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Automated Report

Technical Report for

Arcadis

National Grid, Philly Coke, Philadelphia, PA

B0036790.0001

SGS Job Number: JC86043

Sampling Date: 04/09/19

Report to:

**Arcadis U.S.
1 Lincoln Center, 110 West Fayette Street Suite 300
Syracuse, NY 13202
John.Brussel@Arcadis.com; Lawrence.Healy@Arcadis.com**

ATTN: John Brussel

Total number of pages in report: 1239



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 "Mike Earp".

Mike Earp
General Manager

Client Service contact: Kelly Ramos 732-329-0200

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.



July 15, 2019

**Mr. John Brussel
Arcadis U. S.
1 Lincoln Center,
110 West Fayette Street Suite 300
Syracuse, NY 13202**

RE: SGS – Dayton, Job # JC86043 – Reissues

Dear Mr. Brussel,

The final report for SGS job number JC86043 has been edited to reflect corrections to the final results. These edits have been incorporated into the revised report which is attached.

Specifically, the Method Detention Limiting has been reporting to meet project’s requirement. The attached revised report incorporates these revisions.

SGS apologizes for this occurrence and for any inconvenience this situation may have caused. Please contact me if I can be of further assistance in this matter.

Sincerely,

Report Department

SGS North America Inc.



CONTINUOUS SERVICE IMPROVEMENT!

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Sample Summary

Arcadis

Job No: JC86043

National Grid, Philly Coke, Philadelphia, PA
Project No: B0036790.0001

Sample Number	Collected		Received	Matrix		Client Sample ID
	Date	Time By		Code	Type	
JC86043-1	04/09/19	08:20 EG	04/09/19	SO	Soil	PCTP-08R (10-12)
JC86043-2	04/09/19	09:10 EG	04/09/19	SO	Soil	PCTP-10R (7-9)
JC86043-3	04/09/19	11:10 EG	04/09/19	SO	Soil	PCTP-47R (5-7)
JC86043-4	04/09/19	13:10 EG	04/09/19	SO	Soil	PCTP-32R (6-8)
JC86043-5	04/09/19	15:00 EG	04/09/19	SO	Soil	S-122 (10-12)

Soil samples reported on a dry weight basis unless otherwise indicated on result page.

CASE NARRATIVE / CONFORMANCE SUMMARY

Client: Arcadis

Job No JC86043

Site: National Grid, Philly Coke, Philadelphia, PA

Report Date 4/22/2019 6:05:46 PM

On 04/09/2019, 5 Sample(s), 0 Trip Blank(s) and 0 Field Blank(s) were received at SGS North America Inc. at a maximum corrected temperature of 1.8 C. Samples were intact and chemically preserved, unless noted below. A SGS North America Inc. Job Number of JC86043 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: SO

Batch ID: V3C6794

- All samples were analyzed within the recommended method holding time.
- Sample(s) JC86104-1MS, JC86132-1DUP were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- Matrix Spike Recovery(s) for Acetone are outside control limits. Outside control limits due to matrix interference.
- RPD(s) for Duplicate for 2-Butanone (MEK), Acetone, Benzene, Styrene, Toluene are outside control limits for sample JC86132-1DUP. Outside control limits due to sample non-homogeneity.

Matrix: SO

Batch ID: VI9080

- All samples were analyzed within the recommended method holding time.
- Sample(s) JC85995-1MS, JC85995-1MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- JC86043-5: Diluted due to high concentration of non-target compound.
- JC86043-5 for Dichlorodifluoromethane: Associated CCV outside of control limits high, sample was ND.
- JC86043-5 for 1,2-Dibromoethane: This compound in BSD is outside in house QC limits bias high.

Monday, April 22, 2019

Page 1 of 3

MS Semi-volatiles By Method SW846 8270D

Matrix: SO

Batch ID: OP19672

- All samples were extracted within the recommended method holding time.
- Sample(s) JC86070-15MS, JC86070-15MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- Matrix Spike Duplicate Recovery(s) for Phenanthrene are outside control limits. Outside control limits due to high level in sample relative to spike amount.
- JC86043-2 for 2-Nitroaniline: Associated CCV outside of control limits high, sample was ND.
- JC86043-1 for 2-Nitroaniline: Associated CCV outside of control limits high, sample was ND.

Matrix: SO

Batch ID: OP19673

- All samples were extracted within the recommended method holding time.
- Sample(s) JC86043-3MS, JC86043-3MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- Matrix Spike Duplicate Recovery(s) for Benzaldehyde, bis(2-Ethylhexyl)phthalate are outside control limits. Outside of in house control limits.
- RPD(s) for MSD for 2,4-Dinitrotoluene, Benzaldehyde, bis(2-Ethylhexyl)phthalate are outside control limits for sample OP19673-MSD. Outside of in house control limits.
- JC86043-5: Dilution required due to viscosity of the extract matrix.
- JC86043-4: Dilution required due to viscosity of the extract matrix.
- JC86043-5 for 4-Nitrophenol: Associated CCV outside of control limits high, sample was ND.
- JC86043-3 for 4-Nitrophenol: Associated CCV outside of control limits high, sample was ND.
- OP19673-BSD for 4-Chloroaniline: Analytical precision exceeds in-house control limits.
- JC86043-3 for 2,3,4,6-Tetrachlorophenol: Associated CCV outside of control limits high, sample was ND.
- OP19673-BSD for 3-Nitroaniline: Analytical precision exceeds in-house control limits.
- OP19673-BSD for 3,3'-Dichlorobenzidine: Analytical precision exceeds in-house control limits.

Metals Analysis By Method SW846 6010D

Matrix: SO

Batch ID: MP14093

- All samples were digested within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC86043-4MSD, JC86043-4PS, JC86043-4SDL, JC86043-4MS were used as the QC samples for metals.
- Matrix Spike Recovery(s) for Aluminum, Antimony, Iron, Manganese are outside control limits. Spike recovery indicates possible matrix interference and/or sample nonhomogeneity.
- Matrix Spike Duplicate Recovery(s) for Aluminum, Antimony, Calcium, Magnesium are outside control limits. Spike recovery indicates possible matrix interference and/or sample nonhomogeneity.
- Matrix Spike Recovery(s) for Calcium, Magnesium are outside control limits. Spike amount low relative to the sample amount. Refer to lab control or spike blank for recovery information.
- RPD(s) for Serial Dilution for Antimony, Arsenic, Beryllium, Cadmium, Selenium, Potassium, Sodium are outside control limits for sample MP14093-SD1. Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

Metals Analysis By Method SW846 7471B

Matrix: SO

Batch ID: MP14056

- All samples were digested within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC85833-1AMS, JC85833-1AMSD were used as the QC samples for metals.

Monday, April 22, 2019

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General Chemistry By Method SM2540 G 18TH ED MOD

Matrix: SO

Batch ID: GN93922

- Sample(s) JC86043-1DUP were used as the QC samples for Solids, Percent.

General Chemistry By Method SW846 9012B/LACHAT

Matrix: SO

Batch ID: GP20669

- All samples were prepared within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC86337-1MS, JC86337-1DUP were used as the QC samples for Cyanide.
- RPD(s) for Duplicate for Cyanide are outside control limits for sample GP20669-D1. RPD acceptable due to low duplicate and sample concentrations.

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

Summary of Hits

Job Number: JC86043
 Account: Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA
 Collected: 04/09/19



Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
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JC86043-1 PCTP-08R (10-12)

Acetone	98.7	15	7.3	ug/kg	SW846 8260C
Carbon disulfide	1.4 J	2.9	1.4	ug/kg	SW846 8260C
Acenaphthene	24.8 J	44	15	ug/kg	SW846 8270D
Benzo(a)anthracene	65.4	44	12	ug/kg	SW846 8270D
Benzo(a)pyrene	63.3	44	20	ug/kg	SW846 8270D
Benzo(b)fluoranthene	73.1	44	19	ug/kg	SW846 8270D
Benzo(g,h,i)perylene	39.5 J	44	22	ug/kg	SW846 8270D
Benzo(k)fluoranthene	31.3 J	44	20	ug/kg	SW846 8270D
Carbazole	10.3 J	87	6.3	ug/kg	SW846 8270D
Chrysene	83.9	44	14	ug/kg	SW846 8270D
Fluoranthene	85.3	44	19	ug/kg	SW846 8270D
Indeno(1,2,3-cd)pyrene	31.2 J	44	20	ug/kg	SW846 8270D
2-Methylnaphthalene	19.5 J	44	9.9	ug/kg	SW846 8270D
Naphthalene	28.0 J	44	12	ug/kg	SW846 8270D
Phenanthrene	93.4	44	15	ug/kg	SW846 8270D
Pyrene	132	44	14	ug/kg	SW846 8270D
Aluminum	7790	66	11	mg/kg	SW846 6010D
Antimony	0.89 J	2.6	0.54	mg/kg	SW846 6010D
Arsenic	7.7	2.6	0.37	mg/kg	SW846 6010D
Barium	114	26	2.5	mg/kg	SW846 6010D
Beryllium	0.65	0.26	0.11	mg/kg	SW846 6010D
Cadmium	0.74	0.66	0.093	mg/kg	SW846 6010D
Calcium	8290	660	58	mg/kg	SW846 6010D
Chromium	14.9	1.3	0.49	mg/kg	SW846 6010D
Cobalt	5.5 J	6.6	0.37	mg/kg	SW846 6010D
Copper	78.3	3.3	1.1	mg/kg	SW846 6010D
Iron	20700	66	25	mg/kg	SW846 6010D
Lead	193	2.6	0.54	mg/kg	SW846 6010D
Magnesium	2950	660	18	mg/kg	SW846 6010D
Manganese	118	2.0	0.54	mg/kg	SW846 6010D
Mercury	0.23	0.037	0.016	mg/kg	SW846 7471B
Nickel	14.3	5.3	0.46	mg/kg	SW846 6010D
Potassium	886 J	1300	42	mg/kg	SW846 6010D
Selenium	0.95 J	2.6	0.86	mg/kg	SW846 6010D
Silver	0.34 J	0.66	0.22	mg/kg	SW846 6010D
Sodium	108 J	1300	100	mg/kg	SW846 6010D
Vanadium	21.2	6.6	0.25	mg/kg	SW846 6010D
Zinc	312	6.6	3.0	mg/kg	SW846 6010D
Cyanide	0.22 J	0.32	0.16	mg/kg	SW846 9012B/LACHAT

JC86043-2 PCTP-10R (7-9)

Acetone	64.7	15	7.6	ug/kg	SW846 8260C
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Summary of Hits

Job Number: JC86043
 Account: Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA
 Collected: 04/09/19



Lab Sample ID Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
Acenaphthene		234	40	14	ug/kg	SW846 8270D
Acenaphthylene		32.0 J	40	21	ug/kg	SW846 8270D
Anthracene		507	40	25	ug/kg	SW846 8270D
Benzo(a)anthracene		915	40	11	ug/kg	SW846 8270D
Benzo(a)pyrene		836	40	18	ug/kg	SW846 8270D
Benzo(b)fluoranthene		934	40	18	ug/kg	SW846 8270D
Benzo(g,h,i)perylene		324	40	20	ug/kg	SW846 8270D
Benzo(k)fluoranthene		396	40	19	ug/kg	SW846 8270D
1,1'-Biphenyl		16.0 J	81	5.5	ug/kg	SW846 8270D
Benzaldehyde		23.0 J	200	10	ug/kg	SW846 8270D
Carbazole		155	81	5.9	ug/kg	SW846 8270D
Chrysene		1060	40	13	ug/kg	SW846 8270D
Dibenzo(a,h)anthracene		122	40	18	ug/kg	SW846 8270D
Dibenzofuran		94.7	81	16	ug/kg	SW846 8270D
Fluoranthene		1690	40	18	ug/kg	SW846 8270D
Fluorene		187	40	19	ug/kg	SW846 8270D
Indeno(1,2,3-cd)pyrene		325	40	19	ug/kg	SW846 8270D
2-Methylnaphthalene		48.0	40	9.1	ug/kg	SW846 8270D
Naphthalene		78.2	40	11	ug/kg	SW846 8270D
Phenanthrene		1970	40	14	ug/kg	SW846 8270D
Pyrene		1810	40	13	ug/kg	SW846 8270D
Aluminum		6490	59	9.5	mg/kg	SW846 6010D
Antimony		1.6 J	2.4	0.48	mg/kg	SW846 6010D
Arsenic		9.0	2.4	0.33	mg/kg	SW846 6010D
Barium		489	24	2.2	mg/kg	SW846 6010D
Beryllium		0.46	0.24	0.094	mg/kg	SW846 6010D
Cadmium		5.9	0.59	0.082	mg/kg	SW846 6010D
Calcium		9700	590	52	mg/kg	SW846 6010D
Chromium		21.0	1.2	0.44	mg/kg	SW846 6010D
Cobalt		5.8 J	5.9	0.33	mg/kg	SW846 6010D
Copper		82.5	2.9	0.99	mg/kg	SW846 6010D
Iron		20300	59	23	mg/kg	SW846 6010D
Lead		2530	12	2.4	mg/kg	SW846 6010D
Magnesium		6720	590	16	mg/kg	SW846 6010D
Manganese		181	1.8	0.48	mg/kg	SW846 6010D
Mercury		0.18	0.039	0.017	mg/kg	SW846 7471B
Nickel		12.9	4.7	0.41	mg/kg	SW846 6010D
Potassium		715 J	1200	37	mg/kg	SW846 6010D
Selenium		0.89 J	2.4	0.76	mg/kg	SW846 6010D
Silver		0.44 J	0.59	0.20	mg/kg	SW846 6010D
Vanadium		15.4	5.9	0.22	mg/kg	SW846 6010D
Zinc		487	5.9	2.7	mg/kg	SW846 6010D

Summary of Hits

Job Number: JC86043
 Account: Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA
 Collected: 04/09/19



Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
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JC86043-3 PCTP-47R (5-7)

Acetone	25.9	12	5.8	ug/kg	SW846 8260C
Carbon disulfide	1.2 J	2.3	1.1	ug/kg	SW846 8260C
Acenaphthene	111	38	13	ug/kg	SW846 8270D
Acenaphthylene	110	38	19	ug/kg	SW846 8270D
Anthracene	364	38	23	ug/kg	SW846 8270D
Benzo(a)anthracene	1640	38	11	ug/kg	SW846 8270D
Benzo(a)pyrene	1430	38	17	ug/kg	SW846 8270D
Benzo(b)fluoranthene	1670	38	17	ug/kg	SW846 8270D
Benzo(g,h,i)perylene	908	38	19	ug/kg	SW846 8270D
Benzo(k)fluoranthene	721	38	18	ug/kg	SW846 8270D
1,1'-Biphenyl	13.8 J	76	5.2	ug/kg	SW846 8270D
Carbazole	159	76	5.5	ug/kg	SW846 8270D
Chrysene	1720	38	12	ug/kg	SW846 8270D
Dibenzo(a,h)anthracene	247	38	17	ug/kg	SW846 8270D
Dibenzofuran	65.1 J	76	15	ug/kg	SW846 8270D
bis(2-Ethylhexyl)phthalate	142	76	8.9	ug/kg	SW846 8270D
Fluoranthene	2600	38	17	ug/kg	SW846 8270D
Fluorene	110	38	17	ug/kg	SW846 8270D
Indeno(1,2,3-cd)pyrene	912	38	18	ug/kg	SW846 8270D
2-Methylnaphthalene	41.7	38	8.6	ug/kg	SW846 8270D
Naphthalene	70.7	38	11	ug/kg	SW846 8270D
Phenanthrene	1360	38	13	ug/kg	SW846 8270D
Pyrene	2540	38	12	ug/kg	SW846 8270D
Aluminum	11000	59	9.5	mg/kg	SW846 6010D
Antimony	2.2 J	2.4	0.48	mg/kg	SW846 6010D
Arsenic	7.5	2.4	0.33	mg/kg	SW846 6010D
Barium	97.9	24	2.2	mg/kg	SW846 6010D
Beryllium	0.59	0.24	0.094	mg/kg	SW846 6010D
Cadmium	0.39 J	0.59	0.082	mg/kg	SW846 6010D
Calcium	37500	1200	100	mg/kg	SW846 6010D
Chromium	20.6	1.2	0.44	mg/kg	SW846 6010D
Cobalt	6.0	5.9	0.33	mg/kg	SW846 6010D
Copper	265	2.9	0.99	mg/kg	SW846 6010D
Iron	19000	59	23	mg/kg	SW846 6010D
Lead	359	2.4	0.48	mg/kg	SW846 6010D
Magnesium	12500	590	16	mg/kg	SW846 6010D
Manganese	299	1.8	0.48	mg/kg	SW846 6010D
Mercury	0.53	0.038	0.017	mg/kg	SW846 7471B
Nickel	12.8	4.7	0.41	mg/kg	SW846 6010D
Potassium	1460	1200	37	mg/kg	SW846 6010D
Silver	0.48 J	0.59	0.20	mg/kg	SW846 6010D
Sodium	135 J	1200	92	mg/kg	SW846 6010D
Vanadium	27.0	5.9	0.22	mg/kg	SW846 6010D

Summary of Hits

Job Number: JC86043
 Account: Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA
 Collected: 04/09/19



Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
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Zinc		244	5.9	2.7	mg/kg	SW846 6010D
Cyanide		0.20 J	0.26	0.13	mg/kg	SW846 9012B/LACHAT

JC86043-4 PCTP-32R (6-8)

Acetone		204	12	6.0	ug/kg	SW846 8260C
Benzene		5.2	0.60	0.45	ug/kg	SW846 8260C
2-Butanone (MEK)		17.2	12	4.5	ug/kg	SW846 8260C
Carbon disulfide		1.8 J	2.4	1.1	ug/kg	SW846 8260C
Toluene		1.9	1.2	0.45	ug/kg	SW846 8260C
m,p-Xylene		1.1 J	1.2	0.90	ug/kg	SW846 8260C
Xylene (total)		1.1 J	1.2	0.70	ug/kg	SW846 8260C
2-Methylphenol ^a		218	170	54	ug/kg	SW846 8270D
3&4-Methylphenol ^a		280	170	70	ug/kg	SW846 8270D
Acenaphthene ^a		127	85	29	ug/kg	SW846 8270D
Acenaphthylene ^a		74.5 J	85	43	ug/kg	SW846 8270D
Acetophenone ^a		41.4 J	430	18	ug/kg	SW846 8270D
Anthracene ^a		132	85	52	ug/kg	SW846 8270D
Benzo(a)anthracene ^a		213	85	24	ug/kg	SW846 8270D
Benzo(a)pyrene ^a		239	85	39	ug/kg	SW846 8270D
Benzo(b)fluoranthene ^a		238	85	38	ug/kg	SW846 8270D
Benzo(g,h,i)perylene ^a		184	85	43	ug/kg	SW846 8270D
Benzo(k)fluoranthene ^a		103	85	40	ug/kg	SW846 8270D
1,1'-Biphenyl ^a		71.8 J	170	12	ug/kg	SW846 8270D
Carbazole ^a		39.6 J	170	12	ug/kg	SW846 8270D
Chrysene ^a		246	85	27	ug/kg	SW846 8270D
Dibenzofuran ^a		96.3 J	170	35	ug/kg	SW846 8270D
Fluoranthene ^a		341	85	38	ug/kg	SW846 8270D
Fluorene ^a		132	85	39	ug/kg	SW846 8270D
Indeno(1,2,3-cd)pyrene ^a		161	85	40	ug/kg	SW846 8270D
2-Methylnaphthalene ^a		492	85	19	ug/kg	SW846 8270D
Naphthalene ^a		4880	85	24	ug/kg	SW846 8270D
Phenanthrene ^a		344	85	29	ug/kg	SW846 8270D
Pyrene ^a		401	85	27	ug/kg	SW846 8270D
Aluminum		4290	65	10	mg/kg	SW846 6010D
Arsenic		3.9	2.6	0.36	mg/kg	SW846 6010D
Barium		30.3	26	2.5	mg/kg	SW846 6010D
Beryllium		0.22 J	0.26	0.10	mg/kg	SW846 6010D
Cadmium		0.13 J	0.65	0.091	mg/kg	SW846 6010D
Calcium		65200	3200	290	mg/kg	SW846 6010D
Chromium		14.6	1.3	0.48	mg/kg	SW846 6010D
Cobalt		4.2 J	6.5	0.36	mg/kg	SW846 6010D
Copper		13.8	3.2	1.1	mg/kg	SW846 6010D
Iron		9540	65	25	mg/kg	SW846 6010D
Lead		21.3	2.6	0.53	mg/kg	SW846 6010D

Summary of Hits

Job Number: JC86043
 Account: Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA
 Collected: 04/09/19



Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
		37200	650	18	mg/kg	SW846 6010D
		196	1.9	0.53	mg/kg	SW846 6010D
		0.21	0.038	0.016	mg/kg	SW846 7471B
		8.6	5.2	0.45	mg/kg	SW846 6010D
		679 J	1300	41	mg/kg	SW846 6010D
		10.6	6.5	0.25	mg/kg	SW846 6010D
		66.5	6.5	3.0	mg/kg	SW846 6010D
		0.45	0.31	0.15	mg/kg	SW846 9012B/LACHAT

JC86043-5 S-122 (10-12)

Ethylbenzene ^b	1020	230	120	ug/kg	SW846 8260C
Isopropylbenzene ^b	1780	450	160	ug/kg	SW846 8260C
Methylcyclohexane ^b	339 J	450	160	ug/kg	SW846 8260C
Methylene chloride ^b	829 J	1100	560	ug/kg	SW846 8260C
Toluene ^b	212 J	230	85	ug/kg	SW846 8260C
m,p-Xylene ^b	475	230	170	ug/kg	SW846 8260C
o-Xylene ^b	315	230	130	ug/kg	SW846 8260C
Xylene (total) ^b	790	230	130	ug/kg	SW846 8260C
3&4-Methylphenol ^a	975	530	220	ug/kg	SW846 8270D
Acenaphthene	55300	2700	920	ug/kg	SW846 8270D
Acenaphthylene ^a	2040	270	140	ug/kg	SW846 8270D
Anthracene	30400	2700	1600	ug/kg	SW846 8270D
Benzo(a)anthracene ^a	11200	270	76	ug/kg	SW846 8270D
Benzo(a)pyrene ^a	7070	270	120	ug/kg	SW846 8270D
Benzo(b)fluoranthene ^a	7330	270	120	ug/kg	SW846 8270D
Benzo(g,h,i)perylene ^a	3420	270	130	ug/kg	SW846 8270D
Benzo(k)fluoranthene ^a	2730	270	120	ug/kg	SW846 8270D
1,1'-Biphenyl ^a	1910	530	37	ug/kg	SW846 8270D
Carbazole ^a	7790	530	39	ug/kg	SW846 8270D
Chrysene ^a	12600	270	84	ug/kg	SW846 8270D
Dibenzo(a,h)anthracene ^a	884	270	120	ug/kg	SW846 8270D
Dibenzofuran	28000	5300	1100	ug/kg	SW846 8270D
Fluoranthene	42400	2700	1200	ug/kg	SW846 8270D
Fluorene	43200	2700	1200	ug/kg	SW846 8270D
Indeno(1,2,3-cd)pyrene ^a	3260	270	130	ug/kg	SW846 8270D
2-Methylnaphthalene	37600	2700	600	ug/kg	SW846 8270D
Naphthalene ^a	26400	270	75	ug/kg	SW846 8270D
Phenanthrene	129000	2700	900	ug/kg	SW846 8270D
Pyrene	39300	2700	850	ug/kg	SW846 8270D
Aluminum	18200	85	14	mg/kg	SW846 6010D
Antimony	1.5 J	3.4	0.70	mg/kg	SW846 6010D
Arsenic	49.4	3.4	0.48	mg/kg	SW846 6010D
Barium	187	34	3.2	mg/kg	SW846 6010D
Beryllium	1.2	0.34	0.14	mg/kg	SW846 6010D

Summary of Hits

Job Number: JC86043
Account: Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA
Collected: 04/09/19



Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
		2.2	0.85	0.12	mg/kg	SW846 6010D
		4120	850	75	mg/kg	SW846 6010D
		200	1.7	0.63	mg/kg	SW846 6010D
		17.5	8.5	0.48	mg/kg	SW846 6010D
		127	4.3	1.4	mg/kg	SW846 6010D
		31600	85	33	mg/kg	SW846 6010D
		251	3.4	0.70	mg/kg	SW846 6010D
		4630	850	23	mg/kg	SW846 6010D
		751	2.6	0.70	mg/kg	SW846 6010D
		1.1	0.047	0.021	mg/kg	SW846 7471B
		31.2	6.8	0.60	mg/kg	SW846 6010D
		2130	1700	54	mg/kg	SW846 6010D
		1.5 J	3.4	1.1	mg/kg	SW846 6010D
		1.1	0.85	0.29	mg/kg	SW846 6010D
		202 J	1700	130	mg/kg	SW846 6010D
		36.9	8.5	0.32	mg/kg	SW846 6010D
		684	8.5	3.9	mg/kg	SW846 6010D

- (a) Dilution required due to viscosity of the extract matrix.
- (b) Diluted due to high concentration of non-target compound.

Sample Results

Report of Analysis

SGS North America Inc.

Report of Analysis

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Client Sample ID:	PCTP-08R (10-12)	Date Sampled:	04/09/19
Lab Sample ID:	JC86043-1	Date Received:	04/09/19
Matrix:	SO - Soil	Percent Solids:	72.7
Method:	SW846 8260C		
Project:	National Grid, Philly Coke, Philadelphia, PA		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3C151019.D	1	04/12/19 16:04	PS	n/a	n/a	V3C6794
Run #2							

Run #	Initial Weight
Run #1	4.7 g
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	98.7	15	7.3	ug/kg	
71-43-2	Benzene	ND	0.73	0.55	ug/kg	
74-97-5	Bromochloromethane	ND	7.3	0.63	ug/kg	
75-27-4	Bromodichloromethane	ND	2.9	0.65	ug/kg	
75-25-2	Bromoform	ND	7.3	0.59	ug/kg	
74-83-9	Bromomethane	ND	7.3	1.5	ug/kg	
78-93-3	2-Butanone (MEK)	ND	15	5.5	ug/kg	
75-15-0	Carbon disulfide	1.4	2.9	1.4	ug/kg	J
56-23-5	Carbon tetrachloride	ND	2.9	0.80	ug/kg	
108-90-7	Chlorobenzene	ND	2.9	0.52	ug/kg	
75-00-3	Chloroethane	ND	7.3	1.0	ug/kg	
67-66-3	Chloroform	ND	2.9	0.54	ug/kg	
74-87-3	Chloromethane	ND	7.3	2.9	ug/kg	
110-82-7	Cyclohexane	ND	2.9	0.59	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.9	1.2	ug/kg	
124-48-1	Dibromochloromethane	ND	2.9	0.49	ug/kg	
106-93-4	1,2-Dibromoethane	ND	1.5	0.48	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	1.5	0.45	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	1.5	0.53	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	1.5	0.50	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	7.3	0.93	ug/kg	
75-34-3	1,1-Dichloroethane	ND	1.5	0.56	ug/kg	
107-06-2	1,2-Dichloroethane	ND	1.5	0.69	ug/kg	
75-35-4	1,1-Dichloroethene	ND	1.5	0.96	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	1.5	1.4	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	1.5	0.98	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.9	0.60	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.9	0.52	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.9	0.48	ug/kg	
100-41-4	Ethylbenzene	ND	1.5	0.81	ug/kg	
76-13-1	Freon 113	ND	7.3	1.1	ug/kg	
591-78-6	2-Hexanone	ND	7.3	1.9	ug/kg	

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:	PCTP-08R (10-12)	Date Sampled:	04/09/19
Lab Sample ID:	JC86043-1	Date Received:	04/09/19
Matrix:	SO - Soil	Percent Solids:	72.7
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	2.9	1.0	ug/kg	
79-20-9	Methyl Acetate	ND	7.3	2.0	ug/kg	
108-87-2	Methylcyclohexane	ND	2.9	1.0	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	1.5	0.52	ug/kg	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	7.3	2.3	ug/kg	
75-09-2	Methylene chloride	ND	7.3	3.7	ug/kg	
100-42-5	Styrene	ND	2.9	0.84	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.9	0.57	ug/kg	
127-18-4	Tetrachloroethene	ND	2.9	0.68	ug/kg	
108-88-3	Toluene	ND	1.5	0.55	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	7.3	1.5	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	7.3	1.5	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	2.9	0.62	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	2.9	0.50	ug/kg	
79-01-6	Trichloroethene	ND	1.5	1.1	ug/kg	
75-69-4	Trichlorofluoromethane	ND	7.3	1.0	ug/kg	
75-01-4	Vinyl chloride	ND	2.9	0.69	ug/kg	
	m,p-Xylene	ND	1.5	1.1	ug/kg	
95-47-6	o-Xylene	ND	1.5	0.85	ug/kg	
1330-20-7	Xylene (total)	ND	1.5	0.85	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	105%		75-127%
17060-07-0	1,2-Dichloroethane-D4	102%		75-130%
2037-26-5	Toluene-D8	100%		80-120%
460-00-4	4-Bromofluorobenzene	101%		79-127%

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

SGS North America Inc.

Report of Analysis

Page 1 of 3

Client Sample ID:	PCTP-08R (10-12)	Date Sampled:	04/09/19
Lab Sample ID:	JC86043-1	Date Received:	04/09/19
Matrix:	SO - Soil	Percent Solids:	72.7
Method:	SW846 8270D SW846 3546		
Project:	National Grid, Philly Coke, Philadelphia, PA		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	2P86515.D	1	04/12/19 19:51	AR	04/10/19 19:00	OP19672	E2P3823

Run #1	Initial Weight	Final Volume
Run #2	31.5 g	1.0 ml

ABN TCL List (SOM0 2.0)

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	87	22	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	220	27	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	220	37	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	220	78	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	220	160	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	220	47	ug/kg	
95-48-7	2-Methylphenol	ND	87	28	ug/kg	
	3&4-Methylphenol	ND	87	36	ug/kg	
88-75-5	2-Nitrophenol	ND	220	29	ug/kg	
100-02-7	4-Nitrophenol	ND	440	120	ug/kg	
87-86-5	Pentachlorophenol	ND	170	41	ug/kg	
108-95-2	Phenol	ND	87	23	ug/kg	
58-90-2	2,3,4,6-Tetrachlorophenol	ND	220	29	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	220	33	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	220	26	ug/kg	
83-32-9	Acenaphthene	24.8	44	15	ug/kg	J
208-96-8	Acenaphthylene	ND	44	22	ug/kg	
98-86-2	Acetophenone	ND	220	9.4	ug/kg	
120-12-7	Anthracene	ND	44	27	ug/kg	
1912-24-9	Atrazine	ND	87	19	ug/kg	
56-55-3	Benzo(a)anthracene	65.4	44	12	ug/kg	
50-32-8	Benzo(a)pyrene	63.3	44	20	ug/kg	
205-99-2	Benzo(b)fluoranthene	73.1	44	19	ug/kg	
191-24-2	Benzo(g,h,i)perylene	39.5	44	22	ug/kg	J
207-08-9	Benzo(k)fluoranthene	31.3	44	20	ug/kg	J
101-55-3	4-Bromophenyl phenyl ether	ND	87	17	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	87	11	ug/kg	
92-52-4	1,1'-Biphenyl	ND	87	6.0	ug/kg	
100-52-7	Benzaldehyde	ND	220	11	ug/kg	
91-58-7	2-Chloronaphthalene	ND	87	10	ug/kg	
106-47-8	4-Chloroaniline	ND	220	16	ug/kg	
86-74-8	Carbazole	10.3	87	6.3	ug/kg	J

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:	PCTP-08R (10-12)	Date Sampled:	04/09/19
Lab Sample ID:	JC86043-1	Date Received:	04/09/19
Matrix:	SO - Soil	Percent Solids:	72.7
Method:	SW846 8270D SW846 3546		
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	87	17	ug/kg	
218-01-9	Chrysene	83.9	44	14	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	87	9.3	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	87	19	ug/kg	
108-60-1	2,2'-Oxybis(1-chloropropane)	ND	87	16	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	87	14	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	44	14	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	44	22	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	87	36	ug/kg	
123-91-1	1,4-Dioxane	ND	44	29	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	44	19	ug/kg	
132-64-9	Dibenzofuran	ND	87	18	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	87	7.1	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	87	11	ug/kg	
84-66-2	Diethyl phthalate	ND	87	9.3	ug/kg	
131-11-3	Dimethyl phthalate	ND	87	7.8	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	87	10	ug/kg	
206-44-0	Fluoranthene	85.3	44	19	ug/kg	
86-73-7	Fluorene	ND	44	20	ug/kg	
118-74-1	Hexachlorobenzene	ND	87	11	ug/kg	
87-68-3	Hexachlorobutadiene	ND	44	18	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	440	17	ug/kg	
67-72-1	Hexachloroethane	ND	220	22	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	31.2	44	20	ug/kg	J
78-59-1	Isophorone	ND	87	9.3	ug/kg	
91-57-6	2-Methylnaphthalene	19.5	44	9.9	ug/kg	J
88-74-4	2-Nitroaniline ^a	ND	220	10	ug/kg	
99-09-2	3-Nitroaniline	ND	220	11	ug/kg	
100-01-6	4-Nitroaniline	ND	220	11	ug/kg	
91-20-3	Naphthalene	28.0	44	12	ug/kg	J
98-95-3	Nitrobenzene	ND	87	17	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	87	13	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	220	16	ug/kg	
85-01-8	Phenanthrene	93.4	44	15	ug/kg	
129-00-0	Pyrene	132	44	14	ug/kg	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	220	11	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	54%		23-115%

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

4.1
 4

Report of Analysis

Client Sample ID: PCTP-08R (10-12)	Date Sampled: 04/09/19
Lab Sample ID: JC86043-1	Date Received: 04/09/19
Matrix: SO - Soil	Percent Solids: 72.7
Method: SW846 8270D SW846 3546	
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	65%		27-114%
118-79-6	2,4,6-Tribromophenol	78%		19-152%
4165-60-0	Nitrobenzene-d5	78%		26-134%
321-60-8	2-Fluorobiphenyl	87%		39-124%
1718-51-0	Terphenyl-d14	87%		36-134%

(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

4.1
4

Report of Analysis

Client Sample ID: PCTP-08R (10-12)	Date Sampled: 04/09/19
Lab Sample ID: JC86043-1	Date Received: 04/09/19
Matrix: SO - Soil	Percent Solids: 72.7
Project: National Grid, Philly Coke, Philadelphia, PA	

Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	7790	66	11	mg/kg	1	04/11/19	04/12/19	ND	SW846 6010D ² SW846 3050B ⁴
Antimony	0.89 J	2.6	0.54	mg/kg	1	04/11/19	04/12/19	ND	SW846 6010D ² SW846 3050B ⁴
Arsenic	7.7	2.6	0.37	mg/kg	1	04/11/19	04/12/19	ND	SW846 6010D ² SW846 3050B ⁴
Barium	114	26	2.5	mg/kg	1	04/11/19	04/12/19	ND	SW846 6010D ² SW846 3050B ⁴
Beryllium	0.65	0.26	0.11	mg/kg	1	04/11/19	04/12/19	ND	SW846 6010D ² SW846 3050B ⁴
Cadmium	0.74	0.66	0.093	mg/kg	1	04/11/19	04/12/19	ND	SW846 6010D ² SW846 3050B ⁴
Calcium	8290	660	58	mg/kg	1	04/11/19	04/12/19	ND	SW846 6010D ² SW846 3050B ⁴
Chromium	14.9	1.3	0.49	mg/kg	1	04/11/19	04/12/19	ND	SW846 6010D ² SW846 3050B ⁴
Cobalt	5.5 J	6.6	0.37	mg/kg	1	04/11/19	04/12/19	ND	SW846 6010D ² SW846 3050B ⁴
Copper	78.3	3.3	1.1	mg/kg	1	04/11/19	04/12/19	ND	SW846 6010D ² SW846 3050B ⁴
Iron	20700	66	25	mg/kg	1	04/11/19	04/12/19	ND	SW846 6010D ² SW846 3050B ⁴
Lead	193	2.6	0.54	mg/kg	1	04/11/19	04/12/19	ND	SW846 6010D ² SW846 3050B ⁴
Magnesium	2950	660	18	mg/kg	1	04/11/19	04/12/19	ND	SW846 6010D ² SW846 3050B ⁴
Manganese	118	2.0	0.54	mg/kg	1	04/11/19	04/12/19	ND	SW846 6010D ² SW846 3050B ⁴
Mercury	0.23	0.037	0.016	mg/kg	1	04/11/19	04/11/19	EAL	SW846 7471B ¹ SW846 7471B ³
Nickel	14.3	5.3	0.46	mg/kg	1	04/11/19	04/12/19	ND	SW846 6010D ² SW846 3050B ⁴
Potassium	886 J	1300	42	mg/kg	1	04/11/19	04/12/19	ND	SW846 6010D ² SW846 3050B ⁴
Selenium	0.95 J	2.6	0.86	mg/kg	1	04/11/19	04/12/19	ND	SW846 6010D ² SW846 3050B ⁴
Silver	0.34 J	0.66	0.22	mg/kg	1	04/11/19	04/12/19	ND	SW846 6010D ² SW846 3050B ⁴
Sodium	108 J	1300	100	mg/kg	1	04/11/19	04/12/19	ND	SW846 6010D ² SW846 3050B ⁴
Thallium	0.77 U	1.3	0.77	mg/kg	1	04/11/19	04/12/19	ND	SW846 6010D ² SW846 3050B ⁴
Vanadium	21.2	6.6	0.25	mg/kg	1	04/11/19	04/12/19	ND	SW846 6010D ² SW846 3050B ⁴
Zinc	312	6.6	3.0	mg/kg	1	04/11/19	04/12/19	ND	SW846 6010D ² SW846 3050B ⁴

(1) Instrument QC Batch: MA46477

(2) Instrument QC Batch: MA46484

(3) Prep QC Batch: MP14056

(4) Prep QC Batch: MP14093

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
J = Indicates a result > = MDL but < RL

4.1
4

Report of Analysis

Client Sample ID: PCTP-08R (10-12)	Date Sampled: 04/09/19
Lab Sample ID: JC86043-1	Date Received: 04/09/19
Matrix: SO - Soil	Percent Solids: 72.7
Project: National Grid, Philly Coke, Philadelphia, PA	

General Chemistry

Analyte	Result	RL	MDL	Units	DF	Analyzed	By	Method
Cyanide	0.22 J	0.32	0.16	mg/kg	1	04/17/19 16:02	KI	SW846 9012B/LACHAT
Solids, Percent	72.7			%	1	04/10/19 16:05	BG	SM2540 G 18TH ED MOD

RL = Reporting Limit
 MDL = Method Detection Limit

U = Indicates a result < MDL
 J = Indicates a result > = MDL but < RL

4.1
4

SGS North America Inc.

