIX SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: JC96248
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MS Result	%Rec	QC Limits
Cyanide	GP24356/GN1215	JC96248-4	mg/l	0.14	0.0833	0.20	72.0N(a)	90-110%
Cyanide	GP24356/GN1215	JC96248-4F	mg/l	0.19	0.0833	0.26	84.0N(a)	90-110%

Associated Samples:

Batch GP24356: JC96248-1, JC96248-2, JC96248-3, JC96248-4, JC96248-5, JC96248-6, JC96248-7, JC96248-8, JC96248-1F, JC96248-2F, JC96248-3F, JC96248-4F, JC96248-5F, JC96248-6F, JC96248-7F, JC96248-8F

(*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

(a) Spike recovery indicates possible matrix interference.

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SGS Instrument Runlog
Inorganics Analyses

Login Number: JC96248
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA

File ID: E101519W1.CN Date Analyzed: 10/15/19 Methods: EPA 335.4/LACHAT, SW846 9012B/LACHAT
Analyst: KI Run ID: GN1215
Parameters: Cyanide

Time	Sample Description	Dilution Factor	PS Recov	Comments
13:56	GN1215-STD1	1		STDA
13:58	GN1215-STD2	1		STDB
13:59	GN1215-STD3	1		STDC
14:00	GN1215-STD4	1		STDD
14:02	GN1215-STD5	1		STDE
14:03	GN1215-STD6	1		STDF
14:04	GN1215-STD7	1		STDG
14:06	GN1215-ICV1	1		
14:07	GN1215-ICB1	1		
14:09	GN1215-CCV1	1		
14:10	GN1215-CCB1	1		
14:11	GP24333-MB1	1		
14:13	GP24333-B1	1		
14:14	GP24333-S1	1		
14:15	GP24333-S2	1		
14:17	GP24333-D1	1		
14:18	JC96575-1	1		(sample used for QC only; not part of login JC96248)
14:19	JC96575-2	1		(sample used for QC only; not part of login JC96248)
14:21	ZZZZZZ	1		
14:22	ZZZZZZ	1		
14:23	ZZZZZZ	1		
14:25	GN1215-CCV2	1		
14:26	GN1215-CCB2	1		
14:28	ZZZZZZ	1		
14:29	ZZZZZZ	1		
14:30	ZZZZZZ	1		
14:32	ZZZZZZ	1		
14:33	ZZZZZZ	1		
14:34	ZZZZZZ	1		
14:36	ZZZZZZ	1		
14:37	ZZZZZZ	1		
14:38	ZZZZZZ	1		
14:40	GP24334-MB1	1		

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SGS Instrument Runlog
Inorganics Analyses

Login Number: JC96248
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA

File ID: E101519W1.CN Date Analyzed: 10/15/19 Methods: EPA 335.4/LACHAT, SW846 9012B/LACHAT
Analyst: KI Run ID: GN1215
Parameters: Cyanide

Time	Sample Description	Dilution Factor	PS Recov	Comments
14:41	GN1215-CCV3	1		
14:43	GN1215-CCB3	1		
14:44	ZZZZZZ	1		
14:45	GP24335-MB1	1		
14:47	GP24335-B1	1		
14:48	GP24335-S1	1		
14:49	GP24335-D1	1		
14:51	JC96424-1	1		(sample used for QC only; not part of login JC96248)
14:52	ZZZZZZ	1		
14:53	ZZZZZZ	1		
14:55	ZZZZZZ	1		
14:56	ZZZZZZ	1		
14:58	GN1215-CCV4	1		
14:59	GN1215-CCB4	1		
15:00	ZZZZZZ	1		
15:02	ZZZZZZ	1		
15:03	ZZZZZZ	1		
15:04	GP24336-MB1	1		
15:06	ZZZZZZ	1		
15:07	GP24357-MB1	1		
15:08	GP24357-B1	1		
15:10	GP24357-S1	1		
15:11	GP24357-D1	1		
15:12	JC96354-2	1		(sample used for QC only; not part of login JC96248)
15:14	GN1215-CCV5	1		
15:15	GN1215-CCB5	1		
15:17	ZZZZZZ	1		
15:18	ZZZZZZ	1		
15:19	ZZZZZZ	1		
15:21	ZZZZZZ	1		
15:22	ZZZZZZ	1		
15:23	ZZZZZZ	1		
15:25	ZZZZZZ	1		

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SGS Instrument Runlog
Inorganics Analyses

Login Number: JC96248
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA

File ID: E101519W1.CN Date Analyzed: 10/15/19 Methods: EPA 335.4/LACHAT, SW846 9012B/LACHAT
Analyst: KI Run ID: GN1215
Parameters: Cyanide

Time	Sample Description	Dilution Factor	PS Recov	Comments
15:26	ZZZZZZ	1		
15:27	GP24356-MB1	1		
15:29	GP24356-B1	1		
15:30	GN1215-CCV6	1		
15:32	GN1215-CCB6	1		
15:33	GP24356-S1	1		
15:34	GP24356-S2	1		
15:36	GP24356-D1	1		
15:37	JC96248-1	1		
15:38	JC96248-2	1		
15:40	JC96248-3	1		
15:41	JC96248-4	1		
15:42	JC96248-5	1		
15:44	JC96248-6	1		
15:45	JC96248-7	1		
15:47	GN1215-CCV7	1		
15:48	GN1215-CCB7	1		
15:49	JC96248-8	1		
15:51	JC96248-1F	1		
15:52	JC96248-2F	1		
15:53	JC96248-3F	1		
15:55	JC96248-4F	1		
15:56	JC96248-5F	1		
15:57	JC96248-6F	1		
15:59	JC96248-7F	1		
16:00	JC96248-8F	1		
16:01	ZZZZZZ	1		
16:03	GN1215-CCV8	1		
16:04	GN1215-CCB8	1		
16:06	ZZZZZZ	1		
16:07	ZZZZZZ	1		
16:08	ZZZZZZ	1		
16:10	GP24148-MB1	1		

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SGS Instrument Runlog
Inorganics Analyses

Login Number: JC96248
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA

File ID: E101519W1.CN Date Analyzed: 10/15/19 Methods: EPA 335.4/LACHAT, SW846 9012B/LACHAT
Analyst: KI Run ID: GN1215
Parameters: Cyanide

Time	Sample Description	Dilution PS		Comments
		Factor	Recov	
16:11	ZZZZZ	1		
16:12	ZZZZZ	1		
16:14	ZZZZZ	3		
16:17	GN1215-CCV9	1		
16:18	GN1215-CCB9	1		

Refer to raw data for calibration curve and standards.

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Instrument QC Summary
Inorganics Analyses

Login Number: JC96248
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA

File ID: E101519W1.CN Date Analyzed: 10/15/19 Methods: EPA 335.4/LACHAT, SW846 9012B/LACHAT
Run ID: GN1215 Units: mg/l

Sample Number	Parameter	Result	RL	IDL/MDL	True Value	% Recov.	QC Limits
GN1215-ICV1	Cyanide	0.312	0.010	0.0041	.3	104.0	90-110
GN1215-ICB1	Cyanide	0.0041 U	0.010	0.0041			
GN1215-CCV1	Cyanide	0.408	0.010	0.0041	.4	102.0	90-110
GN1215-CCB1	Cyanide	-0.00500	0.010	0.0041			
GN1215-CCV2	Cyanide	0.411	0.010	0.0041	.4	102.8	90-110
GN1215-CCB2	Cyanide	-0.00513	0.010	0.0041			
GN1215-CCV3	Cyanide	0.413	0.010	0.0041	.4	103.3	90-110
GN1215-CCB3	Cyanide	-0.00541	0.010	0.0041			
GN1215-CCV4	Cyanide	0.411	0.010	0.0041	.4	102.8	90-110
GN1215-CCB4	Cyanide	0.0041 U	0.010	0.0041			
GN1215-CCV5	Cyanide	0.412	0.010	0.0041	.4	103.0	90-110
GN1215-CCB5	Cyanide	0.0041 U	0.010	0.0041			
GN1215-CCV6	Cyanide	0.414	0.010	0.0041	.4	103.5	90-110
GN1215-CCB6	Cyanide	-0.00720	0.010	0.0041			
GN1215-CCV7	Cyanide	0.414	0.010	0.0041	.4	103.5	90-110
GN1215-CCB7	Cyanide	0.0041 U	0.010	0.0041			
GN1215-CCV8	Cyanide	0.414	0.010	0.0041	.4	103.5	90-110
GN1215-CCB8	Cyanide	-0.00629	0.010	0.0041			
GN1215-CCV9	Cyanide	0.415	0.010	0.0041	.4	103.8	90-110
GN1215-CCB9	Cyanide	-0.00616	0.010	0.0041			

(!) Outside of QC limits

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General Chemistry

Raw Data

Test: Total Dissolved Solids, Method: SM2540 C-11
 Product: TDS Units: mg/l RL: 10.0
 GN Batch ID: GN1010
 Analyst: RC Date: 10/17/2018
 Balance ID: 653
 Therm ID: 189560
 Cur Factor: 0
 Open ID: INC-19

QC Summary
 MB ID: GN1010.MB1
 Dup ID: GN1010.D1
 Result: <RDL
 Smp Result: 710
 Dup Result: 730
 Oven ID: 1010201B
 Result: <RDL
 Smp Result: 10
 Dup Result: 2.8
 Filtration Time: 16.13
 % RDL: YES
 % RPD: 2.8

Acceptable Temp. Range = 178 to 182 deg. C
 Date: 10/17/2018
 Time (Start/Finish): 8:36 / 12:55
 Cor Temp (deg C (Start/Finish)): 180 / 180
 Uncorrected Temp (Start/Finish): 180 / 180

Bottle #	Sample ID	Dish #	Dish Prep Time	Dish In	Dish Out	Prep Time	Volume Filtered in ml	Filter Time	Weight in g	Weight after drying at 180 deg. C in g	Ready #3 Weight in g (g)	Ready #2 Weight in g (g)	Ready #1 Weight in g (g)	Constant Weight in g (g)	TDS in mg/l (Calculated)	Final TDS* in mg/l	Mass % RPD	Mass % RPD
13	GN1010.MB1.P1	P1	8:00	10:00	10:00	10:00	100.00	98.69430	98.69430	98.69430	98.69430	98.69430	98.69430	98.69430	730.00	730.00	2.8%	2.8%
13	GN1010.D1.P2	P2	8:00	10:00	10:00	10:00	99.07600	99.08330	99.08330	99.08330	99.08330	99.08330	99.08330	99.08330	710.00	710.00		
13	JC96248.4	P3	8:00	10:00	10:00	10:00	93.91890	93.92600	93.92600	93.92600	93.92600	93.92600	93.92600	93.92600	808.00	808.00		
5	JC96248.7	G1	8:00	10:00	10:00	10:00	101.33010	101.33710	101.33710	101.33710	101.33710	101.33710	101.33710	101.33710	818.00	818.00		
24	JC96321.1	G2	8:00	10:00	10:00	10:00	93.69230	93.72730	93.72730	93.72730	93.72730	93.72730	93.72730	93.72730	730.00	730.00		
7	JC96354.2	T1	8:00	10:00	10:00	10:00	101.57360	101.61840	101.61840	101.61840	101.61840	101.61840	101.61840	101.61840	447.00	447.00		
8	JC96362.1A	K5	8:00	10:00	10:00	10:00	92.23000	92.31030	92.31030	92.31030	92.31030	92.31030	92.31030	92.31030	808.00	808.00		
5	JC96395.2	K6	8:00	10:00	10:00	10:00	88.66230	88.68380	88.68380	88.68380	88.68380	88.68380	88.68380	88.68380	214.00	214.00		
5	JC96411.3	P9	8:00	10:00	10:00	10:00	90.30330	90.32520	90.32520	90.32520	90.32520	90.32520	90.32520	90.32520	438.00	438.00		

*TDS (mg/l) = (weight of evaporated dish - bare weight of evaporated dish, mg) x 1000 ml / sample volume, ml

Comments:
 Laboratory Sales & Services 25mm Lohr LS-1441016, Laboratory Sales & Services 42mm Lohr LS-1501008

Validated By: TRG
 Document Control #: DAYT.WET.0187.1B-FORM-TDS
 Validated Date: 10/17/2018

10/17/2018



GN1010
TDS SAMPLE DESCRIPTION SHEET

SGS Sample ID		Filter size used	Non-standard volumes. Comment with reason as shown below.	Limited Volume
JC96248-4	15 Foamy cloudy Brown	42	10a	
JC96248-1	5 Cloudy yellow		100	
JC96248-7	5 Slight pale almost clear		100	
JC96321-1	24 clear		100	
JC96354-2	7 foamy & clear		10a	
JC96362-1A	8 yellow & heavy		100	
JC96395-2	5 Slight foamy Brown & Particles	↓	50a	
JC96411-3	6			

BCD

Reason (a). Sample contains heavy particulates and it can be assessed by appearance that it will clog the filter at higher volumes.
Reason (b). Initial analysis of the sample at a higher volume produced clogging. Rerunning at reduced volume.