Report of Analysis

Page 1 of 2

Client Sample ID:	PCTP-10R (7-9)	Date Sampled:	04/09/19
Lab Sample ID:	JC86043-2	Date Received:	04/09/19
Matrix:	SO - Soil	Percent Solids:	81.7
Method:	SW846 8260C		
Project:	National Grid, Philly Coke, Philadelphia, PA		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3C151020.D	1	04/12/19 16:27	PS	n/a	n/a	V3C6794
Run #2							

Run #	Initial Weight
Run #1	4.0 g
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	64.7	15	7.6	ug/kg	
71-43-2	Benzene	ND	0.76	0.58	ug/kg	
74-97-5	Bromochloromethane	ND	7.6	0.66	ug/kg	
75-27-4	Bromodichloromethane	ND	3.1	0.68	ug/kg	
75-25-2	Bromoform	ND	7.6	0.62	ug/kg	
74-83-9	Bromomethane	ND	7.6	1.5	ug/kg	
78-93-3	2-Butanone (MEK)	ND	15	5.7	ug/kg	
75-15-0	Carbon disulfide	ND	3.1	1.4	ug/kg	
56-23-5	Carbon tetrachloride	ND	3.1	0.84	ug/kg	
108-90-7	Chlorobenzene	ND	3.1	0.54	ug/kg	
75-00-3	Chloroethane	ND	7.6	1.1	ug/kg	
67-66-3	Chloroform	ND	3.1	0.57	ug/kg	
74-87-3	Chloromethane	ND	7.6	3.0	ug/kg	
110-82-7	Cyclohexane	ND	3.1	0.62	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	3.1	1.3	ug/kg	
124-48-1	Dibromochloromethane	ND	3.1	0.52	ug/kg	
106-93-4	1,2-Dibromoethane	ND	1.5	0.50	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	1.5	0.47	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	1.5	0.55	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	1.5	0.53	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	7.6	0.97	ug/kg	
75-34-3	1,1-Dichloroethane	ND	1.5	0.59	ug/kg	
107-06-2	1,2-Dichloroethane	ND	1.5	0.72	ug/kg	
75-35-4	1,1-Dichloroethene	ND	1.5	1.0	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	1.5	1.5	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	1.5	1.0	ug/kg	
78-87-5	1,2-Dichloropropane	ND	3.1	0.62	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	3.1	0.54	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	3.1	0.50	ug/kg	
100-41-4	Ethylbenzene	ND	1.5	0.84	ug/kg	
76-13-1	Freon 113	ND	7.6	1.2	ug/kg	
591-78-6	2-Hexanone	ND	7.6	1.9	ug/kg	

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: PCTP-10R (7-9)	Date Sampled: 04/09/19
Lab Sample ID: JC86043-2	Date Received: 04/09/19
Matrix: SO - Soil	Percent Solids: 81.7
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	3.1	1.1	ug/kg	
79-20-9	Methyl Acetate	ND	7.6	2.1	ug/kg	
108-87-2	Methylcyclohexane	ND	3.1	1.1	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	1.5	0.54	ug/kg	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	7.6	2.4	ug/kg	
75-09-2	Methylene chloride	ND	7.6	3.8	ug/kg	
100-42-5	Styrene	ND	3.1	0.88	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	3.1	0.60	ug/kg	
127-18-4	Tetrachloroethene	ND	3.1	0.71	ug/kg	
108-88-3	Toluene	ND	1.5	0.58	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	7.6	1.5	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	7.6	1.5	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	3.1	0.65	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	3.1	0.52	ug/kg	
79-01-6	Trichloroethene	ND	1.5	1.2	ug/kg	
75-69-4	Trichlorofluoromethane	ND	7.6	1.0	ug/kg	
75-01-4	Vinyl chloride	ND	3.1	0.72	ug/kg	
	m,p-Xylene	ND	1.5	1.1	ug/kg	
95-47-6	o-Xylene	ND	1.5	0.89	ug/kg	
1330-20-7	Xylene (total)	ND	1.5	0.89	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	106%		75-127%
17060-07-0	1,2-Dichloroethane-D4	104%		75-130%
2037-26-5	Toluene-D8	100%		80-120%
460-00-4	4-Bromofluorobenzene	102%		79-127%

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

4.2
4

SGS North America Inc.

Report of Analysis

Page 1 of 3

Client Sample ID:	PCTP-10R (7-9)	Date Sampled:	04/09/19
Lab Sample ID:	JC86043-2	Date Received:	04/09/19
Matrix:	SO - Soil	Percent Solids:	81.7
Method:	SW846 8270D SW846 3546		
Project:	National Grid, Philly Coke, Philadelphia, PA		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	2P86516.D	1	04/12/19 20:13	AR	04/10/19 19:00	OP19672	E2P3823

Run #1	Initial Weight	Final Volume
Run #2	30.3 g	1.0 ml

ABN TCL List (SOM0 2.0)

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	81	20	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	200	25	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	200	34	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	200	72	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	200	150	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	200	43	ug/kg	
95-48-7	2-Methylphenol	ND	81	26	ug/kg	
	3&4-Methylphenol	ND	81	33	ug/kg	
88-75-5	2-Nitrophenol	ND	200	27	ug/kg	
100-02-7	4-Nitrophenol	ND	400	110	ug/kg	
87-86-5	Pentachlorophenol	ND	160	38	ug/kg	
108-95-2	Phenol	ND	81	21	ug/kg	
58-90-2	2,3,4,6-Tetrachlorophenol	ND	200	27	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	200	30	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	200	24	ug/kg	
83-32-9	Acenaphthene	234	40	14	ug/kg	
208-96-8	Acenaphthylene	32.0	40	21	ug/kg	J
98-86-2	Acetophenone	ND	200	8.7	ug/kg	
120-12-7	Anthracene	507	40	25	ug/kg	
1912-24-9	Atrazine	ND	81	17	ug/kg	
56-55-3	Benzo(a)anthracene	915	40	11	ug/kg	
50-32-8	Benzo(a)pyrene	836	40	18	ug/kg	
205-99-2	Benzo(b)fluoranthene	934	40	18	ug/kg	
191-24-2	Benzo(g,h,i)perylene	324	40	20	ug/kg	
207-08-9	Benzo(k)fluoranthene	396	40	19	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	81	16	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	81	9.9	ug/kg	
92-52-4	1,1'-Biphenyl	16.0	81	5.5	ug/kg	J
100-52-7	Benzaldehyde	23.0	200	10	ug/kg	J
91-58-7	2-Chloronaphthalene	ND	81	9.6	ug/kg	
106-47-8	4-Chloroaniline	ND	200	15	ug/kg	
86-74-8	Carbazole	155	81	5.9	ug/kg	

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: PCTP-10R (7-9)	
Lab Sample ID: JC86043-2	Date Sampled: 04/09/19
Matrix: SO - Soil	Date Received: 04/09/19
Method: SW846 8270D SW846 3546	Percent Solids: 81.7
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	81	16	ug/kg	
218-01-9	Chrysene	1060	40	13	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	81	8.6	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	81	17	ug/kg	
108-60-1	2,2'-Oxybis(1-chloropropane)	ND	81	15	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	81	13	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	40	13	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	40	20	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	81	34	ug/kg	
123-91-1	1,4-Dioxane	ND	40	27	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	122	40	18	ug/kg	
132-64-9	Dibenzofuran	94.7	81	16	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	81	6.6	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	81	10	ug/kg	
84-66-2	Diethyl phthalate	ND	81	8.6	ug/kg	
131-11-3	Dimethyl phthalate	ND	81	7.2	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	81	9.5	ug/kg	
206-44-0	Fluoranthene	1690	40	18	ug/kg	
86-73-7	Fluorene	187	40	19	ug/kg	
118-74-1	Hexachlorobenzene	ND	81	10	ug/kg	
87-68-3	Hexachlorobutadiene	ND	40	16	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	400	16	ug/kg	
67-72-1	Hexachloroethane	ND	200	20	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	325	40	19	ug/kg	
78-59-1	Isophorone	ND	81	8.6	ug/kg	
91-57-6	2-Methylnaphthalene	48.0	40	9.1	ug/kg	
88-74-4	2-Nitroaniline ^a	ND	200	9.5	ug/kg	
99-09-2	3-Nitroaniline	ND	200	10	ug/kg	
100-01-6	4-Nitroaniline	ND	200	10	ug/kg	
91-20-3	Naphthalene	78.2	40	11	ug/kg	
98-95-3	Nitrobenzene	ND	81	16	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	81	12	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	200	15	ug/kg	
85-01-8	Phenanthrene	1970	40	14	ug/kg	
129-00-0	Pyrene	1810	40	13	ug/kg	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	200	10	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	47%		23-115%

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

4.2
4

Report of Analysis

Client Sample ID: PCTP-10R (7-9)	
Lab Sample ID: JC86043-2	Date Sampled: 04/09/19
Matrix: SO - Soil	Date Received: 04/09/19
Method: SW846 8270D SW846 3546	Percent Solids: 81.7
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	57%		27-114%
118-79-6	2,4,6-Tribromophenol	63%		19-152%
4165-60-0	Nitrobenzene-d5	66%		26-134%
321-60-8	2-Fluorobiphenyl	76%		39-124%
1718-51-0	Terphenyl-d14	68%		36-134%

(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

4.2
4

Report of Analysis

Client Sample ID: PCTP-10R (7-9)	Date Sampled: 04/09/19
Lab Sample ID: JC86043-2	Date Received: 04/09/19
Matrix: SO - Soil	Percent Solids: 81.7
Project: National Grid, Philly Coke, Philadelphia, PA	

Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	6490	59	9.5	mg/kg	1	04/11/19	04/12/19	ND	SW846 6010D ² SW846 3050B ⁵
Antimony	1.6 J	2.4	0.48	mg/kg	1	04/11/19	04/12/19	ND	SW846 6010D ² SW846 3050B ⁵
Arsenic	9.0	2.4	0.33	mg/kg	1	04/11/19	04/12/19	ND	SW846 6010D ² SW846 3050B ⁵
Barium	489	24	2.2	mg/kg	1	04/11/19	04/12/19	ND	SW846 6010D ² SW846 3050B ⁵
Beryllium	0.46	0.24	0.094	mg/kg	1	04/11/19	04/12/19	ND	SW846 6010D ² SW846 3050B ⁵
Cadmium	5.9	0.59	0.082	mg/kg	1	04/11/19	04/12/19	ND	SW846 6010D ² SW846 3050B ⁵
Calcium	9700	590	52	mg/kg	1	04/11/19	04/12/19	ND	SW846 6010D ² SW846 3050B ⁵
Chromium	21.0	1.2	0.44	mg/kg	1	04/11/19	04/12/19	ND	SW846 6010D ² SW846 3050B ⁵
Cobalt	5.8 J	5.9	0.33	mg/kg	1	04/11/19	04/12/19	ND	SW846 6010D ² SW846 3050B ⁵
Copper	82.5	2.9	0.99	mg/kg	1	04/11/19	04/12/19	ND	SW846 6010D ² SW846 3050B ⁵
Iron	20300	59	23	mg/kg	1	04/11/19	04/12/19	ND	SW846 6010D ² SW846 3050B ⁵
Lead	2530	12	2.4	mg/kg	5	04/11/19	04/12/19	ND	SW846 6010D ³ SW846 3050B ⁵
Magnesium	6720	590	16	mg/kg	1	04/11/19	04/12/19	ND	SW846 6010D ² SW846 3050B ⁵
Manganese	181	1.8	0.48	mg/kg	1	04/11/19	04/12/19	ND	SW846 6010D ² SW846 3050B ⁵
Mercury	0.18	0.039	0.017	mg/kg	1	04/11/19	04/11/19	EAL	SW846 7471B ¹ SW846 7471B ⁴
Nickel	12.9	4.7	0.41	mg/kg	1	04/11/19	04/12/19	ND	SW846 6010D ² SW846 3050B ⁵
Potassium	715 J	1200	37	mg/kg	1	04/11/19	04/12/19	ND	SW846 6010D ² SW846 3050B ⁵
Selenium	0.89 J	2.4	0.76	mg/kg	1	04/11/19	04/12/19	ND	SW846 6010D ² SW846 3050B ⁵
Silver	0.44 J	0.59	0.20	mg/kg	1	04/11/19	04/12/19	ND	SW846 6010D ² SW846 3050B ⁵
Sodium	92 U	1200	92	mg/kg	1	04/11/19	04/12/19	ND	SW846 6010D ² SW846 3050B ⁵
Thallium	0.68 U	1.2	0.68	mg/kg	1	04/11/19	04/12/19	ND	SW846 6010D ² SW846 3050B ⁵
Vanadium	15.4	5.9	0.22	mg/kg	1	04/11/19	04/12/19	ND	SW846 6010D ² SW846 3050B ⁵
Zinc	487	5.9	2.7	mg/kg	1	04/11/19	04/12/19	ND	SW846 6010D ² SW846 3050B ⁵

- (1) Instrument QC Batch: MA46477
- (2) Instrument QC Batch: MA46484
- (3) Instrument QC Batch: MA46494
- (4) Prep QC Batch: MP14056
- (5) Prep QC Batch: MP14093

RL = Reporting Limit
 MDL = Method Detection Limit

U = Indicates a result < MDL
 J = Indicates a result > = MDL but < RL

4.2
4

Report of Analysis

Client Sample ID: PCTP-10R (7-9)	Date Sampled: 04/09/19
Lab Sample ID: JC86043-2	Date Received: 04/09/19
Matrix: SO - Soil	Percent Solids: 81.7
Project: National Grid, Philly Coke, Philadelphia, PA	

General Chemistry

Analyte	Result	RL	MDL	Units	DF	Analyzed	By	Method
Cyanide	0.14 U	0.28	0.14	mg/kg	1	04/17/19 16:03	KI	SW846 9012B/LACHAT
Solids, Percent	81.7			%	1	04/10/19 16:05	BG	SM2540 G 18TH ED MOD

RL = Reporting Limit
 MDL = Method Detection Limit

U = Indicates a result < MDL
 J = Indicates a result > = MDL but < RL

4.2
4

SGS North America Inc.

Report of Analysis

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Client Sample ID:	PCTP-47R (5-7)	Date Sampled:	04/09/19
Lab Sample ID:	JC86043-3	Date Received:	04/09/19
Matrix:	SO - Soil	Percent Solids:	87.5
Method:	SW846 8260C		
Project:	National Grid, Philly Coke, Philadelphia, PA		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3C151022.D	1	04/12/19 17:13	PS	n/a	n/a	V3C6794
Run #2							

Run #	Initial Weight
Run #1	4.9 g
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	25.9	12	5.8	ug/kg	
71-43-2	Benzene	ND	0.58	0.44	ug/kg	
74-97-5	Bromochloromethane	ND	5.8	0.50	ug/kg	
75-27-4	Bromodichloromethane	ND	2.3	0.52	ug/kg	
75-25-2	Bromoform	ND	5.8	0.47	ug/kg	
74-83-9	Bromomethane	ND	5.8	1.2	ug/kg	
78-93-3	2-Butanone (MEK)	ND	12	4.4	ug/kg	
75-15-0	Carbon disulfide	1.2	2.3	1.1	ug/kg	J
56-23-5	Carbon tetrachloride	ND	2.3	0.64	ug/kg	
108-90-7	Chlorobenzene	ND	2.3	0.41	ug/kg	
75-00-3	Chloroethane	ND	5.8	0.80	ug/kg	
67-66-3	Chloroform	ND	2.3	0.43	ug/kg	
74-87-3	Chloromethane	ND	5.8	2.3	ug/kg	
110-82-7	Cyclohexane	ND	2.3	0.47	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.3	0.97	ug/kg	
124-48-1	Dibromochloromethane	ND	2.3	0.39	ug/kg	
106-93-4	1,2-Dibromoethane	ND	1.2	0.38	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	1.2	0.36	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	1.2	0.42	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	1.2	0.40	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	5.8	0.74	ug/kg	
75-34-3	1,1-Dichloroethane	ND	1.2	0.45	ug/kg	
107-06-2	1,2-Dichloroethane	ND	1.2	0.55	ug/kg	
75-35-4	1,1-Dichloroethene	ND	1.2	0.77	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	1.2	1.1	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	1.2	0.78	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.3	0.47	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.3	0.41	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.3	0.38	ug/kg	
100-41-4	Ethylbenzene	ND	1.2	0.64	ug/kg	
76-13-1	Freon 113	ND	5.8	0.89	ug/kg	
591-78-6	2-Hexanone	ND	5.8	1.5	ug/kg	

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:	PCTP-47R (5-7)	Date Sampled:	04/09/19
Lab Sample ID:	JC86043-3	Date Received:	04/09/19
Matrix:	SO - Soil	Percent Solids:	87.5
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	2.3	0.81	ug/kg	
79-20-9	Methyl Acetate	ND	5.8	1.6	ug/kg	
108-87-2	Methylcyclohexane	ND	2.3	0.82	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	1.2	0.41	ug/kg	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.8	1.8	ug/kg	
75-09-2	Methylene chloride	ND	5.8	2.9	ug/kg	
100-42-5	Styrene	ND	2.3	0.67	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.3	0.45	ug/kg	
127-18-4	Tetrachloroethene	ND	2.3	0.54	ug/kg	
108-88-3	Toluene	ND	1.2	0.44	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	5.8	1.2	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	5.8	1.2	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	2.3	0.50	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	2.3	0.40	ug/kg	
79-01-6	Trichloroethene	ND	1.2	0.89	ug/kg	
75-69-4	Trichlorofluoromethane	ND	5.8	0.79	ug/kg	
75-01-4	Vinyl chloride	ND	2.3	0.55	ug/kg	
	m,p-Xylene	ND	1.2	0.87	ug/kg	
95-47-6	o-Xylene	ND	1.2	0.68	ug/kg	
1330-20-7	Xylene (total)	ND	1.2	0.68	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	104%		75-127%
17060-07-0	1,2-Dichloroethane-D4	102%		75-130%
2037-26-5	Toluene-D8	100%		80-120%
460-00-4	4-Bromofluorobenzene	103%		79-127%

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

SGS North America Inc.

Report of Analysis

Page 1 of 3

Client Sample ID:	PCTP-47R (5-7)	Date Sampled:	04/09/19
Lab Sample ID:	JC86043-3	Date Received:	04/09/19
Matrix:	SO - Soil	Percent Solids:	87.5
Method:	SW846 8270D SW846 3546		
Project:	National Grid, Philly Coke, Philadelphia, PA		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	P129017.D	1	04/15/19 01:01	CB	04/10/19 19:00	OP19673	EP5838

Run #1	Initial Weight	Final Volume
Run #2	30.1 g	1.0 ml

ABN TCL List (SOM0 2.0)

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	76	19	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	190	23	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	190	32	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	190	68	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	190	140	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	190	41	ug/kg	
95-48-7	2-Methylphenol	ND	76	24	ug/kg	
	3&4-Methylphenol	ND	76	31	ug/kg	
88-75-5	2-Nitrophenol	ND	190	25	ug/kg	
100-02-7	4-Nitrophenol ^a	ND	380	100	ug/kg	
87-86-5	Pentachlorophenol	ND	150	36	ug/kg	
108-95-2	Phenol	ND	76	20	ug/kg	
58-90-2	2,3,4,6-Tetrachlorophenol ^a	ND	190	25	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	190	28	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	190	23	ug/kg	
83-32-9	Acenaphthene	111	38	13	ug/kg	
208-96-8	Acenaphthylene	110	38	19	ug/kg	
98-86-2	Acetophenone	ND	190	8.2	ug/kg	
120-12-7	Anthracene	364	38	23	ug/kg	
1912-24-9	Atrazine	ND	76	16	ug/kg	
56-55-3	Benzo(a)anthracene	1640	38	11	ug/kg	
50-32-8	Benzo(a)pyrene	1430	38	17	ug/kg	
205-99-2	Benzo(b)fluoranthene	1670	38	17	ug/kg	
191-24-2	Benzo(g,h,i)perylene	908	38	19	ug/kg	
207-08-9	Benzo(k)fluoranthene	721	38	18	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	76	15	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	76	9.3	ug/kg	
92-52-4	1,1'-Biphenyl	13.8	76	5.2	ug/kg	J
100-52-7	Benzaldehyde	ND	190	9.4	ug/kg	
91-58-7	2-Chloronaphthalene	ND	76	9.0	ug/kg	
106-47-8	4-Chloroaniline	ND	190	14	ug/kg	
86-74-8	Carbazole	159	76	5.5	ug/kg	

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:	PCTP-47R (5-7)	Date Sampled:	04/09/19
Lab Sample ID:	JC86043-3	Date Received:	04/09/19
Matrix:	SO - Soil	Percent Solids:	87.5
Method:	SW846 8270D SW846 3546		
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	76	15	ug/kg	
218-01-9	Chrysene	1720	38	12	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	76	8.1	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	76	16	ug/kg	
108-60-1	2,2'-Oxybis(1-chloropropane)	ND	76	14	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	76	12	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	38	12	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	38	19	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	76	32	ug/kg	
123-91-1	1,4-Dioxane	ND	38	25	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	247	38	17	ug/kg	
132-64-9	Dibenzofuran	65.1	76	15	ug/kg	J
84-74-2	Di-n-butyl phthalate	ND	76	6.2	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	76	9.5	ug/kg	
84-66-2	Diethyl phthalate	ND	76	8.1	ug/kg	
131-11-3	Dimethyl phthalate	ND	76	6.8	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	142	76	8.9	ug/kg	
206-44-0	Fluoranthene	2600	38	17	ug/kg	
86-73-7	Fluorene	110	38	17	ug/kg	
118-74-1	Hexachlorobenzene	ND	76	9.6	ug/kg	
87-68-3	Hexachlorobutadiene	ND	38	15	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	380	15	ug/kg	
67-72-1	Hexachloroethane	ND	190	19	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	912	38	18	ug/kg	
78-59-1	Isophorone	ND	76	8.1	ug/kg	
91-57-6	2-Methylnaphthalene	41.7	38	8.6	ug/kg	
88-74-4	2-Nitroaniline	ND	190	9.0	ug/kg	
99-09-2	3-Nitroaniline	ND	190	9.5	ug/kg	
100-01-6	4-Nitroaniline	ND	190	9.8	ug/kg	
91-20-3	Naphthalene	70.7	38	11	ug/kg	
98-95-3	Nitrobenzene	ND	76	15	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	76	11	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	190	14	ug/kg	
85-01-8	Phenanthrene	1360	38	13	ug/kg	
129-00-0	Pyrene	2540	38	12	ug/kg	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	190	9.6	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	73%		23-115%

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: PCTP-47R (5-7)	
Lab Sample ID: JC86043-3	Date Sampled: 04/09/19
Matrix: SO - Soil	Date Received: 04/09/19
Method: SW846 8270D SW846 3546	Percent Solids: 87.5
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	79%		27-114%
118-79-6	2,4,6-Tribromophenol	59%		19-152%
4165-60-0	Nitrobenzene-d5	90%		26-134%
321-60-8	2-Fluorobiphenyl	87%		39-124%
1718-51-0	Terphenyl-d14	94%		36-134%

(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
4

Report of Analysis

Client Sample ID: PCTP-47R (5-7)	Date Sampled: 04/09/19
Lab Sample ID: JC86043-3	Date Received: 04/09/19
Matrix: SO - Soil	Percent Solids: 87.5
Project: National Grid, Philly Coke, Philadelphia, PA	

Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	11000	59	9.5	mg/kg	1	04/11/19	04/12/19	ND	SW846 6010D ² SW846 3050B ⁵
Antimony	2.2 J	2.4	0.48	mg/kg	1	04/11/19	04/12/19	ND	SW846 6010D ² SW846 3050B ⁵
Arsenic	7.5	2.4	0.33	mg/kg	1	04/11/19	04/12/19	ND	SW846 6010D ² SW846 3050B ⁵
Barium	97.9	24	2.2	mg/kg	1	04/11/19	04/12/19	ND	SW846 6010D ² SW846 3050B ⁵
Beryllium	0.59	0.24	0.094	mg/kg	1	04/11/19	04/12/19	ND	SW846 6010D ² SW846 3050B ⁵
Cadmium	0.39 J	0.59	0.082	mg/kg	1	04/11/19	04/12/19	ND	SW846 6010D ² SW846 3050B ⁵
Calcium	37500	1200	100	mg/kg	2	04/11/19	04/12/19	ND	SW846 6010D ³ SW846 3050B ⁵
Chromium	20.6	1.2	0.44	mg/kg	1	04/11/19	04/12/19	ND	SW846 6010D ² SW846 3050B ⁵
Cobalt	6.0	5.9	0.33	mg/kg	1	04/11/19	04/12/19	ND	SW846 6010D ² SW846 3050B ⁵
Copper	265	2.9	0.99	mg/kg	1	04/11/19	04/12/19	ND	SW846 6010D ² SW846 3050B ⁵
Iron	19000	59	23	mg/kg	1	04/11/19	04/12/19	ND	SW846 6010D ² SW846 3050B ⁵
Lead	359	2.4	0.48	mg/kg	1	04/11/19	04/12/19	ND	SW846 6010D ² SW846 3050B ⁵
Magnesium	12500	590	16	mg/kg	1	04/11/19	04/12/19	ND	SW846 6010D ² SW846 3050B ⁵
Manganese	299	1.8	0.48	mg/kg	1	04/11/19	04/12/19	ND	SW846 6010D ² SW846 3050B ⁵
Mercury	0.53	0.038	0.017	mg/kg	1	04/11/19	04/11/19	EAL	SW846 7471B ¹ SW846 7471B ⁴
Nickel	12.8	4.7	0.41	mg/kg	1	04/11/19	04/12/19	ND	SW846 6010D ² SW846 3050B ⁵
Potassium	1460	1200	37	mg/kg	1	04/11/19	04/12/19	ND	SW846 6010D ² SW846 3050B ⁵
Selenium	0.77 U	2.4	0.77	mg/kg	1	04/11/19	04/12/19	ND	SW846 6010D ² SW846 3050B ⁵
Silver	0.48 J	0.59	0.20	mg/kg	1	04/11/19	04/12/19	ND	SW846 6010D ² SW846 3050B ⁵
Sodium	135 J	1200	92	mg/kg	1	04/11/19	04/12/19	ND	SW846 6010D ² SW846 3050B ⁵
Thallium	0.68 U	1.2	0.68	mg/kg	1	04/11/19	04/12/19	ND	SW846 6010D ² SW846 3050B ⁵
Vanadium	27.0	5.9	0.22	mg/kg	1	04/11/19	04/12/19	ND	SW846 6010D ² SW846 3050B ⁵
Zinc	244	5.9	2.7	mg/kg	1	04/11/19	04/12/19	ND	SW846 6010D ² SW846 3050B ⁵

- (1) Instrument QC Batch: MA46477
- (2) Instrument QC Batch: MA46484
- (3) Instrument QC Batch: MA46494
- (4) Prep QC Batch: MP14056
- (5) Prep QC Batch: MP14093

RL = Reporting Limit
 MDL = Method Detection Limit

U = Indicates a result < MDL
 J = Indicates a result > = MDL but < RL

4.3
4

Report of Analysis

Client Sample ID: PCTP-47R (5-7)	Date Sampled: 04/09/19
Lab Sample ID: JC86043-3	Date Received: 04/09/19
Matrix: SO - Soil	Percent Solids: 87.5
Project: National Grid, Philly Coke, Philadelphia, PA	

General Chemistry

Analyte	Result	RL	MDL	Units	DF	Analyzed	By	Method
Cyanide	0.20 J	0.26	0.13	mg/kg	1	04/17/19 16:04	KI	SW846 9012B/LACHAT
Solids, Percent	87.5			%	1	04/10/19 16:05	BG	SM2540 G 18TH ED MOD

RL = Reporting Limit
 MDL = Method Detection Limit

U = Indicates a result < MDL
 J = Indicates a result > = MDL but < RL

4.3
4

SGS North America Inc.

Report of Analysis

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Client Sample ID:	PCTP-32R (6-8)	Date Sampled:	04/09/19
Lab Sample ID:	JC86043-4	Date Received:	04/09/19
Matrix:	SO - Soil	Percent Solids:	75.5
Method:	SW846 8260C		
Project:	National Grid, Philly Coke, Philadelphia, PA		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3C151021.D	1	04/12/19 16:50	PS	n/a	n/a	V3C6794
Run #2							

Run #	Initial Weight
Run #1	5.5 g
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	204	12	6.0	ug/kg	
71-43-2	Benzene	5.2	0.60	0.45	ug/kg	
74-97-5	Bromochloromethane	ND	6.0	0.52	ug/kg	
75-27-4	Bromodichloromethane	ND	2.4	0.53	ug/kg	
75-25-2	Bromoform	ND	6.0	0.49	ug/kg	
74-83-9	Bromomethane	ND	6.0	1.2	ug/kg	
78-93-3	2-Butanone (MEK)	17.2	12	4.5	ug/kg	
75-15-0	Carbon disulfide	1.8	2.4	1.1	ug/kg	J
56-23-5	Carbon tetrachloride	ND	2.4	0.66	ug/kg	
108-90-7	Chlorobenzene	ND	2.4	0.43	ug/kg	
75-00-3	Chloroethane	ND	6.0	0.83	ug/kg	
67-66-3	Chloroform	ND	2.4	0.45	ug/kg	
74-87-3	Chloromethane	ND	6.0	2.4	ug/kg	
110-82-7	Cyclohexane	ND	2.4	0.49	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.4	1.0	ug/kg	
124-48-1	Dibromochloromethane	ND	2.4	0.41	ug/kg	
106-93-4	1,2-Dibromoethane	ND	1.2	0.39	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	1.2	0.37	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	1.2	0.43	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	1.2	0.41	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	6.0	0.76	ug/kg	
75-34-3	1,1-Dichloroethane	ND	1.2	0.46	ug/kg	
107-06-2	1,2-Dichloroethane	ND	1.2	0.57	ug/kg	
75-35-4	1,1-Dichloroethene	ND	1.2	0.79	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	1.2	1.2	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	1.2	0.80	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.4	0.49	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.4	0.42	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.4	0.39	ug/kg	
100-41-4	Ethylbenzene	ND	1.2	0.66	ug/kg	
76-13-1	Freon 113	ND	6.0	0.92	ug/kg	
591-78-6	2-Hexanone	ND	6.0	1.5	ug/kg	

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: PCTP-32R (6-8) Lab Sample ID: JC86043-4 Matrix: SO - Soil Method: SW846 8260C Project: National Grid, Philly Coke, Philadelphia, PA	Date Sampled: 04/09/19 Date Received: 04/09/19 Percent Solids: 75.5
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VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
98-82-8	Isopropylbenzene	ND	2.4	0.84	ug/kg	
79-20-9	Methyl Acetate	ND	6.0	1.7	ug/kg	
108-87-2	Methylcyclohexane	ND	2.4	0.85	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	1.2	0.42	ug/kg	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	6.0	1.9	ug/kg	
75-09-2	Methylene chloride	ND	6.0	3.0	ug/kg	
100-42-5	Styrene	ND	2.4	0.69	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.4	0.47	ug/kg	
127-18-4	Tetrachloroethene	ND	2.4	0.56	ug/kg	
108-88-3	Toluene	1.9	1.2	0.45	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	6.0	1.2	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	6.0	1.2	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	2.4	0.51	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	2.4	0.41	ug/kg	
79-01-6	Trichloroethene	ND	1.2	0.92	ug/kg	
75-69-4	Trichlorofluoromethane	ND	6.0	0.82	ug/kg	
75-01-4	Vinyl chloride	ND	2.4	0.56	ug/kg	
	m,p-Xylene	1.1	1.2	0.90	ug/kg	J
95-47-6	o-Xylene	ND	1.2	0.70	ug/kg	
1330-20-7	Xylene (total)	1.1	1.2	0.70	ug/kg	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	105%		75-127%
17060-07-0	1,2-Dichloroethane-D4	102%		75-130%
2037-26-5	Toluene-D8	100%		80-120%
460-00-4	4-Bromofluorobenzene	105%		79-127%

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

4.4
4

SGS North America Inc.

Report of Analysis

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Client Sample ID:	PCTP-32R (6-8)	Date Sampled:	04/09/19
Lab Sample ID:	JC86043-4	Date Received:	04/09/19
Matrix:	SO - Soil	Percent Solids:	75.5
Method:	SW846 8270D SW846 3546		
Project:	National Grid, Philly Coke, Philadelphia, PA		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	P129046.D	2	04/15/19 21:19	YC	04/10/19 19:00	OP19673	EP5839
Run #2							

Run #	Initial Weight	Final Volume
Run #1	31.1 g	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	170	42	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	430	52	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	430	73	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	430	150	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	430	320	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	430	91	ug/kg	
95-48-7	2-Methylphenol	218	170	54	ug/kg	
	3&4-Methylphenol	280	170	70	ug/kg	
88-75-5	2-Nitrophenol	ND	430	56	ug/kg	
100-02-7	4-Nitrophenol	ND	850	230	ug/kg	
87-86-5	Pentachlorophenol	ND	340	80	ug/kg	
108-95-2	Phenol	ND	170	44	ug/kg	
58-90-2	2,3,4,6-Tetrachlorophenol	ND	430	56	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	430	64	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	430	51	ug/kg	
83-32-9	Acenaphthene	127	85	29	ug/kg	
208-96-8	Acenaphthylene	74.5	85	43	ug/kg	J
98-86-2	Acetophenone	41.4	430	18	ug/kg	J
120-12-7	Anthracene	132	85	52	ug/kg	
1912-24-9	Atrazine	ND	170	36	ug/kg	
56-55-3	Benzo(a)anthracene	213	85	24	ug/kg	
50-32-8	Benzo(a)pyrene	239	85	39	ug/kg	
205-99-2	Benzo(b)fluoranthene	238	85	38	ug/kg	
191-24-2	Benzo(g,h,i)perylene	184	85	43	ug/kg	
207-08-9	Benzo(k)fluoranthene	103	85	40	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	170	33	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	170	21	ug/kg	
92-52-4	1,1'-Biphenyl	71.8	170	12	ug/kg	J
100-52-7	Benzaldehyde	ND	430	21	ug/kg	
91-58-7	2-Chloronaphthalene	ND	170	20	ug/kg	
106-47-8	4-Chloroaniline	ND	430	31	ug/kg	
86-74-8	Carbazole	39.6	170	12	ug/kg	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: PCTP-32R (6-8)	
Lab Sample ID: JC86043-4	Date Sampled: 04/09/19
Matrix: SO - Soil	Date Received: 04/09/19
Method: SW846 8270D SW846 3546	Percent Solids: 75.5
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	170	34	ug/kg	
218-01-9	Chrysene	246	85	27	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	170	18	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	170	37	ug/kg	
108-60-1	2,2'-Oxybis(1-chloropropane)	ND	170	31	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	170	28	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	85	26	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	85	43	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	170	71	ug/kg	
123-91-1	1,4-Dioxane	ND	85	56	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	85	38	ug/kg	
132-64-9	Dibenzofuran	96.3	170	35	ug/kg	J
84-74-2	Di-n-butyl phthalate	ND	170	14	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	170	21	ug/kg	
84-66-2	Diethyl phthalate	ND	170	18	ug/kg	
131-11-3	Dimethyl phthalate	ND	170	15	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	170	20	ug/kg	
206-44-0	Fluoranthene	341	85	38	ug/kg	
86-73-7	Fluorene	132	85	39	ug/kg	
118-74-1	Hexachlorobenzene	ND	170	22	ug/kg	
87-68-3	Hexachlorobutadiene	ND	85	34	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	850	34	ug/kg	
67-72-1	Hexachloroethane	ND	430	42	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	161	85	40	ug/kg	
78-59-1	Isophorone	ND	170	18	ug/kg	
91-57-6	2-Methylnaphthalene	492	85	19	ug/kg	
88-74-4	2-Nitroaniline	ND	430	20	ug/kg	
99-09-2	3-Nitroaniline	ND	430	21	ug/kg	
100-01-6	4-Nitroaniline	ND	430	22	ug/kg	
91-20-3	Naphthalene	4880	85	24	ug/kg	
98-95-3	Nitrobenzene	ND	170	33	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	170	25	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	430	31	ug/kg	
85-01-8	Phenanthrene	344	85	29	ug/kg	
129-00-0	Pyrene	401	85	27	ug/kg	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	430	22	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	74%		23-115%

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

4.4
4

Report of Analysis

Client Sample ID: PCTP-32R (6-8)	
Lab Sample ID: JC86043-4	Date Sampled: 04/09/19
Matrix: SO - Soil	Date Received: 04/09/19
Method: SW846 8270D SW846 3546	Percent Solids: 75.5
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	76%		27-114%
118-79-6	2,4,6-Tribromophenol	76%		19-152%
4165-60-0	Nitrobenzene-d5	94%		26-134%
321-60-8	2-Fluorobiphenyl	83%		39-124%
1718-51-0	Terphenyl-d14	81%		36-134%

(a) Dilution required due to viscosity of the extract matrix.

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

4.4
4

Report of Analysis

Client Sample ID: PCTP-32R (6-8) Lab Sample ID: JC86043-4 Matrix: SO - Soil Project: National Grid, Philly Coke, Philadelphia, PA	Date Sampled: 04/09/19 Date Received: 04/09/19 Percent Solids: 75.5
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Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	4290	65	10	mg/kg	1	04/11/19	04/11/19	ND	SW846 6010D ² SW846 3050B ⁵
Antimony	0.53 U	2.6	0.53	mg/kg	1	04/11/19	04/11/19	ND	SW846 6010D ² SW846 3050B ⁵
Arsenic	3.9	2.6	0.36	mg/kg	1	04/11/19	04/11/19	ND	SW846 6010D ² SW846 3050B ⁵
Barium	30.3	26	2.5	mg/kg	1	04/11/19	04/11/19	ND	SW846 6010D ² SW846 3050B ⁵
Beryllium	0.22 J	0.26	0.10	mg/kg	1	04/11/19	04/11/19	ND	SW846 6010D ² SW846 3050B ⁵
Cadmium	0.13 J	0.65	0.091	mg/kg	1	04/11/19	04/11/19	ND	SW846 6010D ² SW846 3050B ⁵
Calcium	65200	3200	290	mg/kg	5	04/11/19	04/12/19	ND	SW846 6010D ³ SW846 3050B ⁵
Chromium	14.6	1.3	0.48	mg/kg	1	04/11/19	04/11/19	ND	SW846 6010D ² SW846 3050B ⁵
Cobalt	4.2 J	6.5	0.36	mg/kg	1	04/11/19	04/11/19	ND	SW846 6010D ² SW846 3050B ⁵
Copper	13.8	3.2	1.1	mg/kg	1	04/11/19	04/11/19	ND	SW846 6010D ² SW846 3050B ⁵
Iron	9540	65	25	mg/kg	1	04/11/19	04/11/19	ND	SW846 6010D ² SW846 3050B ⁵
Lead	21.3	2.6	0.53	mg/kg	1	04/11/19	04/11/19	ND	SW846 6010D ² SW846 3050B ⁵
Magnesium	37200	650	18	mg/kg	1	04/11/19	04/11/19	ND	SW846 6010D ² SW846 3050B ⁵
Manganese	196	1.9	0.53	mg/kg	1	04/11/19	04/11/19	ND	SW846 6010D ² SW846 3050B ⁵
Mercury	0.21	0.038	0.016	mg/kg	1	04/11/19	04/11/19	EAL	SW846 7471B ¹ SW846 7471B ⁴
Nickel	8.6	5.2	0.45	mg/kg	1	04/11/19	04/11/19	ND	SW846 6010D ² SW846 3050B ⁵
Potassium	679 J	1300	41	mg/kg	1	04/11/19	04/11/19	ND	SW846 6010D ² SW846 3050B ⁵
Selenium	0.84 U	2.6	0.84	mg/kg	1	04/11/19	04/11/19	ND	SW846 6010D ² SW846 3050B ⁵
Silver	0.22 U	0.65	0.22	mg/kg	1	04/11/19	04/11/19	ND	SW846 6010D ² SW846 3050B ⁵
Sodium	100 U	1300	100	mg/kg	1	04/11/19	04/11/19	ND	SW846 6010D ² SW846 3050B ⁵
Thallium	0.75 U	1.3	0.75	mg/kg	1	04/11/19	04/11/19	ND	SW846 6010D ² SW846 3050B ⁵
Vanadium	10.6	6.5	0.25	mg/kg	1	04/11/19	04/11/19	ND	SW846 6010D ² SW846 3050B ⁵
Zinc	66.5	6.5	3.0	mg/kg	1	04/11/19	04/11/19	ND	SW846 6010D ² SW846 3050B ⁵

- (1) Instrument QC Batch: MA46477
- (2) Instrument QC Batch: MA46484
- (3) Instrument QC Batch: MA46494
- (4) Prep QC Batch: MP14056
- (5) Prep QC Batch: MP14093

RL = Reporting Limit
 MDL = Method Detection Limit

U = Indicates a result < MDL
 J = Indicates a result > = MDL but < RL

4.4
4

Report of Analysis

Client Sample ID: PCTP-32R (6-8)	Date Sampled: 04/09/19
Lab Sample ID: JC86043-4	Date Received: 04/09/19
Matrix: SO - Soil	Percent Solids: 75.5
Project: National Grid, Philly Coke, Philadelphia, PA	

General Chemistry

Analyte	Result	RL	MDL	Units	DF	Analyzed	By	Method
Cyanide	0.45	0.31	0.15	mg/kg	1	04/17/19 16:06 KI	SW846	9012B/LACHAT
Solids, Percent	75.5			%	1	04/10/19 16:05 BG	SM2540 G	18TH ED MOD

RL = Reporting Limit
 MDL = Method Detection Limit

U = Indicates a result < MDL
 J = Indicates a result > = MDL but < RL

4.4
4

SGS North America Inc.

Report of Analysis

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Client Sample ID: S-122 (10-12)	Date Sampled: 04/09/19
Lab Sample ID: JC86043-5	Date Received: 04/09/19
Matrix: SO - Soil	Percent Solids: 58.5
Method: SW846 8260C	
Project: National Grid, Philly Coke, Philadelphia, PA	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	I225322.D	1	04/11/19 15:04	TDN	n/a	n/a	VI9080
Run #2							

Run #	Initial Weight	Final Volume	Methanol Aliquot
Run #1	4.5 g	10.0 ml	100 ul
Run #2			

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	2300	1100	ug/kg	
71-43-2	Benzene	ND	110	85	ug/kg	
74-97-5	Bromochloromethane	ND	1100	97	ug/kg	
75-27-4	Bromodichloromethane	ND	450	100	ug/kg	
75-25-2	Bromoform	ND	1100	91	ug/kg	
74-83-9	Bromomethane	ND	1100	220	ug/kg	
78-93-3	2-Butanone (MEK)	ND	2300	840	ug/kg	
75-15-0	Carbon disulfide	ND	450	210	ug/kg	
56-23-5	Carbon tetrachloride	ND	450	120	ug/kg	
108-90-7	Chlorobenzene	ND	450	80	ug/kg	
75-00-3	Chloroethane	ND	1100	150	ug/kg	
67-66-3	Chloroform	ND	450	84	ug/kg	
74-87-3	Chloromethane	ND	1100	440	ug/kg	
110-82-7	Cyclohexane	ND	450	92	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	450	190	ug/kg	
124-48-1	Dibromochloromethane	ND	450	76	ug/kg	
106-93-4	1,2-Dibromoethane ^b	ND	230	73	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	230	69	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	230	81	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	230	78	ug/kg	
75-71-8	Dichlorodifluoromethane ^c	ND	1100	140	ug/kg	
75-34-3	1,1-Dichloroethane	ND	230	87	ug/kg	
107-06-2	1,2-Dichloroethane	ND	230	110	ug/kg	
75-35-4	1,1-Dichloroethene	ND	230	150	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	230	220	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	230	150	ug/kg	
78-87-5	1,2-Dichloropropane	ND	450	92	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	450	79	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	450	74	ug/kg	
100-41-4	Ethylbenzene	1020	230	120	ug/kg	
76-13-1	Freon 113	ND	1100	170	ug/kg	
591-78-6	2-Hexanone	ND	1100	290	ug/kg	

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: S-122 (10-12)	Date Sampled: 04/09/19
Lab Sample ID: JC86043-5	Date Received: 04/09/19
Matrix: SO - Soil	Percent Solids: 58.5
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	1780	450	160	ug/kg	
79-20-9	Methyl Acetate	ND	1100	310	ug/kg	
108-87-2	Methylcyclohexane	339	450	160	ug/kg	J
1634-04-4	Methyl Tert Butyl Ether	ND	230	79	ug/kg	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	1100	350	ug/kg	
75-09-2	Methylene chloride	829	1100	560	ug/kg	J
100-42-5	Styrene	ND	450	130	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	450	88	ug/kg	
127-18-4	Tetrachloroethene	ND	450	100	ug/kg	
108-88-3	Toluene	212	230	85	ug/kg	J
87-61-6	1,2,3-Trichlorobenzene	ND	1100	230	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	1100	230	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	450	96	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	450	77	ug/kg	
79-01-6	Trichloroethene	ND	230	170	ug/kg	
75-69-4	Trichlorofluoromethane	ND	1100	150	ug/kg	
75-01-4	Vinyl chloride	ND	450	110	ug/kg	
	m,p-Xylene	475	230	170	ug/kg	
95-47-6	o-Xylene	315	230	130	ug/kg	
1330-20-7	Xylene (total)	790	230	130	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	105%		75-127%
17060-07-0	1,2-Dichloroethane-D4	103%		75-130%
2037-26-5	Toluene-D8	102%		80-120%
460-00-4	4-Bromofluorobenzene	113%		79-127%

- (a) Diluted due to high concentration of non-target compound.
- (b) This compound in BSD is outside in house QC limits bias high.
- (c) 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:	S-122 (10-12)	Date Sampled:	04/09/19
Lab Sample ID:	JC86043-5	Date Received:	04/09/19
Matrix:	SO - Soil	Percent Solids:	58.5
Method:	SW846 8270D SW846 3546		
Project:	National Grid, Philly Coke, Philadelphia, PA		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	P128947.D	5	04/11/19 10:27	CS	04/10/19 19:00	OP19673	EP5835
Run #2	P128965.D	50	04/11/19 21:56	CC	04/10/19 19:00	OP19673	EP5836

Run #	Initial Weight	Final Volume
Run #1	32.0 g	1.0 ml
Run #2	32.0 g	1.0 ml

ABN TCL List (SOM0 2.0)

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	530	130	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	1300	160	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	1300	230	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	1300	480	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	1300	1000	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	1300	290	ug/kg	
95-48-7	2-Methylphenol	ND	530	170	ug/kg	
	3&4-Methylphenol	975	530	220	ug/kg	
88-75-5	2-Nitrophenol	ND	1300	180	ug/kg	
100-02-7	4-Nitrophenol ^b	ND	2700	710	ug/kg	
87-86-5	Pentachlorophenol	ND	1100	250	ug/kg	
108-95-2	Phenol	ND	530	140	ug/kg	
58-90-2	2,3,4,6-Tetrachlorophenol	ND	1300	180	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	1300	200	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	1300	160	ug/kg	
83-32-9	Acenaphthene	55300 ^c	2700	920	ug/kg	
208-96-8	Acenaphthylene	2040	270	140	ug/kg	
98-86-2	Acetophenone	ND	1300	57	ug/kg	
120-12-7	Anthracene	30400 ^c	2700	1600	ug/kg	
1912-24-9	Atrazine	ND	530	110	ug/kg	
56-55-3	Benzo(a)anthracene	11200	270	76	ug/kg	
50-32-8	Benzo(a)pyrene	7070	270	120	ug/kg	
205-99-2	Benzo(b)fluoranthene	7330	270	120	ug/kg	
191-24-2	Benzo(g,h,i)perylene	3420	270	130	ug/kg	
207-08-9	Benzo(k)fluoranthene	2730	270	120	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	530	100	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	530	65	ug/kg	
92-52-4	1,1'-Biphenyl	1910	530	37	ug/kg	
100-52-7	Benzaldehyde	ND	1300	66	ug/kg	
91-58-7	2-Chloronaphthalene	ND	530	64	ug/kg	
106-47-8	4-Chloroaniline	ND	1300	96	ug/kg	
86-74-8	Carbazole	7790	530	39	ug/kg	

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:	S-122 (10-12)	Date Sampled:	04/09/19
Lab Sample ID:	JC86043-5	Date Received:	04/09/19
Matrix:	SO - Soil	Percent Solids:	58.5
Method:	SW846 8270D SW846 3546		
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	530	110	ug/kg	
218-01-9	Chrysene	12600	270	84	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	530	57	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	530	120	ug/kg	
108-60-1	2,2'-Oxybis(1-chloropropane)	ND	530	96	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	530	87	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	270	83	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	270	130	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	530	220	ug/kg	
123-91-1	1,4-Dioxane	ND	270	180	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	884	270	120	ug/kg	
132-64-9	Dibenzofuran	28000 ^c	5300	1100	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	530	44	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	530	67	ug/kg	
84-66-2	Diethyl phthalate	ND	530	57	ug/kg	
131-11-3	Dimethyl phthalate	ND	530	48	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	530	62	ug/kg	
206-44-0	Fluoranthene	42400 ^c	2700	1200	ug/kg	
86-73-7	Fluorene	43200 ^c	2700	1200	ug/kg	
118-74-1	Hexachlorobenzene	ND	530	68	ug/kg	
87-68-3	Hexachlorobutadiene	ND	270	110	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	2700	110	ug/kg	
67-72-1	Hexachloroethane	ND	1300	130	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	3260	270	130	ug/kg	
78-59-1	Isophorone	ND	530	57	ug/kg	
91-57-6	2-Methylnaphthalene	37600 ^c	2700	600	ug/kg	
88-74-4	2-Nitroaniline	ND	1300	63	ug/kg	
99-09-2	3-Nitroaniline	ND	1300	67	ug/kg	
100-01-6	4-Nitroaniline	ND	1300	69	ug/kg	
91-20-3	Naphthalene	26400	270	75	ug/kg	
98-95-3	Nitrobenzene	ND	530	100	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	530	77	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	1300	98	ug/kg	
85-01-8	Phenanthrene	129000 ^c	2700	900	ug/kg	
129-00-0	Pyrene	39300 ^c	2700	850	ug/kg	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	1300	68	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	62%	49%	23-115%

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: S-122 (10-12)	
Lab Sample ID: JC86043-5	Date Sampled: 04/09/19
Matrix: SO - Soil	Date Received: 04/09/19
Method: SW846 8270D SW846 3546	Percent Solids: 58.5
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	65%	49%	27-114%
118-79-6	2,4,6-Tribromophenol	74%	60%	19-152%
4165-60-0	Nitrobenzene-d5	82%	82%	26-134%
321-60-8	2-Fluorobiphenyl	81%	90%	39-124%
1718-51-0	Terphenyl-d14	91%	92%	36-134%

- (a) Dilution required due to viscosity of the extract matrix.
- (b) Associated CCV outside of control limits high, sample was ND.
- (c) Result is from Run# 2

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

Report of Analysis

Client Sample ID: S-122 (10-12)	Date Sampled: 04/09/19
Lab Sample ID: JC86043-5	Date Received: 04/09/19
Matrix: SO - Soil	Percent Solids: 58.5
Project: National Grid, Philly Coke, Philadelphia, PA	

Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	18200	85	14	mg/kg	1	04/11/19	04/12/19	ND	SW846 6010D ² SW846 3050B ⁴
Antimony	1.5 J	3.4	0.70	mg/kg	1	04/11/19	04/12/19	ND	SW846 6010D ² SW846 3050B ⁴
Arsenic	49.4	3.4	0.48	mg/kg	1	04/11/19	04/12/19	ND	SW846 6010D ² SW846 3050B ⁴
Barium	187	34	3.2	mg/kg	1	04/11/19	04/12/19	ND	SW846 6010D ² SW846 3050B ⁴
Beryllium	1.2	0.34	0.14	mg/kg	1	04/11/19	04/12/19	ND	SW846 6010D ² SW846 3050B ⁴
Cadmium	2.2	0.85	0.12	mg/kg	1	04/11/19	04/12/19	ND	SW846 6010D ² SW846 3050B ⁴
Calcium	4120	850	75	mg/kg	1	04/11/19	04/12/19	ND	SW846 6010D ² SW846 3050B ⁴
Chromium	200	1.7	0.63	mg/kg	1	04/11/19	04/12/19	ND	SW846 6010D ² SW846 3050B ⁴
Cobalt	17.5	8.5	0.48	mg/kg	1	04/11/19	04/12/19	ND	SW846 6010D ² SW846 3050B ⁴
Copper	127	4.3	1.4	mg/kg	1	04/11/19	04/12/19	ND	SW846 6010D ² SW846 3050B ⁴
Iron	31600	85	33	mg/kg	1	04/11/19	04/12/19	ND	SW846 6010D ² SW846 3050B ⁴
Lead	251	3.4	0.70	mg/kg	1	04/11/19	04/12/19	ND	SW846 6010D ² SW846 3050B ⁴
Magnesium	4630	850	23	mg/kg	1	04/11/19	04/12/19	ND	SW846 6010D ² SW846 3050B ⁴
Manganese	751	2.6	0.70	mg/kg	1	04/11/19	04/12/19	ND	SW846 6010D ² SW846 3050B ⁴
Mercury	1.1	0.047	0.021	mg/kg	1	04/11/19	04/11/19	EAL	SW846 7471B ¹ SW846 7471B ³
Nickel	31.2	6.8	0.60	mg/kg	1	04/11/19	04/12/19	ND	SW846 6010D ² SW846 3050B ⁴
Potassium	2130	1700	54	mg/kg	1	04/11/19	04/12/19	ND	SW846 6010D ² SW846 3050B ⁴
Selenium	1.5 J	3.4	1.1	mg/kg	1	04/11/19	04/12/19	ND	SW846 6010D ² SW846 3050B ⁴
Silver	1.1	0.85	0.29	mg/kg	1	04/11/19	04/12/19	ND	SW846 6010D ² SW846 3050B ⁴
Sodium	202 J	1700	130	mg/kg	1	04/11/19	04/12/19	ND	SW846 6010D ² SW846 3050B ⁴
Thallium	0.99 U	1.7	0.99	mg/kg	1	04/11/19	04/12/19	ND	SW846 6010D ² SW846 3050B ⁴
Vanadium	36.9	8.5	0.32	mg/kg	1	04/11/19	04/12/19	ND	SW846 6010D ² SW846 3050B ⁴
Zinc	684	8.5	3.9	mg/kg	1	04/11/19	04/12/19	ND	SW846 6010D ² SW846 3050B ⁴

(1) Instrument QC Batch: MA46477

(2) Instrument QC Batch: MA46484

(3) Prep QC Batch: MP14056

(4) Prep QC Batch: MP14093

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
J = Indicates a result > = MDL but < RL

4.5
4

Report of Analysis

Client Sample ID: S-122 (10-12)	Date Sampled: 04/09/19
Lab Sample ID: JC86043-5	Date Received: 04/09/19
Matrix: SO - Soil	Percent Solids: 58.5
Project: National Grid, Philly Coke, Philadelphia, PA	

General Chemistry

Analyte	Result	RL	MDL	Units	DF	Analyzed	By	Method
Cyanide	0.20 U	0.39	0.20	mg/kg	1	04/17/19 16:10 KI	SW846	9012B/LACHAT
Solids, Percent	58.5			%	1	04/10/19 16:05 BG	SM2540 G	18TH ED MOD

RL = Reporting Limit
 MDL = Method Detection Limit

U = Indicates a result < MDL
 J = Indicates a result > = MDL but < RL

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

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



SCC

CHAIN OF CUSTODY

SGS North America Inc. - Dayton
2235 Route 130, Dayton, NJ 08810
TEL: 732-329-0200 FAX: 732-329-3499/3480
www.sgs.com/ehsusa

FED-EX Tracking #
SGS Quote #
Bottle Order Control #
SGS Job #
AK-03M19-48
JC86043

Client / Reporting Information, Project Information, Requested Analysis, Matrix Codes, Turn Around Time, Deliverable, Comments / Special Instructions, Relinquished by, Received By, Date / Time, Custody Seal #

5.1
5

INITIAL ASSESSMENT JB
LABEL VERIFICATION

- Matrix Codes:
DW - Drinking Water
GW - Ground Water
WW - Water
SW - Surface Water
SQ - Soil
SL - Sludge
SED - Sediment
DI - Oil
LIQ - Other Liquid
AIR - Air
SOL - Other Solid
WP - Wipe
FB - Field Blank
EB - Equipment Blank
RB - Rinse Blank
TB - Trip Blank

LAB USE ONLY
D50
P14
1411
4063



SGS Sample Receipt Summary

Job Number: JC86043

Client: ARCADIS U.S.

Project: NATIONAL GRID, PHILLY COKE, PHILADELPHI

Date / Time Received: 4/9/2019 6:05:00 PM

Delivery Method:

Airbill #'s:

Cooler Temps (Raw Measured) °C: Cooler 1: (2.8);

Cooler Temps (Corrected) °C: Cooler 1: (1.8);

<u>Cooler Security</u>	<u>Y</u>	<u>or</u>	<u>N</u>		<u>Y</u>	<u>or</u>	<u>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</u>	<u>or</u>	<u>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:	1		

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

<u>Sample Integrity - Documentation</u>	<u>Y</u>	<u>or</u>	<u>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</u>	<u>or</u>	<u>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: 206717	pH 12+: 208717	Other: (Specify) _____
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Comments

SM089-03
Rev. Date 12/7/17

JC86043: Chain of Custody

Page 2 of 2

5.1
5

Internal Sample Tracking Chronicle

Arcadis

Job No: JC86043

National Grid, Philly Coke, Philadelphia, PA
 Project No: B0036790.0001

5.2
5

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
JC86043-1 Collected: 09-APR-19 08:20 By: EG Received: 09-APR-19 By: AS						
PCTP-08R (10-12)						
JC86043-1	SM2540 G 18TH ED M00	10-APR-19 16:05	BG			SOL104
JC86043-1	SW846 7471B	11-APR-19 12:29	EAL	11-APR-19	EAL	HG
JC86043-1	SW846 6010D	12-APR-19 03:30	ND	11-APR-19	TG	AG,AL,AS,BA,BE,CA,CD,CO,CR, CU,FE,K,MG,MN,NA,NI,PB,SB, SE,TL,V,ZN
JC86043-1	SW846 8260C	12-APR-19 16:04	PS			V8260TCL20
JC86043-1	SW846 8270D	12-APR-19 19:51	AR	10-APR-19	NT	AB8270TCL20
JC86043-1	SW846 9012B/LACHAT	17-APR-19 16:02	KI	17-APR-19	RC	CN
JC86043-2 Collected: 09-APR-19 09:10 By: EG Received: 09-APR-19 By: AS						
PCTP-10R (7-9)						
JC86043-2	SM2540 G 18TH ED M00	10-APR-19 16:05	BG			SOL104
JC86043-2	SW846 7471B	11-APR-19 12:35	EAL	11-APR-19	EAL	HG
JC86043-2	SW846 6010D	12-APR-19 03:35	ND	11-APR-19	TG	AG,AL,AS,BA,BE,CA,CD,CO,CR, CU,FE,K,MG,MN,NA,NI,SB,SE, TL,V,ZN
JC86043-2	SW846 6010D	12-APR-19 13:39	ND	11-APR-19	TG	PB
JC86043-2	SW846 8260C	12-APR-19 16:27	PS			V8260TCL20
JC86043-2	SW846 8270D	12-APR-19 20:13	AR	10-APR-19	NT	AB8270TCL20
JC86043-2	SW846 9012B/LACHAT	17-APR-19 16:03	KI	17-APR-19	RC	CN
JC86043-3 Collected: 09-APR-19 11:10 By: EG Received: 09-APR-19 By: AS						
PCTP-47R (5-7)						
JC86043-3	SM2540 G 18TH ED M00	10-APR-19 16:05	BG			SOL104
JC86043-3	SW846 7471B	11-APR-19 12:36	EAL	11-APR-19	EAL	HG
JC86043-3	SW846 6010D	12-APR-19 03:40	ND	11-APR-19	TG	AG,AL,AS,BA,BE,CD,CO,CR,CU, FE,K,MG,MN,NA,NI,PB,SB,SE, TL,V,ZN
JC86043-3	SW846 6010D	12-APR-19 13:57	ND	11-APR-19	TG	CA
JC86043-3	SW846 8260C	12-APR-19 17:13	PS			V8260TCL20
JC86043-3	SW846 8270D	15-APR-19 01:01	CB	10-APR-19	NT	AB8270TCL20
JC86043-3	SW846 9012B/LACHAT	17-APR-19 16:04	KI	17-APR-19	RC	CN

Internal Sample Tracking Chronicle

Arcadis

Job No: JC86043

National Grid, Philly Coke, Philadelphia, PA
 Project No: B0036790.0001

5.2
5

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
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JC86043-4 Collected: 09-APR-19 13:10 By: EG Received: 09-APR-19 By: AS
 PCTP-32R (6-8)

JC86043-4	SM2540 G 18TH ED M00	11-APR-19 16:05	BG			SOL104
JC86043-4	SW846 7471B	11-APR-19 12:38	EAL	11-APR-19	EAL	HG
JC86043-4	SW846 6010D	11-APR-19 15:52	ND	11-APR-19	TG	AG,AL,AS,BA,BE,CD,CO,CR,CU,FE,K,MG,MN,NA,NI,PB,SB,SE,TL,V,ZN
JC86043-4	SW846 6010D	12-APR-19 13:24	ND	11-APR-19	TG	CA
JC86043-4	SW846 8260C	12-APR-19 16:50	PS			V8260TCL20
JC86043-4	SW846 8270D	15-APR-19 21:19	YC	10-APR-19	NT	AB8270TCL20
JC86043-4	SW846 9012B/LACHAT	17-APR-19 16:06	KI	17-APR-19	RC	CN

JC86043-5 Collected: 09-APR-19 15:00 By: EG Received: 09-APR-19 By: AS
 S-122 (10-12)

JC86043-5	SM2540 G 18TH ED M00	11-APR-19 16:05	BG			SOL104
JC86043-5	SW846 8270D	11-APR-19 10:27	CS	10-APR-19	NT	AB8270TCL20
JC86043-5	SW846 7471B	11-APR-19 12:40	EAL	11-APR-19	EAL	HG
JC86043-5	SW846 8260C	11-APR-19 15:04	TDN			V8260TCL20
JC86043-5	SW846 8270D	11-APR-19 21:56	CC	10-APR-19	NT	AB8270TCL20
JC86043-5	SW846 6010D	12-APR-19 03:45	ND	11-APR-19	TG	AG,AL,AS,BA,BE,CA,CD,CO,CR,CU,FE,K,MG,MN,NA,NI,PB,SB,SE,TL,V,ZN
JC86043-5	SW846 9012B/LACHAT	17-APR-19 16:10	KI	17-APR-19	RC	CN

SGS Internal Chain of Custody

Job Number: JC86043
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA
 Received: 04/09/19

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC86043-1.1	Secured Storage	Todd Shoemaker	04/10/19 10:43	Retrieve from Storage
JC86043-1.1	Todd Shoemaker	Secured Staging Area	04/10/19 10:44	Return to Storage
JC86043-1.1	Secured Staging Area	Edouard Adrian Lee	04/10/19 10:50	Retrieve from Storage
JC86043-1.1	Secured Storage	Sahara Feliciano	04/10/19 16:19	Retrieve from Storage
Bottle was returned to secure storage, but inadvertently not scanned.				
JC86043-1.1	Sahara Feliciano	Secured Staging Area	04/10/19 16:19	Return to Storage
JC86043-1.1	Secured Staging Area	Sarah Halim	04/10/19 16:33	Retrieve from Storage
JC86043-1.1	Sarah Halim	Secured Storage	04/10/19 21:59	Return to Storage
JC86043-1.1	Secured Storage	Todd Shoemaker	04/11/19 08:01	Retrieve from Storage
JC86043-1.1	Todd Shoemaker	Secured Staging Area	04/11/19 08:01	Return to Storage
JC86043-1.1	Secured Staging Area	Colleen Hill	04/11/19 09:16	Retrieve from Storage
JC86043-1.1	Colleen Hill	Secured Storage	04/11/19 09:31	Return to Storage
JC86043-1.1	Secured Storage	Todd Shoemaker	04/17/19 08:54	Retrieve from Storage
JC86043-1.1	Todd Shoemaker	Secured Staging Area	04/17/19 08:55	Return to Storage
JC86043-1.1	Secured Staging Area	Ruchitaben Chauhan	04/17/19 09:25	Retrieve from Storage
JC86043-1.1	Ruchitaben Chauhan	Secured Storage	04/17/19 17:45	Return to Storage
JC86043-1.1	Dominic Guerriero		05/23/19 07:48	Disposed
JC86043-1.1.1	Sarah Halim	Organics Prep	04/10/19 16:38	Extract from JC86043-1.1
JC86043-1.1.1	Organics Prep	Naisha Torres	04/11/19 00:35	Extract from JC86043-1.1
JC86043-1.1.1	Naisha Torres	Extract Storage	04/11/19 00:35	Return to Storage
JC86043-1.1.1	Extract Storage	Christopher Sowa	04/11/19 05:30	Retrieve from Storage
JC86043-1.1.1	Christopher Sowa	GCMS2P	04/11/19 05:30	Load on Instrument
JC86043-1.1.1	GCMS2P	Angela Rastelli	04/12/19 11:40	Unload from Instrument
JC86043-1.1.1	Angela Rastelli	Extract Freezer	04/12/19 11:40	Return to Storage
JC86043-1.1.1	Extract Freezer	Angela Rastelli	04/12/19 13:28	Retrieve from Storage
JC86043-1.1.1	Angela Rastelli	GCMS2P	04/12/19 13:28	Load on Instrument
JC86043-1.1.1	GCMS2P	Yujia Cheng	04/15/19 13:44	Unload from Instrument
JC86043-1.1.1	Yujia Cheng	Extract Freezer	04/15/19 13:44	Return to Storage
JC86043-1.1.1	Extract Freezer		05/21/19 09:00	Disposed
JC86043-1.1.2	Colleen Hill	Metals Digestion	04/11/19 09:29	Digestate from JC86043-1.1
JC86043-1.1.2	Metals Digestion	Colleen Hill	04/11/19 09:35	Digestate from JC86043-1.1
JC86043-1.1.2	Colleen Hill	Metals Digestate Storage	04/11/19 09:35	Return to Storage
JC86043-1.1.2	Metals Digestate Storage		06/18/19 09:00	Disposed
JC86043-1.2	Secured Storage	Benjamin Gaines	04/10/19 11:06	Retrieve from Storage
JC86043-1.2	Benjamin Gaines	Secured Staging Area	04/10/19 11:06	Return to Storage
JC86043-1.2	Secured Staging Area	Benjamin Gaines	04/10/19 11:07	Retrieve from Storage
JC86043-1.2	Benjamin Gaines	Secured Storage	04/10/19 14:01	Return to Storage
JC86043-1.2	Dominic Guerriero		05/23/19 07:48	Disposed
JC86043-1.3	Andrew Siu	Secured Storage	04/09/19 19:54	Return to Storage
JC86043-1.3	Dominic Guerriero		05/23/19 07:48	Disposed