LABORATORY REVIEW SIGNATURE FORM
(To be stored with the raw data)

File ID: E101519W1.CN
Analyst: KI

Date Analyzed: 10/15/19
Run ID: GN1215

Methods: EPA 335.4/LACHAT, SW846 9012B/LACHAT

The following analyst(s) have reviewed this run and attest that, to the best of their knowledge, this documentation is complete and correct:

Analyst: KI Date 10/15/19

Analyst: _____ Date _____

Analyst: _____ Date _____

Analyst: _____ Date _____

Analyst: _____ Date _____

Analyst: _____ Date _____

Analyst: _____ Date _____

The following supervisor or their designee has reviewed this run and attests that, to the best of their knowledge, this documentation is complete and correct:

Supervisor (or designee): *[Signature]* Date 10/14/19

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GN1215

Author: Chemistry

Date: 10/15/2019

Original Run Filename: OM_10-15-2019_01-55-35PM.OMN Created: 10/15/2019 1:55:35 PM
 Original Run Author's Signature: [Chemistry]
 Current Run Filename: OM_10-15-2019_01-55-35PM.OMN Last Modified: 10/15/2019 4:20:45 PM
 Current Run Author's Signature: [Chemistry]
 Description: Default new Run

Sample	Rep.	Cup No.	Channel 1 CN	Detection Time	MDF
STDA	1	1	0.800	10/15/2019@1:56:44 PM	
STDB	1	2	0.600	10/15/2019@1:58:07 PM	
STDC	1	3	0.400	10/15/2019@1:59:29 PM	
STDD	1	4	0.100	10/15/2019@2:00:51 PM	
STDE	1	5	0.0200	10/15/2019@2:02:13 PM	
STDF	1	6	0.0100	10/15/2019@2:03:35 PM	
STDG	1	7	0.00	10/15/2019@2:04:57 PM	
ICV	1	8	0.312	10/15/2019@2:06:19 PM	
Known Conc:			0.300		
Calibration:			Table/Fig. : 1		
ICB	1	9	-4.08e-3	10/15/2019@2:07:40 PM	
Known Conc:			0.00		
CCV	1	S9	0.408	10/15/2019@2:09:02 PM	
Known Conc:			0.400		
CCB	1	S10	-5.00e-3	10/15/2019@2:10:23 PM	
Known Conc:			0.00		
GP24333-MB1	1	10	-5.13e-4	10/15/2019@2:11:45 PM	
GP24333-B1	1	11	0.0881	10/15/2019@2:13:06 PM	
GP24333-S1	1	12	0.130	10/15/2019@2:14:27 PM	
GP24333-S2	1	13	0.393	10/15/2019@2:15:49 PM	
GP24333-D1	1	14	0.0563	10/15/2019@2:17:09 PM	
JC96575-1	1	15	0.0319	10/15/2019@2:18:30 PM	
JC96575-2	1	16	0.281	10/15/2019@2:19:52 PM	
JC96412-10	1	17	0.0154	10/15/2019@2:21:15 PM	
JC96412-12	1	18	3.54e-3	10/15/2019@2:22:37 PM	
JC96231-4	1	19	1.21	10/15/2019@2:23:59 PM	
CCV	1	S9	0.411	10/15/2019@2:25:20 PM	
Known Conc:			0.400		
CCB	1	S10	-5.13e-3	10/15/2019@2:26:43 PM	
Known Conc:			0.00		
JC96231-8	1	20	0.0462	10/15/2019@2:28:05 PM	
JC96231-12	1	21	0.0221	10/15/2019@2:29:26 PM	
JC96231-16	1	22	0.0283	10/15/2019@2:30:48 PM	
JC96231-20	1	23	0.116	10/15/2019@2:32:09 PM	
JC96231-24	1	24	3.76e-3	10/15/2019@2:33:31 PM	
JC96231-28	1	25	0.0314	10/15/2019@2:34:52 PM	
JC96460-5	1	26	-3.14e-4	10/15/2019@2:36:14 PM	
JC96460-11	1	27	3.55e-4	10/15/2019@2:37:35 PM	
JC96334-4	1	28	0.126	10/15/2019@2:38:56 PM	
GP24334-MB1	1	29	-1.17e-3	10/15/2019@2:40:17 PM	
CCV	1	S9	0.413	10/15/2019@2:41:39 PM	
Known Conc:			0.400		
CCB	1	S10	-5.41e-3	10/15/2019@2:43:01 PM	
Known Conc:			0.00		
JC95912-11A	1	30	0.0171	10/15/2019@2:44:22 PM	
GP24335-MB1	1	31	-1.60e-3	10/15/2019@2:45:44 PM	
GP24335-B1	1	32	0.0875	10/15/2019@2:47:06 PM	
GP24335-S1	1	33	0.0791	10/15/2019@2:48:29 PM	
GP24335-D1	1	34	8.28e-4	10/15/2019@2:49:51 PM	
JC96424-1	1	35	1.18e-3	10/15/2019@2:51:13 PM	
JC96509-1	1	36	1.80e-3	10/15/2019@2:52:34 PM	
JC96588-1Q	1	37	-8.52e-4	10/15/2019@2:53:56 PM	
JC96528-1	1	38	4.23e-3	10/15/2019@2:55:18 PM	
JC96260-1	1	39	8.33e-4	10/15/2019@2:56:39 PM	
CCV	1	S9	0.411	10/15/2019@2:58:01 PM	
Known Conc:			0.400		
CCB	1	S10	-2.14e-3	10/15/2019@2:59:23 PM	
Known Conc:			0.00		
JC96260-2	1	40	-2.08e-4	10/15/2019@3:00:44 PM	
JC96260-3	1	41	-2.63e-3	10/15/2019@3:02:06 PM	

06100

W4

W3

W5.8

overrange, see term

W2.75

W3.25

W5

W2.75

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Author: Chemistry

Date : 10/15/2019

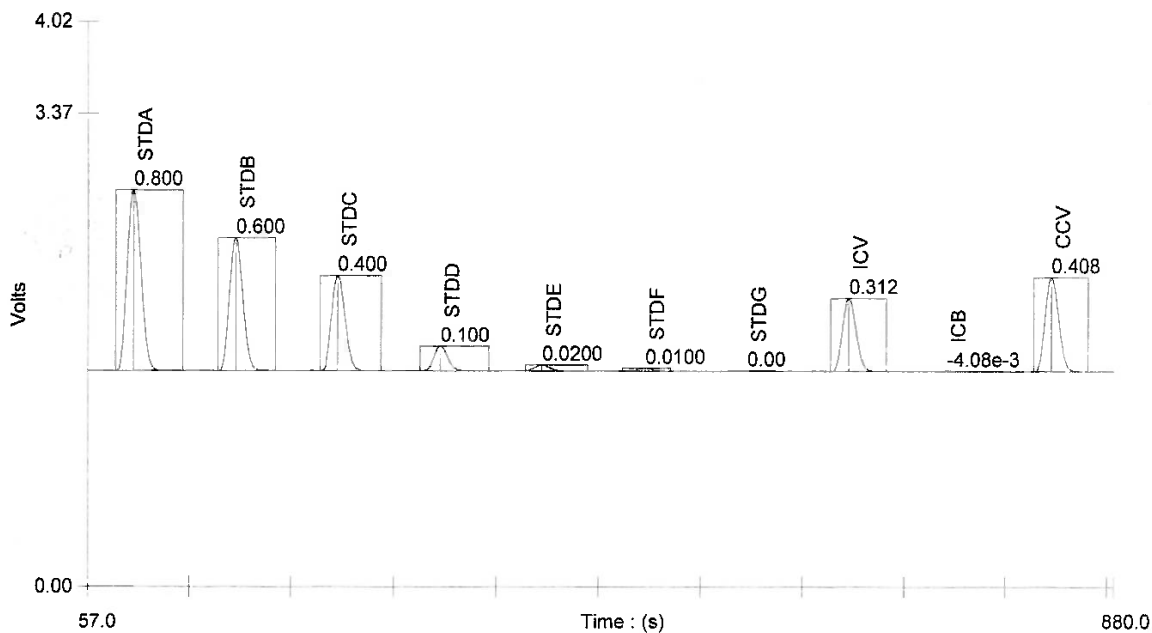
JC96321-1	1	42	-4.17e-3	10/15/2019@3:03:27 PM	
GP24336-MB1	1	43	-4.76e-4	10/15/2019@3:04:48 PM	
JC95911-25A	1	44	0.0171	10/15/2019@3:06:09 PM	
GP24357-MB1	1	45	1.63e-4	10/15/2019@3:07:30 PM	
GP24357-B1	1	46	0.0870	10/15/2019@3:08:52 PM	W04.4
GP24357-S1	1	47	0.0672	10/15/2019@3:10:14 PM	
GP24357-D1	1	48	4.36e-3	10/15/2019@3:11:37 PM	
JC96354-2	1	49	6.57e-3	10/15/2019@3:12:59 PM	
CCV	1	S9	0.412	10/15/2019@3:14:21 PM	
Known Conc:			0.400		W03
CCB	1	S10	-1.26e-3	10/15/2019@3:15:43 PM	
Known Conc:			0.00		
JC96368-2	1	50	8.86e-4	10/15/2019@3:17:05 PM	
JC96411-1	1	51	-2.23e-3	10/15/2019@3:18:27 PM	
JC96419-1	1	52	4.93e-3	10/15/2019@3:19:49 PM	
JC96434-1	1	53	-3.81e-3	10/15/2019@3:21:10 PM	
JC96436-1	1	54	2.97e-3	10/15/2019@3:22:32 PM	
JC96436-2	1	55	2.93e-3	10/15/2019@3:23:53 PM	
JC96439-2	1	56	-9.49e-4	10/15/2019@3:25:14 PM	
JC96559-1	1	57	-6.59e-4	10/15/2019@3:26:35 PM	
GP24356-MB1	1	58	3.64e-3	10/15/2019@3:27:56 PM	W02.6
GP24356-B1	1	59	0.0855	10/15/2019@3:29:17 PM	
CCV	1	S9	0.414	10/15/2019@3:30:39 PM	W03.5
Known Conc:			0.400		
CCB	1	S10	-7.20e-3	10/15/2019@3:32:01 PM	
Known Conc:			0.00		
GP24356-S1	1	60	0.199	10/15/2019@3:33:22 PM	
GP24356-S2	1	61	0.263	10/15/2019@3:34:44 PM	
GP24356-D1	1	62	0.118	10/15/2019@3:36:07 PM	
JC96248-1	1	63	0.0312	10/15/2019@3:37:28 PM	
JC96248-2	1	64	0.0111	10/15/2019@3:38:52 PM	
JC96248-3	1	65	0.0138	10/15/2019@3:40:12 PM	
JC96248-4	1	66	0.139	10/15/2019@3:41:34 PM	
JC96248-5	1	67	0.180	10/15/2019@3:42:56 PM	
JC96248-6	1	68	0.377	10/15/2019@3:44:17 PM	
JC96248-7	1	69	0.0344	10/15/2019@3:45:39 PM	
CCV	1	S9	0.414	10/15/2019@3:47:00 PM	W03.5
Known Conc:			0.400		
CCB	1	S10	-3.47e-3	10/15/2019@3:48:22 PM	
Known Conc:			0.00		
JC96248-8	1	70	-5.96e-3	10/15/2019@3:49:43 PM	
JC96248-1F	1	71	0.0392	10/15/2019@3:51:05 PM	
JC96248-2F	1	72	0.0187	10/15/2019@3:52:26 PM	
JC96248-3F	1	73	0.0173	10/15/2019@3:53:47 PM	
JC96248-4F	1	74	0.191	10/15/2019@3:55:08 PM	
JC96248-5F	1	75	0.138	10/15/2019@3:56:29 PM	
JC96248-6F	1	76	0.406	10/15/2019@3:57:52 PM	
JC96248-7F	1	77	0.0374	10/15/2019@3:59:14 PM	
JC96248-8F	1	78	-2.50e-3	10/15/2019@4:00:36 PM	
JC96352-1	1	79	0.129	10/15/2019@4:01:58 PM	
CCV	1	S9	0.414	10/15/2019@4:03:20 PM	W03.5
Known Conc:			0.400		
CCB	1	S10	-6.29e-3	10/15/2019@4:04:42 PM	
Known Conc:			0.00		
JC96352-2	1	80	-3.35e-4	10/15/2019@4:06:04 PM	
JC96352-3	1	81	-4.98e-4	10/15/2019@4:07:26 PM	
JC96353-1	1	82	5.12e-3	10/15/2019@4:08:48 PM	
GP24148-MB1	1	83	-7.62e-4	10/15/2019@4:10:09 PM	
JC80498-4A	1	84	3.09e-3	10/15/2019@4:11:31 PM	
JC80498-4	1	85	8.68e-3	10/15/2019@4:12:52 PM	
JC96231-4	1	86	0.479	10/15/2019@4:14:13 PM	3.00
CCV	1	S9	0.415	10/15/2019@4:17:17 PM	W03.75
Known Conc:			0.400		
CCB	1	S10	-6.16e-3	10/15/2019@4:18:38 PM	
Known Conc:			0.00		