5.3
5

SGS Internal Chain of Custody

Job Number: JC86043
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA
 Received: 04/09/19

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC86043-1.4	Andrew Siu	Secured Storage	04/09/19 19:54	Return to Storage
JC86043-1.4	Secured Storage	Thien Nguyen	04/12/19 12:44	Retrieve from Storage
JC86043-1.4	Thien Nguyen	GCMS3C	04/12/19 12:44	Load on Instrument
JC86043-1.4	GCMS3C	Prashant Shukla	04/13/19 09:29	Unload from Instrument
JC86043-1.4	Prashant Shukla		04/13/19 09:29	Depleted
JC86043-1.5	Andrew Siu	Secured Storage	04/09/19 19:54	Return to Storage
JC86043-1.5	Dominic Guerriero		05/23/19 07:48	Disposed
JC86043-2.1	Secured Storage	Todd Shoemaker	04/10/19 10:43	Retrieve from Storage
JC86043-2.1	Todd Shoemaker	Secured Staging Area	04/10/19 10:44	Return to Storage
JC86043-2.1	Secured Staging Area	Edouard Adrian Lee	04/10/19 10:50	Retrieve from Storage
JC86043-2.1	Secured Storage	Sahara Feliciano	04/10/19 16:19	Retrieve from Storage
Bottle was returned to secure storage, but inadvertently not scanned.				
JC86043-2.1	Sahara Feliciano	Secured Staging Area	04/10/19 16:19	Return to Storage
JC86043-2.1	Secured Staging Area	Sarah Halim	04/10/19 16:33	Retrieve from Storage
JC86043-2.1	Sarah Halim	Secured Storage	04/10/19 21:59	Return to Storage
JC86043-2.1	Secured Storage	Todd Shoemaker	04/11/19 08:01	Retrieve from Storage
JC86043-2.1	Todd Shoemaker	Secured Staging Area	04/11/19 08:01	Return to Storage
JC86043-2.1	Secured Staging Area	Colleen Hill	04/11/19 09:16	Retrieve from Storage
JC86043-2.1	Colleen Hill	Secured Storage	04/11/19 09:31	Return to Storage
JC86043-2.1	Secured Storage	Todd Shoemaker	04/17/19 08:54	Retrieve from Storage
JC86043-2.1	Todd Shoemaker	Secured Staging Area	04/17/19 08:55	Return to Storage
JC86043-2.1	Secured Staging Area	Ruchitaben Chauhan	04/17/19 09:25	Retrieve from Storage
JC86043-2.1	Ruchitaben Chauhan	Secured Storage	04/17/19 17:45	Return to Storage
JC86043-2.1	Dominic Guerriero		05/23/19 07:48	Disposed
JC86043-2.1.1	Sarah Halim	Organics Prep	04/10/19 16:38	Extract from JC86043-2.1
JC86043-2.1.1	Organics Prep	Naisha Torres	04/11/19 00:35	Extract from JC86043-2.1
JC86043-2.1.1	Naisha Torres	Extract Storage	04/11/19 00:35	Return to Storage
JC86043-2.1.1	Extract Storage	Christopher Sowa	04/11/19 05:30	Retrieve from Storage
JC86043-2.1.1	Christopher Sowa	GCMS2P	04/11/19 05:30	Load on Instrument
JC86043-2.1.1	GCMS2P	Angela Rastelli	04/12/19 11:40	Unload from Instrument
JC86043-2.1.1	Angela Rastelli	Extract Freezer	04/12/19 11:40	Return to Storage
JC86043-2.1.1	Extract Freezer	Angela Rastelli	04/12/19 13:28	Retrieve from Storage
JC86043-2.1.1	Angela Rastelli	GCMS2P	04/12/19 13:28	Load on Instrument
JC86043-2.1.1	GCMS2P	Yujia Cheng	04/15/19 13:44	Unload from Instrument
JC86043-2.1.1	Yujia Cheng	Extract Freezer	04/15/19 13:44	Return to Storage
JC86043-2.1.1	Extract Freezer		05/21/19 09:00	Disposed
JC86043-2.1.2	Colleen Hill	Metals Digestion	04/11/19 09:29	Digestate from JC86043-2.1
JC86043-2.1.2	Metals Digestion	Colleen Hill	04/11/19 09:35	Digestate from JC86043-2.1
JC86043-2.1.2	Colleen Hill	Metals Digestate Storage	04/11/19 09:35	Return to Storage

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SGS Internal Chain of Custody

Job Number: JC86043
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA
 Received: 04/09/19

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC86043-2.1.2	Metals Digestate Storage		06/18/19 09:00	Disposed
JC86043-2.2	Secured Storage	Benjamin Gaines	04/10/19 11:06	Retrieve from Storage
JC86043-2.2	Benjamin Gaines	Secured Staging Area	04/10/19 11:06	Return to Storage
JC86043-2.2	Secured Staging Area	Benjamin Gaines	04/10/19 11:07	Retrieve from Storage
JC86043-2.2	Benjamin Gaines	Secured Storage	04/10/19 14:01	Return to Storage
JC86043-2.2	Dominic Guerriero		05/23/19 07:48	Disposed
JC86043-2.3	Andrew Siu	Secured Storage	04/09/19 19:54	Return to Storage
JC86043-2.3	Dominic Guerriero		05/23/19 07:48	Disposed
JC86043-2.4	Andrew Siu	Secured Storage	04/09/19 19:54	Return to Storage
JC86043-2.4	Secured Storage	Thien Nguyen	04/12/19 12:44	Retrieve from Storage
JC86043-2.4	Thien Nguyen	GCMS3C	04/12/19 12:44	Load on Instrument
JC86043-2.4	GCMS3C	Prashant Shukla	04/13/19 09:29	Unload from Instrument
JC86043-2.4	Prashant Shukla		04/13/19 09:29	Depleted
JC86043-2.5	Andrew Siu	Secured Storage	04/09/19 19:54	Return to Storage
JC86043-2.5	Dominic Guerriero		05/23/19 07:48	Disposed
JC86043-3.1	Secured Storage	Todd Shoemaker	04/10/19 10:43	Retrieve from Storage
JC86043-3.1	Todd Shoemaker	Secured Staging Area	04/10/19 10:44	Return to Storage
JC86043-3.1	Secured Staging Area	Edouard Adrian Lee	04/10/19 10:50	Retrieve from Storage
JC86043-3.1	Secured Storage	Sahara Feliciano	04/10/19 16:19	Retrieve from Storage
Bottle was returned to secure storage, but inadvertently not scanned.				
JC86043-3.1	Sahara Feliciano	Secured Staging Area	04/10/19 16:19	Return to Storage
JC86043-3.1	Secured Staging Area	Sarah Halim	04/10/19 16:33	Retrieve from Storage
JC86043-3.1	Sarah Halim	Secured Storage	04/10/19 21:59	Return to Storage
JC86043-3.1	Secured Storage	Todd Shoemaker	04/11/19 08:01	Retrieve from Storage
JC86043-3.1	Todd Shoemaker	Secured Staging Area	04/11/19 08:01	Return to Storage
JC86043-3.1	Secured Staging Area	Colleen Hill	04/11/19 09:16	Retrieve from Storage
JC86043-3.1	Colleen Hill	Secured Storage	04/11/19 09:31	Return to Storage
JC86043-3.1	Secured Storage	Todd Shoemaker	04/17/19 08:54	Retrieve from Storage
JC86043-3.1	Todd Shoemaker	Secured Staging Area	04/17/19 08:55	Return to Storage
JC86043-3.1	Secured Staging Area	Ruchitaben Chauhan	04/17/19 09:25	Retrieve from Storage
JC86043-3.1	Ruchitaben Chauhan	Secured Storage	04/17/19 17:45	Return to Storage
JC86043-3.1	Dominic Guerriero		05/23/19 07:48	Disposed
JC86043-3.1.1	Sarah Halim	Organics Prep	04/10/19 16:39	Extract from JC86043-3.1
JC86043-3.1.1	Organics Prep	Naisha Torres	04/11/19 00:36	Extract from JC86043-3.1
JC86043-3.1.1	Naisha Torres	Extract Storage	04/11/19 00:36	Return to Storage
JC86043-3.1.1	Extract Storage	Christopher Sowa	04/11/19 03:42	Retrieve from Storage
JC86043-3.1.1	Christopher Sowa	GCMS3C	04/11/19 03:42	Load on Instrument
JC86043-3.1.1	GCMS3C	Christine Change	04/11/19 13:21	Unload from Instrument

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SGS Internal Chain of Custody

Job Number: JC86043
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA
 Received: 04/09/19

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC86043-3.1.1	Christine Change	Extract Freezer	04/11/19 13:21	Return to Storage
JC86043-3.1.1	Extract Freezer	Yujia Chenge	04/12/19 14:28	Retrieve from Storage
JC86043-3.1.1	Yujia Chenge	GCMSP	04/12/19 14:28	Load on Instrument
JC86043-3.1.1	GCMSP	Yujia Chenge	04/15/19 10:06	Unload from Instrument
JC86043-3.1.1	Yujia Chenge	Extract Freezer	04/15/19 10:06	Return to Storage
JC86043-3.1.1	Extract Freezer		05/21/19 09:00	Disposed
JC86043-3.1.2	Colleen Hill	Metals Digestion	04/11/19 09:29	Digestate from JC86043-3.1
JC86043-3.1.2	Metals Digestion	Colleen Hill	04/11/19 09:35	Digestate from JC86043-3.1
JC86043-3.1.2	Colleen Hill	Metals Digestate Storage	04/11/19 09:35	Return to Storage
JC86043-3.1.2	Metals Digestate Storage		06/18/19 09:00	Disposed
JC86043-3.2	Secured Storage	Benjamin Gaines	04/10/19 11:06	Retrieve from Storage
JC86043-3.2	Benjamin Gaines	Secured Staging Area	04/10/19 11:06	Return to Storage
JC86043-3.2	Secured Staging Area	Benjamin Gaines	04/10/19 11:07	Retrieve from Storage
JC86043-3.2	Benjamin Gaines	Secured Storage	04/10/19 14:01	Return to Storage
JC86043-3.2	Dominic Guerriero		05/23/19 07:48	Disposed
JC86043-3.3	Andrew Siu	Secured Storage	04/09/19 19:54	Return to Storage
JC86043-3.3	Dominic Guerriero		05/23/19 07:48	Disposed
JC86043-3.4	Andrew Siu	Secured Storage	04/09/19 19:54	Return to Storage
JC86043-3.4	Secured Storage	Thien Nguyen	04/12/19 12:44	Retrieve from Storage
JC86043-3.4	Thien Nguyen	GCMS3C	04/12/19 12:44	Load on Instrument
JC86043-3.4	GCMS3C	Prashant Shukla	04/13/19 09:29	Unload from Instrument
JC86043-3.4	Prashant Shukla		04/13/19 09:29	Depleted
JC86043-3.5	Andrew Siu	Secured Storage	04/09/19 19:54	Return to Storage
JC86043-3.5	Dominic Guerriero		05/23/19 07:48	Disposed
JC86043-4.1	Secured Storage	Todd Shoemaker	04/10/19 10:43	Retrieve from Storage
JC86043-4.1	Todd Shoemaker	Secured Staging Area	04/10/19 10:44	Return to Storage
JC86043-4.1	Secured Staging Area	Edouard Adrian Lee	04/10/19 10:50	Retrieve from Storage
JC86043-4.1	Secured Storage	Sahara Feliciano	04/10/19 16:19	Retrieve from Storage
Bottle was returned to secure storage, but inadvertently not scanned.				
JC86043-4.1	Sahara Feliciano	Secured Staging Area	04/10/19 16:19	Return to Storage
JC86043-4.1	Secured Staging Area	Sarah Halim	04/10/19 16:33	Retrieve from Storage
JC86043-4.1	Sarah Halim	Secured Storage	04/10/19 21:59	Return to Storage
JC86043-4.1	Secured Storage	Todd Shoemaker	04/11/19 08:01	Retrieve from Storage
JC86043-4.1	Todd Shoemaker	Secured Staging Area	04/11/19 08:01	Return to Storage
JC86043-4.1	Secured Staging Area	Colleen Hill	04/11/19 09:16	Retrieve from Storage
JC86043-4.1	Colleen Hill	Secured Storage	04/11/19 09:31	Return to Storage
JC86043-4.1	Secured Storage	Todd Shoemaker	04/17/19 08:54	Retrieve from Storage
JC86043-4.1	Todd Shoemaker	Secured Staging Area	04/17/19 08:55	Return to Storage

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SGS Internal Chain of Custody

Job Number: JC86043
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA
 Received: 04/09/19

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC86043-4.1	Secured Staging Area	Ruchitaben Chauhan	04/17/19 09:25	Retrieve from Storage
JC86043-4.1	Ruchitaben Chauhan	Secured Storage	04/17/19 17:45	Return to Storage
JC86043-4.1	Dominic Guerriero		05/23/19 07:48	Disposed
JC86043-4.1.1	Sarah Halim	Organics Prep	04/10/19 16:39	Extract from JC86043-4.1
JC86043-4.1.1	Organics Prep	Naisha Torres	04/11/19 00:36	Extract from JC86043-4.1
JC86043-4.1.1	Naisha Torres	Extract Storage	04/11/19 00:36	Return to Storage
JC86043-4.1.1	Extract Storage	Christopher Sowa	04/11/19 03:42	Retrieve from Storage
JC86043-4.1.1	Christopher Sowa	GCMSP	04/11/19 03:42	Load on Instrument
JC86043-4.1.1	GCMSP	Christine Change	04/11/19 13:21	Unload from Instrument
JC86043-4.1.1	Christine Change	Extract Freezer	04/11/19 13:21	Return to Storage
JC86043-4.1.1	Extract Freezer	Yujia Cheng	04/12/19 14:28	Retrieve from Storage
JC86043-4.1.1	Yujia Cheng	GCMSP	04/12/19 14:28	Load on Instrument
JC86043-4.1.1	GCMSP	Yujia Cheng	04/15/19 11:30	Unload from Instrument
JC86043-4.1.1	Yujia Cheng	Extract Freezer	04/15/19 11:30	Return to Storage
JC86043-4.1.1	Extract Freezer		05/21/19 09:00	Disposed
JC86043-4.1.2	Colleen Hill	Metals Digestion	04/11/19 09:29	Digestate from JC86043-4.1
JC86043-4.1.2	Metals Digestion	Colleen Hill	04/11/19 09:35	Digestate from JC86043-4.1
JC86043-4.1.2	Colleen Hill	Metals Digestate Storage	04/11/19 09:35	Return to Storage
JC86043-4.1.2	Metals Digestate Storage		06/18/19 09:00	Disposed
JC86043-4.2	Secured Storage	Benjamin Gaines	04/10/19 11:06	Retrieve from Storage
JC86043-4.2	Benjamin Gaines	Secured Staging Area	04/10/19 11:06	Return to Storage
JC86043-4.2	Secured Staging Area	Benjamin Gaines	04/10/19 11:07	Retrieve from Storage
JC86043-4.2	Benjamin Gaines	Secured Storage	04/10/19 14:01	Return to Storage
JC86043-4.2	Dominic Guerriero		05/23/19 07:48	Disposed
JC86043-4.3	Andrew Siu	Secured Storage	04/09/19 19:54	Return to Storage
JC86043-4.3	Dominic Guerriero		05/23/19 07:48	Disposed
JC86043-4.4	Andrew Siu	Secured Storage	04/09/19 19:54	Return to Storage
JC86043-4.4	Secured Storage	Thien Nguyen	04/12/19 12:44	Retrieve from Storage
JC86043-4.4	Thien Nguyen	GCMS3C	04/12/19 12:44	Load on Instrument
JC86043-4.4	GCMS3C	Prashant Shukla	04/13/19 09:29	Unload from Instrument
JC86043-4.4	Prashant Shukla		04/13/19 09:29	Depleted
JC86043-4.5	Andrew Siu	Secured Storage	04/09/19 19:54	Return to Storage
JC86043-4.5	Dominic Guerriero		05/23/19 07:48	Disposed
JC86043-5.1	Secured Storage	Todd Shoemaker	04/10/19 10:43	Retrieve from Storage
JC86043-5.1	Todd Shoemaker	Secured Staging Area	04/10/19 10:44	Return to Storage
JC86043-5.1	Secured Staging Area	Edouard Adrian Lee	04/10/19 10:50	Retrieve from Storage
JC86043-5.1	Secured Storage	Sahara Feliciano	04/10/19 16:19	Retrieve from Storage

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SGS Internal Chain of Custody

Job Number: JC86043
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA
 Received: 04/09/19

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
Bottle was returned to secure storage, but inadvertently not scanned.				
JC86043-5.1	Sahara Feliciano	Secured Staging Area	04/10/19 16:19	Return to Storage
JC86043-5.1	Secured Staging Area	Sarah Halim	04/10/19 16:33	Retrieve from Storage
JC86043-5.1	Sarah Halim	Secured Storage	04/10/19 21:59	Return to Storage
JC86043-5.1	Secured Storage	Todd Shoemaker	04/11/19 08:01	Retrieve from Storage
JC86043-5.1	Todd Shoemaker	Secured Staging Area	04/11/19 08:01	Return to Storage
JC86043-5.1	Secured Staging Area	Colleen Hill	04/11/19 09:16	Retrieve from Storage
JC86043-5.1	Colleen Hill	Secured Storage	04/11/19 09:31	Return to Storage
JC86043-5.1	Secured Storage	Todd Shoemaker	04/17/19 08:54	Retrieve from Storage
JC86043-5.1	Todd Shoemaker	Secured Staging Area	04/17/19 08:55	Return to Storage
JC86043-5.1	Secured Staging Area	Ruchitaben Chauhan	04/17/19 09:25	Retrieve from Storage
JC86043-5.1	Ruchitaben Chauhan	Secured Storage	04/17/19 17:45	Return to Storage
JC86043-5.1	Dominic Guerriero		05/23/19 07:48	Disposed
JC86043-5.1.1	Sarah Halim	Organics Prep	04/10/19 16:39	Extract from JC86043-5.1
JC86043-5.1.1	Organics Prep	Naisha Torres	04/11/19 00:36	Extract from JC86043-5.1
JC86043-5.1.1	Naisha Torres	Extract Storage	04/11/19 00:36	Return to Storage
JC86043-5.1.1	Extract Storage	Christopher Sowa	04/11/19 03:42	Retrieve from Storage
JC86043-5.1.1	Christopher Sowa	GCMSP	04/11/19 03:42	Load on Instrument
JC86043-5.1.1	GCMSP	Christine Change	04/12/19 13:28	Unload from Instrument
JC86043-5.1.1	Christine Change	Extract Freezer	04/12/19 13:28	Return to Storage
JC86043-5.1.1	Extract Freezer		05/21/19 09:00	Disposed
JC86043-5.1.2	Colleen Hill	Metals Digestion	04/11/19 09:29	Digestate from JC86043-5.1
JC86043-5.1.2	Metals Digestion	Colleen Hill	04/11/19 09:35	Digestate from JC86043-5.1
JC86043-5.1.2	Colleen Hill	Metals Digestate Storage	04/11/19 09:35	Return to Storage
JC86043-5.1.2	Metals Digestate Storage		06/18/19 09:00	Disposed
JC86043-5.2	Secured Storage	Benjamin Gaines	04/10/19 11:06	Retrieve from Storage
JC86043-5.2	Benjamin Gaines	Secured Staging Area	04/10/19 11:06	Return to Storage
JC86043-5.2	Secured Staging Area	Benjamin Gaines	04/10/19 11:07	Retrieve from Storage
JC86043-5.2	Benjamin Gaines	Secured Storage	04/10/19 14:01	Return to Storage
JC86043-5.2	Dominic Guerriero		05/23/19 07:48	Disposed
JC86043-5.3	Andrew Siu	Secured Storage	04/09/19 19:54	Return to Storage
JC86043-5.3	Secured Storage	Thien Nguyen	04/11/19 08:05	Retrieve from Storage
JC86043-5.3	Thien Nguyen	Secured Storage	04/11/19 08:05	Return to Storage
JC86043-5.3	Dominic Guerriero		05/23/19 07:48	Disposed
JC86043-5.4	Andrew Siu	Secured Storage	04/09/19 19:54	Return to Storage
JC86043-5.4	Dominic Guerriero		05/23/19 07:48	Disposed
JC86043-5.5	Andrew Siu	Secured Storage	04/09/19 19:54	Return to Storage
JC86043-5.5	Dominic Guerriero		05/23/19 07:48	Disposed

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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

Method Blank Summary

Job Number: JC86043
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VI9080-MB	I225312.D	1	04/11/19	TDN	n/a	n/a	VI9080

The QC reported here applies to the following samples:

Method: SW846 8260C

JC86043-5

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	500	250	ug/kg	
71-43-2	Benzene	ND	25	19	ug/kg	
74-97-5	Bromochloromethane	ND	250	22	ug/kg	
75-27-4	Bromodichloromethane	ND	100	22	ug/kg	
75-25-2	Bromoform	ND	250	20	ug/kg	
74-83-9	Bromomethane	ND	250	50	ug/kg	
78-93-3	2-Butanone (MEK)	ND	500	190	ug/kg	
75-15-0	Carbon disulfide	ND	100	46	ug/kg	
56-23-5	Carbon tetrachloride	ND	100	28	ug/kg	
108-90-7	Chlorobenzene	ND	100	18	ug/kg	
75-00-3	Chloroethane	ND	250	34	ug/kg	
67-66-3	Chloroform	ND	100	19	ug/kg	
74-87-3	Chloromethane	ND	250	98	ug/kg	
110-82-7	Cyclohexane	ND	100	20	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	100	42	ug/kg	
124-48-1	Dibromochloromethane	ND	100	17	ug/kg	
106-93-4	1,2-Dibromoethane	ND	50	16	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	50	15	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	50	18	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	50	17	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	250	32	ug/kg	
75-34-3	1,1-Dichloroethane	ND	50	19	ug/kg	
107-06-2	1,2-Dichloroethane	ND	50	24	ug/kg	
75-35-4	1,1-Dichloroethene	ND	50	33	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	50	48	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	50	33	ug/kg	
78-87-5	1,2-Dichloropropane	ND	100	20	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	100	18	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	100	16	ug/kg	
100-41-4	Ethylbenzene	ND	50	28	ug/kg	
76-13-1	Freon 113	ND	250	38	ug/kg	
591-78-6	2-Hexanone	ND	250	64	ug/kg	
98-82-8	Isopropylbenzene	ND	100	35	ug/kg	
79-20-9	Methyl Acetate	ND	250	70	ug/kg	
108-87-2	Methylcyclohexane	ND	100	35	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	50	18	ug/kg	

Method Blank Summary

Job Number: JC86043
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VI9080-MB	I225312.D	1	04/11/19	TDN	n/a	n/a	VI9080

The QC reported here applies to the following samples:

Method: SW846 8260C

JC86043-5

CAS No.	Compound	Result	RL	MDL	Units	Q
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	250	78	ug/kg	
75-09-2	Methylene chloride	ND	250	130	ug/kg	
100-42-5	Styrene	ND	100	29	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	100	20	ug/kg	
127-18-4	Tetrachloroethene	ND	100	23	ug/kg	
108-88-3	Toluene	ND	50	19	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	250	50	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	250	50	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	100	21	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	100	17	ug/kg	
79-01-6	Trichloroethene	ND	50	38	ug/kg	
75-69-4	Trichlorofluoromethane	ND	250	34	ug/kg	
75-01-4	Vinyl chloride	ND	100	23	ug/kg	
	m,p-Xylene	ND	50	37	ug/kg	
95-47-6	o-Xylene	ND	50	29	ug/kg	
1330-20-7	Xylene (total)	ND	50	29	ug/kg	

CAS No.	Surrogate Recoveries	Limits
1868-53-7	Dibromofluoromethane	107% 75-127%
17060-07-0	1,2-Dichloroethane-D4	113% 75-130%
2037-26-5	Toluene-D8	99% 80-120%
460-00-4	4-Bromofluorobenzene	107% 79-127%

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

Method Blank Summary

Job Number: JC86043
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V3C6794-MB	3C151004.D	1	04/12/19	PS	n/a	n/a	V3C6794

The QC reported here applies to the following samples:

Method: SW846 8260C

JC86043-1, JC86043-2, JC86043-3, JC86043-4

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	5.0	ug/kg	
71-43-2	Benzene	ND	0.50	0.38	ug/kg	
74-97-5	Bromochloromethane	ND	5.0	0.43	ug/kg	
75-27-4	Bromodichloromethane	ND	2.0	0.44	ug/kg	
75-25-2	Bromoform	ND	5.0	0.40	ug/kg	
74-83-9	Bromomethane	ND	5.0	1.0	ug/kg	
78-93-3	2-Butanone (MEK)	ND	10	3.7	ug/kg	
75-15-0	Carbon disulfide	ND	2.0	0.93	ug/kg	
56-23-5	Carbon tetrachloride	ND	2.0	0.55	ug/kg	
108-90-7	Chlorobenzene	ND	2.0	0.35	ug/kg	
75-00-3	Chloroethane	ND	5.0	0.69	ug/kg	
67-66-3	Chloroform	ND	2.0	0.37	ug/kg	
74-87-3	Chloromethane	ND	5.0	2.0	ug/kg	
110-82-7	Cyclohexane	ND	2.0	0.41	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.84	ug/kg	
124-48-1	Dibromochloromethane	ND	2.0	0.34	ug/kg	
106-93-4	1,2-Dibromoethane	ND	1.0	0.33	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.31	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.36	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.34	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	5.0	0.64	ug/kg	
75-34-3	1,1-Dichloroethane	ND	1.0	0.39	ug/kg	
107-06-2	1,2-Dichloroethane	ND	1.0	0.47	ug/kg	
75-35-4	1,1-Dichloroethene	ND	1.0	0.66	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.96	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.67	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.0	0.41	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.0	0.35	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.0	0.33	ug/kg	
100-41-4	Ethylbenzene	ND	1.0	0.55	ug/kg	
76-13-1	Freon 113	ND	5.0	0.76	ug/kg	
591-78-6	2-Hexanone	ND	5.0	1.3	ug/kg	
98-82-8	Isopropylbenzene	ND	2.0	0.70	ug/kg	
79-20-9	Methyl Acetate	ND	5.0	1.4	ug/kg	
108-87-2	Methylcyclohexane	ND	2.0	0.71	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.35	ug/kg	

Method Blank Summary

Job Number: JC86043
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V3C6794-MB	3C151004.D	1	04/12/19	PS	n/a	n/a	V3C6794

The QC reported here applies to the following samples:

Method: SW846 8260C

JC86043-1, JC86043-2, JC86043-3, JC86043-4

CAS No.	Compound	Result	RL	MDL	Units	Q
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.6	ug/kg	
75-09-2	Methylene chloride	ND	5.0	2.5	ug/kg	
100-42-5	Styrene	ND	2.0	0.58	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.0	0.39	ug/kg	
127-18-4	Tetrachloroethene	ND	2.0	0.46	ug/kg	
108-88-3	Toluene	ND	1.0	0.38	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	1.0	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	1.0	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	2.0	0.43	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	2.0	0.34	ug/kg	
79-01-6	Trichloroethene	ND	1.0	0.76	ug/kg	
75-69-4	Trichlorofluoromethane	ND	5.0	0.68	ug/kg	
75-01-4	Vinyl chloride	ND	2.0	0.47	ug/kg	
	m,p-Xylene	ND	1.0	0.75	ug/kg	
95-47-6	o-Xylene	ND	1.0	0.58	ug/kg	
1330-20-7	Xylene (total)	ND	1.0	0.58	ug/kg	

CAS No.	Surrogate Recoveries	Limits
1868-53-7	Dibromofluoromethane	100% 75-127%
17060-07-0	1,2-Dichloroethane-D4	99% 75-130%
2037-26-5	Toluene-D8	101% 80-120%
460-00-4	4-Bromofluorobenzene	98% 79-127%

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

Blank Spike Summary

Job Number: JC86043
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V3C6794-BS	3C151002.D	1	04/12/19	PS	n/a	n/a	V3C6794

The QC reported here applies to the following samples:

Method: SW846 8260C

JC86043-1, JC86043-2, JC86043-3, JC86043-4

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
67-64-1	Acetone	200	227	114	48-149
71-43-2	Benzene	50	50.0	100	74-117
74-97-5	Bromochloromethane	50	52.1	104	82-121
75-27-4	Bromodichloromethane	50	53.5	107	78-119
75-25-2	Bromoform	50	54.5	109	76-130
74-83-9	Bromomethane	50	42.5	85	58-137
78-93-3	2-Butanone (MEK)	200	238	119	65-143
75-15-0	Carbon disulfide	50	49.4	99	66-140
56-23-5	Carbon tetrachloride	50	50.7	101	69-136
108-90-7	Chlorobenzene	50	48.2	96	79-117
75-00-3	Chloroethane	50	51.5	103	62-139
67-66-3	Chloroform	50	47.3	95	76-119
74-87-3	Chloromethane	50	52.5	105	52-144
110-82-7	Cyclohexane	50	46.9	94	64-136
96-12-8	1,2-Dibromo-3-chloropropane	50	58.0	116	72-124
124-48-1	Dibromochloromethane	50	59.9	120	78-122
106-93-4	1,2-Dibromoethane	50	56.1	112	80-116
95-50-1	1,2-Dichlorobenzene	50	48.1	96	77-117
541-73-1	1,3-Dichlorobenzene	50	48.0	96	75-117
106-46-7	1,4-Dichlorobenzene	50	46.9	94	76-115
75-71-8	Dichlorodifluoromethane	50	47.5	95	43-156
75-34-3	1,1-Dichloroethane	50	50.8	102	75-124
107-06-2	1,2-Dichloroethane	50	46.3	93	74-124
75-35-4	1,1-Dichloroethene	50	51.3	103	64-129
156-59-2	cis-1,2-Dichloroethene	50	51.1	102	74-118
156-60-5	trans-1,2-Dichloroethene	50	50.7	101	71-125
78-87-5	1,2-Dichloropropane	50	50.5	101	80-119
10061-01-5	cis-1,3-Dichloropropene	50	53.7	107	80-119
10061-02-6	trans-1,3-Dichloropropene	50	54.7	109	78-119
100-41-4	Ethylbenzene	50	46.9	94	75-118
76-13-1	Freon 113	50	50.3	101	60-181
591-78-6	2-Hexanone	200	228	114	63-138
98-82-8	Isopropylbenzene	50	47.2	94	74-122
79-20-9	Methyl Acetate	50	54.4	109	61-140
108-87-2	Methylcyclohexane	50	46.1	92	67-136
1634-04-4	Methyl Tert Butyl Ether	50	51.7	103	75-123

* = Outside of Control Limits.

Blank Spike Summary

Job Number: JC86043
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V3C6794-BS	3C151002.D	1	04/12/19	PS	n/a	n/a	V3C6794

The QC reported here applies to the following samples:

Method: SW846 8260C

JC86043-1, JC86043-2, JC86043-3, JC86043-4

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
108-10-1	4-Methyl-2-pentanone(MIBK)	200	236	118	73-136
75-09-2	Methylene chloride	50	49.1	98	73-120
100-42-5	Styrene	50	48.7	97	78-120
79-34-5	1,1,2,2-Tetrachloroethane	50	53.5	107	72-120
127-18-4	Tetrachloroethene	50	50.9	102	69-128
108-88-3	Toluene	50	48.0	96	74-117
87-61-6	1,2,3-Trichlorobenzene	50	52.1	104	72-133
120-82-1	1,2,4-Trichlorobenzene	50	51.8	104	73-132
71-55-6	1,1,1-Trichloroethane	50	47.4	95	73-131
79-00-5	1,1,2-Trichloroethane	50	50.6	101	79-117
79-01-6	Trichloroethene	50	49.3	99	80-120
75-69-4	Trichlorofluoromethane	50	45.4	91	63-141
75-01-4	Vinyl chloride	50	50.7	101	55-145
	m,p-Xylene	100	95.3	95	75-120
95-47-6	o-Xylene	50	47.4	95	75-119
1330-20-7	Xylene (total)	150	143	95	76-119

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	102%	75-127%
17060-07-0	1,2-Dichloroethane-D4	101%	75-130%
2037-26-5	Toluene-D8	100%	80-120%
460-00-4	4-Bromofluorobenzene	101%	79-127%

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: JC86043
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VI9080-BS	I225309.D	1	04/11/19	TDN	n/a	n/a	VI9080
VI9080-BSD	I225310.D	1	04/11/19	TDN	n/a	n/a	VI9080

The QC reported here applies to the following samples:

Method: SW846 8260C

JC86043-5

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	BSD ug/kg	BSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	10000	11000	110	11900	119	8	48-149/30
71-43-2	Benzene	2500	2440	98	2550	102	4	74-117/20
74-97-5	Bromochloromethane	2500	2580	103	2660	106	3	82-121/20
75-27-4	Bromodichloromethane	2500	2460	98	2580	103	5	78-119/20
75-25-2	Bromoform	2500	2460	98	2570	103	4	76-130/20
74-83-9	Bromomethane	2500	2720	109	2880	115	6	58-137/20
78-93-3	2-Butanone (MEK)	10000	11000	110	11800	118	7	65-143/20
75-15-0	Carbon disulfide	2500	2300	92	2440	98	6	66-140/21
56-23-5	Carbon tetrachloride	2500	2690	108	2800	112	4	69-136/20
108-90-7	Chlorobenzene	2500	2510	100	2620	105	4	79-117/20
75-00-3	Chloroethane	2500	2890	116	3060	122	6	62-139/20
67-66-3	Chloroform	2500	2590	104	2730	109	5	76-119/20
74-87-3	Chloromethane	2500	2950	118	3120	125	6	52-144/22
110-82-7	Cyclohexane	2500	2460	98	2650	106	7	64-136/20
96-12-8	1,2-Dibromo-3-chloropropane	2500	2450	98	2600	104	6	72-124/20
124-48-1	Dibromochloromethane	2500	2460	98	2600	104	6	78-122/20
106-93-4	1,2-Dibromoethane	2500	2910	116	3060	122* a	5	80-116/20
95-50-1	1,2-Dichlorobenzene	2500	2530	101	2660	106	5	77-117/20
541-73-1	1,3-Dichlorobenzene	2500	2550	102	2690	108	5	75-117/20
106-46-7	1,4-Dichlorobenzene	2500	2510	100	2660	106	6	76-115/20
75-71-8	Dichlorodifluoromethane	2500	3290	132	3520	141	7	43-156/22
75-34-3	1,1-Dichloroethane	2500	2540	102	2670	107	5	75-124/20
107-06-2	1,2-Dichloroethane	2500	2600	104	2660	106	2	74-124/20
75-35-4	1,1-Dichloroethene	2500	2600	104	2760	110	6	64-129/25
156-59-2	cis-1,2-Dichloroethene	2500	2480	99	2590	104	4	74-118/20
156-60-5	trans-1,2-Dichloroethene	2500	2600	104	2740	110	5	71-125/20
78-87-5	1,2-Dichloropropane	2500	2270	91	2380	95	5	80-119/20
10061-01-5	cis-1,3-Dichloropropene	2500	2480	99	2600	104	5	80-119/20
10061-02-6	trans-1,3-Dichloropropene	2500	2640	106	2790	112	6	78-119/20
100-41-4	Ethylbenzene	2500	2470	99	2630	105	6	75-118/20
76-13-1	Freon 113	2500	2500	100	2730	109	9	60-181/23
591-78-6	2-Hexanone	10000	9920	99	10600	106	7	63-138/20
98-82-8	Isopropylbenzene	2500	2490	100	2630	105	5	74-122/20
79-20-9	Methyl Acetate	2500	2270	91	2300	92	1	61-140/23
108-87-2	Methylcyclohexane	2500	2260	90	2410	96	6	67-136/20
1634-04-4	Methyl Tert Butyl Ether	2500	2670	107	2830	113	6	75-123/21

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: JC86043
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VI9080-BS	I225309.D	1	04/11/19	TDN	n/a	n/a	VI9080
VI9080-BSD	I225310.D	1	04/11/19	TDN	n/a	n/a	VI9080

The QC reported here applies to the following samples:

Method: SW846 8260C

JC86043-5

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	BSD ug/kg	BSD %	RPD	Limits Rec/RPD
108-10-1	4-Methyl-2-pentanone(MIBK)	10000	10100	101	10500	105	4	73-136/20
75-09-2	Methylene chloride	2500	2370	95	2510	100	6	73-120/20
100-42-5	Styrene	2500	2440	98	2560	102	5	78-120/20
79-34-5	1,1,2,2-Tetrachloroethane	2500	2490	100	2660	106	7	72-120/20
127-18-4	Tetrachloroethene	2500	2420	97	2570	103	6	69-128/20
108-88-3	Toluene	2500	2530	101	2640	106	4	74-117/20
87-61-6	1,2,3-Trichlorobenzene	2500	2410	96	2530	101	5	72-133/20
120-82-1	1,2,4-Trichlorobenzene	2500	2540	102	2690	108	6	73-132/20
71-55-6	1,1,1-Trichloroethane	2500	2730	109	2870	115	5	73-131/18
79-00-5	1,1,2-Trichloroethane	2500	2390	96	2560	102	7	79-117/20
79-01-6	Trichloroethene	2500	2430	97	2520	101	4	80-120/20
75-69-4	Trichlorofluoromethane	2500	2800	112	3000	120	7	63-141/20
75-01-4	Vinyl chloride	2500	3110	124	3270	131	5	55-145/23
	m,p-Xylene	5000	4930	99	5150	103	4	75-120/20
95-47-6	o-Xylene	2500	2340	94	2510	100	7	75-119/20
1330-20-7	Xylene (total)	7500	7270	97	7660	102	5	76-119/20

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
1868-53-7	Dibromofluoromethane	105%	106%	75-127%
17060-07-0	1,2-Dichloroethane-D4	108%	107%	75-130%
2037-26-5	Toluene-D8	101%	102%	80-120%
460-00-4	4-Bromofluorobenzene	102%	106%	79-127%

(a) High percent recoveries and no associated positive reported in the QC batch.