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13

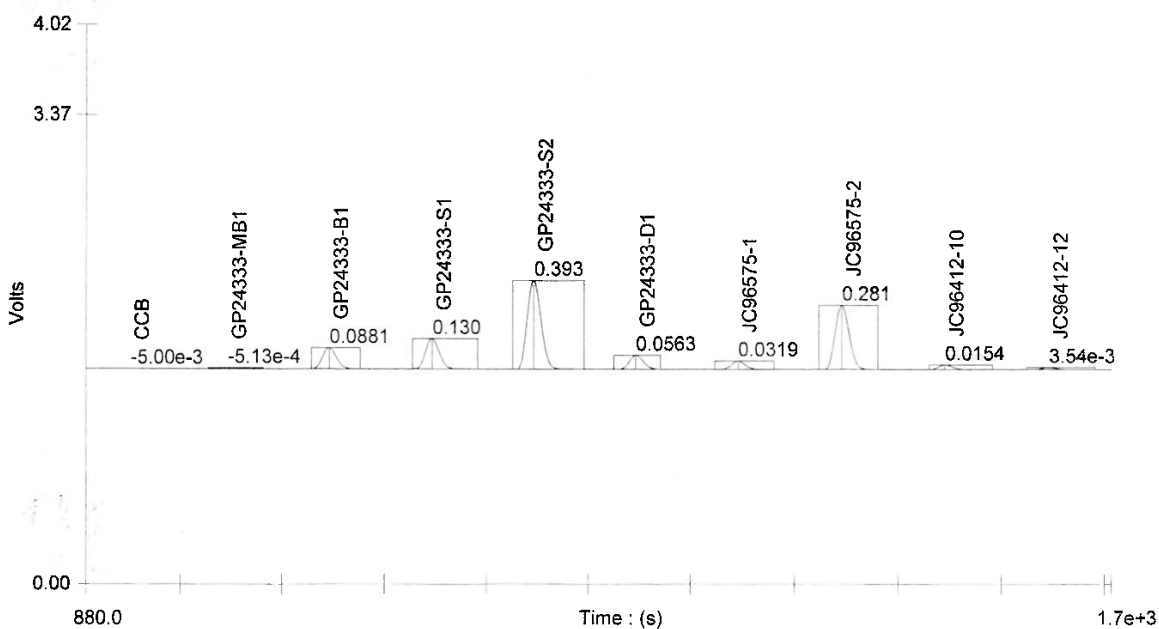
Author: Chemistry

Date : 10/15/2019

Channel 1 - Set: 1 / 11



Channel 1 - Set: 2 / 11

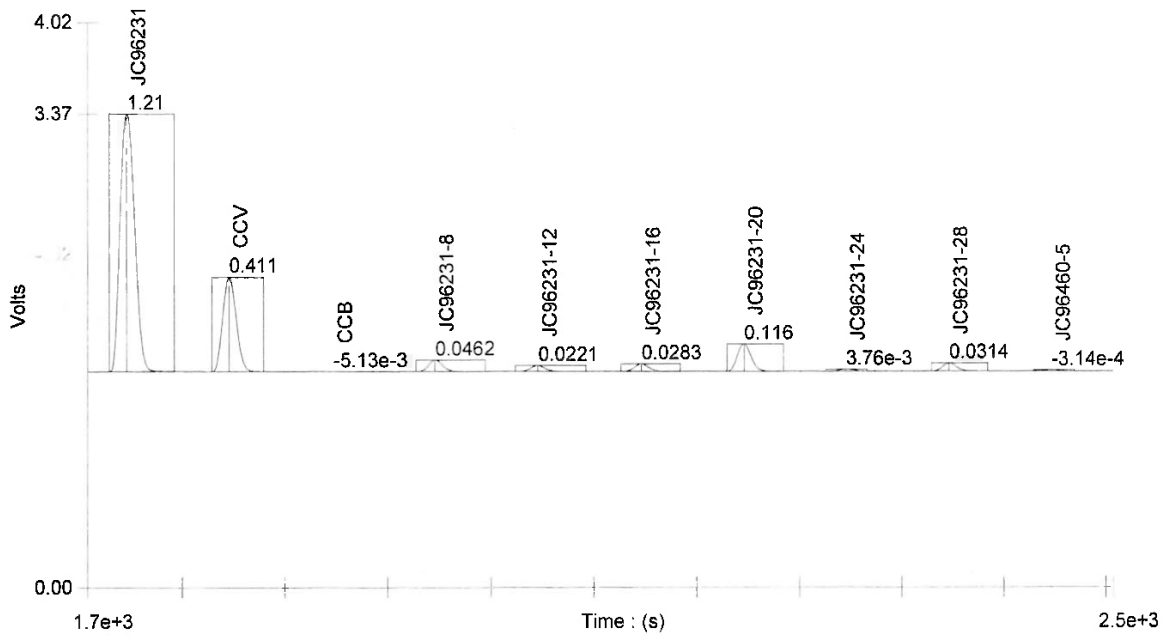


13.2 13

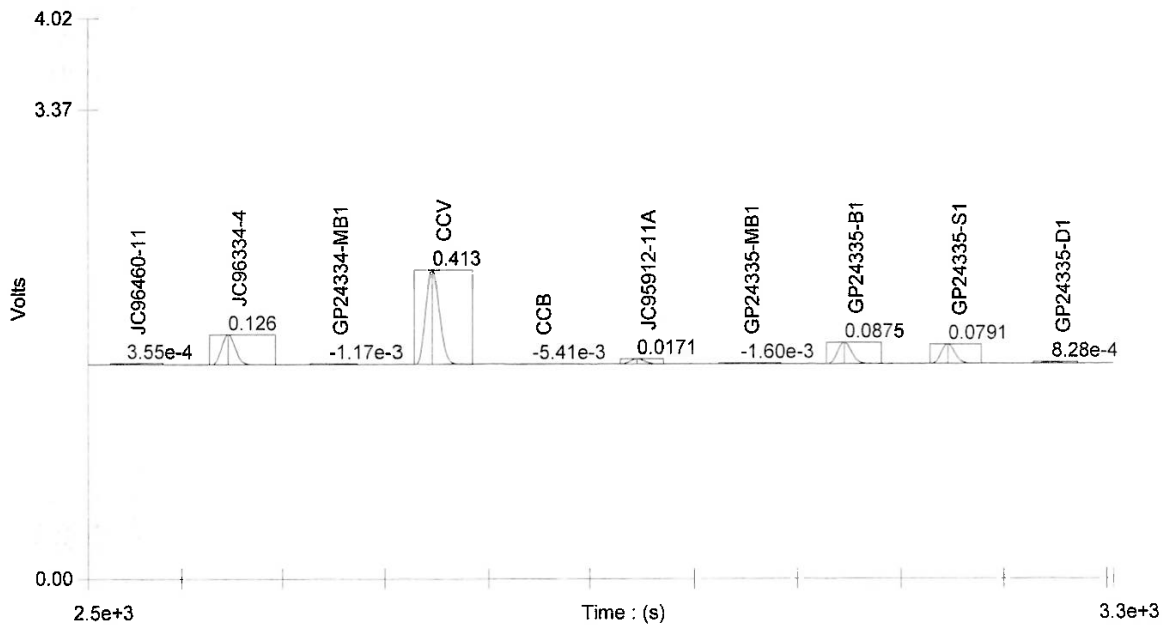
Author: Chemistry

Date : 10/15/2019

Channel 1 - Set: 3 / 11



Channel 1 - Set: 4 / 11

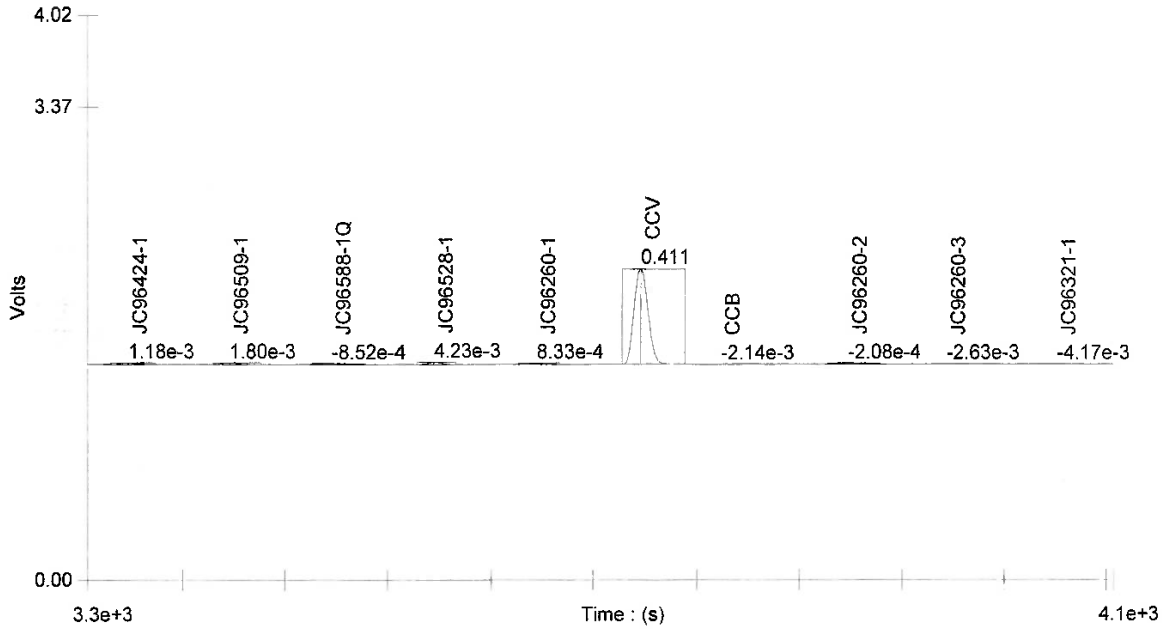


13.2
13

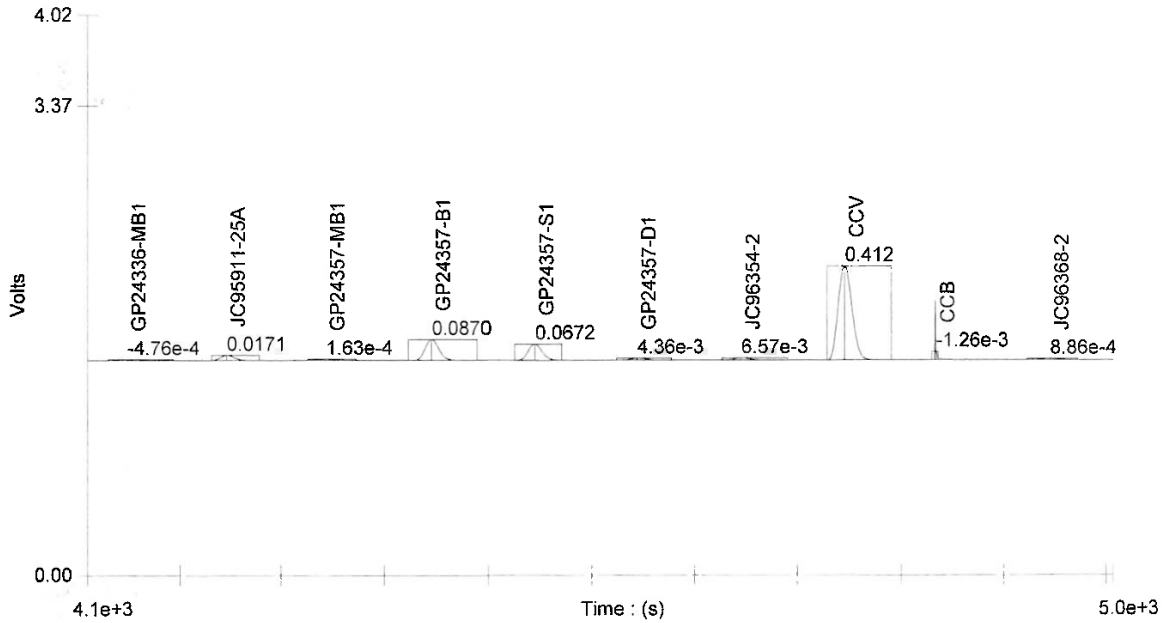
Author: Chemistry

Date : 10/15/2019

Channel 1 - Set: 5 / 11



Channel 1 - Set: 6 / 11

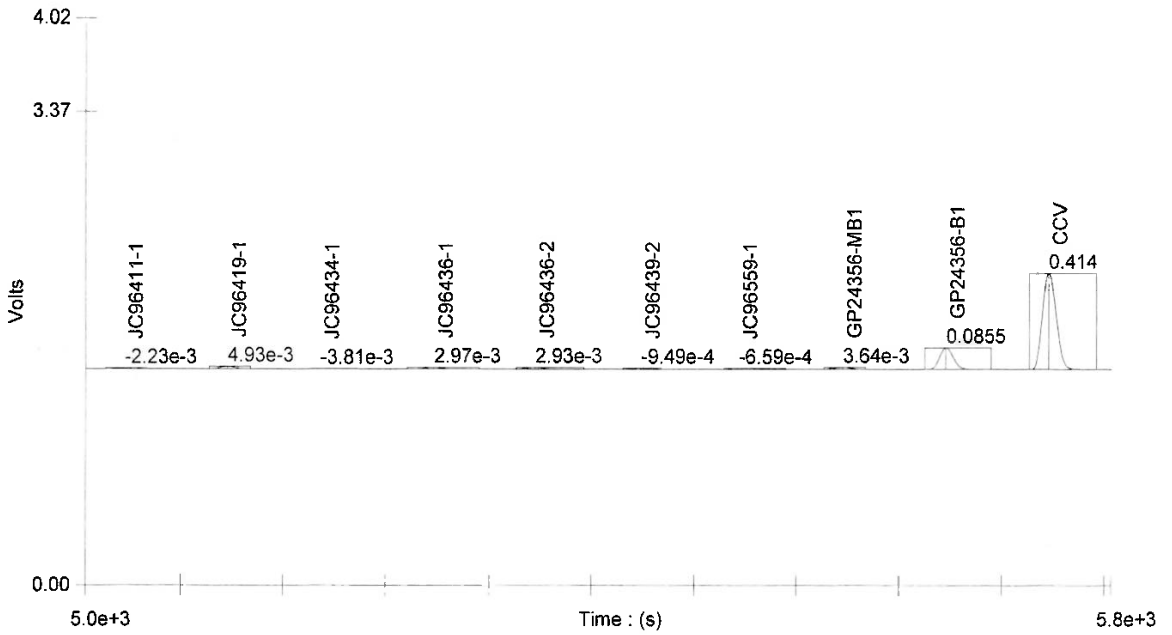


13.2
13

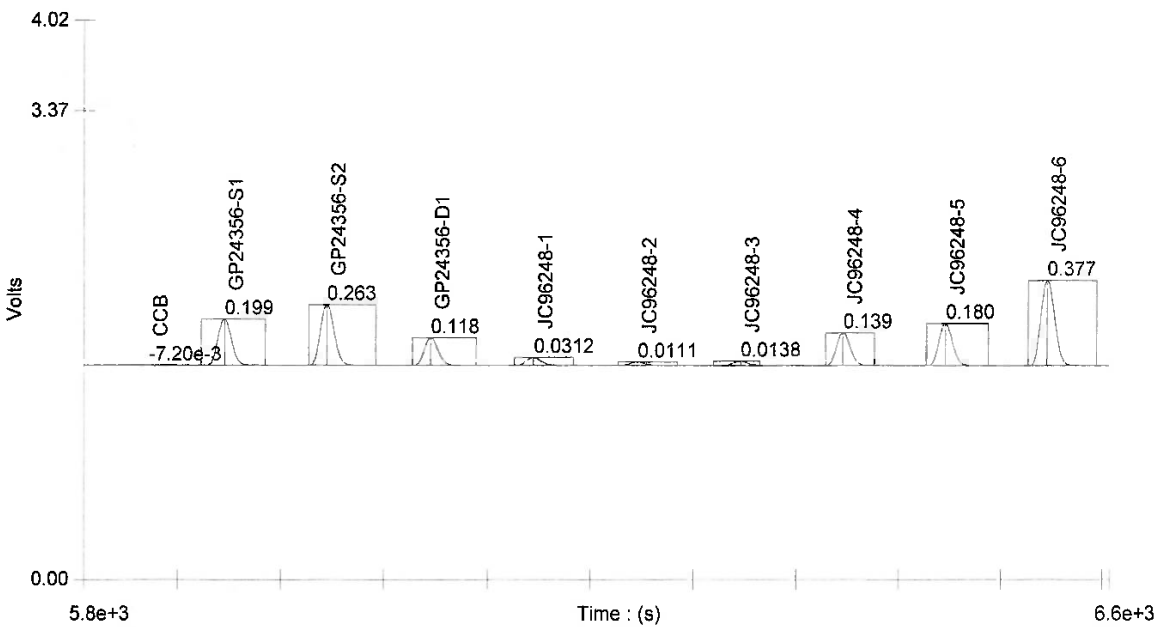
Author: Chemistry

Date : 10/15/2019

Channel 1 - Set: 7 / 11



Channel 1 - Set: 8 / 11

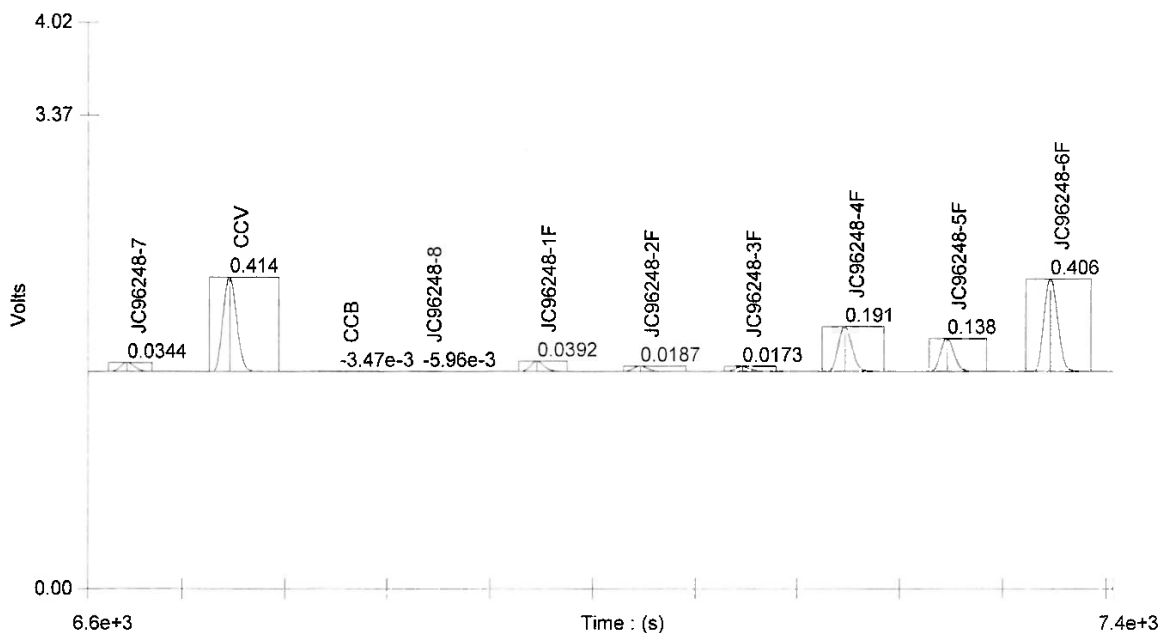


13.2
13

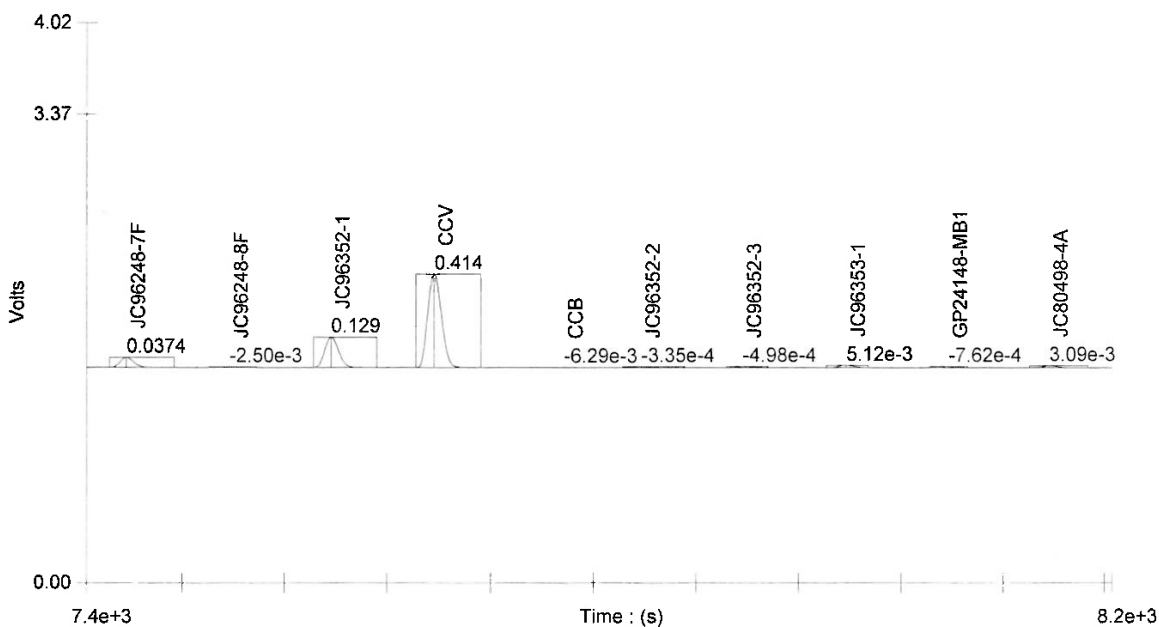
Author: Chemistry

Date : 10/15/2019

Channel 1 - Set: 9 / 11



Channel 1 - Set: 10 / 11



13.2 13

Author: Chemistry

Date : 10/15/2019

Channel 1 - Set: 11 / 11

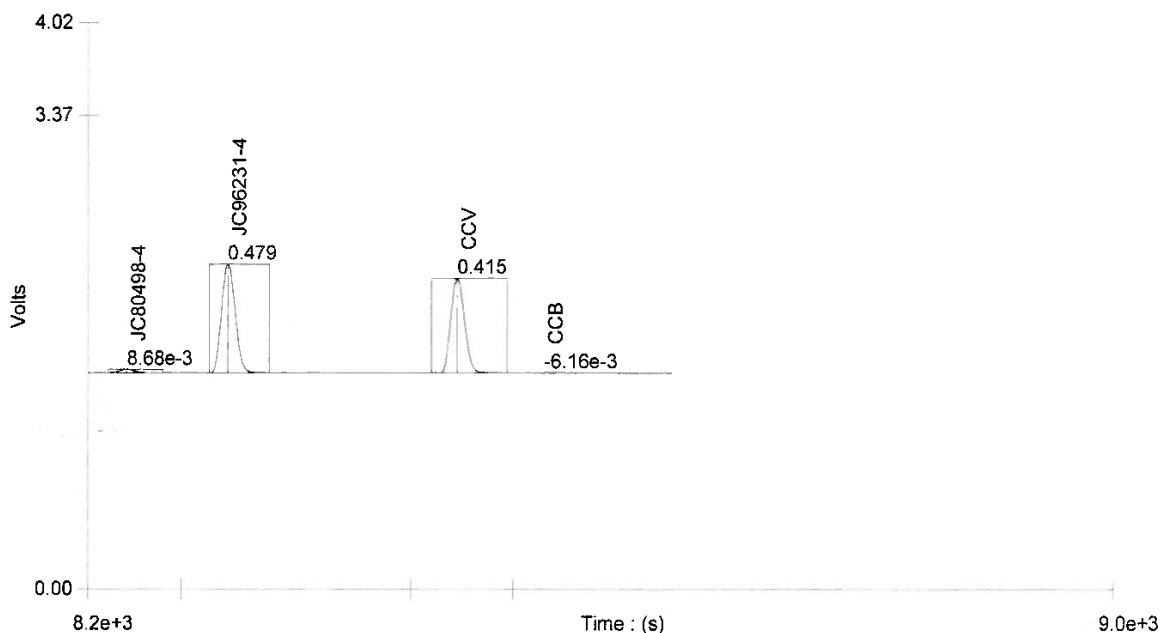
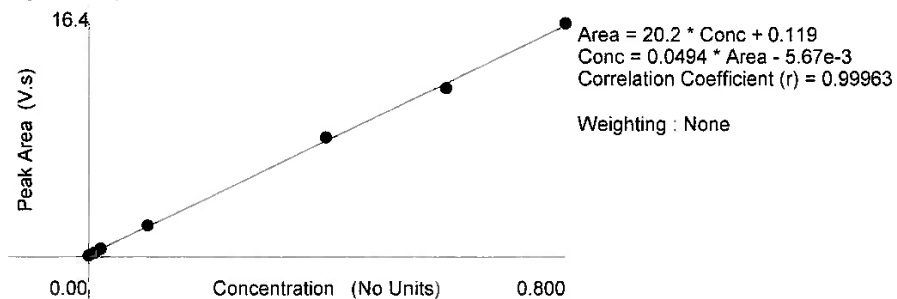


Table : 1 (CN)

	Known Conc. (l)	Rep.	Peak Area (V.s)	Peak Height (V)	% RSD	% Residual	Det. Conc (l)	Detection Date	Detection Time
1	0.800	1	16.4	1.27	0.0	-0.8	0.806	10/15/2019	1:56:44 PM
2	0.600	1	11.9	0.937	0.0	2.8	0.583	10/15/2019	1:58:07 PM
3	0.400	1	8.44	0.673	0.0	-2.7	0.411	10/15/2019	1:59:29 PM
4	0.100	1	2.20	0.173	0.0	-2.6	0.103	10/15/2019	2:00:51 PM
5	0.0200	1	0.553	0.0411	0.0	-5.7	0.0217	10/15/2019	2:02:13 PM
6	0.0100	1	0.260	0.0201	0.0	18.9	7.19e-3	10/15/2019	2:03:35 PM
7	0.00	1	0.0729	4.22e-3			-2.07e-3	10/15/2019	2:04:57 PM

Figure : 1 (CN)





Reagent Information Log - CN Lachat Autoanalyzer

GN Number: GN1215

Reagent	Reagent # or Manufacturer/Lot	Expiration date
Pyridine-Bartitric Acid Reagent	GNE10-59286-CN	4/8/2020
Chloramine-T	GNE10-59295-CN	10/16/2019
Phosphate Buffer Solution, 1.0 M	GNE6-58339-CN	12/20/2019
0.25 N Sodium Hydroxide Carrier Solution	GNE10-59308-CN	4/10/2020

Reason codes for data corrections: 1-reviewer error correction; 2-transcription error; 3-computer error; 4-analyst error

Form: GN087A-27
 Rev. Date: 7/19/06

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Analyst KT Product CN Autopipette # 45
Date 10/15/19 Batch ID _____ Class A Vol. Flask

Sample Dilution Prep Log

Sample ID	Dilution	Initial Volume	Final Volume	Comments
JC962314	1:3	1	3	
[A large diagonal line is drawn across the remaining rows of the table, indicating that no further dilution steps were performed.]				

QC Reviewer: [Signature] Date: 10/16/19

Form: GN165-01
Rev. Date: 2/25/03

13.2
13

Batch ID: _____

Autopipette ID: 48147/Class A

Balance ID: 8-27

GP24333

CYANIDE DISTILLATION LOG (SOILS- MICRO DISTILLATION)

Method: SW8469012B M



Bottle #	Block #	Sample ID	pH	S2-	Add (a)	Initial Weight (g)	Final Volume (ml)	Temp. in Deg. C (b)	Start Time	End Time	Date	QC ID	Spike Amounts and Comments	Spike Lot	Analyst
1		MB1	11.99	N	Y	0.22	6	120	11:02	11:32	10/14/19	GP -MB1			Jkw
2		B1				0.28							0.10 ml of 5.0 mg/l (c)		
3		S1-JC96575-1				0.29							0.10 ml of 5.0 mg/l		
4		S2-JC96575-2				6.29							0.10 ml of 5.0 mg/l		
5		D1-JC96575-1				0.22									
6		JC96575-1				0.23									
7		-2				0.28									
8		JC96412-10				0.30									
9		-12				0.21									
10		JC96231-4				0.29									
11		-8				0									
12		-12				0.25									
13		-16				0.26									
14		-20				0.29									
15		-24				0.24									
16		-28				0.20									
17		JC96260-35				0.26									
18		11				0.0									
19		JC96234-4				0.26									
20		JC96260-3													
21		JC96260-3													

- (a) Check if sulfamic acid was added.
- (b) Record temp. from the LED readout on the distillation block. Temperatures verified with an external thermometer a min. of once per quarter.
- (c) If the calibration curve is not distilled, then in addition to the blank spike, the analyst must also prepare two distilled standards using 0.12 ml of 1.0 mg/l for one and 0.15 ml of 20.0 mg/l for the other.

QC Reviewer: _____
 Date: _____



Reagent Information Log - CN - Distillation

GP Numbers:

GP24333

Reagent	Reagent # or Manufacturer/Lot	Expiration date
Silver Nitrate Solution 0.0192 N	GNE6-58369-CN	12/24/2019
Magnesium Chloride Solution	GNE9-59176-CN	3/27/2020
Sulfamic Acid	A0369642	7/15/2022
Sulfuric Acid	FISHER 190956	6/3/2024
Sodium Hydroxide 1.25N/0.25N	GNE8-58757-CN GNE9-59100-CN	2/8/2020 3/19/2020
Cadmium Carbonate, Powder	GN180814A	9/13/2023
Acetic acid buffer	GNE6-58370-CN	12/20/2019
Micro Distillation tubes	914050-9157-JS	NA
.95 NaOH	GNE7-58576-CN	1/17/2020
Cyanide Stock Solution A - spiking/standards	GNE9-58967-CN	3/3/2020
Cyanide Stock Solution B- externals	GNE7-58581-CN	12/18/2019
Lead Acetate Test Paper	FISHER : 12/8/2016	12/8/2021
pH paper - range 12.5 to 14	FISHER : 203117A	1/30/2021
pH paper - range 1 to 12	FISHER : 231018	11/1/2021
Benzalrhodanine	ricca 4810T07	10/30/2019
silica sand	GNE1-53352-XCRA	12/20/2021

Form: GN087A-28
Rev. Date: 03/19/13



GENERAL CHEMISTRY STANDARD PREPARATION LOG

Product: CN
GN or GP Number: GP24333

Intermediate Standard Description	Stock used to prepare standard	Standardization Date	Stock concentration in mg/l	Stock volume used in ml (a)	Autopipet ID	Diluent (b)	Final Volume in ml	Final Conc. of Intermediate (mg/l)	Expiration Date (c)	Analyst	Date
5 PPM intermediate	GNE9-58967-CN	9/27/19	1000	1.000	43	.25 N NaOH	200	5.00	10/15/19	JKW	10/8/19
5 PPM ext.	GNE7-58581-CN	9/27/19	996	1	43	.25 N NaOH	200	5.00	10/15/19	JKW	10/8/19
Standard Description	Intermediate or Stock used to prepare standard	Standardization Date	Intermediate or Stock concentration in mg/l	Intermediate or Stock volume used in ml	Autopipet ID	Diluent (b)	Final Volume in ml	Final Conc. Of Standard (mg/l)	Expiration Date (c)	Analyst	Date