* = Outside of Control Limits.

Matrix Spike Summary

Job Number: JC86043
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JC86104-1MS	3C151008.D	1	04/12/19	PS	n/a	n/a	V3C6794
JC86104-1	3C151005.D	1	04/12/19	PS	n/a	n/a	V3C6794

The QC reported here applies to the following samples:

Method: SW846 8260C

JC86043-1, JC86043-2, JC86043-3, JC86043-4

CAS No.	Compound	JC86104-1 ug/kg	Spike Q	ug/kg	MS ug/kg	MS %	Limits
67-64-1	Acetone	116	257	549	168* a	10-157	
71-43-2	Benzene	ND	64.3	64.8	101	58-125	
74-97-5	Bromochloromethane	ND	64.3	64.6	101	60-127	
75-27-4	Bromodichloromethane	ND	64.3	66.1	103	57-128	
75-25-2	Bromoform	ND	64.3	58.5	91	48-133	
74-83-9	Bromomethane	ND	64.3	57.9	90	31-141	
78-93-3	2-Butanone (MEK)	ND	257	227	88	29-146	
75-15-0	Carbon disulfide	ND	64.3	65.3	102	47-145	
56-23-5	Carbon tetrachloride	ND	64.3	66.8	104	51-143	
108-90-7	Chlorobenzene	ND	64.3	59.4	92	54-130	
75-00-3	Chloroethane	ND	64.3	68.3	106	22-153	
67-66-3	Chloroform	ND	64.3	61.8	96	61-125	
74-87-3	Chloromethane	ND	64.3	69.4	108	43-142	
110-82-7	Cyclohexane	ND	64.3	61.2	95	37-148	
96-12-8	1,2-Dibromo-3-chloropropane	ND	64.3	56.3	88	41-127	
124-48-1	Dibromochloromethane	ND	64.3	69.0	107	56-127	
106-93-4	1,2-Dibromoethane	ND	64.3	62.2	97	54-121	
95-50-1	1,2-Dichlorobenzene	ND	64.3	54.2	84	41-134	
541-73-1	1,3-Dichlorobenzene	ND	64.3	55.5	86	41-135	
106-46-7	1,4-Dichlorobenzene	ND	64.3	54.4	85	41-133	
75-71-8	Dichlorodifluoromethane	ND	64.3	66.2	103	30-153	
75-34-3	1,1-Dichloroethane	ND	64.3	66.5	103	61-131	
107-06-2	1,2-Dichloroethane	ND	64.3	56.8	88	56-126	
75-35-4	1,1-Dichloroethene	ND	64.3	68.9	107	53-132	
156-59-2	cis-1,2-Dichloroethene	ND	64.3	66.0	103	57-125	
156-60-5	trans-1,2-Dichloroethene	ND	64.3	66.1	103	56-130	
78-87-5	1,2-Dichloropropane	ND	64.3	63.7	99	63-126	
10061-01-5	cis-1,3-Dichloropropene	ND	64.3	64.8	101	55-126	
10061-02-6	trans-1,3-Dichloropropene	ND	64.3	63.2	98	51-126	
100-41-4	Ethylbenzene	ND	64.3	59.2	92	49-132	
76-13-1	Freon 113	ND	64.3	68.3	106	42-179	
591-78-6	2-Hexanone	ND	257	250	97	25-150	
98-82-8	Isopropylbenzene	ND	64.3	59.0	92	43-141	
79-20-9	Methyl Acetate	ND	64.3	78.3	122	32-158	
108-87-2	Methylcyclohexane	ND	64.3	58.4	91	22-158	
1634-04-4	Methyl Tert Butyl Ether	ND	64.3	60.2	94	58-123	

* = Outside of Control Limits.

Matrix Spike Summary

Job Number: JC86043
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JC86104-1MS	3C151008.D	1	04/12/19	PS	n/a	n/a	V3C6794
JC86104-1	3C151005.D	1	04/12/19	PS	n/a	n/a	V3C6794

The QC reported here applies to the following samples:

Method: SW846 8260C

JC86043-1, JC86043-2, JC86043-3, JC86043-4

CAS No.	Compound	JC86104-1 ug/kg	Spike Q	MS ug/kg	MS %	Limits
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	257	246	96	40-140
75-09-2	Methylene chloride	ND	64.3	63.0	98	57-123
100-42-5	Styrene	ND	64.3	58.1	90	46-139
79-34-5	1,1,2,2-Tetrachloroethane	ND	64.3	58.9	92	44-127
127-18-4	Tetrachloroethene	ND	64.3	65.1	101	39-154
108-88-3	Toluene	ND	64.3	61.5	96	54-127
87-61-6	1,2,3-Trichlorobenzene	ND	64.3	46.4	72	17-151
120-82-1	1,2,4-Trichlorobenzene	ND	64.3	49.7	77	19-153
71-55-6	1,1,1-Trichloroethane	ND	64.3	63.1	98	57-138
79-00-5	1,1,2-Trichloroethane	ND	64.3	59.4	92	53-127
79-01-6	Trichloroethene	ND	64.3	63.9	99	52-140
75-69-4	Trichlorofluoromethane	ND	64.3	62.1	97	46-142
75-01-4	Vinyl chloride	ND	64.3	68.4	106	43-146
	m,p-Xylene	ND	129	118	92	45-137
95-47-6	o-Xylene	ND	64.3	58.5	91	48-135
1330-20-7	Xylene (total)	ND	193	177	92	46-137

CAS No.	Surrogate Recoveries	MS	JC86104-1	Limits
1868-53-7	Dibromofluoromethane	103%	103%	75-127%
17060-07-0	1,2-Dichloroethane-D4	98%	98%	75-130%
2037-26-5	Toluene-D8	102%	101%	80-120%
460-00-4	4-Bromofluorobenzene	102%	105%	79-127%

(a) Outside control limits due to matrix interference.

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JC86043
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JC85995-1MS	I225326.D	1	04/11/19	TDN	n/a	n/a	VI9080
JC85995-1MSD	I225327.D	1	04/11/19	TDN	n/a	n/a	VI9080
JC85995-1 ^a	I225317.D	1	04/11/19	TDN	n/a	n/a	VI9080
JC85995-1 ^b	I225329.D	1	04/11/19	TDN	n/a	n/a	VI9080

The QC reported here applies to the following samples:

Method: SW846 8260C

JC86043-5

CAS No.	Compound	JC85995-1 ug/kg	Spike Q ug/kg	MS ug/kg	MS %	Spike ug/kg	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	ND	19400	30300	157	19400	27400	142	10	10-157/31
71-43-2	Benzene	ND	4840	4970	103	4840	4540	94	9	58-125/22
74-97-5	Bromochloromethane	ND	4840	5230	108	4840	4780	99	9	60-127/22
75-27-4	Bromodichloromethane	ND	4840	5390	111	4840	5020	104	7	57-128/22
75-25-2	Bromoform	ND	4840	4960	102	4840	4530	94	9	48-133/21
74-83-9	Bromomethane	ND	4840	2430	50	4840	2200	45	10	31-141/28
78-93-3	2-Butanone (MEK)	ND	19400	25700	133	19400	23700	122	8	29-146/27
75-15-0	Carbon disulfide	ND	4840	5010	104	4840	4530	94	10	47-145/24
56-23-5	Carbon tetrachloride	ND	4840	4850	100	4840	4340	90	11	51-143/25
108-90-7	Chlorobenzene	ND	4840	4990	103	4840	4530	94	10	54-130/22
75-00-3	Chloroethane	ND	4840	6390	132	4840	5690	118	12	22-153/32
67-66-3	Chloroform	ND	4840	5440	112	4840	4960	102	9	61-125/22
74-87-3	Chloromethane	ND	4840	6270	130	4840	5920	122	6	43-142/27
110-82-7	Cyclohexane	4950	4840	10200	114	4840	9220	94	10	37-148/26
96-12-8	1,2-Dibromo-3-chloropropane	ND	4840	4640	96	4840	4300	89	8	41-127/23
124-48-1	Dibromochloromethane	ND	4840	4680	97	4840	4390	91	6	56-127/21
106-93-4	1,2-Dibromoethane	ND	4840	5860	121	4840	5400	112	8	54-121/21
95-50-1	1,2-Dichlorobenzene	ND	4840	4720	98	4840	4270	88	10	41-134/22
541-73-1	1,3-Dichlorobenzene	ND	4840	4700	97	4840	4210	87	11	41-135/22
106-46-7	1,4-Dichlorobenzene	ND	4840	4680	97	4840	4250	88	10	41-133/22
75-71-8	Dichlorodifluoromethane	ND	4840	5630	116	4840	4940	102	13	30-153/29
75-34-3	1,1-Dichloroethane	ND	4840	5350	111	4840	4940	102	8	61-131/23
107-06-2	1,2-Dichloroethane	ND	4840	4810	99	4840	4450	92	8	56-126/21
75-35-4	1,1-Dichloroethene	ND	4840	5430	112	4840	4950	102	9	53-132/23
156-59-2	cis-1,2-Dichloroethene	ND	4840	5130	106	4840	4680	97	9	57-125/22
156-60-5	trans-1,2-Dichloroethene	ND	4840	5380	111	4840	4960	102	8	56-130/23
78-87-5	1,2-Dichloropropane	ND	4840	5090	105	4840	4740	98	7	63-126/22
10061-01-5	cis-1,3-Dichloropropene	ND	4840	4780	99	4840	4410	91	8	55-126/21
10061-02-6	trans-1,3-Dichloropropene	ND	4840	4860	100	4840	4540	94	7	51-126/21
100-41-4	Ethylbenzene	434	4840	5470	101	4840	5030	92	8	49-132/23
76-13-1	Freon 113	ND	4840	5000	103	4840	4520	93	10	42-179/25
591-78-6	2-Hexanone	ND	19400	25000	129	19400	24300	126	3	25-150/25
98-82-8	Isopropylbenzene	637	4840	5740	106	4840	5250	96	9	43-141/25
79-20-9	Methyl Acetate	ND	4840	5330	110	4840	4940	102	8	32-158/26
108-87-2	Methylcyclohexane	13300	4840	17400	97	4840	16400	76	6	22-158/30
1634-04-4	Methyl Tert Butyl Ether	ND	4840	5670	117	4840	5240	108	8	58-123/23

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JC86043
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JC85995-1MS	I225326.D	1	04/11/19	TDN	n/a	n/a	VI9080
JC85995-1MSD	I225327.D	1	04/11/19	TDN	n/a	n/a	VI9080
JC85995-1 ^a	I225317.D	1	04/11/19	TDN	n/a	n/a	VI9080
JC85995-1 ^b	I225329.D	1	04/11/19	TDN	n/a	n/a	VI9080

The QC reported here applies to the following samples:

Method: SW846 8260C

JC86043-5

CAS No.	Compound	JC85995-1 ug/kg	Spike Q ug/kg	MS ug/kg	MS %	Spike ug/kg	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	19400	23700	122	19400	21900	113	8	40-140/24
75-09-2	Methylene chloride	ND	4840	5350	111	4840	4910	101	9	57-123/23
100-42-5	Styrene	ND	4840	4840	100	4840	4490	93	8	46-139/22
79-34-5	1,1,2,2-Tetrachloroethane	ND	4840	5130	106	4840	4530	94	12	44-127/26
127-18-4	Tetrachloroethene	ND	4840	4470	92	4840	4050	84	10	39-154/26
108-88-3	Toluene	ND	4840	4990	103	4840	4520	93	10	54-127/22
87-61-6	1,2,3-Trichlorobenzene	ND	4840	3610	75	4840	3390	70	6	17-151/32
120-82-1	1,2,4-Trichlorobenzene	ND	4840	3950	82	4840	3720	77	6	19-153/32
71-55-6	1,1,1-Trichloroethane	ND	4840	5110	106	4840	4590	95	11	57-138/24
79-00-5	1,1,2-Trichloroethane	ND	4840	4230	87	4840	3970	82	6	53-127/22
79-01-6	Trichloroethene	ND	4840	4790	99	4840	4400	91	8	52-140/24
75-69-4	Trichlorofluoromethane	ND	4840	5540	114	4840	4930	102	12	46-142/27
75-01-4	Vinyl chloride	ND	4840	6670	138	4840	6100	126	9	43-146/26
	m,p-Xylene	353	9680	10000	99	9680	9240	91	8	45-137/23
95-47-6	o-Xylene	105	4840	4810	99	4840	4490	93	7	48-135/22
1330-20-7	Xylene (total)	458	14500	14800	99	14500	13700	92	8	46-137/23

CAS No.	Surrogate Recoveries	MS	MSD	JC85995-1	JC85995-1	Limits
1868-53-7	Dibromofluoromethane	104%	103%	102%	101%	75-127%
17060-07-0	1,2-Dichloroethane-D4	100%	101%	99%	96%	75-130%
2037-26-5	Toluene-D8	118%	120%	119%	107%	80-120%
460-00-4	4-Bromofluorobenzene	181%* c	183%* c	180%* d	128%* c	79-127%

- (a) Diluted due to high concentration of target and non-target compound.
- (b) Confirmation run for surrogate recoveries.
- (c) Outside control limits due to matrix interference.
- (d) Outside control limits due to matrix interference. Confirmed by reanalysis.

* = Outside of Control Limits.

Duplicate Summary

Job Number: JC86043
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JC86132-1DUP	3C151006.D	1	04/12/19	PS	n/a	n/a	V3C6794
JC86132-1	3C151010.D	1	04/12/19	PS	n/a	n/a	V3C6794

The QC reported here applies to the following samples:

Method: SW846 8260C

JC86043-1, JC86043-2, JC86043-3, JC86043-4

CAS No.	Compound	JC86132-1 ug/kg	DUP Q	ug/kg	Q	RPD	Limits
67-64-1	Acetone	100		45.0		76* a	40
71-43-2	Benzene	0.74		0.38	J	64* a	30
74-97-5	Bromochloromethane	ND		ND		nc	30
75-27-4	Bromodichloromethane	ND		ND		nc	30
75-25-2	Bromoform	ND		ND		nc	30
74-83-9	Bromomethane	ND		ND		nc	30
78-93-3	2-Butanone (MEK)	918	E	602		42* a	30
75-15-0	Carbon disulfide	ND		ND		nc	30
56-23-5	Carbon tetrachloride	ND		ND		nc	30
108-90-7	Chlorobenzene	ND		ND		nc	30
75-00-3	Chloroethane	ND		ND		nc	30
67-66-3	Chloroform	ND		ND		nc	30
74-87-3	Chloromethane	ND		ND		nc	30
110-82-7	Cyclohexane	ND		ND		nc	30
96-12-8	1,2-Dibromo-3-chloropropane	ND		ND		nc	30
124-48-1	Dibromochloromethane	ND		ND		nc	30
106-93-4	1,2-Dibromoethane	ND		ND		nc	30
95-50-1	1,2-Dichlorobenzene	ND		ND		nc	30
541-73-1	1,3-Dichlorobenzene	ND		ND		nc	30
106-46-7	1,4-Dichlorobenzene	ND		ND		nc	30
75-71-8	Dichlorodifluoromethane	ND		ND		nc	30
75-34-3	1,1-Dichloroethane	ND		ND		nc	30
107-06-2	1,2-Dichloroethane	ND		ND		nc	30
75-35-4	1,1-Dichloroethene	ND		ND		nc	30
156-59-2	cis-1,2-Dichloroethene	ND		ND		nc	30
156-60-5	trans-1,2-Dichloroethene	ND		ND		nc	30
78-87-5	1,2-Dichloropropane	ND		ND		nc	30
10061-01-5	cis-1,3-Dichloropropene	ND		ND		nc	30
10061-02-6	trans-1,3-Dichloropropene	ND		ND		nc	30
100-41-4	Ethylbenzene	1.0		0.74	J	30	30
76-13-1	Freon 113	ND		ND		nc	30
591-78-6	2-Hexanone	ND		ND		nc	30
98-82-8	Isopropylbenzene	ND		ND		nc	30
79-20-9	Methyl Acetate	ND		ND		nc	30
108-87-2	Methylcyclohexane	ND		ND		nc	30
1634-04-4	Methyl Tert Butyl Ether	ND		ND		nc	30

* = Outside of Control Limits.

Duplicate Summary

Job Number: JC86043
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JC86132-1DUP	3C151006.D	1	04/12/19	PS	n/a	n/a	V3C6794
JC86132-1	3C151010.D	1	04/12/19	PS	n/a	n/a	V3C6794

The QC reported here applies to the following samples:

Method: SW846 8260C

JC86043-1, JC86043-2, JC86043-3, JC86043-4

CAS No.	Compound	JC86132-1 ug/kg	DUP Q	ug/kg	Q	RPD	Limits
108-10-1	4-Methyl-2-pentanone(MIBK)	ND		ND		nc	30
75-09-2	Methylene chloride	ND		ND		nc	36
100-42-5	Styrene	159		104		42* a	30
79-34-5	1,1,2,2-Tetrachloroethane	ND		ND		nc	30
127-18-4	Tetrachloroethene	ND		ND		nc	30
108-88-3	Toluene	1.5		0.94	J	46* a	24
87-61-6	1,2,3-Trichlorobenzene	ND		ND		nc	30
120-82-1	1,2,4-Trichlorobenzene	ND		ND		nc	30
71-55-6	1,1,1-Trichloroethane	ND		ND		nc	30
79-00-5	1,1,2-Trichloroethane	ND		ND		nc	30
79-01-6	Trichloroethene	ND		ND		nc	30
75-69-4	Trichlorofluoromethane	ND		ND		nc	30
75-01-4	Vinyl chloride	ND		ND		nc	30
	m,p-Xylene	4.3		3.2		29	32
95-47-6	o-Xylene	2.1		1.7		21	30
1330-20-7	Xylene (total)	6.4		4.8		29	33

CAS No.	Surrogate Recoveries	DUP	JC86132-1	Limits
1868-53-7	Dibromofluoromethane	105%	107%	75-127%
17060-07-0	1,2-Dichloroethane-D4	105%	104%	75-130%
2037-26-5	Toluene-D8	99%	99%	80-120%
460-00-4	4-Bromofluorobenzene	103%	102%	79-127%

(a) Outside control limits due to sample non-homogeneity.

* = Outside of Control Limits.

Instrument Performance Check (BFB)

Job Number: JC86043
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: V3C6743-BFB	Injection Date: 02/13/19
Lab File ID: 3C149621.D	Injection Time: 17:27
Instrument ID: GCMS3C	

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
50	15.0 - 40.0% of mass 95	20405	18.6	Pass
75	30.0 - 60.0% of mass 95	53912	49.2	Pass
95	Base peak, 100% relative abundance	109629	100.0	Pass
96	5.0 - 9.0% of mass 95	7437	6.78	Pass
173	Less than 2.0% of mass 174	0	0.00 (0.00) ^a	Pass
174	50.0 - 120.0% of mass 95	102597	93.6	Pass
175	5.0 - 9.0% of mass 174	7596	6.93 (7.40) ^a	Pass
176	95.0 - 101.0% of mass 174	99168	90.5 (96.7) ^a	Pass
177	5.0 - 9.0% of mass 176	6330	5.77 (6.38) ^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
V3C6743-IC6743	3C149623.D	02/13/19	18:33	01:06	Initial cal 0.5
V3C6743-IC6743	3C149624.D	02/13/19	18:56	01:29	Initial cal 1
V3C6743-IC6743	3C149628.D	02/13/19	20:29	03:02	Initial cal 2
V3C6743-IC6743	3C149629.D	02/13/19	20:52	03:25	Initial cal 4
V3C6743-IC6743	3C149630.D	02/13/19	21:15	03:48	Initial cal 8
V3C6743-IC6743	3C149631.D	02/13/19	21:39	04:12	Initial cal 20
V3C6743-ICC6743	3C149632.D	02/13/19	22:02	04:35	Initial cal 50
V3C6743-IC6743	3C149633.D	02/13/19	22:25	04:58	Initial cal 100
V3C6743-IC6743	3C149634.D	02/13/19	22:48	05:21	Initial cal 200
V3C6743-ICV6743	3C149637.D	02/13/19	23:59	06:32	Initial cal verification 50
V3C6743-ICV6743	3C149638.D	02/14/19	00:23	06:56	Initial cal verification 50

Instrument Performance Check (BFB)

Job Number: JC86043
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: V3C6794-BFB	Injection Date: 04/12/19
Lab File ID: 3C151001.D	Injection Time: 08:03
Instrument ID: GCMS3C	

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
50	15.0 - 40.0% of mass 95	13399	17.7	Pass
75	30.0 - 60.0% of mass 95	36021	47.6	Pass
95	Base peak, 100% relative abundance	75650	100.0	Pass
96	5.0 - 9.0% of mass 95	5134	6.79	Pass
173	Less than 2.0% of mass 174	0	0.00 (0.00) ^a	Pass
174	50.0 - 120.0% of mass 95	71314	94.3	Pass
175	5.0 - 9.0% of mass 174	5274	6.97 (7.40) ^a	Pass
176	95.0 - 101.0% of mass 174	69984	92.5 (98.1) ^a	Pass
177	5.0 - 9.0% of mass 176	4725	6.25 (6.75) ^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
V3C6794-CC6743	3C151001.D	04/12/19	08:03	00:00	Continuing cal 50
V3C6794-BS	3C151002.D	04/12/19	08:42	00:39	Blank Spike
ZZZZZZ	3C151004A.D	04/12/19	09:28	01:25	(unrelated sample)
V3C6794-MB	3C151004.D	04/12/19	09:28	01:25	Method Blank
JC86104-1	3C151005.D	04/12/19	10:08	02:05	(used for QC only; not part of job JC86043)
JC86132-1DUP	3C151006.D	04/12/19	10:31	02:28	Duplicate
ZZZZZZ	3C151007.D	04/12/19	10:54	02:51	(unrelated sample)
JC86104-1MS	3C151008.D	04/12/19	11:17	03:14	Matrix Spike
JC86132-1	3C151010.D	04/12/19	12:03	04:00	(used for QC only; not part of job JC86043)
ZZZZZZ	3C151011.D	04/12/19	12:58	04:55	(unrelated sample)
ZZZZZZ	3C151012.D	04/12/19	13:21	05:18	(unrelated sample)
ZZZZZZ	3C151013.D	04/12/19	13:45	05:42	(unrelated sample)
ZZZZZZ	3C151014.D	04/12/19	14:08	06:05	(unrelated sample)
ZZZZZZ	3C151016.D	04/12/19	14:54	06:51	(unrelated sample)
ZZZZZZ	3C151017.D	04/12/19	15:17	07:14	(unrelated sample)
ZZZZZZ	3C151018.D	04/12/19	15:41	07:38	(unrelated sample)
JC86043-1	3C151019.D	04/12/19	16:04	08:01	PCTP-08R (10-12)
JC86043-2	3C151020.D	04/12/19	16:27	08:24	PCTP-10R (7-9)
JC86043-4	3C151021.D	04/12/19	16:50	08:47	PCTP-32R (6-8)
JC86043-3	3C151022.D	04/12/19	17:13	09:10	PCTP-47R (5-7)

Instrument Performance Check (BFB)

Job Number: JC86043
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: VI8986-BFB	Injection Date: 11/27/18
Lab File ID: I223174.D	Injection Time: 17:41
Instrument ID: GCMSI	

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
50	15.0 - 40.0% of mass 95	9909	18.4	Pass
75	30.0 - 60.0% of mass 95	25472	47.3	Pass
95	Base peak, 100% relative abundance	53864	100.0	Pass
96	5.0 - 9.0% of mass 95	3552	6.59	Pass
173	Less than 2.0% of mass 174	0	0.00 (0.00) ^a	Pass
174	50.0 - 120.0% of mass 95	52357	97.2	Pass
175	5.0 - 9.0% of mass 174	4272	7.93 (8.16) ^a	Pass
176	95.0 - 101.0% of mass 174	51597	95.8 (98.5) ^a	Pass
177	5.0 - 9.0% of mass 176	3571	6.63 (6.92) ^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
VI8986-IC8986	I223175.D	11/27/18	18:23	00:42	Initial cal 0.5
VI8986-IC8986	I223176.D	11/27/18	18:52	01:11	Initial cal 1
VI8986-IC8986	I223177.D	11/27/18	19:22	01:41	Initial cal 2
VI8986-IC8986	I223178.D	11/27/18	19:51	02:10	Initial cal 4
VI8986-IC8986	I223179.D	11/27/18	20:21	02:40	Initial cal 8
VI8986-IC8986	I223180.D	11/27/18	20:51	03:10	Initial cal 20
VI8986-ICC8986	I223181.D	11/27/18	21:20	03:39	Initial cal 50
VI8986-IC8986	I223182.D	11/27/18	21:50	04:09	Initial cal 100
VI8986-IC8986	I223183.D	11/27/18	22:20	04:39	Initial cal 200
VI8986-ICV8986	I223186.D	11/27/18	23:48	06:07	Initial cal verification 50
VI8986-ICV8986	I223187.D	11/28/18	00:18	06:37	Initial cal verification 50

Instrument Performance Check (BFB)

Job Number: JC86043
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: VI9080-BFB	Injection Date: 04/11/19
Lab File ID: I225308.D	Injection Time: 07:52
Instrument ID: GCMSI	

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
50	15.0 - 40.0% of mass 95	14033	19.3	Pass
75	30.0 - 60.0% of mass 95	36067	49.6	Pass
95	Base peak, 100% relative abundance	72725	100.0	Pass
96	5.0 - 9.0% of mass 95	4932	6.78	Pass
173	Less than 2.0% of mass 174	0	0.00 (0.00) ^a	Pass
174	50.0 - 120.0% of mass 95	70880	97.5	Pass
175	5.0 - 9.0% of mass 174	5438	7.48 (7.67) ^a	Pass
176	95.0 - 101.0% of mass 174	69133	95.1 (97.5) ^a	Pass
177	5.0 - 9.0% of mass 176	4742	6.52 (6.86) ^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
VI9080-CC8986	I225308.D	04/11/19	07:52	00:00	Continuing cal 20
VI9080-BS	I225309.D	04/11/19	08:33	00:41	Blank Spike
VI9080-BSD	I225310.D	04/11/19	09:02	01:10	Blank Spike Duplicate
VI9080-MB	I225312.D	04/11/19	10:00	02:08	Method Blank
ZZZZZZ	I225312A.D	04/11/19	10:00	02:08	(unrelated sample)
ZZZZZZ	I225313.D	04/11/19	10:31	02:39	(unrelated sample)
ZZZZZZ	I225314.D	04/11/19	11:11	03:19	(unrelated sample)
ZZZZZZ	I225315.D	04/11/19	11:41	03:49	(unrelated sample)
JC85995-1	I225317.D	04/11/19	12:39	04:47	(used for QC only; not part of job JC86043)
ZZZZZZ	I225318.D	04/11/19	13:08	05:16	(unrelated sample)
ZZZZZZ	I225319.D	04/11/19	13:37	05:45	(unrelated sample)
ZZZZZZ	I225320.D	04/11/19	14:06	06:14	(unrelated sample)
JC86043-5	I225322.D	04/11/19	15:04	07:12	S-122 (10-12)
ZZZZZZ	I225323.D	04/11/19	15:33	07:41	(unrelated sample)
ZZZZZZ	I225324.D	04/11/19	16:03	08:11	(unrelated sample)
JC85995-1MS	I225326.D	04/11/19	17:01	09:09	Matrix Spike
JC85995-1MSD	I225327.D	04/11/19	17:30	09:38	Matrix Spike Duplicate
JC85995-1	I225329.D	04/11/19	18:28	10:36	(used for QC only; not part of job JC86043)
ZZZZZZ	I225330.D	04/11/19	18:57	11:05	(unrelated sample)
ZZZZZZ	I225331.D	04/11/19	19:27	11:35	(unrelated sample)

Internal Standard Area Summary

Job Number: JC86043
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Check Std:	V3C6794-CC6743	Injection Date:	04/12/19
Lab File ID:	3C151001.D	Injection Time:	08:03
Instrument ID:	GCMS3C	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	53070	2.58	241370	4.03	327725	4.69	285082	7.40	158142	9.32
Upper Limit ^a	106140	3.08	482740	4.53	655450	5.19	570164	7.90	316284	9.82
Lower Limit ^b	26535	2.08	120685	3.53	163863	4.19	142541	6.90	79071	8.82

Lab	IS 1		IS 2		IS 3		IS 4		IS 5	
Sample ID	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT
V3C6794-BS	56202	2.58	242484	4.03	327873	4.69	288525	7.39	159270	9.32
V3C6794-MB	46812	2.57	239547	4.03	320685	4.69	285985	7.39	159188	9.32
ZZZZZZ	46812	2.57	239547	4.03	320685	4.69	285985	7.39	159188	9.32
JC86104-1	30527	2.57	232871	4.03	313506	4.69	275835	7.39	140851	9.32
JC86132-1DUP	56593	2.57	227026	4.03	315282	4.69	280146	7.40	151119	9.32
ZZZZZZ	49817	2.57	228630	4.03	314348	4.69	280912	7.39	156434	9.32
JC86104-1MS	37913	2.57	233854	4.03	319088	4.69	280118	7.40	148518	9.32
JC86132-1	53975	2.57	225456	4.03	313640	4.69	275986	7.39	149124	9.32
ZZZZZZ	47511	2.57	227882	4.03	308912	4.69	276817	7.39	151546	9.32
ZZZZZZ	48733	2.57	222997	4.03	312085	4.69	281064	7.40	153369	9.32
ZZZZZZ	40817	2.58	228751	4.03	317707	4.69	287525	7.40	156121	9.32
ZZZZZZ	46021	2.57	226065	4.03	312841	4.69	283737	7.39	159298	9.32
ZZZZZZ	53086	2.57	226597	4.03	313975	4.69	284251	7.39	158814	9.32
ZZZZZZ	54091	2.57	229086	4.03	313727	4.69	287394	7.39	157685	9.32
ZZZZZZ	52958	2.57	222418	4.03	312323	4.69	280225	7.40	153420	9.32
JC86043-1	44326	2.57	218447	4.03	301338	4.69	270450	7.39	146859	9.32
JC86043-2	47910	2.57	224209	4.03	308373	4.69	274085	7.39	146511	9.32
JC86043-4	46239	2.57	220928	4.03	309849	4.69	269969	7.39	144611	9.32
JC86043-3	49832	2.57	228905	4.03	318282	4.69	281853	7.40	152671	9.32

- 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.

6.8.1
6

Internal Standard Area Summary

Job Number: JC86043
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Check Std:	VI9080-CC8986	Injection Date:	04/11/19
Lab File ID:	I225308.D	Injection Time:	07:52
Instrument ID:	GCMSI	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	81693	7.35	214161	9.70	291794	10.63	240955	13.77	137668	16.11
Upper Limit ^a	163386	7.85	428322	10.20	583588	11.13	481910	14.27	275336	16.61
Lower Limit ^b	40847	6.85	107081	9.20	145897	10.13	120478	13.27	68834	15.61

Lab	IS 1		IS 2		IS 3		IS 4		IS 5	
Sample ID	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT
VI9080-BS	79826	7.35	216195	9.70	298930	10.63	245444	13.77	144798	16.11
VI9080-BSD	83554	7.35	216256	9.70	299810	10.64	244087	13.77	142995	16.11
ZZZZZZ	84234	7.38	208268	9.70	281140	10.63	236485	13.77	136254	16.11
VI9080-MB	84234	7.38	208268	9.70	281140	10.63	236485	13.77	136254	16.11
ZZZZZZ	62982	7.37	201688	9.70	272179	10.64	224702	13.77	126171	16.11
ZZZZZZ	62456	7.37	195785	9.70	266677	10.63	221271	13.77	123720	16.11
ZZZZZZ	71935	7.35	201169	9.70	269600	10.63	232041	13.77	142446	16.11
JC85995-1	90524	7.38	256199	9.70	362377	10.63	302351	13.77	186941	16.11
ZZZZZZ	82831	7.37	262160	9.70	372981	10.63	310445	13.77	191200	16.11
ZZZZZZ	99882	7.38	259110	9.70	370998	10.63	313377	13.77	196561	16.11
ZZZZZZ	83935	7.38	265074	9.70	375056	10.64	318074	13.77	199796	16.11
JC86043-5 ^c	88394	7.37	251428	9.70	342361	10.63	291022	13.77	164360	16.11
ZZZZZZ	95779	7.37	266615	9.70	381236	10.63	331496	13.77	204394	16.11
ZZZZZZ	89896	7.38	267978	9.70	378908	10.63	333061	13.77	203298	16.11
JC85995-1MS	118472	7.38	252168	9.70	365242	10.63	303920	13.77	191112	16.11
JC85995-1MSD	123209	7.39	267602	9.70	384052	10.63	317138	13.77	201051	16.11
JC85995-1	77031	7.36	249284	9.70	348902	10.63	283002	13.77	163454	16.11
ZZZZZZ	73759	7.35	250995	9.70	352366	10.63	285388	13.77	154410	16.11
ZZZZZZ	71158	7.35	249774	9.70	349555	10.64	284253	13.77	154854	16.11

- 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.
 (c) Diluted due to high concentration of non-target compound.