A	5.0 ppm CN STD		5.0	16.00	A	.25 N NaOH	100	0.80	10/15/19	JKW	10/8/19
B	5.0 ppm CN STD		5.0	12.00	A	.25 N NaOH	100	0.60	10/15/19	JKW	10/8/19
C	5.0 ppm CN STD		5.0	8.00	A	.25 N NaOH	100	0.40	10/15/19	JKW	10/8/19
D	5.0 ppm CN STD		5.0	2.00	43	.25 N NaOH	100	0.10	10/15/19	JKW	10/8/19
E	5.0 ppm CN STD		5.0	0.40	43	.25 N NaOH	100	0.02	10/15/19	JKW	10/8/19
F	5.0 ppm CN STD	0.3	5.0	0.20	43	.25 N NaOH	100	0.01	10/15/19	JKW	10/8/19
Undistilled ICV Int.	5 PPM EXT STD	11/4/18	0.3	6.00	43	.25 N NaOH	100	0.30	10/15/19	JKW	10/8/19
Undistilled CCV Int.	5.0 ppm CN STD	11/4/18		8.00	43	.25 N NaOH	100	0.40	10/15/19	JKW	10/8/19

(a) Concentration will change with standardization concentration.

(b) Diluent reagent reference number: SEE ATTACHED

(c) Standards must be made fresh (daily) before distillation. After distillation, they may be held under refrigeration for a maximum of 28 days before analysis.

*If Class A glass pipets are used, enter an A. For balances or autopipets, then enter the appropriate Accutest ID number.

Reason codes for data corrections: 1-reviewer error correction; 2-transcription error; 3-computer error; 4-analyst error

Expiration Date: SEE ATTACHED



Batch ID: _____
 Autopipette ID: 46 / 47 / Class A
 Balance ID: _____

GP 24334

CYANIDE DISTILLATION LOG (WATERS - MICRO DISTILLATION)

Method: EPA 335.4 or SW-846 9012 M (Circle Method)

Boil #	Block #	Sample ID	pH	Cd added?	Add (a)	Initial Volume (ml)	Final Volume (ml)	Temp. in Deg. C (b)	Start Time	End Time	Date	QC ID	Spike Amounts and Comments	Spike Lot	Analyst
2	MB1		11.99	N	Y	0	0	120	11:02	11:32	10/14/19	GP -MB1			Jew
2	JC95912-11A		11.99	N	Y	0	0	120	11:02	11:30	10/14/19		0.10 ml of 5.0 mg/l (c) 0.10 ml of 5.0 mg/l 0.10 ml of 5.0 mg/l		

Check if sulfamic acid was added.
 Record temp. from the LED readout on the distillation block. Temperatures verified with an external thermometer a min. of once per quarter.
 If the calibration curve is not distilled, then in addition to the blank spike, the analyst must also prepare two distilled standards using 0.12 ml of 1.0 mg/l for one and 0.15 ml of 20.0 mg/l for the other.
 Comments:

Reviewed Form: GP 10-18-96
 Rev Date: 10/18/18

Date: _____



MDL Schedule Log

DAY 2

Product: CN

Matrix: AQ

Instrument: Lachat E

+ MB

Sample #: JC95912-11A

MDL or MDLVER x 1

Concentration: 0.02

mg/L or mg/kg or _____

Prep: Took 0.4 ml of 5 ppm CN std and brought to volume of 100ml with 0.25 N NaOH

Sample #: _____

MDL or MDLVER x _____

Concentration: _____

mg/L or mg/kg or _____

Prep: _____

Date: 10/14/19

Analyst: JKW

Batch #: GP24334

Form: GN278-04
Revised: 3/2/18

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Reagent Information Log - CN - Distillation

GP Numbers:

GP24334

Reagent	Reagent # or Manufacturer/Lot	Expiration date
Silver Nitrate Solution 0.0192 N	GNE6-58369-CN	12/24/2019
Magnesium Chloride Solution	GNE9-59176-CN	3/27/2020
Sulfamic Acid	A0369642	7/15/2022
Sulfuric Acid	FISHER 190956	6/3/2024
Sodium Hydroxide 1.25N/0.25N	GNE8-58757-CN GNE9-59100-CN	2/8/2020 3/19/2020
Cadmium Carbonate, Powder	GN180814A	9/13/2023
Acetic acid buffer	GNE6-58370-CN	12/20/2019
Micro Distillation tubes	914050-9157-JS	NA
.95 NaOH	GNE7-58576-CN	1/17/2020
Cyanide Stock Solution A - spiking/standards	GNE9-58967-CN	3/3/2020
Cyanide Stock Solution B- externals	GNE7-58581-CN	12/18/2019
Lead Acetate Test Paper	FISHER : 12/8/2016	12/8/2021
pH paper - range 12.5 to 14	FISHER : 203117A	1/30/2021
pH paper - range 1 to 12	FISHER : 231018	11/1/2021
Benzalrthodanine	ricca 4810T07	10/30/2019
silica sand	GNE1-53352-XCRA	12/20/2021

Form: GN087A-28
Rev. Date: 03/19/13



GENERAL CHEMISTRY STANDARD PREPARATION LOG

Product: CN
GN or GP Number: Gpa4334

Intermediate Standard Description	Stock used to prepare standard	Standardization Date	Stock concentration in mg/l	Stock volume used in ml (a)	Autopipet ID	Diluent (b)	Final Volume in ml	Final Conc. of Intermediate (mg/l)	Expiration Date (c)	Analyst	Date
5 PPM intermediate	GNE9-58967-CN	9/27/19	1000	1.000	43	.25 N NaOH	200	5.00	10/15/19	JKW	10/8/19
5 PPM ext.	GNE7-58581-CN	9/27/19	996	1	43	.25 N NaOH	200	5.00	10/15/19	JKW	10/8/19
(a) Intermediate or Stock used to prepare standard	Intermediate or Stock standard		Intermediate or Stock concentration in mg/l	Intermediate or Stock volume used in ml	Autopipet ID	Diluent (b)	Final Volume in ml	Final Conc. Of Standard (mg/l)		Analyst	Date
A	5.0 ppm CN STD		5.0	16.00	A	.25 N NaOH	100	0.80	10/15/19	JKW	10/8/19
B	5.0 ppm CN STD		5.0	12.00	A	.25 N NaOH	100	0.60	10/15/19	JKW	10/8/19
C	5.0 ppm CN STD		5.0	8.00	A	.25 N NaOH	100	0.40	10/15/19	JKW	10/8/19
D	5.0 ppm CN STD		5.0	2.00	43	.25 N NaOH	100	0.10	10/15/19	JKW	10/8/19
E	5.0 ppm CN STD		5.0	0.40	43	.25 N NaOH	100	0.02	10/15/19	JKW	10/8/19
F	5.0 ppm CN STD	0.3	5.0	0.20	43	.25 N NaOH	100	0.01	10/15/19	JKW	10/8/19
Undistilled ICV Int.	5 PPM EXT STD	11/4/18	0.3	6.00	43	.25 N NaOH	100	0.30	10/15/19	JKW	10/8/19
Undistilled CCV Int.	5.0 ppm CN STD	11/4/18		8.00	43	.25 N NaOH	100	0.40	10/15/19	JKW	10/8/19

(a) Concentration will change with standardization concentration.
 (b) Diluent reagent reference number. SEE ATTACHED
 (c) Standards must be made fresh (daily) before distillation. After distillation, they may be held under refrigeration for a maximum of 28 days before analysis.
 *If Class A glass pipets are used, enter an A. For balances or autopipets, then enter the appropriate Accutest ID number.
 Reason codes for data corrections: 1-reviewer error correction; 2-transcription error; 3-computer error; 4-analyst error
 Expiration Date: SEE ATTACHED

Form: GN193-02
Rev. Date: 1/6/2014



Batch ID:

CYANIDE DISTILLATION LOG (WATERS - MICRO DISTILLATION)

Method: EPA 335.4 or SW-846 9012 M (Circle Method)

GP 24335

Autopipette ID: 43147 (C16334)

Balance ID: 8-27-2019/11/14 N/A

Block #	Sample ID	pH	Cd added?	Add (a)	Initial Volume (ml)	Final Volume (ml)	Temp. in Deg. C (b)	Start Time	End Time	Date	QC ID	Spike Amounts and Comments	Spike Lot	Analyst
1	MB1	11.99	N	Y	0	0	120	11:02	11:32	10/14/19	GP -MB1			JRW
2	S-JC96424-1											0.10 ml of 5.0 mg/l (c)		
11	D1-JC96424-1											0.10 ml of 5.0 mg/l		
15	JC96509-1											0.10 ml of 5.0 mg/l		
14	JC96588-16													
7	JC96528-1													
7	JC96260-1													
7	JC96260-3													
33	JC96321-1													

Check if sulfamic acid was added.

Record temp. from the LED readout on the distillation block. Temperatures verified with an external thermometer a min. of once per quarter.

If the calibration curve is not distilled, then in addition to the blank spike, the analyst must also prepare two distilled standards using 0.12 ml of 1.0 mg/l for one and 0.15 ml of 20.0 mg/l for the other.

Comments:

Reviewer: Form: 41012-06

Rev Date: 01/18/18

Date:



Reagent Information Log - CN - Distillation

GP Numbers:

GP24335

Reagent	Reagent # or Manufacturer/Lot	Expiration date
Silver Nitrate Solution 0.0192 N	GNE6-58369-CN	12/24/2019
Magnesium Chloride Solution	GNE9-59176-CN	3/27/2020
Sulfamic Acid	A0369642	7/15/2022
Sulfuric Acid	FISHER 190956	6/3/2024
Sodium Hydroxide 1.25N/0.25N	GNE8-58757-CN GNE9-59100-CN	2/8/2020 3/19/2020
Cadmium Carbonate, Powder	GN180814A	9/13/2023
Acetic acid buffer	GNE6-58370-CN	12/20/2019
Micro Distillation tubes	914050-9157-JS	NA
.95 NaOH	GNE7-58576-CN	1/17/2020
Cyanide Stock Solution A - spiking/standards	GNE9-58967-CN	3/3/2020
Cyanide Stock Solution B- externals	GNE7-58581-CN	12/18/2019
Lead Acetate Test Paper	FISHER : 12/8/2016	12/8/2021
pH paper - range 12.5 to 14	FISHER : 203117A	1/30/2021
pH paper - range 1 to 12	FISHER : 231018	11/1/2021
Benzalrhodanine	ricca 4810T07	10/30/2019
silica sand	GNE1-53352-XCRA	12/20/2021

Form: GN087A-28
Rev. Date: 03/19/13

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GENERAL CHEMISTRY STANDARD PREPARATION LOG

Product: CN
 GN or GP Number: GP84335

Intermediate Standard Description	Stock used to prepare standard	Standardization Date	Stock concentration in mg/l	Stock volume used in ml (a)	Autopipet ID	Diluent (b)	Final Volume in ml	Final Conc. of Intermediate (mg/l)	Expiration Date (c)	Analyst	Date
	GNE9-58967-CN	9/27/19	1000	1.000	43	.25 N NaOH	200	5.00	10/15/19	JKW	10/8/19
	GNE7-58581-CN	9/27/19	996	1	43	.25 N NaOH	200	5.00	10/15/19	JKW	10/8/19
Standard Description	Intermediate or Stock used to prepare standard	Intermediate or Stock concentration in mg/l	Intermediate or Stock volume used in ml	Autopipet ID	Diluent (b)	Final Volume in ml	Final Conc. Of Standard (mg/l)	Analyst	Date		
A	5.0 ppm CN STD	5.0	16.00	A	.25 N NaOH	100	0.80	JKW	10/8/19		
B	5.0 ppm CN STD	5.0	12.00	A	.25 N NaOH	100	0.60	JKW	10/8/19		
C	5.0 ppm CN STD	5.0	8.00	A	.25 N NaOH	100	0.40	JKW	10/8/19		
D	5.0 ppm CN STD	5.0	2.00	43	.25 N NaOH	100	0.10	JKW	10/8/19		
E	5.0 ppm CN STD	5.0	0.40	43	.25 N NaOH	100	0.02	JKW	10/8/19		
F	5.0 ppm CN STD	5.0	0.20	43	.25 N NaOH	100	0.01	JKW	10/8/19		
Undistilled ICV Int.	5 PPM EXT STD	0.3	6.00	43	.25 N NaOH	100	0.30	JKW	10/8/19		
Undistilled CCV Int.	5.0 ppm CN STD	11/4/18	8.00	43	.25 N NaOH	100	0.40	JKW	10/8/19		

(a) Concentration will change with standardization concentration.
 (b) Diluent reagent reference number: SEE ATTACHED Expiration Date: SEE ATTACHED
 (c) Standards must be made fresh (daily) before distillation. After distillation, they may be held under refrigeration for a maximum of 28 days before analysis.
 *If Class A glass pipets are used, enter an A. For balances or autopipets, then enter the appropriate Accutest ID number.
 Reason codes for data corrections: 1-reviewer error correction; 2-transcription error; 3-computer error; 4-analyst error



CYANIDE DISTILLATION LOG (SOILS- MICRO DISTILLATION)

Method: SW8469012B M

GP 24336

Batch ID: _____

Autopipette ID: 43/47/Class A

Balance ID: B-27

Booth #	Block #	Sample ID	pH	S2-	Add (a)	Initial Weight (g)	Final Volume (ml)	Temp. in Deg. C (b)	Start Time	End Time	Date	QC ID	Spike Amounts and Comments	Spike Lot	Analyst	
	2	MB1	11.99	N	Y	0.26	6	120	11:02	11:32	10/14/19	GP -MB1	0.10 ml of 5.0 mg/l (c) 0.10 ml of 5.0 mg/l 0.10 ml of 5.0 mg/l		JRW	
	2	JC95911-25A	11.99	N	Y	0.25	6	120	11:02	11:32	10/14/19				JRW	

- (a) Check if sulfamic acid was added.
 - (b) Record temp. from the LED readout on the distillation block. Temperatures verified with an external thermometer a min. of once per quarter.
 - (c) If the calibration curve is not distilled, then in addition to the blank spike, the analyst must also prepare two distilled standards using 0.12 ml of 1.0 mg/l for one and 0.15 ml of 20.0 mg/l for the other.
- Comments: _____

QC Reviewer: _____
 Form: EN0042-05
 Rev Date: 06/01/13
 Date: _____



MDL Schedule Log

Day 2

Product: CN

Matrix: Soil

+ MB

Instrument: Lachat E

Sample #: JC95911-25A

MDL or MDLVER x 1

Concentration: 0.48
(0.02)

mg/L or mg/kg or _____

Prep: Took 0.40ml of 5ppm CN Std and brought to volume of 100ml with 0.25N NaOH.

Sample #: _____

MDL or MDLVER x _____

Concentration: _____

mg/L or mg/kg or _____

Prep: _____

Date: 10/14/19

Analyst: JKW

Batch #: GP24336

Form GN278-04
Revised: 3/2/18

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Reagent Information Log - CN - Distillation

GP Numbers:

GP24330

Reagent	Reagent # or Manufacturer/Lot	Expiration date
Silver Nitrate Solution 0.0192 N	GNE6-58369-CN	12/24/2019
Magnesium Chloride Solution	GNE9-59176-CN	3/27/2020
Sulfamic Acid	A0369642	7/15/2022
Sulfuric Acid	FISHER 190956	6/3/2024
	GNE8-58757-CN	2/8/2020
Sodium Hydroxide 1.25N/0.25N	GNE9-59100-CN	3/19/2020
Cadmium Carbonate, Powder	GN180814A	9/13/2023
Acetic acid buffer	GNE6-58370-CN	12/20/2019
Micro Distillation tubes	914050-9157-JS	NA
.95 NaOH	GNE7-58576-CN	1/17/2020
Cyanide Stock Solution A - spiking/standards	GNE9-58967-CN	3/3/2020
Cyanide Stock Solution B- externals	GNE7-58581-CN	12/18/2019
Lead Acetate Test Paper	FISHER : 12/8/2016	12/8/2021
pH paper - range 12.5 to 14	FISHER : 203117A	1/30/2021
pH paper - range 1 to 12	FISHER : 231018	11/1/2021
Benzalrhodanine	ricca 4810T07	10/30/2019
silica sand	GNE1-53352-XCRA	12/20/2021

Form: GN087A-28
Rev. Date: 03/19/13



GENERAL CHEMISTRY STANDARD PREPARATION LOG

Product: CN

GN or GP Number: G1804336

Intermediate Standard Description	Stock used to prepare standard	Standardization Date	Stock concentration in mg/l	Stock volume used in ml (a)	Autopipet ID	Diluent (b)	Final Volume in ml	Final Conc. of Intermediate (mg/l)	Expiration Date (c)	Analyst	Date
5 PPM intermediate	GNE9-58967-CN	9/27/19	1000	1.000	43	.25 N NaOH	200	5.00	10/15/19	JKW	10/8/19
5 PPM ext.	GNE7-58581-CN	9/27/19	996	1	43	.25 N NaOH	200	5.00	10/15/19	JKW	10/8/19
Standard Description	Intermediate or Stock used to prepare standard	Intermediate or Stock concentration in mg/l	Intermediate or Stock volume used in ml	Autopipet ID	Diluent (b)	Final Volume in ml	Final Conc. Of Standard (mg/l)	Analyst	Date		
A	5.0 ppm CN STD	5.0	16.00	A	.25 N NaOH	100	0.80	JKW	10/8/19		
B	5.0 ppm CN STD	5.0	12.00	A	.25 N NaOH	100	0.60	JKW	10/8/19		
C	5.0 ppm CN STD	5.0	8.00	A	.25 N NaOH	100	0.40	JKW	10/8/19		
D	5.0 ppm CN STD	5.0	2.00	43	.25 N NaOH	100	0.10	JKW	10/8/19		
E	5.0 ppm CN STD	5.0	0.40	43	.25 N NaOH	100	0.02	JKW	10/8/19		
F	5.0 ppm CN STD	5.0	0.20	43	.25 N NaOH	100	0.01	JKW	10/8/19		
Undistilled ICV Int.	5 PPM EXT STD	0.3	6.00	43	.25 N NaOH	100	0.30	JKW	10/8/19		
Undistilled CCV Int.	5.0 ppm CN STD	11/4/18	8.00	43	.25 N NaOH	100	0.40	JKW	10/8/19		

(a) Concentration will change with standardization concentration.