6.8.2
6

Surrogate Recovery Summary

Job Number: JC86043
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

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

Lab Sample ID	Lab File ID	S1	S2	S3	S4
JC86043-1	3C151019.D	105	102	100	101
JC86043-2	3C151020.D	106	104	100	102
JC86043-3	3C151022.D	104	102	100	103
JC86043-4	3C151021.D	105	102	100	105
JC86043-5	I225322.D	105	103	102	113
JC85995-1MS	I225326.D	104	100	118	181* a
JC85995-1MSD	I225327.D	103	101	120	183* a
JC86104-1MS	3C151008.D	103	98	102	102
JC86132-1DUP	3C151006.D	105	105	99	103
V3C6794-BS	3C151002.D	102	101	100	101
V3C6794-MB	3C151004.D	100	99	101	98
VI9080-BS	I225309.D	105	108	101	102
VI9080-BSD	I225310.D	106	107	102	106
VI9080-MB	I225312.D	107	113	99	107

Surrogate Compounds **Recovery Limits**

S1 = Dibromofluoromethane	75-127%
S2 = 1,2-Dichloroethane-D4	75-130%
S3 = Toluene-D8	80-120%
S4 = 4-Bromofluorobenzene	79-127%

(a) Outside control limits due to matrix interference.

6.9.1
6

Initial Calibration Summary

Job Number: JC86043
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: V3C6743-ICC6743
 Lab FileID: 3C149632.D

Response Factor Report MS3C

Method : C:\MSDCHEM\1\METHODS\M3C6743.M (RTE Integrator)
 Title : Method SW846 8260C, Rxi624 20m x 0.18mm x 1.0um
 Last Update : Fri Feb 15 09:30:13 2019
 Response via : Initial Calibration

Calibration Files

4 =3C149629.D 8 =3C149630.D 0.5 =3C149623.D 50 =3C149632.D
 100 =3C149633.D 1 =3C149624.D 200 =3C149634.D 20 =3C149631.D
 2 =3C149628.D =

Compound	4	8	0.5	50	100	1	200	20	2	Avg	%RSD
1) I Tert Butyl Alcohol-d9 -----ISTD-----											
2) ethanol										0.000	-1.00
3) tertiary butyl alcohol											
1.056 1.147				1.164	1.113		1.067	1.127	1.041	1.102	4.31
4) 1,4-dioxane											
0.131 0.123				0.142	0.140		0.135	0.135		0.134	4.96
5) I pentafluorobenzene -----ISTD-----											
6) chlorodifluoromethane											
0.320 0.313				0.327	0.291		0.266	0.320	0.283	0.303	7.64
7) dichlorodifluoromethane											
0.436 0.469				0.476	0.428	0.382	0.387	0.468	0.409	0.432	8.59
8) chloromethane											
0.372 0.389				0.385	0.342	0.322	0.317	0.382	0.344	0.357	8.13
9) 1,3-butadiene											
0.248 0.242				0.251	0.225	0.242	0.204	0.253	0.192	0.232	9.91
10) vinyl chloride											
0.389 0.398				0.400	0.359	0.267	0.332	0.391	0.333	0.359	12.92
11) bromomethane											
0.237 0.235				0.234	0.184		0.168	0.237	0.207	0.215	13.40
12) chloroethane											
0.228 0.234				0.238	0.215	0.156	0.209	0.235	0.190	0.213	13.14
13) vinyl Bromide											
0.316 0.335				0.346	0.315	0.233	0.301	0.340	0.277	0.308	12.28
14) trichlorofluoromethane											
0.544 0.577 0.497				0.589	0.538	0.476	0.515	0.574	0.467	0.531	8.45
15) ethyl ether											
0.157 0.156				0.164	0.154		0.145	0.164	0.118	0.151	10.69
16) 2-chloropropane											
0.119 0.127				0.136	0.126	0.117	0.113	0.129	0.098	0.121	9.63
17) acrolein											
0.023 0.030				0.036	0.033		0.032	0.033		0.031	14.56
18) freon 113											
0.268 0.266				0.288	0.269	0.225	0.255	0.281	0.180	0.254	13.92
19) 1,1-dichloroethene											
0.283 0.295				0.312	0.291	0.275	0.271	0.305	0.231	0.283	8.87
20) acetone											
0.016 0.016				0.017	0.016	0.015	0.015	0.016	0.013	0.016	7.61
21) acetonitrile											
0.027 0.024				0.025	0.022		0.021	0.024		0.024	7.93
22) iodomethane											
This compound does not meet initial calibration criteria											
0.108 0.126				0.326	0.329		0.311	0.191		0.232	44.37

6-10-1
6

Initial Calibration Summary

Job Number: JC86043
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: V3C6743-ICC6743
 Lab FileID: 3C149632.D

23)	carbon disulfide	0.826 0.803	0.819 0.761	0.712 0.805 0.822	0.793	5.28
24)	methylene chloride	0.338 0.319	0.316 0.290	0.276 0.316 0.310	0.309	6.67
25)	methyl acetate	0.155 0.160	0.160 0.148	0.141 0.155 0.125	0.149	8.50
26)	methyl tert butyl ether	0.794 0.779	0.816 0.748 0.772	0.716 0.782 0.625	0.754	7.96
27)	trans-1,2-dichloroethene	0.332 0.326	0.348 0.321 0.337	0.304 0.343 0.265	0.322	8.32
28)	hexane	0.525 0.526	0.545 0.498 0.546	0.468 0.552 0.420	0.510	9.01
29)	di-isopropyl ether	0.956 0.961 0.807	1.000 0.911 0.992	0.864 0.978 0.771	0.916	9.16
30)	ethyl tert-butyl ether	0.935 0.936 0.768	0.996 0.912 0.981	0.875 0.968 0.773	0.905	9.34
31)	2-butanone	0.023 0.026	0.028 0.025	0.025 0.027 0.019	0.025	11.52
32)	1,1-dichloroethane	0.539 0.552 0.406	0.584 0.540 0.550	0.510 0.576 0.454	0.523	11.16
33)	chloroprene	0.484 0.495 0.402	0.519 0.481 0.489	0.460 0.506 0.351	0.465	11.70
34)	acrylonitrile	0.062 0.061	0.069 0.063	0.061 0.065	0.064	5.03
35)	vinyl acetate	0.050 0.052	0.063 0.061	0.059 0.058	0.057	9.43
36)	ethyl acetate	0.011 0.028	0.036 0.033	0.032 0.032	0.029	31.43
	----- Linear regression ----- Coefficient = 0.9963					
	Response Ratio = -0.00125 + 0.03349 *A					
37)	2,2-dichloropropane	0.492 0.480	0.534 0.498 0.495	0.475 0.512 0.365	0.482	10.49
38)	cis-1,2-dichloroethene	0.355 0.360	0.381 0.355 0.340	0.335 0.375 0.283	0.348	8.75
39)	propionitrile	0.029 0.030	0.030 0.027 0.031	0.027 0.029 0.024	0.028	7.90
40)	bromochloromethane	0.202 0.204	0.210 0.192 0.198	0.182 0.210 0.163	0.195	8.16
41)	tetrahydrofuran	0.023	0.026 0.025	0.024 0.023	0.024	4.50
42)	chloroform	0.587 0.570	0.597 0.555 0.637	0.529 0.584 0.469	0.566	8.87
43)	tert-Butyl Formate	0.173 0.164	0.206 0.205	0.210 0.181 0.116	0.179	18.50
44)	isobutyl alcohol	0.043 0.044	0.047 0.042	0.041 0.046	0.044	5.28
45)	dibromofluoromethane (s)	0.357 0.363 0.359	0.367 0.364 0.361	0.362 0.360 0.358	0.361	0.93
46)	methacrylonitrile	0.080 0.086	0.094 0.089	0.086 0.089 0.063	0.084	12.09
47)	1,1,1-trichloroethane	0.519 0.525	0.566 0.531 0.502	0.508 0.550 0.387	0.511	10.62
48)	cyclohexane	0.543 0.573 0.508	0.571 0.524 0.442	0.494 0.565 0.483	0.523	8.56
49)	1,1-dichloropropene	0.181 0.173	0.186 0.170	0.160 0.181 0.123	0.168	12.92
50)	tert-amyl alcohol	0.022 0.022	0.022 0.023	0.022 0.022	0.022	1.91
51)	carbon tetrachloride					

6-10-1
6

Initial Calibration Summary

Job Number: JC86043
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: V3C6743-ICC6743
 Lab FileID: 3C149632.D

	0.403	0.415	0.459	0.443	0.363	0.426	0.433	0.288	0.404	13.60	
52) I 1,4-difluorobenzene	-----ISTD-----										
53) 1,2-dichloroethane-d4 (s)	0.273	0.271	0.278	0.269	0.265	0.279	0.267	0.269	0.274	0.272	1.75
54) 2,2,4-trimethylpentane	0.936	0.949	0.995	0.939	0.974	0.888	1.002	0.735	0.927	9.26	
55) tert-amyl methyl ether	0.209	0.209	0.223	0.214	0.216	0.206	0.212	0.168	0.207	8.03	
56) n-butyl alcohol	0.004	0.004	0.005	0.005		0.005	0.004		0.005	13.85	
57) benzene	0.959	0.955	0.838	0.976	0.911	1.007	0.859	0.975	0.796	0.920	7.93
58) heptane	0.195	0.204	0.212	0.204		0.194	0.216	0.152	0.197	10.90	
59) isopropyl acetate	0.209	0.209	0.223	0.214		0.206	0.212		0.212	2.77	
60) 1,2-dichloroethane	0.305	0.287	0.293	0.279	0.347	0.268	0.293	0.264	0.292	8.95	
61) trichloroethene	0.256	0.261	0.269	0.253	0.254	0.241	0.269	0.197	0.250	9.24	
62) ethyl acrylate	0.200	0.198	0.216	0.205		0.201	0.204		0.204	3.01	
63) 2-nitropropane	0.058	0.057	0.066	0.065		0.065	0.062		0.062	6.04	
64) 2-chloroethyl vinyl ether	0.123	0.123	0.110	0.128	0.120	0.138	0.115	0.124	0.106	0.121	7.99
65) methyl methacrylate	0.042	0.049	0.058	0.055		0.053	0.054		0.052	10.93	
66) 1,2-dichloropropane	0.215	0.226	0.232	0.218	0.249	0.207	0.227	0.174	0.219	10.13	
67) methylcyclohexane	0.507	0.477	0.477	0.449		0.423	0.488	0.445	0.466	6.23	
68) dibromomethane	0.122	0.120	0.128	0.123	0.115	0.120	0.125	0.104	0.120	6.13	
69) bromodichloromethane	0.264	0.263	0.307	0.301	0.297	0.294	0.280	0.216	0.278	10.69	
70) epichlorohydrin	0.015	0.014	0.016	0.015		0.015	0.015		0.015	3.25	
71) cis-1,3-dichloropropene	0.331	0.333	0.379	0.369	0.374	0.356	0.358	0.281	0.348	9.22	
72) 4-methyl-2-pentanone	0.027	0.028	0.033	0.031	0.031	0.030	0.031	0.023	0.029	10.37	
73) 3-methyl-1-butanol									0.000	-1.00	
74) I chlorobenzene-d5	-----ISTD-----										
75) toluene-d8 (s)	1.238	1.242	1.234	1.240	1.240	1.233	1.234	1.245	1.232	1.238	0.35
76) toluene	0.742	0.733	0.658	0.750	0.705	0.804	0.666	0.742	0.623	0.714	7.87
77) trans-1,3-dichloropropene	0.308	0.317	0.373	0.355	0.326	0.347	0.338	0.260	0.328	10.57	
78) ethyl methacrylate	0.254	0.268	0.298	0.278	0.309	0.269	0.273	0.233	0.273	8.70	
79) 1,1,2-trichloroethane	0.177	0.176	0.183	0.172	0.204	0.164	0.184	0.144	0.176	9.72	
80) 2-hexanone	0.066	0.066	0.071	0.067	0.078	0.066	0.068	0.056	0.067	9.40	
81) tetrachloroethene											

6.10.1
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Initial Calibration Summary

Job Number: JC86043
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: V3C6743-ICC6743
 Lab FileID: 3C149632.D

	0.346	0.359	0.268	0.373	0.351	0.366	0.334	0.368	0.283	0.339	11.23
82)	1,3-dichloropropane										
	0.360	0.372	0.304	0.377	0.347	0.406	0.331	0.365	0.327	0.354	8.68
83)	butyl acetate										
	0.128	0.129		0.137	0.127		0.127	0.129	0.108	0.126	6.88
84)	dibromochloromethane										
	0.178	0.189		0.240	0.241	0.202	0.240	0.211	0.154	0.207	15.59
85)	1,2-dibromoethane										
	0.259	0.260		0.279	0.257	0.269	0.248	0.263	0.202	0.255	9.05
86)	n-butyl ether										
	1.189	1.224	1.061	1.225	1.145	1.291	1.107	1.206	1.005	1.161	7.78
87)	chlorobenzene										
	0.817	0.807	0.713	0.815	0.766	0.920	0.733	0.796	0.704	0.786	8.48
88)	1,1,1,2-tetrachloroethane										
	0.239	0.242		0.293	0.283	0.268	0.282	0.265	0.201	0.259	11.64
89)	ethylbenzene										
	1.421	1.421	1.316	1.438	1.341	1.585	1.273	1.429	1.206	1.381	8.03
90)	m,p-xylene										
	0.563	0.570	0.514	0.567	0.526	0.620	0.500	0.557	0.480	0.544	7.93
91)	o-xylene										
	1.152	1.120	1.039	1.137	1.059	1.202	1.026	1.120	0.975	1.092	6.56
92)	styrene										
	0.884	0.908	0.775	0.940	0.873	0.979	0.853	0.907	0.753	0.875	8.35
93)	bromoform										
	0.097	0.104		0.144	0.152		0.160	0.118		0.129	20.48
	----- Linear regression ----- Coefficient = 0.9974										
	Response Ratio = -0.00744 + 0.15778 *A										
94)	butyl acrylate										
	0.344	0.362		0.416	0.396	0.422	0.409	0.382	0.303	0.379	10.79
95)	isopropylbenzene										
	1.457	1.451	1.234	1.482	1.375	1.520	1.324	1.471	1.214	1.392	8.03
96)	cis-1,4-dichloro-2-butene										
	0.065	0.070		0.083	0.082		0.086	0.075		0.077	10.64
97) I	1,4-dichlorobenzene-d -----ISTD-----										
98)	4-bromofluorobenzene (s)										
	0.817	0.838	0.846	0.815	0.808	0.824	0.799	0.821	0.830	0.822	1.76
99)	bromobenzene										
	0.672	0.692	0.626	0.686	0.636	0.776	0.604	0.680	0.594	0.663	8.40
100)	1,1,2,2-tetrachloroethane										
	0.452	0.441	0.431	0.469	0.442	0.522	0.437	0.458	0.404	0.451	7.20
101)	trans-1,4-dichloro-2-butene										
	0.033	0.039		0.064	0.063		0.065	0.049		0.052	26.81
	----- Linear regression ----- Coefficient = 0.9983										
	Response Ratio = -0.00341 + 0.06526 *A										
102)	1,2,3-trichloropropane										
	0.146	0.149		0.154	0.144		0.140	0.150	0.122	0.143	7.35
103)	n-propylbenzene										
	3.142	3.207		3.152	2.863	3.518	2.622	3.207	2.613	3.041	10.38
104)	2-chlorotoluene										
	0.648	0.666	0.534	0.657	0.612	0.708	0.578	0.653	0.539	0.622	9.67
105)	4-chlorotoluene										
	0.653	0.657	0.541	0.660	0.615	0.687	0.585	0.654	0.533	0.620	9.00
106)	1,3,5-trimethylbenzene										
	2.272	2.322	2.008	2.346	2.182	2.568	2.028	2.326	1.858	2.212	9.78
107)	tert-butylbenzene										
	2.074	2.090	1.725	2.087	1.946	2.146	1.819	2.129	1.702	1.969	8.99
108)	1,2,4-trimethylbenzene										

6.10.1

6

Initial Calibration Summary

Job Number: JC86043
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: V3C6743-ICC6743
 Lab FileID: 3C149632.D

109)	sec-butylbenzene	2.332	2.357	2.033	2.353	2.192	2.567	2.051	2.339	2.041	2.252	8.18
110)	1,3-dichlorobenzene	3.002	3.055	2.332	3.055	2.837	3.218	2.617	3.118	2.519	2.861	10.67
111)	p-isopropyltoluene	1.351	1.360	1.248	1.352	1.261	1.463	1.180	1.341	1.163	1.302	7.41
112)	1,4-dichlorobenzene	2.633	2.677	2.236	2.705	2.531	2.685	2.338	2.724	2.130	2.518	8.95
113)	1,2-dichlorobenzene	1.321	1.348	1.389	1.347	1.256	1.604	1.197	1.337	1.183	1.331	9.36
114)	n-butylbenzene	1.237	1.234	1.210	1.256	1.179	1.427	1.124	1.239	1.079	1.220	7.97
115)	1,2-dibromo-3-chloropropane	1.299	1.329	1.033	1.352	1.281	1.313	1.213	1.356	1.022	1.244	10.45
		0.070	0.085		0.114	0.115		0.115	0.096	0.052	0.092	26.79
		----- Linear regression ----- Coefficient = 0.9990										
		Response Ratio = -0.00335 + 0.11529 *A										
116)	1,3,5-Trichlorobenzene	1.248	1.221	1.024	1.254	1.178	1.335	1.100	1.244	1.049	1.184	8.84
117)	1,2,4-trichlorobenzene	1.044	1.055	0.945	1.071	1.015	1.189	0.933	1.050	0.873	1.019	9.10
118)	hexachlorobutadiene	0.644	0.652		0.700	0.676	0.603	0.623	0.692	0.490	0.635	10.62
119)	naphthalene	1.797	1.779	1.723	1.894	1.795	2.068	1.652	1.859	1.500	1.785	8.87
120)	1,2,3-trichlorobenzene	0.988	0.977	0.879	1.003	0.938	1.039	0.862	0.993	0.830	0.945	7.66
121)	hexachloroethane	0.237	0.265		0.373	0.394		0.403	0.310		0.330	21.17
		----- Linear regression ----- Coefficient = 0.9985										
		Response Ratio = -0.01860 + 0.40159 *A										
122)	Benzyl chloride	0.614	0.640		0.896	0.905		0.913	0.757		0.788	17.42
123)	2-ethylhexyl acrylate	0.317			0.524	0.536		0.530	0.396		0.460	21.54
		----- Linear regression ----- Coefficient = 0.9989										
		Response Ratio = -0.00815 + 0.54600 *A										
124)	2-methylnaphthalene	1.092	1.111		1.162	1.021		0.894	1.136		1.069	9.21

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

M3C6743.M

Fri Feb 15 11:14:06 2019

MS3C

6.10.1
6

Initial Calibration Verification

Job Number: JC86043
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: V3C6743-ICV6743
 Lab FileID: 3C149637.D

Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\V3C6743\3C149637.D Vial: 17
 Acq On : 13 Feb 2019 11:59 pm Operator: juntaep
 Sample : ICV6743-50 Inst : MS3C
 Misc : MS32156,V3C6743,5.0,,,,,1 Multiplr: 1.00
 MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M3C6743.M (RTE Integrator)
 Title : Method SW846 8260C, Rxi624 20m x 0.18mm x 1.0um
 Last Update : Fri Feb 15 09:30:13 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	99	0.00	2.58
2	ethanol			NA			
3	tertiary butyl alcohol	1.102	1.177	-6.8	100	0.00	2.64
4	1,4-dioxane	0.134	0.144	-7.5	100	0.00	5.29
5 I	pentafluorobenzene	1.000	1.000	0.0	98	0.00	4.03
6	chlorodifluoromethane	0.303	0.316	-4.3	95	0.00	1.10
7	dichlorodifluoromethane	0.432	0.505	-16.9	104	0.00	1.08
8	chloromethane	0.357	0.380	-6.4	97	0.00	1.22
9	1,3-butadiene	0.232	0.288	-24.1	113	0.00	1.32
10	vinyl chloride	0.359	0.402	-12.0	99	0.00	1.30
11	bromomethane	0.215	0.255	-18.6	107	0.00	1.54
12	chloroethane	0.213	0.239	-12.2	99	0.00	1.62
13	vinyl Bromide	0.308	0.275	10.7	78	0.00	1.75
14	trichlorofluoromethane	0.531	0.594	-11.9	99	0.00	1.77
15	ethyl ether	0.151	0.158	-4.6	95	0.00	1.99
16	2-chloropropane	0.121	0.131	-8.3	95	0.00	2.07
17	acrolein	0.031	0.031	0.0	84	0.00	2.14
18	freon 113	0.254	0.300	-18.1	103	0.00	2.13
19	1,1-dichloroethene	0.283	0.287	-1.4	91	0.00	2.16
20	acetone			NA			
21	acetonitrile			NA			
22	iodomethane	0.232	0.286	-23.3	86	0.00	2.29
23	carbon disulfide	0.793	0.886	-11.7	106	0.00	2.31
24	methylene chloride	0.309	0.305	1.3	95	0.00	2.56
25	methyl acetate	0.149	0.149	0.0	92	0.00	2.47
26	methyl tert butyl ether	0.754	0.806	-6.9	97	0.00	2.71
27	trans-1,2-dichloroethene	0.322	0.337	-4.7	95	0.00	2.73
28	hexane	0.510	0.525	-2.9	95	0.00	2.88
29	di-isopropyl ether	0.916	0.931	-1.6	92	0.00	3.08
30	ethyl tert-butyl ether	0.905	0.924	-2.1	91	0.00	3.37
31	2-butanone	0.025	0.027	-8.0	96	0.00	3.60
32	1,1-dichloroethane	0.523	0.572	-9.4	96	0.00	3.10
33	chloroprene	0.465	0.535	-15.1	101	0.00	3.13
34	acrylonitrile	0.064	0.068	-6.3	97	0.00	2.80
35	vinyl acetate	0.057	0.061	-7.0	95	0.00	3.12
	----- True	Calc.	% Drift	-----			
36	ethyl acetate	50.000	50.550	-1.1	89	0.00	3.61
	----- AvgRF	CCRF	% Dev	-----			
37	2,2-dichloropropane	0.482	0.524	-8.7	97	0.00	3.54

Initial Calibration Verification

Job Number: JC86043
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: V3C6743-ICV6743
 Lab FileID: 3C149637.D

38		cis-1,2-dichloroethene	0.348	0.377	-8.3	98	0.00	3.58
39		propionitrile	0.028	0.029	-3.6	96	0.00	3.72
40		bromochloromethane	0.195	0.204	-4.6	96	0.00	3.78
41		tetrahydrofuran	0.024	0.026	-8.3	99	0.00	3.78
42		chloroform	0.566	0.585	-3.4	97	0.00	3.85
43		tert-Butyl Formate	0.179	0.144	19.6	69	0.00	3.86
44		isobutyl alcohol	0.044	0.045	-2.3	95	0.00	4.26
45	S	dibromofluoromethane (s)	0.361	0.367	-1.7	98	0.00	3.99
46		methacrylonitrile	0.084	0.091	-8.3	96	0.00	3.81
47		1,1,1-trichloroethane	0.511	0.550	-7.6	96	0.00	3.96
48		cyclohexane	0.523	0.585	-11.9	101	0.00	3.94
49		1,1-dichloropropene	0.168	0.184	-9.5	97	0.00	4.11
50		tert-amyl alcohol	0.022	0.022	0.0	96	0.00	4.33
51		carbon tetrachloride	0.404	0.452	-11.9	97	0.00	4.07
52	I	1,4-difluorobenzene	1.000	1.000	0.0	98	0.00	4.69
53	S	1,2-dichloroethane-d4 (s)	0.272	0.264	2.9	96	0.00	4.31
54		2,2,4-trimethylpentane	0.927	0.958	-3.3	94	0.00	4.26
55		tert-amyl methyl ether	0.207	0.204	1.4	90	0.00	4.36
56		n-butyl alcohol	0.005	0.005	0.0	95	0.00	4.90
57		benzene	0.920	0.959	-4.2	96	0.00	4.28
58		heptane	0.197	0.231	-17.3	107	0.00	4.45
59		isopropyl acetate	0.212	0.204	3.8	90	0.00	4.36
60		1,2-dichloroethane	0.292	0.288	1.4	96	0.00	4.38
61		trichloroethene	0.250	0.267	-6.8	98	0.00	4.90
62		ethyl acrylate	0.204	0.206	-1.0	94	0.00	5.04
63		2-nitropropane	0.062	0.067	-8.1	99	0.00	5.75
64		2-chloroethyl vinyl ether	0.121	0.122	-0.8	94	0.00	5.76
65		methyl methacrylate	0.052	0.056	-7.7	95	0.00	5.27
66		1,2-dichloropropane	0.219	0.224	-2.3	95	0.00	5.17
67		methylcyclohexane	0.466	0.465	0.2	96	0.00	5.01
68		dibromomethane	0.120	0.127	-5.8	98	0.00	5.30
69		bromodichloromethane	0.278	0.295	-6.1	95	0.00	5.45
70		epichlorohydrin	0.015	0.016	-6.7	97	0.00	5.85
71		cis-1,3-dichloropropene	0.348	0.376	-8.0	97	0.00	5.89
72		4-methyl-2-pentanone	0.029	0.031	-6.9	94	0.00	6.04
73		3-methyl-1-butanol			-----NA-----			
74	I	chlorobenzene-d5	1.000	1.000	0.0	98	0.00	7.40
75	S	toluene-d8 (s)	1.238	1.242	-0.3	98	0.00	6.08
76		toluene	0.714	0.748	-4.8	98	0.00	6.15
77		trans-1,3-dichloropropene	0.328	0.345	-5.2	91	0.00	6.44
78		ethyl methacrylate	0.273	0.274	-0.4	90	0.00	6.47
79		1,1,2-trichloroethane	0.176	0.181	-2.8	97	0.00	6.60
80		2-hexanone	0.067	0.068	-1.5	94	0.00	6.80
81		tetrachloroethene			-----NA-----			
82		1,3-dichloropropane	0.354	0.374	-5.6	97	0.00	6.75
83		butyl acetate	0.126	0.131	-4.0	94	0.00	6.89
84		dibromochloromethane	0.207	0.244	-17.9	100	0.00	6.92
85		1,2-dibromoethane	0.255	0.257	-0.8	90	0.00	7.02
86		n-butyl ether	1.161	1.174	-1.1	94	0.00	7.47
87		chlorobenzene	0.786	0.805	-2.4	97	0.00	7.42
88		1,1,1,2-tetrachloroethane	0.259	0.291	-12.4	98	0.00	7.51
89		ethylbenzene	1.381	1.441	-4.3	98	0.00	7.49
90		m,p-xylene	0.544	0.576	-5.9	100	0.00	7.60
91		o-xylene	1.092	1.141	-4.5	98	0.00	7.93
92		styrene	0.875	0.923	-5.5	96	0.00	7.96
		----- True	Calc.	% Drift	-----			
93		bromoform	50.000	49.962	0.1	102	0.00	8.13

6.10.2
6

Initial Calibration Verification

Job Number: JC86043
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: V3C6743-ICV6743
 Lab FileID: 3C149637.D

-----		AvgRF	CCRF	% Dev	-----		
94	butyl acrylate	0.379	0.407	-7.4	96	0.00	7.92
95	isopropylbenzene	1.392	1.494	-7.3	99	0.00	8.23
96	cis-1,4-dichloro-2-butene	0.077	0.076	1.3	90	0.00	8.36
97 I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	98	0.00	9.33
98 S	4-bromofluorobenzene (s)	0.822	0.818	0.5	98	0.00	8.40
99	bromobenzene	0.663	0.673	-1.5	96	0.00	8.51
100	1,1,2,2-tetrachloroethane	0.451	0.446	1.1	93	0.00	8.55
-----		True	Calc.	% Drift	-----		
101	trans-1,4-dichloro-2-bute	50.000	55.414	-10.8	104	0.00	8.60
-----		AvgRF	CCRF	% Dev	-----		
102	1,2,3-trichloropropane	0.143	0.148	-3.5	94	0.00	8.59
103	n-propylbenzene	3.041	3.179	-4.5	98	0.00	8.57
104	2-chlorotoluene	0.622	0.655	-5.3	97	0.00	8.66
105	4-chlorotoluene	0.620	0.667	-7.6	99	0.00	8.75
106	1,3,5-trimethylbenzene	2.212	2.341	-5.8	97	0.00	8.72
107	tert-butylbenzene	1.969	2.115	-7.4	99	0.00	8.97
108	1,2,4-trimethylbenzene	2.252	2.396	-6.4	99	0.00	9.02
109	sec-butylbenzene	2.861	3.129	-9.4	100	0.00	9.14
110	1,3-dichlorobenzene	1.302	1.335	-2.5	96	0.00	9.26
111	p-isopropyltoluene	2.518	2.758	-9.5	99	0.00	9.26
112	1,4-dichlorobenzene	1.331	1.309	1.7	95	0.00	9.34
113	1,2-dichlorobenzene	1.220	1.221	-0.1	95	0.00	9.64
114	n-butylbenzene	1.244	1.365	-9.7	98	0.00	9.59
-----		True	Calc.	% Drift	-----		
115	1,2-dibromo-3-chloropropa	50.000	49.548	0.9	95	0.00	10.27
-----		AvgRF	CCRF	% Dev	-----		
116	1,3,5-Trichlorobenzene	1.184	1.197	-1.1	93	0.00	10.39
117	1,2,4-trichlorobenzene	1.019	1.013	0.6	92	0.00	10.89
118	hexachlorobutadiene	0.635	0.681	-7.2	95	0.00	10.97
119	naphthalene	1.785	1.801	-0.9	93	0.00	11.08
120	1,2,3-trichlorobenzene	0.945	0.928	1.8	90	0.00	11.27
-----		True	Calc.	% Drift	-----		
121	hexachloroethane	50.000	51.693	-3.4	104	0.00	9.80
-----		AvgRF	CCRF	% Dev	-----		
122	Benzyl chloride	0.788	0.675	14.3	73	0.00	9.46
-----		True	Calc.	% Drift	-----		
123	2-ethylhexyl acrylate	10.000	9.962	0.4	94	0.00	11.02
-----		AvgRF	CCRF	% Dev	-----		
124	2-methylnaphthalene	1.069	1.159	-8.4	97	0.00	11.94

(#) = Out of Range SPCC's out = 0 CCC's out = 0
 3C149632.D M3C6743.M Fri Feb 15 11:14:05 2019 MS3C

6.10.2
6

Initial Calibration Verification

Job Number: JC86043
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: V3C6743-ICV6743
 Lab FileID: 3C149638.D

Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\V3C6743\3C149638.D Vial: 18
 Acq On : 14 Feb 2019 12:23 am Operator: juntaep
 Sample : ICV6743-50 Inst : MS3C
 Misc : MS32156,V3C6743,5.0,,,,,1 Multiplr: 1.00
 MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M3C6743.M (RTE Integrator)
 Title : Method SW846 8260C, Rxi624 20m x 0.18mm x 1.0um
 Last Update : Thu Feb 14 14:08:59 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	90	0.00	2.57
2	ethanol			-----NA-----			
3	tertiary butyl alcohol			-----NA-----			
4	1,4-dioxane			-----NA-----			
5 I	pentafluorobenzene	1.000	1.000	0.0	98	0.00	4.03
6	chlorodifluoromethane			-----NA-----			
7	dichlorodifluoromethane			-----NA-----			
8	chloromethane			-----NA-----			
9	1,3-butadiene			-----NA-----			
10	vinyl chloride			-----NA-----			
11	bromomethane			-----NA-----			
12	chloroethane			-----NA-----			
13	vinyl Bromide			-----NA-----			
14	trichlorofluoromethane			-----NA-----			
15	ethyl ether			-----NA-----			
16	2-chloropropane			-----NA-----			
17	acrolein			-----NA-----			
18	freon 113			-----NA-----			
19	1,1-dichloroethene			-----NA-----			
20	acetone	0.016	0.015	6.3	85	0.00	2.25
21	acetonitrile	0.024	0.023	4.2	89	0.00	2.51
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	ethyl tert-butyl ether			-----NA-----			
31	2-butanone			-----NA-----			
32	1,1-dichloroethane			-----NA-----			
33	chloroprene			-----NA-----			
34	acrylonitrile			-----NA-----			
35	vinyl acetate			-----NA-----			
	----- True		Calc.	% Drift			
36	ethyl acetate			-----NA-----			
	----- AvgRF		CCRF	% Dev			
37	2,2-dichloropropane			-----NA-----			

Initial Calibration Verification

Job Number: JC86043
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: V3C6743-ICV6743
 Lab FileID: 3C149638.D

38	cis-1,2-dichloroethene							
39	propionitrile							
40	bromochloromethane							
41	tetrahydrofuran							
42	chloroform							
43	tert-Butyl Formate							
44	isobutyl alcohol							
45 S	dibromofluoromethane (s)	0.361	0.358	0.8	95	0.00	3.99	
46	methacrylonitrile							
47	1,1,1-trichloroethane							
48	cyclohexane							
49	1,1-dichloropropene							
50	tert-amyl alcohol							
51	carbon tetrachloride							
52 I	1,4-difluorobenzene	1.000	1.000	0.0	96	0.00	4.69	
53 S	1,2-dichloroethane-d4 (s)	0.272	0.265	2.6	95	0.00	4.31	
54	2,2,4-trimethylpentane							
55	tert-amyl methyl ether							
56	n-butyl alcohol							
57	benzene							
58	heptane							
59	isopropyl acetate							
60	1,2-dichloroethane							
61	trichloroethene							
62	ethyl acrylate							
63	2-nitropropane							
64	2-chloroethyl vinyl ether							
65	methyl methacrylate							
66	1,2-dichloropropane							
67	methylcyclohexane							
68	dibromomethane							
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	97	0.00	7.40	
75 S	toluene-d8 (s)	1.238	1.236	0.2	97	0.00	6.08	
76	toluene							
77	trans-1,3-dichloropropene							
78	ethyl methacrylate							
79	1,1,2-trichloroethane							
80	2-hexanone							
81	tetrachloroethene	0.339	0.390	-15.0	101	0.00	6.62	
82	1,3-dichloropropane							
83	butyl acetate							
84	dibromochloromethane							
85	1,2-dibromoethane							
86	n-butyl ether							
87	chlorobenzene							
88	1,1,1,2-tetrachloroethane							
89	ethylbenzene							
90	m,p-xylene							
91	o-xylene							
92	styrene							
93	bromoform	True	Calc.	% Drift				

6.10.3
6

Initial Calibration Verification

Job Number: JC86043
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: V3C6743-ICV6743
 Lab FileID: 3C149638.D

		AvgRF	CCRF	% Dev			
94	butyl acrylate			NA			
95	isopropylbenzene			NA			
96	cis-1,4-dichloro-2-butene			NA			
97 I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	97	0.00	9.33
98 S	4-bromofluorobenzene (s)	0.822	0.817	0.6	97	0.00	8.40
99	bromobenzene			NA			
100	1,1,2,2-tetrachloroethane			NA			
		True	Calc.	% Drift			
101	trans-1,4-dichloro-2-bute			NA			
		AvgRF	CCRF	% Dev			
102	1,2,3-trichloropropane			NA			
103	n-propylbenzene			NA			
104	2-chlorotoluene			NA			
105	4-chlorotoluene			NA			
106	1,3,5-trimethylbenzene			NA			
107	tert-butylbenzene			NA			
108	1,2,4-trimethylbenzene			NA			
109	sec-butylbenzene			NA			
110	1,3-dichlorobenzene			NA			
111	p-isopropyltoluene			NA			
112	1,4-dichlorobenzene			NA			
113	1,2-dichlorobenzene			NA			
114	n-butylbenzene			NA			
		True	Calc.	% Drift			
115	1,2-dibromo-3-chloropropa			NA			
		AvgRF	CCRF	% Dev			
116	1,3,5-Trichlorobenzene			NA			
117	1,2,4-trichlorobenzene			NA			
118	hexachlorobutadiene			NA			
119	naphthalene			NA			
120	1,2,3-trichlorobenzene			NA			
		True	Calc.	% Drift			
121	hexachloroethane			NA			
		AvgRF	CCRF	% Dev			
122	Benzyl chloride			NA			
		True	Calc.	% Drift			
123	2-ethylhexyl acrylate			NA			
		AvgRF	CCRF	% Dev			
124	2-methylnaphthalene			NA			

(#) = Out of Range SPCC's out = 0 CCC's out = 0
 3C149632.D M3C6743.M Thu Feb 14 14:13:20 2019 MS3C

6.10.3

6

Continuing Calibration Summary

Job Number: JC86043
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: V3C6794-CC6743
 Lab FileID: 3C151001.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\ja...19\v3c6794\3c151001.d Vial: 3
 Acq On : 12 Apr 2019 8:03 am Operator: Prashans
 Sample : CC6743-50 Inst : MS3C
 Misc : MS33737,V3C6794,5.0,,,,,1 Multiplr: 1.00
 MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M3C6743.M (RTE Integrator)
 Title : Method SW846 8260C, Rxi624 20m x 0.18mm x 1.0um
 Last Update : Mon Sep 13 11:48:20 2010
 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	89	0.00	2.58
2	ethanol			-----NA-----			
3	tertiary butyl alcohol	1.102	1.124	-2.0	85	0.00	2.64
4	1,4-dioxane	0.134	0.151	-12.7	94	0.00	5.29
5 I	pentafluorobenzene	1.000	1.000	0.0	90	0.00	4.03
6	chlorodifluoromethane	0.303	0.318	-5.0	87	0.00	1.10
7	dichlorodifluoromethane	0.432	0.408	5.6	77	0.00	1.08
8	chloromethane	0.357	0.369	-3.4	86	0.00	1.23
9	1,3-butadiene	0.232	0.253	-9.1	90	0.00	1.32
10	vinyl chloride	0.359	0.366	-1.9	82	0.00	1.30
11	bromomethane	0.215	0.176	18.1	68	0.00	1.54
12	chloroethane	0.213	0.220	-3.3	83	0.00	1.62
13	vinyl Bromide	0.308	0.212	31.2#	55	0.00	1.75
14	trichlorofluoromethane	0.531	0.485	8.7	74	0.00	1.77
15	ethyl ether	0.151	0.166	-9.9	91	0.00	1.99
16	2-chloropropane	0.121	0.119	1.7	79	0.00	2.07
17	acrolein	0.031	0.041	-32.3#	102	0.00	2.14
18	freon 113	0.254	0.257	-1.2	80	0.00	2.13
19	1,1-dichloroethene	0.283	0.290	-2.5	83	0.00	2.16
20	acetone	0.016	0.018	-12.5	94	0.00	2.25
21	acetonitrile	0.024	0.026	-8.3	95	0.00	2.51
22	iodomethane	0.232	0.236	-1.7	65	0.00	2.29
23	carbon disulfide	0.793	0.783	1.3	86	0.00	2.31
24	methylene chloride	0.309	0.302	2.3	86	0.00	2.56
25	methyl acetate	0.149	0.156	-4.7	88	0.00	2.47
26	methyl tert butyl ether	0.754	0.766	-1.6	84	0.00	2.71
27	trans-1,2-dichloroethene	0.322	0.322	0.0	83	0.00	2.73
28	hexane	0.510	0.509	0.2	84	0.00	2.88
29	di-isopropyl ether	0.916	0.922	-0.7	83	0.00	3.08
30	ethyl tert-butyl ether	0.905	0.910	-0.6	82	0.00	3.36
31	2-butanone	0.025	0.028	-12.0	92	0.00	3.60
32	1,1-dichloroethane	0.523	0.532	-1.7	82	0.00	3.09
33	chloroprene	0.465	0.472	-1.5	82	0.00	3.13
34	acrylonitrile	0.064	0.074	-15.6	97	0.00	2.80
35	vinyl acetate	0.057	0.064	-12.3	91	0.00	3.12
	----- True	Calc.	% Drift	-----			
36	ethyl acetate	50.000	55.258	-10.5	89	0.00	3.61
	----- AvgRF	CCRF	% Dev	-----			
37	2,2-dichloropropane	0.482	0.459	4.8	77	0.00	3.54

Continuing Calibration Summary

Job Number: JC86043
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: V3C6794-CC6743
 Lab FileID: 3C151001.D

38		cis-1,2-dichloroethene	0.348	0.354	-1.7	83	0.00	3.57
39		propionitrile	0.028	0.032	-14.3	97	0.00	3.72
40		bromochloromethane	0.195	0.205	-5.1	88	0.00	3.78
41		tetrahydrofuran	0.024	0.030	-25.0#	104	0.00	3.79
42		chloroform	0.566	0.537	5.1	81	0.00	3.84
43		tert-Butyl Formate	0.179	0.157	12.3	68	0.00	3.85
44		isobutyl alcohol	0.044	0.040	9.1	77	0.00	4.26
45	S	dibromofluoromethane (s)	0.361	0.368	-1.9	90	0.00	3.99
46		methacrylonitrile	0.084	0.099	-17.9	95	0.00	3.81
47		1,1,1-trichloroethane	0.511	0.487	4.7	77	0.00	3.96
48		cyclohexane	0.523	0.498	4.8	78	0.00	3.94
49		1,1-dichloropropene	0.168	0.166	1.2	80	0.00	4.11
50		tert-amyl alcohol	0.022	0.021	4.5	83	0.00	4.33
51		carbon tetrachloride	0.404	0.407	-0.7	80	0.00	4.07
52	I	1,4-difluorobenzene	1.000	1.000	0.0	88	0.00	4.69
53	S	1,2-dichloroethane-d4 (s)	0.272	0.274	-0.7	90	0.00	4.31
54		2,2,4-trimethylpentane	0.927	0.900	2.9	80	0.00	4.26
55		tert-amyl methyl ether	0.207	0.206	0.5	82	0.00	4.36
56		n-butyl alcohol	0.005	0.005	0.0	94	0.00	4.90
57		benzene	0.920	0.920	0.0	83	0.00	4.28
58		heptane	0.197	0.200	-1.5	83	0.00	4.45
59		isopropyl acetate	0.212	0.206	2.8	82	0.00	4.36
60		1,2-dichloroethane	0.292	0.272	6.8	82	0.00	4.38
61		trichloroethene	0.250	0.248	0.8	82	0.00	4.90
62		ethyl acrylate	0.204	0.234	-14.7	96	0.00	5.04
63		2-nitropropane	0.062	0.064	-3.2	85	-0.01	5.75
64		2-chloroethyl vinyl ether	0.121	0.132	-9.1	91	0.00	5.76
65		methyl methacrylate	0.052	0.057	-9.6	87	0.00	5.27
66		1,2-dichloropropane	0.219	0.219	0.0	83	0.00	5.17
67		methylcyclohexane	0.466	0.430	7.7	80	0.00	5.01
68		dibromomethane	0.120	0.124	-3.3	86	0.00	5.29
69		bromodichloromethane	0.278	0.294	-5.8	85	0.00	5.45
70		epichlorohydrin	0.015	0.018	-20.0	102	0.00	5.84
71		cis-1,3-dichloropropene	0.348	0.371	-6.6	87	0.00	5.89
72		4-methyl-2-pentanone	0.029	0.034	-17.2	91	0.00	6.03
73		3-methyl-1-butanol			-----NA-----			
74	I	chlorobenzene-d5	1.000	1.000	0.0	90	0.00	7.40
75	S	toluene-d8 (s)	1.238	1.257	-1.5	91	0.00	6.08
76		toluene	0.714	0.695	2.7	83	0.00	6.15
77		trans-1,3-dichloropropene	0.328	0.355	-8.2	85	0.00	6.43
78		ethyl methacrylate	0.273	0.289	-5.9	87	0.00	6.47
79		1,1,2-trichloroethane	0.176	0.179	-1.7	88	0.00	6.60
80		2-hexanone	0.067	0.076	-13.4	96	0.00	6.80
81		tetrachloroethene	0.339	0.347	-2.4	83	0.00	6.62
82		1,3-dichloropropane	0.354	0.363	-2.5	86	0.00	6.75
83		butyl acetate	0.126	0.140	-11.1	92	0.00	6.89
84		dibromochloromethane	0.207	0.246	-18.8	92	0.00	6.92
85		1,2-dibromoethane	0.255	0.285	-11.8	92	0.00	7.01
86		n-butyl ether	1.161	1.074	7.5	79	0.00	7.47
87		chlorobenzene	0.786	0.763	2.9	84	0.00	7.42
88		1,1,1,2-tetrachloroethane	0.259	0.271	-4.6	83	0.00	7.50
89		ethylbenzene	1.381	1.319	4.5	82	0.00	7.49
90		m,p-xylene	0.544	0.521	4.2	82	0.00	7.60
91		o-xylene	1.092	1.047	4.1	83	0.00	7.93
92		styrene	0.875	0.864	1.3	82	0.00	7.96
93		----- True	50.000	Calc.	% Drift	-----		
		bromoform	50.000	53.871	-7.7	101	0.00	8.13

6.10.4

6

Continuing Calibration Summary

Job Number: JC86043
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: V3C6794-CC6743
 Lab FileID: 3C151001.D

		AvgRF	CCRF	% Dev			
94	butyl acrylate	0.379	0.420	-10.8	91	0.00	7.92
95	isopropylbenzene	1.392	1.334	4.2	81	0.00	8.23
96	cis-1,4-dichloro-2-butene	0.077	0.084	-9.1	91	0.00	8.36
97 I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	90	0.00	9.32
98 S	4-bromofluorobenzene (s)	0.822	0.833	-1.3	92	0.00	8.39
99	bromobenzene	0.663	0.646	2.6	85	0.00	8.51
100	1,1,2,2-tetrachloroethane	0.451	0.477	-5.8	92	0.00	8.55
		True	Calc.	% Drift			
101	trans-1,4-dichloro-2-bute	50.000	51.730	-3.5	90	0.00	8.60
		AvgRF	CCRF	% Dev			
102	1,2,3-trichloropropane	0.143	0.148	-3.5	87	0.00	8.58
103	n-propylbenzene	3.041	2.852	6.2	82	0.00	8.56
104	2-chlorotoluene	0.622	0.611	1.8	84	0.00	8.65
105	4-chlorotoluene	0.620	0.613	1.1	84	0.00	8.75
106	1,3,5-trimethylbenzene	2.212	2.068	6.5	80	0.00	8.71
107	tert-butylbenzene	1.969	1.848	6.1	80	0.00	8.97
108	1,2,4-trimethylbenzene	2.252	2.081	7.6	80	0.00	9.02
109	sec-butylbenzene	2.861	2.726	4.7	81	0.00	9.14
110	1,3-dichlorobenzene	1.302	1.258	3.4	84	0.00	9.26
111	p-isopropyltoluene	2.518	2.406	4.4	80	0.00	9.26
112	1,4-dichlorobenzene	1.331	1.274	4.3	85	0.00	9.34
113	1,2-dichlorobenzene	1.220	1.172	3.9	84	0.00	9.63
114	n-butylbenzene	1.244	1.220	1.9	81	0.00	9.59
		True	Calc.	% Drift			
115	1,2-dibromo-3-chloropropa	50.000	56.468	-12.9	100	0.00	10.27
		AvgRF	CCRF	% Dev			
116	1,3,5-Trichlorobenzene	1.184	1.242	-4.9	89	0.00	10.38
117	1,2,4-trichlorobenzene	1.019	1.072	-5.2	90	0.00	10.88
118	hexachlorobutadiene	0.635	0.674	-6.1	87	0.00	10.97
119	naphthalene	1.785	1.917	-7.4	91	0.00	11.07
120	1,2,3-trichlorobenzene	0.945	0.987	-4.4	89	0.00	11.27
		True	Calc.	% Drift			
121	hexachloroethane	50.000	51.105	-2.2	95	0.00	9.80
		AvgRF	CCRF	% Dev			
122	Benzyl chloride	0.788	0.942	-19.5	95	0.00	9.46
		True	Calc.	% Drift			
123	2-ethylhexyl acrylate	10.000	9.872	1.3	86	0.00	11.02
		AvgRF	CCRF	% Dev			
124	2-methylnaphthalene	1.069	1.336	-25.0#	104	0.00	11.94

(#) = Out of Range SPCC's out = 0 CCC's out = 0
 3C149632.D M3C6743.M Mon Apr 15 08:23:20 2019

6:10:4
6

Initial Calibration Summary

Job Number: JC86043
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA

Sample: VI8986-ICC8986
Lab FileID: I223181.D

Response Factor Report GCMSI

Method : C:\MSDCHEM\1\METHODS\MI8986.M (RTE Integrator)
 Title : Method SW846 8260C, Rxi-624 60m x 0.25mm x 1.4um
 Last Update : Wed Nov 28 13:32:54 2018
 Response via : Initial Calibration

Calibration Files

0.5 =I223175.D 1 =I223176.D 2 =I223177.D 8 =I223179.D
 4 =I223178.D 20 =I223180.D 50 =I223181.D 100 =I223182.D
 200 =I223183.D = = =

Compound	0.5	1	2	8	4	20	50	100	200	Avg	%RSD
----------	-----	---	---	---	---	----	----	-----	-----	-----	------

1) I tert butyl alcohol-d9 -----ISTD-----											
2) tertiary butyl alcohol											
	0.930	1.080	0.924	1.036	1.052	1.129	1.093			1.035	7.68
3) 1,4-dioxane											
	0.127	0.105	0.121	0.116	0.118	0.109				0.116	6.89
4) I pentafluorobenzene -----ISTD-----											
5) dichlorodifluoromethane											
	0.407	0.389	0.432	0.465	0.450	0.451	0.465	0.435		0.437	6.24
6) chlorodifluoromethane											
	0.367	0.391	0.421	0.411	0.420	0.424	0.440	0.425		0.412	5.60
7) chloromethane											
	0.429	0.425	0.402	0.371	0.418	0.373	0.377	0.416	0.429	0.404	6.06
8) vinyl chloride											
	0.294	0.326	0.296	0.337	0.359	0.349	0.352	0.377	0.376	0.341	8.99
9) 1,3-butadiene											
	0.214	0.214	0.240	0.221	0.242	0.245	0.264	0.262		0.238	8.39
10) bromomethane											
	0.221	0.229	0.209	0.233	0.233	0.224	0.222	0.240	0.232	0.227	4.05
11) chloroethane											
	0.170	0.191	0.209	0.204	0.218	0.208	0.226	0.222		0.206	8.89
12) vinyl bromide											
	0.214	0.232	0.259	0.282	0.275	0.274	0.288	0.283		0.263	10.16
13) trichlorofluoromethane											
	0.431	0.518	0.481	0.526	0.525	0.534	0.548	0.573	0.554	0.521	8.15
14) ethyl ether											
	0.102	0.152	0.131	0.155	0.156	0.168	0.169			0.148	16.02
15) 2-chloropropane											
	0.105	0.126	0.122	0.132	0.128	0.120	0.109			0.120	8.10
16) acrolein											
			0.036		0.044	0.048	0.055	0.058		0.048	18.24
17) freon 113											
	0.209	0.230	0.280	0.253	0.267	0.269	0.273	0.263		0.255	9.46
18) 1,1-dichloroethene											
	0.401	0.453	0.492	0.446	0.480	0.473	0.492	0.485		0.465	6.65
19) acetone											
	0.071	0.088	0.074	0.087	0.087	0.094	0.089			0.084	9.74
20) iodomethane----The compound does not meet initial criteria.											
	0.229	0.182	0.308	0.365	0.375	0.330				0.298	25.82
----- Linear regression ----- Coefficient = 0.9944											
Response Ratio = 0.00375 + 0.33860 *A											
21) carbon disulfide											
	1.073	1.026	1.023	0.973	0.962	0.988	0.972			1.002	3.99

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Initial Calibration Summary

Job Number: JC86043
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: VI8986-ICC8986
 Lab FileID: I223181.D

22)	acetonitrile	0.036 0.044 0.037 0.044 0.043 0.046 0.044	0.042	9.18
23)	methyl acetate	0.040 0.021 0.042 0.047 0.052 0.052	0.042	27.02
	----- Linear regression -----	Coefficient = 0.9990		
	Response Ratio = -0.00254 + 0.05196 *A			
24)	methylene chloride	0.365 0.360 0.343 0.331 0.331 0.329 0.349 0.348	0.345	3.98
25)	acrylonitrile	0.089 0.096 0.099 0.105 0.107	0.099	7.29
26)	methyl tert butyl ether	0.728 0.765 0.820 0.774 0.842 0.846 0.884 0.875	0.817	6.84
27)	trans-1,2-dichloroethene	0.379 0.432 0.460 0.446 0.459 0.455 0.466 0.452	0.444	6.35
28)	hexane	0.513 0.555 0.513 0.543 0.513 0.546 0.534 0.550 0.548	0.535	3.28
29)	1,1-dichloroethane	0.521 0.550 0.602 0.566 0.578 0.560 0.587 0.568	0.566	4.29
30)	vinyl acetate	0.046 0.051 0.054 0.059 0.060	0.054	10.74
31)	di-isopropyl ether	0.874 0.926 1.043 0.972 1.028 1.034 1.085 1.070	1.004	7.33
32)	chloroprene	0.387 0.419 0.514 0.469 0.510 0.506 0.521 0.498	0.478	10.38
33)	ethyl tert-butyl ether	0.866 0.876 0.987 0.920 0.991 1.005 1.063 1.044	0.969	7.65
34)	2-butanone	0.021 0.031 0.026 0.033 0.035 0.038 0.037	0.032	19.75
35)	2,2-dichloropropane	0.429 0.476 0.492 0.525 0.505 0.510 0.495 0.505 0.483	0.491	5.64
36)	ethyl acetate	0.034 0.025 0.042 0.044 0.050 0.049	0.041	23.88
	----- Linear regression -----	Coefficient = 0.9988		
	Response Ratio = -0.00230 + 0.04933 *A			
37)	cis-1,2-dichloroethene	0.343 0.355 0.385 0.363 0.369 0.366 0.372 0.366	0.365	3.41
38)	propionitrile	0.037 0.049 0.042 0.048 0.048 0.051 0.050	0.046	11.09
39)	methyl acrylate	0.035 0.024 0.041 0.046 0.051 0.050	0.041	25.42
	----- Linear regression -----	Coefficient = 0.9991		
	Response Ratio = -0.00251 + 0.05085 *A			
40)	methacrylonitrile	0.112 0.091 0.115 0.122 0.131 0.130	0.117	12.59
41)	bromochloromethane	0.123 0.155 0.174 0.166 0.173 0.169 0.180 0.173	0.164	11.11
42)	tetrahydrofuran	0.037 0.027 0.036 0.036 0.041 0.040	0.036	13.64
43)	chloroform	0.556 0.543 0.613 0.588 0.603 0.595 0.608 0.584	0.586	4.26
44)	carbon tetrachloride	0.433 0.454 0.509 0.486 0.502 0.493 0.488 0.465	0.479	5.45
45)	1,1-dichloropropene	0.398 0.428 0.455 0.429 0.447 0.457 0.464 0.451	0.441	4.91
46)	isobutyl alcohol		0.000	-1.00
47)	dibromofluoromethane (s)			

Initial Calibration Summary

Job Number: JC86043
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: VI8986-ICC8986
 Lab FileID: I223181.D

	0.390	0.394	0.393	0.395	0.393	0.396	0.393	0.392	0.389	0.393	0.56
48)	1,1,1-trichloroethane										
	0.488	0.467	0.568	0.525	0.541	0.530	0.549	0.516		0.523	6.26
49)	cyclohexane										
	0.424	0.430	0.463	0.490	0.474	0.460	0.476	0.468		0.461	4.91
50)	tert-amyl alcohol										
	0.012	0.006	0.012	0.013	0.014	0.013				0.012	23.67
	----- Linear regression ----- Coefficient = 0.9991										
	Response Ratio = -0.00177 + 0.01357 *A										
51) I	1,4-difluorobenzene -----ISTD-----										
52)	1,2-dichloroethane-d4 (s)										
	0.312	0.320	0.317	0.319	0.318	0.316	0.312	0.301	0.293	0.312	2.94
53)	isopropyl acetate										
	0.045	0.030	0.045	0.049	0.051	0.051				0.045	17.50
54)	1,2-dichloroethane										
	0.278	0.363	0.337	0.342	0.342	0.329	0.326	0.329	0.310	0.328	7.24
55)	benzene										
	0.793	0.933	0.958	1.053	0.987	1.017	1.002	1.043	1.006	0.977	8.06
56)	2,2,4-trimethylpentane										
	0.789	1.032	0.969	1.094	1.039	1.049	1.009	1.009	1.011	1.000	8.63
57)	tert-amyl methyl ether										
	0.123	0.153	0.180	0.163	0.177	0.176	0.184	0.178		0.167	12.29
58)	heptane										
	0.177	0.205	0.229	0.207	0.221	0.209	0.212	0.211		0.209	7.27
59)	n-butyl alcohol										
	0.007	0.008	0.007	0.009	0.009	0.009	0.009	0.009		0.008	11.40
60)	trichloroethene										
	0.231	0.258	0.280	0.261	0.268	0.264	0.275	0.256		0.262	5.67
61)	ethyl acrylate										
	0.249	0.280	0.237	0.277	0.287	0.308	0.298			0.277	9.24
62)	methylcyclohexane										
	0.444	0.410	0.453	0.438	0.455	0.445	0.454	0.446		0.443	3.32
63)	1,2-dichloropropane										
	0.238	0.245	0.259	0.245	0.251	0.250	0.262	0.251		0.250	3.00
64)	methyl methacrylate										
	0.055	0.048	0.058	0.062	0.066	0.064				0.059	11.63
65)	dibromomethane										
	0.122	0.143	0.154	0.142	0.150	0.149	0.156	0.149		0.146	7.41
66)	bromodichloromethane										
	0.317	0.332	0.368	0.338	0.354	0.351	0.367	0.345		0.346	4.99
67)	2-nitropropane										
	0.057	0.060	0.059	0.061	0.063	0.059				0.060	3.83
68)	2-chloroethyl vinyl ether										
	0.123	0.135	0.152	0.142	0.151	0.152	0.161	0.154		0.146	8.40
69)	epichlorohydrin										
	0.023	0.025	0.024	0.024	0.024	0.024	0.026	0.025		0.024	4.87
70)	cis-1,3-dichloropropene										
	0.301	0.375	0.369	0.416	0.399	0.414	0.405	0.432	0.409	0.391	9.97
71)	4-methyl-2-pentanone										
	0.066	0.068	0.083	0.073	0.081	0.080	0.088	0.084		0.078	10.04
72)	3-methyl-1-butanol										
	0.006	0.007	0.006	0.007	0.007	0.007	0.008	0.008		0.007	11.88
73) I	chlorobenzene-d5 -----ISTD-----										
74)	toluene-d8 (s)										
	1.298	1.292	1.290	1.276	1.288	1.296	1.284	1.261	1.253	1.282	1.23
75)	toluene										
	0.555	0.658	0.686	0.753	0.724	0.722	0.706	0.728	0.698	0.692	8.39

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Initial Calibration Summary

Job Number: JC86043
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA

Sample: VI8986-ICC8986
Lab FileID: I223181.D

76)	trans-1,3-dichloropropene	0.330 0.445 0.385 0.451 0.408 0.438 0.434 0.438 0.418	0.416	9.22
77)	ethyl methacrylate	0.284 0.279 0.335 0.299 0.334 0.323 0.332 0.325	0.314	7.42
78)	1,1,2-trichloroethane	0.167 0.183 0.214 0.207 0.209 0.212 0.221 0.211	0.203	8.90
79)	1,3-dichloropropane	0.294 0.342 0.355 0.405 0.370 0.397 0.386 0.395 0.383	0.370	9.44
80)	tetrachloroethene	0.268 0.350 0.349 0.375 0.359 0.364 0.359 0.361 0.341	0.347	9.00
81)	2-hexanone	0.073 0.086 0.097 0.084 0.094 0.095 0.101 0.096	0.091	10.11
82)	butyl acetate	0.124 0.163 0.149 0.166 0.164 0.172 0.167	0.158	10.53
83)	n-butyl ether	0.988 1.088 1.099 1.222 1.156 1.169 1.148 1.213 1.203	1.143	6.53
84)	dibromochloromethane	0.284 0.300 0.329 0.306 0.329 0.328 0.340 0.323	0.317	5.95
85)	1,2-dibromoethane	0.235 0.241 0.291 0.270 0.287 0.292 0.306 0.289	0.276	9.31
86)	chlorobenzene	0.576 0.718 0.725 0.797 0.745 0.771 0.755 0.781 0.767	0.737	8.90
87)	1,1,1,2-tetrachloroethane	0.252 0.283 0.311 0.288 0.297 0.301 0.308 0.302	0.293	6.47
88)	ethylbenzene	1.044 1.264 1.282 1.387 1.324 1.332 1.307 1.345 1.320	1.289	7.63
89)	m,p-xylene	0.408 0.503 0.508 0.544 0.511 0.527 0.515 0.529 0.519	0.507	7.71
90)	o-xylene	0.474 0.491 0.527 0.493 0.507 0.510 0.521 0.515	0.505	3.50
91)	styrene	0.724 0.816 0.895 0.819 0.865 0.868 0.898 0.897	0.848	7.07
92)	butyl acrylate	0.402 0.443 0.483 0.461 0.505 0.503 0.531 0.541	0.484	9.66
93)	cis-1,4-dichloro-2-butene	0.107 0.108 0.131 0.120 0.131 0.130 0.136 0.133	0.124	9.19
94)	bromoform	0.182 0.212 0.224 0.212 0.230 0.237 0.243 0.243	0.223	9.25
95)	isopropylbenzene	0.977 1.219 1.236 1.361 1.265 1.342 1.320 1.358 1.356	1.271	9.68
96) I	1,4-dichlorobenzene-d	-----ISTD-----		
97)	4-bromofluorobenzene (s)	0.771 0.787 0.778 0.773 0.767 0.757 0.754 0.727 0.748	0.762	2.37
98)	1,1,1,2-tetrachloroethane	0.454 0.493 0.555 0.501 0.523 0.528 0.540 0.543	0.517	6.36
99)	trans-1,4-dichloro-2-butene	0.147 0.121 0.132 0.135 0.139 0.134	0.135	6.19
100)	1,2,3-trichloropropane	0.124 0.114 0.148 0.124 0.139 0.137 0.142 0.137	0.133	8.31
101)	bromobenzene	0.513 0.610 0.614 0.679 0.638 0.630 0.621 0.631 0.621	0.617	7.16
102)	n-propylbenzene	2.090 2.610 2.510 2.813 2.602 2.633 2.588 2.631 2.586	2.563	7.60
103)	2-chlorotoluene	0.416 0.539 0.542 0.594 0.574 0.542 0.539 0.552 0.547	0.538	9.17
104)	4-chlorotoluene	1.273 1.602 1.489 1.653 1.558 1.583 1.513 1.568 1.550	1.532	7.08
105)	1,3,5-trimethylbenzene	1.477 1.869 1.992 2.123 2.006 2.010 1.936 1.986 1.957	1.928	9.45

Initial Calibration Summary

Job Number: JC86043
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA

Sample: VI8986-ICC8986
Lab FileID: I223181.D

106)	tert-butylbenzene	0.343	0.288	0.392	0.351	0.372	0.366	0.373	0.373	0.357	8.91
107)	1,2,4-trimethylbenzene	1.638	1.951	2.093	2.099	2.011	2.013	1.978	2.035	1.964	6.92
108)	sec-butylbenzene	2.478	2.397	2.578	2.411	2.514	2.459	2.534	2.512	2.485	2.48
109)	p-isopropyltoluene	1.810	2.103	2.212	2.284	2.103	2.239	2.196	2.284	2.183	6.77
110)	benzyl chloride	1.070	1.179	1.204	1.270	1.201	1.244	1.208	1.286	1.230	5.20
111)	1,3-dichlorobenzene	0.925	1.218	1.196	1.229	1.196	1.219	1.181	1.233	1.203	8.18
112)	1,4-dichlorobenzene	0.970	1.219	1.234	1.263	1.233	1.237	1.187	1.259	1.225	7.50
113)	1,2-dichlorobenzene	0.888	1.141	1.118	1.236	1.169	1.204	1.174	1.237	1.209	9.29
114)	n-butylbenzene	0.858	1.105	1.172	1.207	1.118	1.165	1.155	1.184	1.134	9.27
115)	hexachloroethane	0.382	0.394	0.448	0.411	0.438	0.450	0.460	0.458	0.430	7.04
116)	1,2-dibromo-3-chloropropane	0.137	0.169	0.148	0.157	0.168	0.177	0.167		0.160	8.68
117)	nitrobenzene		0.051	0.045	0.054	0.057	0.064	0.059		0.055	12.02
118)	1,3,5-trichlorobenzene	1.003	1.217	1.181	1.257	1.153	1.225	1.175	1.206	1.121	6.39
119)	1,2,4-trichlorobenzene	0.865	1.128	1.035	1.114	1.046	1.129	1.063	1.091	1.010	7.83
120)	2-ethylhexyl acrylate	0.842	0.891	0.867	0.904	0.878	0.859	0.770		0.859	5.16
121)	hexachlorobutadiene	0.743	0.648	0.734	0.704	0.694	0.694	0.691	0.639	0.693	5.25
122)	naphthalene	1.682	1.895	2.082	2.151	2.032	2.087	2.115	2.252	2.033	8.06
123)	1,2,3-trichlorobenzene	0.958	1.041	1.112	1.036	1.071	1.044	1.060	0.969	1.036	4.92
124)	2-methylnaphthalene		0.746	0.753	0.723	0.711	0.764	0.661		0.726	5.17

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

MI8986.M

Wed Nov 28 14:14:26 2018

6.10.5

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Initial Calibration Verification

Job Number: JC86043
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: VI8986-ICV8986
 Lab FileID: I223186.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\VI8986\I223186.D Vial: 13
 Acq On : 27 Nov 2018 11:48 pm Operator: thienn
 Sample : ICV8986-50 Inst : GCMSI
 Misc : MS30885,VI8986,5.0,,,,,1 Multiplr: 1.00
 MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MI8986.M (RTE Integrator)
 Title : Method SW846 8260C, Rxi-624 60m x 0.25mm x 1.4um
 Last Update : Wed Nov 28 13:32:54 2018
 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	107	0.00	7.37
2	tertiary butyl alcohol	1.035	1.090	-5.3	111	-0.01	7.49
3	1,4-dioxane	0.116	0.119	-2.6	109	0.00	11.30
4 I	pentafluorobenzene	1.000	1.000	0.0	106	0.00	9.72
5	dichlorodifluoromethane	0.437	0.482	-10.3	113	0.00	3.89
6	chlorodifluoromethane	0.412	0.431	-4.6	108	0.00	3.92
7	chloromethane	0.404	0.416	-3.0	117	0.00	4.28
8	vinyl chloride	0.341	0.354	-3.8	107	0.00	4.53
9	1,3-butadiene	0.238	0.284	-19.3	123	0.00	4.62
10	bromomethane	0.227	0.247	-8.8	118	0.01	5.19
11	chloroethane	0.206	0.198	3.9	101	0.00	5.40
12	vinyl bromide	0.263	0.289	-9.9	112	0.00	5.75
13	trichlorofluoromethane	0.521	0.527	-1.2	102	0.00	5.87
14	ethyl ether	0.148	0.157	-6.1	107	0.00	6.31
15	2-chloropropane	0.120	0.121	-0.8	101	0.00	6.52
16	acrolein	0.048	0.049	-2.1	108	0.00	6.52
17	freon 113	0.255	0.276	-8.2	109	0.00	6.73
18	1,1-dichloroethene	0.465	0.432	7.1	97	0.00	6.73
19	acetone	0.084	0.088	-4.8	108	0.00	6.71
----- True		Calc.	% Drift	-----			
20	iodomethane	50.000	54.759	-9.5	109	0.00	6.98
----- AvgRF		CCRF	% Dev	-----			
21	carbon disulfide	1.002	1.024	-2.2	113	0.00	7.13
22	acetonitrile	0.042	0.041	2.4	100	0.00	7.11
----- True		Calc.	% Drift	-----			
23	methyl acetate	50.000	46.407	7.2	104	0.00	7.21
----- AvgRF		CCRF	% Dev	-----			
24	methylene chloride	0.345	0.329	4.6	106	0.00	7.44
25	acrylonitrile	0.099	0.100	-1.0	108	0.00	7.72
26	methyl tert butyl ether	0.817	0.862	-5.5	108	0.00	7.82
27	trans-1,2-dichloroethene	0.444	0.439	1.1	102	0.00	7.86
28	hexane	0.535	0.434	18.9	86	0.00	8.24
29	1,1-dichloroethane	0.566	0.562	0.7	107	0.00	8.44
30	vinyl acetate	0.054	0.052	3.7	102	0.00	8.38
31	di-isopropyl ether	1.004	1.003	0.1	103	0.00	8.45
32	chloroprene	0.478	0.506	-5.9	106	0.00	8.55
33	ethyl tert-butyl ether	0.969	0.976	-0.7	103	0.00	8.91