(b) Diluent reagent reference number: SEE ATTACHED

(c) Standards must be made fresh (daily) before distillation. After distillation, they may be held under refrigeration for a maximum of 28 days before analysis.

*If Class A glass pipets are used, enter an A. For balances or autopipets, then enter the appropriate Accutest ID number.

Reason codes for data corrections: 1-reviewer error correction; 2-transcription error; 3-computer error; 4-analyst error

Form: GN193-02

Rev. Date: 1/6/2014

Expiration Date: SEE ATTACHED



Batch ID: _____
Autopipette ID: _____
Balance ID: _____

GP 24357

CYANIDE DISTILLATION LOG (WATERS - MICRO DISTILLATION)

Method: EPA 335.4 or SW-846 9012 M (Circle Method)

Boiler #	Block #	Sample ID	pH	Cd added?	Add (a)	Initial Volume (ml)	Final Volume (ml)	Temp. in Deg. C (b)	Start Time	End Time	Date	QC ID	Spike Amounts and Comments	Spike Lot	Analyst
1		MB1	11.94	N	4	6	6	20	11:35	12:05	10/15/19	GP -MB1			CT
2		JC96354-2 S1										GP -B1	0.10 ml of 5.0 mg/l (c)		
3		JC96354-2 D1										GP -S1	0.10 ml of 5.0 mg/l		
4		JC96354-2										GP -S2	0.10 ml of 5.0 mg/l		
5		JC96368-2										GP -D1			
6		JC96411-1													
7		JC96419-1													
8		JC96434-1													
9		JC96436-1													
10		JC96436-2													
11		JC96439-2													
12		JC96559-1													

- a) Check if sulfamic acid was added.
- b) Record temp. from the LED readout on the distillation block. Temperatures verified with an external thermometer a min. of once per quarter.
- c) If the calibration curve is not distilled, then in addition to the blank spike, the analyst must also prepare two distilled standards using 0.12 ml of 1.0 mg/l for one and 0.15 ml of 20.0 mg/l for the other.

QC Reviewer: _____
Form: GN12-06
Rev Date: 10/18/18

Date: _____



GENERAL CHEMISTRY STANDARD PREPARATION LOG

Product: CN
 GN or GP Number: GR24351

Intermediate Standard Description	Stock used to prepare standard	Standardization Date	Stock concentration in mg/l	Stock volume used in ml (a)	Autopipet ID	Diluent (b)	Final Volume in ml	Final Conc. of Intermediate (mg/l)	Expiration Date (c)	Analyst	Date
5 PPM intermediate	GEN9-58967-CN	9/27/19	1000	1.000	43	.25 N NaOH	200	5.00	10/15/19	JKW	10/8/19
5 PPM ext.	GEN7-58581-CN	9/27/19	996	1	43	.25 N NaOH	200	5.00	10/15/19	JKW	10/8/19
Standard Description	Intermediate or Stock used to prepare standard	Intermediate or Stock concentration in mg/l	Intermediate or Stock volume used in ml	Autopipet ID	Diluent (b)	Final Volume in ml	Final Conc. Of Standard (mg/l)	Analyst	Date		
A	5.0 ppm CN STD	5.0	16.00	A	.25 N NaOH	100	0.80	JKW	10/8/19		
B	5.0 ppm CN STD	5.0	12.00	A	.25 N NaOH	100	0.60	JKW	10/8/19		
C	5.0 ppm CN STD	5.0	8.00	A	.25 N NaOH	100	0.40	JKW	10/8/19		
D	5.0 ppm CN STD	5.0	2.00	43	.25 N NaOH	100	0.10	JKW	10/8/19		
E	5.0 ppm CN STD	5.0	0.40	43	.25 N NaOH	100	0.02	JKW	10/8/19		
F	5.0 ppm CN STD	5.0	0.20	43	.25 N NaOH	100	0.01	JKW	10/8/19		
Undistilled ICV Int.	5 PPM EXT STD	0.3	6.00	43	.25 N NaOH	100	0.30	JKW	10/8/19		
Undistilled CCV Int.	5.0 ppm CN STD		8.00	43	.25 N NaOH	100	0.40	JKW	10/8/19		

(a) Concentration will change with standardization concentration.
 (b) Diluent reagent reference number: SEE ATTACHED Expiration Date: SEE ATTACHED
 (c) Standards must be made fresh (daily) before distillation. After distillation, they may be held under refrigeration for a maximum of 28 days before analysis.
 *If Class A glass pipets are used, enter an A. For balances or autopipets, then enter the appropriate Accutest ID number.
 Reason codes for data corrections: 1-reviewer error correction; 2-transcription error; 3-computer error; 4-analyst error



Reagent Information Log - CN - Distillation

GP Numbers:

GP24357

Reagent	Reagent # or Manufacturer/Lot	Expiration date
Silver Nitrate Solution 0.0192 N	GNE6-58369-CN	12/24/2019
Magnesium Chloride Solution	GNE9-59176-CN	3/27/2020
Sulfamic Acid	A0369642	7/15/2022
Sulfuric Acid	FISHER 190956	6/3/2024
	GNE8-58757-CN	2/8/2020
Sodium Hydroxide 1.25N/0.25N	GNE9-59100-CN	3/19/2020
Cadmium Carbonate, Powder	GN180814A	9/13/2023
Acetic acid buffer	GNE6-58370-CN	12/20/2019
Micro Distillation tubes	914050-9157-JS	NA
.95 NaOH	GNE7-58576-CN	1/17/2020
Cyanide Stock Solution A - spiking/standards	GNE9-58967-CN	3/3/2020
Cyanide Stock Solution B- externals	GNE7-58581-CN	12/18/2019
Lead Acetate Test Paper	FISHER : 12/8/2016	12/8/2021
pH paper - range 12.5 to 14	FISHER : 203117A	1/30/2021
pH paper - range 1 to 12	FISHER : 231018	11/1/2021
Benzalrhodanine	ricca 4810T07	10/30/2019
silica sand	GNE1-53352-XCRA	12/20/2021

Form: GN087A-28
Rev. Date: 03/19/13

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GR24356

Batch ID: _____
Autopipette ID: _____
Balance ID: _____

CYANIDE DISTILLATION LOG (WATERS- MICRO DISTILLATION)

Method: EPA 335.4 or SW-846 9012 M (Circle Method)

Bottle #	Block #	Sample ID	pH	Cd added?	Add (a)	Initial Volume (ml)	Final Volume (ml)	Temp. in Deg. C (b)	Start Time	End Time	Date	QC ID	Spike Amounts and Comments	Spike Lot	Analyst
2		MB1	11.74	N	Y	6	6	120	11:35	12:05	10/15/19	GP -MB1			LF
16		JC96248-4											0.10 ml of 5.0 mg/l (c)		
20		JC96248-4F											0.10 ml of 5.0 mg/l		
16		JC96248-4											0.10 ml of 5.0 mg/l		
4		JC96248-1													
5		-2													
5		-3													
16		-4													
5		-5													
5		-6													
6		-7													
5		-8													
7		JC96248-1F													
6		-2F													
6		3F													
6		4F													
6		5F													
6		6F													
6		7F													
6		8F													
4		JC96248-1													
4		-2													
1		-3													
2		JC96248-1													

- a) Check if sulfamic acid was added.
- b) Record temp. from the LED readout on the distillation block. Temperatures verified with an external thermometer a min. of once per quarter.
- c) If the calibration curve is not distilled, then in addition to the blank spike, the analyst must also prepare two distilled standards using 0.12 ml of 1.0 mg/l for one and 0.15 ml of 20.0 mg/l for the other.

QC Reviewer: _____
Form: 6042-06
Rev Date: 01/10/18

Date: _____



GENERAL CHEMISTRY STANDARD PREPARATION LOG

Product: CN
 GN or GP Number: 6224356

Intermediate Standard Description	Stock used to prepare standard	Standardization Date	Stock concentration in mg/l	Stock volume used in ml (a)	Autopipet ID	Diluent (b)	Final Volume in ml	Final Conc. of Intermediate (mg/l)	Expiration Date (c)	Analyst	Date
5 PPM intermediate	GNE9-58967-CN	9/27/19	1000	1.000	43	.25 N NaOH	200	5.00	10/15/19	JKW	10/8/19
5 PPM ext.	GNE7-58581-CN	9/27/19	996	1	43	.25 N NaOH	200	5.00	10/15/19	JKW	10/8/19
Standard Description	Intermediate or Stock used to prepare standard		Intermediate or Stock concentration in mg/l	Intermediate or Stock volume used in ml	Autopipet ID	Diluent (b)	Final Volume in ml	Final Conc. Of Standard (mg/l)		Analyst	Date
A	5.0 ppm CN STD		5.0	16.00	A	.25 N NaOH	100	0.80	10/15/19	JKW	10/8/19
B	5.0 ppm CN STD		5.0	12.00	A	.25 N NaOH	100	0.60	10/15/19	JKW	10/8/19
C	5.0 ppm CN STD		5.0	8.00	A	.25 N NaOH	100	0.40	10/15/19	JKW	10/8/19
D	5.0 ppm CN STD		5.0	2.00	43	.25 N NaOH	100	0.10	10/15/19	JKW	10/8/19
E	5.0 ppm CN STD		5.0	0.40	43	.25 N NaOH	100	0.02	10/15/19	JKW	10/8/19
F	5.0 ppm CN STD	0.3	5.0	0.20	43	.25 N NaOH	100	0.01	10/15/19	JKW	10/8/19
Undistilled ICV Int.	5 PPM EXT STD	11/4/18	0.3	6.00	43	.25 N NaOH	100	0.30	10/15/19	JKW	10/8/19
Undistilled CCV Int.	5.0 ppm CN STD	11/4/18		8.00	43	.25 N NaOH	100	0.40	10/15/19	JKW	10/8/19

(a) Concentration will change with standardization concentration.
 (b) Diluent reagent reference number: SEE ATTACHED Expiration Date: SEE ATTACHED
 (c) Standards must be made fresh (daily) before distillation. After distillation, they may be held under refrigeration for a maximum of 28 days before analysis.
 *If Class A glass pipets are used, enter an A. For balances or autopipets, then enter the appropriate Accutest ID number.
 Reason codes for data corrections: 1-reviewer error correction; 2-transcription error; 3-computer error; 4-analyst error

Form: GN193-02
 Rev. Date: 1/6/2014



Reagent Information Log - CN - Distillation

GP Numbers:

GP24356

Reagent	Reagent # or Manufacturer/Lot	Expiration date
Silver Nitrate Solution 0.0192 N	GNE6-58369-CN	12/24/2019
Magnesium Chloride Solution	GNE9-59176-CN	3/27/2020
Sulfamic Acid	A0369642	7/15/2022
Sulfuric Acid	FISHER 190956	6/3/2024
	GNE8-58757-CN	2/8/2020
Sodium Hydroxide 1.25N/0.25N	GNE9-59100-CN	3/19/2020
Cadmium Carbonate, Powder	GN180814A	9/13/2023
Acetic acid buffer	GNE6-58370-CN	12/20/2019
Micro Distillation tubes	914050-9157-JS	NA
.95 NaOH	GNE7-58576-CN	1/17/2020
Cyanide Stock Solution A - spiking/standards	GNE9-58967-CN	3/3/2020
Cyanide Stock Solution B- externals	GNE7-58581-CN	12/18/2019
Lead Acetate Test Paper	FISHER : 12/8/2016	12/8/2021
pH paper - range 12.5 to 14	FISHER : 203117A	1/30/2021
pH paper - range 1 to 12	FISHER : 231018	11/1/2021
Benzalrthodanine	ricca 4810T07	10/30/2019
silica sand	GNE1-53352-XCRA	12/20/2021

Form: GN087A-28
Rev. Date: 03/19/13



Batch ID: _____
 Autopipette ID: _____
 Balance ID: _____

GP24148

CYANIDE DISTILLATION LOG (WATERS- MICRO DISTILLATION)

Method: EPA 335.4 or SW-846 9012 M (Circle Method)

Bottle #	Block #	Sample ID	pH	Cd added?	Add (a)	Initial Volume (ml)	Final Volume (ml)	Temp. in Deg. C (b)	Start Time	End Time	Date	QC ID	Spike Amounts and Comments	Spike Lot	Analyst
1		MB1	11.94	N	4	6	6	120	11:35	12:05	10/13/19	GP -MB1	0.10 ml of 5.0 mg/l (c)		KE
		JC80498-4A	11.99			6	6					GP -B1	0.10 ml of 5.0 mg/l		
		JC80498-4	11.94			6	6					GP -S1	0.10 ml of 5.0 mg/l		
												GP -S2	0.10 ml of 5.0 mg/l		
												GP -D1			

- a) Check if sulfamic acid was added.
- b) Record temp. from the LED readout on the distillation block. Temperatures verified with an external thermometer a min. of once per quarter.
- c) If the calibration curve is not distilled, then in addition to the blank spike, the analyst must also prepare two distilled standards using 0.12 ml of 1.0 mg/l for one and 0.15 ml of 20.0 mg/l for the other.

QC Reviewer: _____
 Form: GN012-06

Rev Date: 10/18/18

Date: _____



LOD and LOQ Scheduling

LOD Sample ID: JC80498-4A

Product: <u>CN</u>	Matrix: <u>AQ</u>
LOD Concentration: <u>0.005</u>	Units: <u>mg/L</u>
LOD Prep: <u>0.1 mL Spm CN std diluted to 100 mL</u> <u>w/ 0.25N NaOH</u>	
Manufacturer/Lot: <u>GNE9-58967-CN</u>	Expiration Date: <u>3/3/20</u>
GN ID: <u>(F) 0.00309 GN1215</u>	Analysis Date: <u>10/15/19</u>
Result/Units: <u>0.00309 mg/L</u>	Recovery: <u>61.8%</u>
Within range of 50 to 150%? ** <u>yes</u>	

LOQ (RL) Sample ID: JC80498-4

Product: <u>CN</u>	Matrix: <u>AQ</u>
LOQ Concentration: <u>0.01</u>	Units: <u>mg/L</u>
LOQ Prep: <u>0.2 mL Spm CN std diluted to 100 mL</u> <u>w/ 0.25N NaOH</u>	
Manufacturer/Lot: <u>GNE9-58967-CN</u>	Expiration Date: <u>3/3/20</u>
GN ID: <u>GN1215</u>	Analysis Date: <u>10/15/19</u>
Result/Units: <u>0.00868</u>	Recovery: <u>86.8</u>
Within range of 70 to 130%? ** <u>yes</u>	

** if outside of range, notify supervisory team immediately to reschedule

Analyst: _____

Date: _____

QC Review: _____

Date: _____

Form: GN271-02
Rev. Date: 3/2/18

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GENERAL CHEMISTRY STANDARD PREPARATION LOG

Product: CN
 GN or GP Number: GP24148

Intermediate Standard Description	Stock used to prepare standard	Standardization Date	Stock concentration in mg/l	Stock volume used in ml (a)	Autopipet ID	Diluent (b)	Final Volume in ml	Final Conc. of Intermediate (mg/l)	Expiration Date (c)	Analyst	Date
5 PPM intermediate	GNE9-58967-CN	9/27/19	1000	1.000	43	.25 N NaOH	200	5.00	10/15/19	JKW	10/8/19
5 PPM ext.	GNE7-58581-CN	9/27/19	996	1	43	.25 N NaOH	200	5.00	10/15/19	JKW	10/8/19
Standard Description	Intermediate or Stock used to prepare standard	Intermediate or Stock concentration in mg/l	Intermediate or Stock volume used in ml	Autopipet ID	Diluent (b)	Final Volume in ml	Final Conc. Of Standard (mg/l)	Analyst	Date		
A	5.0 ppm CN STD	5.0	16.00	A	.25 N NaOH	100	0.80	JKW	10/8/19		
B	5.0 ppm CN STD	5.0	12.00	A	.25 N NaOH	100	0.60	JKW	10/8/19		
C	5.0 ppm CN STD	5.0	8.00	A	.25 N NaOH	100	0.40	JKW	10/8/19		
D	5.0 ppm CN STD	5.0	2.00	43	.25 N NaOH	100	0.10	JKW	10/8/19		
E	5.0 ppm CN STD	5.0	0.40	43	.25 N NaOH	100	0.02	JKW	10/8/19		
F	5.0 ppm CN STD	5.0	0.20	43	.25 N NaOH	100	0.01	JKW	10/8/19		
Undistilled ICV Int.	5 PPM EXT STD	0.3	6.00	43	.25 N NaOH	100	0.30	JKW	10/8/19		
Undistilled CCV Int.	5.0 ppm CN STD		8.00	43	.25 N NaOH	100	0.40	JKW	10/8/19		

(a) Concentration will change with standardization concentration.
 (b) Diluent reagent reference number: SEE ATTACHED Expiration Date: SEE ATTACHED
 (c) Standards must be made fresh (daily) before distillation. After distillation, they may be held under refrigeration for a maximum of 28 days before analysis.
 *If Class A glass pipets are used, enter an A. For balances or autopipets, then enter the appropriate Accutest ID number.
 Reason codes for data corrections: 1-reviewer error correction; 2-transcription error; 3-computer error; 4-analyst error



Reagent Information Log - CN - Distillation

GP Numbers:

(I) GP 24148

Reagent	Reagent # or Manufacturer/Lot	Expiration date
Silver Nitrate Solution 0.0192 N	GNE6-58369-CN	12/24/2019
Magnesium Chloride Solution	GNE9-59176-CN	3/27/2020
Sulfamic Acid	A0369642	7/15/2022
Sulfuric Acid	FISHER 190956	6/3/2024
	GNE8-58757-CN	2/8/2020
Sodium Hydroxide 1.25N/0.25N	GNE9-59100-CN	3/19/2020
Cadmium Carbonate, Powder	GN180814A	9/13/2023
Acetic acid buffer	GNE6-58370-CN	12/20/2019
Micro Distillation tubes	914050-9157-JS	NA
.95 NaOH	GNE7-58576-CN	1/17/2020
Cyanide Stock Solution A - spiking/standards	GNE9-58967-CN	3/3/2020
Cyanide Stock Solution B- externals	GNE7-58581-CN	12/18/2019
Lead Acetate Test Paper	FISHER : 12/8/2016	12/8/2021
pH paper - range 12.5 to 14	FISHER : 203117A	1/30/2021
pH paper - range 1 to 12	FISHER : 231018	11/1/2021
Benzalrhodanine	ricca 4810T07	10/30/2019
silica sand	GNE1-53352-XCRA	12/20/2021

Form: GN087A-28
Rev. Date: 03/19/13

Misc. Raw Data

Raw Data

Filtermet MP Batch ID: MP17716

Method Referenc: EPA 200.7

Filter Date 10/4/2019

Filter Start Time: 18:20 Filter End Time: 22:00

Sample ID	Pres Y / N	Initial Sample Volume	Final Volume in ML	Acids Used		Spike Group Added	Comments
				Amount of Conc. HNO3(Preservative)	Added Y or N		
MP -MB	N	200	200	2% CONC. HNO3	Y		
MP -MB	N	200	200	2% CONC. HNO3	Y		
MP -B (ICP)	N	200	200	2% CONC. HNO3	Y	ABCE	
MP -LC (HG)	N	200	200	2% CONC. HNO3	Y	D	
1 JC96165-5F	N	500.000	500.000	2ML	Y		FINISHED @18:30
2 JC96248-1F	N	500.000	500.000	2ML	Y		FINISHED @22:00
3 JC96248-2F	N	500.000	500.000	2ML	Y		FINISHED @22:00
4 JC96248-3F	N	500.000	500.000	2ML	Y		FINISHED @22:00
5 JC96248-4F.10	N	500.000	500.000	2ML	Y		FINISHED @22:00
6 JC96248-5F	N	500.000	500.000	2ML	Y		FINISHED @22:00
7 JC96248-6F	N	500.000	500.000	2ML	Y		FINISHED @22:00
8 JC96248-7F	N	500.000	500.000	2ML	Y		FINISHED @22:00
9 JC96248-8F	N	500.000	500.000	2ML	Y		FINISHED @22:00
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							

Spike Groups			
Group	Description	MLs used	
A	ACCUTEST-13A REV1	2	
B	ACCUTEST-14A REV1	2	
C	MINERALS 5000PPM	1	
D	30 ppb Hg standard	2	HG-19-148-296-HGA3
E	AG 20PPM	2.5	
F			
G			

Analyst: MOUSTAFR

QC Reviewer:

MP17716
1/19/18

Metals Digestion Reagents Information Log

Digestion Batch ID: MP 17716
 Matrix: ALL

Date: 10/4/19

<u>Standard/Reagent Type</u>	<u>Exp. Date</u>	<u>Standard/Reagent ID</u>
Spiking Solution - (ACCUTEST-13A REV1)	3/26/2020	MP-015-1227
Spiking Solution - (ACCUTEST-14A REV1)	3/26/2020	MP-015-1228
Spiking Solution - 5000 mg/l Minerals	8/21/2020	P2-MEB681527 MFG: INO. VENT.
Spiking Solution - Sulfur 1000ppm	9/25/2021	LOT: 092518 MFG: ABS. STANDARDS
Spiking Solution - Si 1000ppm	9/24/2020	P2-SI676242 MFG: INO. VENT.
Spiking Solution - Bi 1000ppm	8/29/2020	N2-BI669548 MFG: INO. VENT.
Spiking Solution - Se 20ppm	3/30/2020	MP-015-1230
Spiking Solution - Li 1000ppm	8/23/2020	P2-LI675235 MFG: INO. VENT.
Spiking Solution- Ag 20 ppm	3/26/2020	MP-015-1229
Spiking Solution - (ACCUTEST-13B REV1)	3/18/2020	MP-015-1224
Spiking Solution - (ACCUTEST-14B REV1)	3/18/2020	MP-015-1225
Spiking Solution - 1000ppm Minerals	2/22/2020	MP-015-1213
Spiking Solution- P		
Nitric Acid	10/3/2021	LOT: 234822 MFG: J.T. BAKER
Nitric Acid (1:1)	4/3/2020	MP-018-42-314 1:1 HNO3
Hydrochloric Acid	5/17/2022	LOT:4119040 MFG: FISHER
Hydrochloric Acid (1:1)	3/24/2020	MP-018-42-311 1:1 HCL
Hydrogen Peroxide	9/25/2021	LOT: 191365 MFG: FISHER
Soil Lab Control/Soil LC	10/31/2021	LOT: D101-540 MFG: ERA
Teflon Chips(For Soil MB and Blank Spike)	N/A	LOT: 24635764 MFG: SAINT-GOBAIN
Digestion Tubes	N/A	LOT: 1904119 MFG ENV. EXPRESS
pH Paper	11/1/2021	LOT: 231018 MFG: HYDRION
Filter paper Q8	N/A	LOT: 16939084 MFG: FISHER
Filter paper 0.45µm	N/A	LOT: F9BA55973E MFG: FISHER

Spike witnessed By: _____

Validated By: _____

Validated On: _____

14.1
14