Initial Calibration Verification

Job Number: JC86043
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: VI8986-ICV8986
 Lab FileID: I223186.D

		True	Calc.	% Drift			
34	2-butanone	0.032	0.036	-12.5	109	0.00	9.08
35	2,2-dichloropropane	0.491	0.489	0.4	105	0.00	9.19
	----- True		Calc.	% Drift	-----		
36	ethyl acetate	50.000	48.197	3.6	110	0.00	9.12
	----- AvgRF		CCRF	% Dev	-----		
37	cis-1,2-dichloroethene	0.365	0.370	-1.4	107	0.00	9.16
38	propionitrile	0.046	0.050	-8.7	111	0.00	9.14
	----- True		Calc.	% Drift	-----		
39	methyl acrylate	50.000	49.175	1.7	110	0.00	9.20
	----- AvgRF		CCRF	% Dev	-----		
40	methacrylonitrile	0.117	0.128	-9.4	111	0.00	9.35
41	bromochloromethane	0.164	0.172	-4.9	108	0.00	9.46
42	tetrahydrofuran	0.036	0.038	-5.6	113	0.00	9.49
43	chloroform	0.586	0.594	-1.4	106	0.00	9.55
44	carbon tetrachloride	0.479	0.469	2.1	101	0.00	10.03
45	1,1-dichloropropene	0.441	0.449	-1.8	104	0.00	9.99
46	isobutyl alcohol			-----NA-----			
47 S	dibromofluoromethane (s)	0.393	0.399	-1.5	108	0.00	9.74
48	1,1,1-trichloroethane	0.523	0.515	1.5	103	0.00	9.82
49	cyclohexane	0.461	0.484	-5.0	112	0.00	9.94
	----- True		Calc.	% Drift	-----		
50	tert-amyl alcohol	250.000	246.823	1.3	107	0.00	10.10
	----- AvgRF		CCRF	% Dev	-----		
51 I	1,4-difluorobenzene	1.000	1.000	0.0	108	0.00	10.65
52 S	1,2-dichloroethane-d4 (s)	0.312	0.304	2.6	105	0.00	10.16
53	isopropyl acetate	0.045	0.046	-2.2	102	0.00	10.15
54	1,2-dichloroethane	0.328	0.315	4.0	104	0.00	10.25
55	benzene	0.977	0.993	-1.6	107	0.00	10.23
56	2,2,4-trimethylpentane	1.000	0.980	2.0	105	0.00	10.36
57	tert-amyl methyl ether	0.167	0.164	1.8	101	0.00	10.33
58	heptane	0.209	0.233	-11.5	120	0.00	10.52
59	n-butyl alcohol	0.008	0.009	-12.5	112	0.00	10.68
60	trichloroethene	0.262	0.260	0.8	106	0.00	10.97
61	ethyl acrylate	0.277	0.295	-6.5	111	0.00	10.95
62	methylcyclohexane	0.443	0.426	3.8	103	0.00	11.28
63	1,2-dichloropropane	0.250	0.243	2.8	105	0.00	11.25
64	methyl methacrylate	0.059	0.062	-5.1	108	0.00	11.22
65	dibromomethane	0.146	0.152	-4.1	109	0.00	11.35
66	bromodichloromethane	0.346	0.342	1.2	105	0.00	11.51
67	2-nitropropane	0.060	0.064	-6.7	112	0.00	11.68
68	2-chloroethyl vinyl ether	0.146	0.157	-7.5	112	0.00	11.75
69	epichlorohydrin	0.024	0.025	-4.2	109	0.00	11.82
70	cis-1,3-dichloropropene	0.391	0.407	-4.1	108	0.00	11.97
71	4-methyl-2-pentanone	0.078	0.082	-5.1	111	0.00	12.06
72	3-methyl-1-butanol	0.007	0.007	0.0	113	0.00	12.05
	----- True		Calc.	% Drift	-----		
73 I	chlorobenzene-d5	1.000	1.000	0.0	107	0.00	13.79
74 S	toluene-d8 (s)	1.282	1.291	-0.7	107	0.00	12.28
75	toluene	0.692	0.718	-3.8	109	0.00	12.36
76	trans-1,3-dichloropropene	0.416	0.410	1.4	101	0.00	12.53
77	ethyl methacrylate	0.314	0.310	1.3	103	0.00	12.53
78	1,1,2-trichloroethane	0.203	0.211	-3.9	106	0.00	12.75
79	1,3-dichloropropane	0.370	0.394	-6.5	109	0.00	12.93

6-10-6

6

Initial Calibration Verification

Job Number: JC86043
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: VI8986-ICV8986
 Lab FileID: I223186.D

80	tetrachloroethene	0.347	0.397	-14.4	118	0.00	12.92
81	2-hexanone	0.091	0.097	-6.6	108	0.00	12.91
82	butyl acetate	0.158	0.165	-4.4	107	0.00	13.00
83	n-butyl ether	1.143	1.141	0.2	106	0.00	13.79
84	dibromochloromethane	0.317	0.335	-5.7	109	0.00	13.17
85	1,2-dibromoethane	0.276	0.297	-7.6	109	0.00	13.33
86	chlorobenzene	0.737	0.763	-3.5	108	0.00	13.82
87	1,1,1,2-tetrachloroethane	0.293	0.305	-4.1	108	0.00	13.88
88	ethylbenzene	1.289	1.321	-2.5	108	0.00	13.88
89	m,p-xylene	0.507	0.521	-2.8	108	0.00	14.01
90	o-xylene	0.505	0.512	-1.4	107	0.00	14.40
91	styrene	0.848	0.878	-3.5	108	0.00	14.41
92	butyl acrylate	0.484	0.522	-7.9	111	0.00	14.23
93	cis-1,4-dichloro-2-butene	0.124	0.122	1.6	100	0.00	14.77
94	bromoform	0.223	0.244	-9.4	110	0.00	14.63
95	isopropylbenzene	1.271	1.330	-4.6	108	0.00	14.75
96 I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	104	0.00	16.13
97 S	4-bromofluorobenzene (s)	0.762	0.768	-0.8	106	0.00	14.95
98	1,1,2,2-tetrachloroethane	0.517	0.529	-2.3	105	0.00	15.02
99	trans-1,4-dichloro-2-bute	0.135	0.159	-17.8	123	0.00	15.05
100	1,2,3-trichloropropane	0.133	0.141	-6.0	108	0.00	15.10
101	bromobenzene	0.617	0.633	-2.6	107	0.00	15.13
102	n-propylbenzene	2.563	2.623	-2.3	106	0.00	15.17
103	2-chlorotoluene	0.538	0.550	-2.2	107	0.00	15.30
104	4-chlorotoluene	1.532	1.592	-3.9	110	0.00	15.41
105	1,3,5-trimethylbenzene	1.928	1.958	-1.6	106	0.00	15.33
106	tert-butylbenzene	0.357	0.377	-5.6	107	0.00	15.67
107	1,2,4-trimethylbenzene	1.976	2.047	-3.6	108	0.00	15.72
108	sec-butylbenzene	2.485	2.555	-2.8	108	0.00	15.89
109	p-isopropyltoluene	2.157	2.255	-4.5	107	0.00	16.03
110	benzyl chloride	1.210	1.013	16.3	88	0.00	16.24
111	1,3-dichlorobenzene	1.178	1.207	-2.5	107	0.00	16.06
112	1,4-dichlorobenzene	1.203	1.224	-1.7	108	0.00	16.16
113	1,2-dichlorobenzene	1.153	1.197	-3.8	106	0.00	16.54
114	n-butylbenzene	1.122	1.162	-3.6	105	0.00	16.45
115	hexachloroethane	0.430	0.472	-9.8	109	0.00	16.86
116	1,2-dibromo-3-chloropropa	0.160	0.167	-4.4	104	0.00	17.33
117	nitrobenzene	0.055	0.059	-7.3	107	0.00	17.52
118	1,3,5-trichlorobenzene	1.171	1.212	-3.5	108	0.00	17.54
119	1,2,4-trichlorobenzene	1.053	1.053	0.0	103	0.00	18.20
120	2-ethylhexyl acrylate	0.859	0.939	-9.3	112	0.00	18.22
121	hexachlorobutadiene	0.693	0.694	-0.1	104	0.00	18.33
122	naphthalene	2.037	2.153	-5.7	106	0.00	18.49
123	1,2,3-trichlorobenzene	1.036	1.034	0.2	103	0.00	18.71
124	2-methylnaphthalene	0.726	0.700	3.6	103	0.00	19.59

(#) = Out of Range
 I223181.D MI8986.M

SPCC's out = 0 CCC's out = 0
 Wed Nov 28 14:09:03 2018

6.10.6
 6

Initial Calibration Verification

Job Number: JC86043
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: VI8986-ICV8986
 Lab FileID: I223187.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\VI8986\I223187.D Vial: 14
 Acq On : 28 Nov 2018 12:18 am Operator: thienn
 Sample : ICV8986-50 Inst : GCMSI
 Misc : MS30885,VI8986,5.0,,,,,1 Multiplr: 1.00
 MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MI8986.M (RTE Integrator)
 Title : Method SW846 8260C, Rxi-624 60m x 0.25mm x 1.4um
 Last Update : Wed Nov 28 13:32:54 2018
 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	7.37
2	tertiary butyl alcohol			-----NA-----			
3	1,4-dioxane			-----NA-----			
4 I	pentafluorobenzene	1.000	1.000	0.0	108	0.00	9.72
5	dichlorodifluoromethane			-----NA-----			
6	chlorodifluoromethane			-----NA-----			
7	chloromethane			-----NA-----			
8	vinyl chloride			-----NA-----			
9	1,3-butadiene			-----NA-----			
10	bromomethane			-----NA-----			
11	chloroethane			-----NA-----			
12	vinyl bromide			-----NA-----			
13	trichlorofluoromethane			-----NA-----			
14	ethyl ether			-----NA-----			
15	2-chloropropane			-----NA-----			
16	acrolein			-----NA-----			
17	freon 113			-----NA-----			
18	1,1-dichloroethene			-----NA-----			
19	acetone	0.084	0.079	6.0	99	0.00	6.71
	----- True		Calc.	% Drift			
20	iodomethane			-----NA-----			
	----- AvgRF		CCRF	% Dev			
21	carbon disulfide			-----NA-----			
22	acetonitrile	0.042	0.044	-4.8	109	0.00	7.12
	----- True		Calc.	% Drift			
23	methyl acetate			-----NA-----			
	----- AvgRF		CCRF	% Dev			
24	methylene chloride			-----NA-----			
25	acrylonitrile			-----NA-----			
26	methyl tert butyl ether			-----NA-----			
27	trans-1,2-dichloroethene			-----NA-----			
28	hexane			-----NA-----			
29	1,1-dichloroethane			-----NA-----			
30	vinyl acetate			-----NA-----			
31	di-isopropyl ether			-----NA-----			
32	chloroprene			-----NA-----			
33	ethyl tert-butyl ether			-----NA-----			

Initial Calibration Verification

Job Number: JC86043
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: VI8986-ICV8986
 Lab FileID: I223187.D

34	2-butanone											
35	2,2-dichloropropane											
		True	Calc.	% Drift								
36	ethyl acetate											
		AvgRF	CCRF	% Dev								
37	cis-1,2-dichloroethene											
38	propionitrile											
		True	Calc.	% Drift								
39	methyl acrylate											
		AvgRF	CCRF	% Dev								
40	methacrylonitrile											
41	bromochloromethane											
42	tetrahydrofuran											
43	chloroform											
44	carbon tetrachloride											
45	1,1-dichloropropene											
46	isobutyl alcohol											
47 S	dibromofluoromethane (s)	0.393	0.394	-0.3	109	0.00	9.74					
48	1,1,1-trichloroethane											
49	cyclohexane											
		True	Calc.	% Drift								
50	tert-amyl alcohol											
		AvgRF	CCRF	% Dev								
51 I	1,4-difluorobenzene	1.000	1.000	0.0	106	0.00	10.65					
52 S	1,2-dichloroethane-d4 (s)	0.312	0.308	1.3	104	0.00	10.16					
53	isopropyl acetate											
54	1,2-dichloroethane											
55	benzene											
56	2,2,4-trimethylpentane											
57	tert-amyl methyl ether											
58	heptane											
59	n-butyl alcohol											
60	trichloroethene											
61	ethyl acrylate											
62	methylcyclohexane											
63	1,2-dichloropropane											
64	methyl methacrylate											
65	dibromomethane											
66	bromodichloromethane											
67	2-nitropropane											
68	2-chloroethyl vinyl ether											
69	epichlorohydrin											
70	cis-1,3-dichloropropene											
71	4-methyl-2-pentanone											
72	3-methyl-1-butanol											
73 I	chlorobenzene-d5	1.000	1.000	0.0	107	0.00	13.79					
74 S	toluene-d8 (s)	1.282	1.292	-0.8	108	0.00	12.28					
75	toluene											
76	trans-1,3-dichloropropene											
77	ethyl methacrylate											
78	1,1,2-trichloroethane											
79	1,3-dichloropropane											

Initial Calibration Verification

Job Number: JC86043
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: VI8986-ICV8986
 Lab FileID: I223187.D

80	tetrachloroethene	0.347	0.311	10.4	93	0.00	12.92
81	2-hexanone			-----NA-----			
82	butyl acetate			-----NA-----			
83	n-butyl ether			-----NA-----			
84	dibromochloromethane			-----NA-----			
85	1,2-dibromoethane			-----NA-----			
86	chlorobenzene			-----NA-----			
87	1,1,1,2-tetrachloroethane			-----NA-----			
88	ethylbenzene			-----NA-----			
89	m,p-xylene			-----NA-----			
90	o-xylene			-----NA-----			
91	styrene			-----NA-----			
92	butyl acrylate			-----NA-----			
93	cis-1,4-dichloro-2-butene			-----NA-----			
94	bromoform			-----NA-----			
95	isopropylbenzene			-----NA-----			
96 I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	98	0.00	16.13
97 S	4-bromofluorobenzene (s)	0.762	0.792	-3.9	103	0.00	14.95
98	1,1,2,2-tetrachloroethane			-----NA-----			
99	trans-1,4-dichloro-2-bute			-----NA-----			
100	1,2,3-trichloropropane			-----NA-----			
101	bromobenzene			-----NA-----			
102	n-propylbenzene			-----NA-----			
103	2-chlorotoluene			-----NA-----			
104	4-chlorotoluene			-----NA-----			
105	1,3,5-trimethylbenzene			-----NA-----			
106	tert-butylbenzene			-----NA-----			
107	1,2,4-trimethylbenzene			-----NA-----			
108	sec-butylbenzene			-----NA-----			
109	p-isopropyltoluene			-----NA-----			
110	benzyl chloride			-----NA-----			
111	1,3-dichlorobenzene			-----NA-----			
112	1,4-dichlorobenzene			-----NA-----			
113	1,2-dichlorobenzene			-----NA-----			
114	n-butylbenzene			-----NA-----			
115	hexachloroethane			-----NA-----			
116	1,2-dibromo-3-chloropropa			-----NA-----			
117	nitrobenzene			-----NA-----			
118	1,3,5-trichlorobenzene			-----NA-----			
119	1,2,4-trichlorobenzene			-----NA-----			
120	2-ethylhexyl acrylate			-----NA-----			
121	hexachlorobutadiene			-----NA-----			
122	naphthalene			-----NA-----			
123	1,2,3-trichlorobenzene			-----NA-----			
124	2-methylnaphthalene			-----NA-----			

(#) = Out of Range
 I223181.D MI8986.M

SPPC's out = 0 CCC's out = 0
 Wed Nov 28 14:09:05 2018

6.10.7
 6

Continuing Calibration Summary

Job Number: JC86043
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: VI9080-CC8986
 Lab FileID: I225308.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\lo...vi9080 rush\i225308.d Vial: 3
 Acq On : 11 Apr 2019 7:52 am Operator: thienn
 Sample : CC8986-20 Inst : GCMSI
 Misc : MS31989,VI9080,5,,100,5,1 Multiplr: 1.00
 MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MI8986.M (RTE Integrator)
 Title : Method SW846 8260C, Rxi-624 60m x 0.25mm x 1.4um
 Last Update : Mon Sep 13 11:48:20 2010
 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	134	-0.03	7.35
2	tertiary butyl alcohol	1.035	0.999	3.5	130	-0.03	7.47
3	1,4-dioxane	0.116	0.106	8.6	118	-0.02	11.28
4 I	pentafluorobenzene	1.000	1.000	0.0	120	-0.02	9.70
5	dichlorodifluoromethane	0.437	0.546	-24.9#	146	0.00	3.89
6	chlorodifluoromethane	0.412	0.422	-2.4	121	0.00	3.92
7	chloromethane	0.404	0.462	-14.4	149	0.00	4.28
8	vinyl chloride	0.341	0.405	-18.8	139	0.00	4.52
9	1,3-butadiene	0.238	0.243	-2.1	120	-0.01	4.61
10	bromomethane	0.227	0.233	-2.6	125	0.00	5.19
11	chloroethane	0.206	0.228	-10.7	126	-0.01	5.39
12	vinyl bromide	0.263	0.230	12.5	100	-0.01	5.73
13	trichlorofluoromethane	0.521	0.558	-7.1	125	-0.01	5.86
14	ethyl ether	0.148	0.144	2.7	111	-0.02	6.30
15	2-chloropropane	0.120	0.116	3.3	105	-0.02	6.50
16	acrolein	0.048	0.041	14.6	113	-0.01	6.50
17	freon 113	0.255	0.242	5.1	109	-0.02	6.71
18	1,1-dichloroethene	0.465	0.458	1.5	114	-0.02	6.71
19	acetone	0.084	0.085	-1.2	117	-0.02	6.70
	----- True Calc. % Drift -----						
20	iodomethane	20.000	14.371	28.1#	98	-0.02	6.96
	----- AvgRF CCRF % Dev -----						
21	carbon disulfide	1.002	0.892	11.0	110	-0.01	7.12
22	acetonitrile	0.042	0.042	0.0	115	-0.02	7.10
	----- True Calc. % Drift -----						
23	methyl acetate	20.000	17.668	11.7	112	-0.02	7.19
	----- AvgRF CCRF % Dev -----						
24	methylene chloride	0.345	0.320	7.2	116	-0.02	7.43
25	acrylonitrile	0.099	0.093	6.1	116	-0.01	7.71
26	methyl tert butyl ether	0.817	0.825	-1.0	118	-0.02	7.81
27	trans-1,2-dichloroethene	0.444	0.443	0.2	116	-0.02	7.84
28	hexane	0.535	0.447	16.4	98	-0.02	8.23
29	1,1-dichloroethane	0.566	0.553	2.3	115	-0.02	8.41
30	vinyl acetate	0.054	0.048	11.1	112	-0.02	8.36
31	di-isopropyl ether	1.004	0.910	9.4	106	-0.02	8.43
32	chloroprene	0.478	0.482	-0.8	113	-0.02	8.53
33	ethyl tert-butyl ether	0.969	0.939	3.1	114	-0.02	8.89

Continuing Calibration Summary

Job Number: JC86043
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: VI9080-CC8986
 Lab FileID: I225308.D

		True	Calc.	% Drift			
34	2-butanone	0.032	0.032	0.0	116	-0.02	9.06
35	2,2-dichloropropane	0.491	0.531	-8.1	125	-0.02	9.17
----- True Calc. % Drift -----							
36	ethyl acetate	20.000	18.462	7.7	113	-0.02	9.10
----- AvgRF CCRF % Dev -----							
37	cis-1,2-dichloroethene	0.365	0.344	5.8	112	-0.02	9.14
38	propionitrile	0.046	0.048	-4.3	119	-0.03	9.11
----- True Calc. % Drift -----							
39	methyl acrylate	20.000	18.986	5.1	122	-0.01	9.19
----- AvgRF CCRF % Dev -----							
40	methacrylonitrile	0.117	0.111	5.1	115	-0.02	9.33
41	bromochloromethane	0.164	0.158	3.7	110	-0.02	9.43
42	tetrahydrofuran	0.036	0.042	-16.7	140	-0.02	9.47
43	chloroform	0.586	0.589	-0.5	117	-0.03	9.52
44	carbon tetrachloride	0.479	0.486	-1.5	116	-0.02	10.00
45	1,1-dichloropropene	0.441	0.433	1.8	116	-0.02	9.97
46	isobutyl alcohol			NA			
47 S	dibromofluoromethane (s)	0.393	0.411	-4.6	124	-0.02	9.72
48	1,1,1-trichloroethane	0.523	0.536	-2.5	119	-0.02	9.80
49	cyclohexane	0.461	0.435	5.6	110	-0.02	9.93
----- True Calc. % Drift -----							
50	tert-amyl alcohol	100.000	107.395	-7.4	137	-0.03	10.07
----- AvgRF CCRF % Dev -----							
51 I	1,4-difluorobenzene	1.000	1.000	0.0	126	-0.02	10.63
52 S	1,2-dichloroethane-d4 (s)	0.312	0.347	-11.2	138	-0.02	10.14
53	isopropyl acetate	0.045	0.042	6.7	116	-0.02	10.13
54	1,2-dichloroethane	0.328	0.331	-0.9	127	-0.02	10.23
55	benzene	0.977	0.909	7.0	113	-0.02	10.22
56	2,2,4-trimethylpentane	1.000	0.825	17.5	99	-0.02	10.33
57	tert-amyl methyl ether	0.167	0.159	4.8	113	-0.02	10.31
58	heptane	0.209	0.173	17.2	99	-0.02	10.50
59	n-butyl alcohol	0.008	0.009	-12.5	123	-0.03	10.66
60	trichloroethene	0.262	0.246	6.1	115	-0.02	10.96
61	ethyl acrylate	0.277	0.248	10.5	113	-0.02	10.94
62	methylcyclohexane	0.443	0.374	15.6	104	-0.02	11.27
63	1,2-dichloropropane	0.250	0.216	13.6	109	-0.02	11.23
64	methyl methacrylate	0.059	0.048	18.6	105	-0.02	11.20
65	dibromomethane	0.146	0.137	6.2	115	-0.02	11.33
66	bromodichloromethane	0.346	0.332	4.0	118	-0.02	11.49
67	2-nitropropane	0.060	0.064	-6.7	136	-0.03	11.66
68	2-chloroethyl vinyl ether	0.146	0.135	7.5	112	-0.02	11.73
69	epichlorohydrin	0.024	0.025	-4.2	128	-0.02	11.80
70	cis-1,3-dichloropropene	0.391	0.370	5.4	113	-0.02	11.95
71	4-methyl-2-pentanone	0.078	0.074	5.1	115	-0.02	12.04
72	3-methyl-1-butanol	0.007	0.006	14.3	117	-0.02	12.04
----- True Calc. % Drift -----							
73 I	chlorobenzene-d5	1.000	1.000	0.0	125	-0.02	13.77
74 S	toluene-d8 (s)	1.282	1.287	-0.4	124	-0.02	12.26
75	toluene	0.692	0.651	5.9	113	-0.02	12.34
76	trans-1,3-dichloropropene	0.416	0.414	0.5	118	-0.02	12.51
77	ethyl methacrylate	0.314	0.287	8.6	107	-0.02	12.51
78	1,1,2-trichloroethane	0.203	0.184	9.4	110	-0.02	12.73
79	1,3-dichloropropane	0.370	0.356	3.8	112	-0.02	12.91

6-10-8

6

Continuing Calibration Summary

Job Number: JC86043
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: VI9080-CC8986
 Lab FileID: I225308.D

80	tetrachloroethene	0.347	0.324	6.6	111	-0.02	12.90
81	2-hexanone	0.091	0.087	4.4	116	-0.02	12.89
82	butyl acetate	0.158	0.143	9.5	108	-0.02	12.98
83	n-butyl ether	1.143	0.904	20.9#	97	-0.02	13.78
84	dibromochloromethane	0.317	0.291	8.2	111	-0.02	13.16
85	1,2-dibromoethane	0.276	0.302	-9.4	132	-0.02	13.31
86	chlorobenzene	0.737	0.693	6.0	113	-0.02	13.80
87	1,1,1,2-tetrachloroethane	0.293	0.273	6.8	115	-0.02	13.86
88	ethylbenzene	1.289	1.231	4.5	116	-0.02	13.86
89	m,p-xylene	0.507	0.477	5.9	113	-0.02	13.98
90	o-xylene	0.505	0.444	12.1	110	-0.02	14.38
91	styrene	0.848	0.768	9.4	111	-0.02	14.39
92	butyl acrylate	0.484	0.424	12.4	105	-0.02	14.21
93	cis-1,4-dichloro-2-butene	0.124	0.131	-5.6	126	-0.02	14.75
94	bromoform	0.223	0.207	7.2	113	-0.02	14.62
95	isopropylbenzene	1.271	1.167	8.2	109	-0.02	14.74
96 I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	119	-0.02	16.11
97 S	4-bromofluorobenzene (s)	0.762	0.806	-5.8	127	-0.02	14.93
98	1,1,2,2-tetrachloroethane	0.517	0.498	3.7	113	-0.02	14.99
99	trans-1,4-dichloro-2-bute	0.135	0.140	-3.7	126	-0.02	15.03
100	1,2,3-trichloropropane	0.133	0.143	-7.5	122	-0.02	15.08
101	bromobenzene	0.617	0.580	6.0	110	-0.02	15.11
102	n-propylbenzene	2.563	2.457	4.1	111	-0.02	15.15
103	2-chlorotoluene	0.538	0.515	4.3	113	-0.02	15.28
104	4-chlorotoluene	1.532	1.537	-0.3	115	-0.02	15.39
105	1,3,5-trimethylbenzene	1.928	1.803	6.5	107	-0.02	15.31
106	tert-butylbenzene	0.357	0.317	11.2	101	-0.02	15.65
107	1,2,4-trimethylbenzene	1.976	1.827	7.5	108	-0.02	15.70
108	sec-butylbenzene	2.485	2.239	9.9	106	-0.02	15.87
109	p-isopropyltoluene	2.157	2.015	6.6	107	-0.02	16.01
110	benzyl chloride	1.210	1.232	-1.8	118	-0.02	16.22
111	1,3-dichlorobenzene	1.178	1.157	1.8	113	-0.02	16.04
112	1,4-dichlorobenzene	1.203	1.175	2.3	113	-0.02	16.14
113	1,2-dichlorobenzene	1.153	1.103	4.3	109	-0.02	16.52
114	n-butylbenzene	1.122	1.063	5.3	108	-0.02	16.43
115	hexachloroethane	0.430	0.404	6.0	110	-0.02	16.84
116	1,2-dibromo-3-chloropropa	0.160	0.153	4.4	116	-0.02	17.31
117	nitrobenzene	0.055	0.064	-16.4	140	-0.02	17.50
118	1,3,5-trichlorobenzene	1.171	1.119	4.4	109	-0.02	17.53
119	1,2,4-trichlorobenzene	1.053	0.989	6.1	104	-0.02	18.18
120	2-ethylhexyl acrylate	0.859	0.752	12.5	99	-0.02	18.21
121	hexachlorobutadiene	0.693	0.634	8.5	109	-0.02	18.31
122	naphthalene	2.037	2.067	-1.5	118	-0.02	18.47
123	1,2,3-trichlorobenzene	1.036	0.943	9.0	105	-0.02	18.69
124	2-methylnaphthalene	0.726	0.965	-32.9#	159	-0.02	19.57

(#) = Out of Range
 I223180.D MI8986.M

SPCC's out = 0 CCC's out = 0
 Thu Apr 11 12:01:59 2019

MS Volatiles

Raw Data

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\04-15-19\v3c6794\
 Data File : 3c151019.d
 Acq On : 12 Apr 2019 4:04 pm
 Operator : Prashans
 Sample : JC86043-1 Inst : MS3C
 Misc : MS33845,V3C6794,4.7,,,,,1
 ALS Vial : 21 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M3C6743.M
 Quant Results File: M3C6743.RES
 Quant Time: Apr 15 08:15:57 2019
 Quant Title : Method SW846 8260C, Rxi624 20m x 0.18mm x 1.0um
 QLast Update : Fri Feb 15 09:30:13 2019
 Response via : Initial Calibration

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

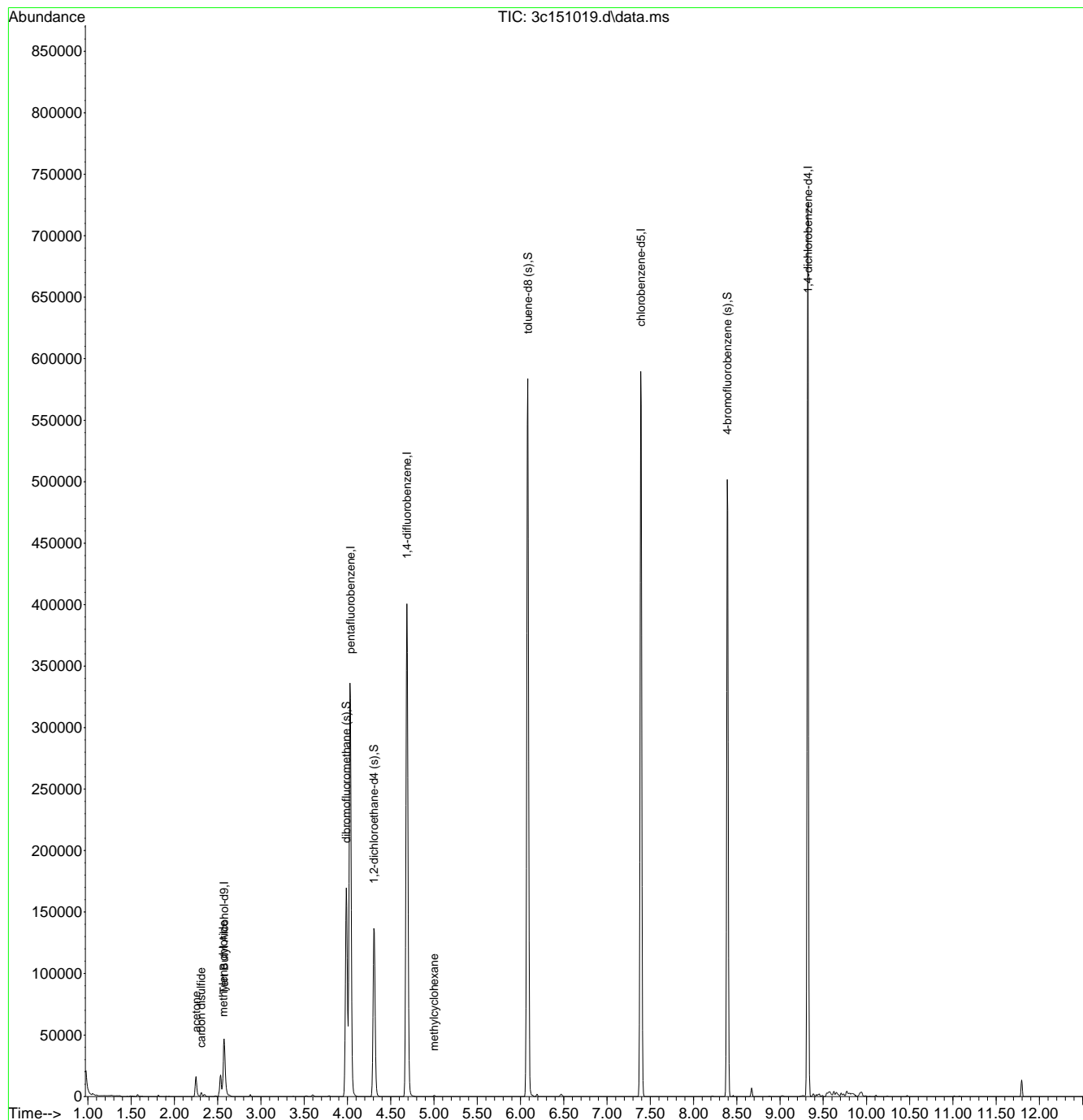
Internal Standards						
1) Tert Butyl Alcohol-d9	2.574	65	44326	500.00	ug/L	0.00
5) pentafluorobenzene	4.033	168	218447	50.00	ug/L	0.00
52) 1,4-difluorobenzene	4.687	114	301338	50.00	ug/L	0.00
74) chlorobenzene-d5	7.391	117	270450	50.00	ug/L	0.00
97) 1,4-dichlorobenzene-d4	9.321	152	146859	50.00	ug/L	0.00
System Monitoring Compounds						
45) dibromofluoromethane (s)	3.986	113	82914	52.53	ug/L	0.00
Spiked Amount	50.000	Range	75 - 127	Recovery	=	105.06%
53) 1,2-dichloroethane-d4 (s)	4.305	65	83142	50.78	ug/L	0.00
Spiked Amount	50.000	Range	75 - 130	Recovery	=	101.56%
75) toluene-d8 (s)	6.084	98	333174	49.77	ug/L	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	=	99.54%
98) 4-bromofluorobenzene (s)	8.390	95	121462	50.30	ug/L	0.00
Spiked Amount	50.000	Range	79 - 127	Recovery	=	100.60%
Target Compounds						
20) acetone	2.250	58	4589	67.43	ug/L	97
23) carbon disulfide	2.307	76	3379	0.98	ug/L	90
24) methylene chloride	2.564	84	978	0.72	ug/L	89
67) methylcyclohexane	5.001	83	558	0.20	ug/L #	64

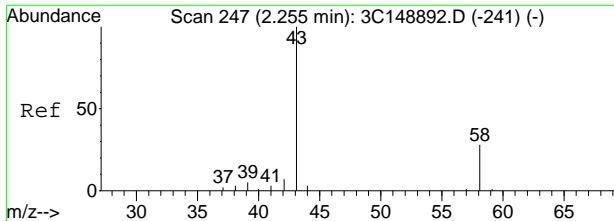
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\04-15-19\v3c6794\
 Data File : 3c151019.d
 Acq On : 12 Apr 2019 4:04 pm
 Operator : Prashans
 Sample : JC86043-1 Inst : MS3C
 Misc : MS33845,V3C6794,4.7,,,,,1
 ALS Vial : 21 Sample Multiplier: 1

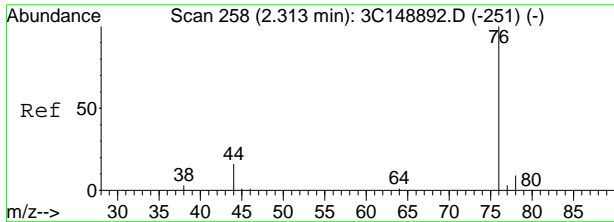
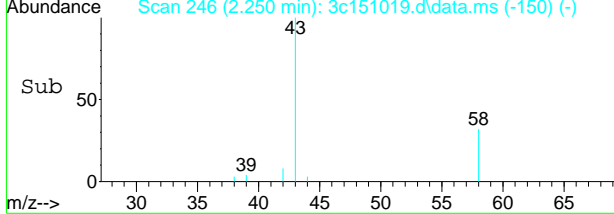
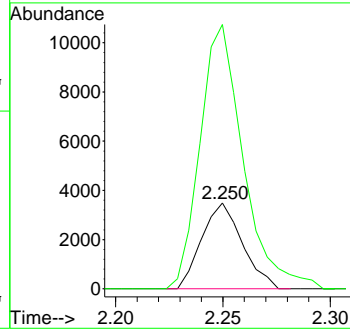
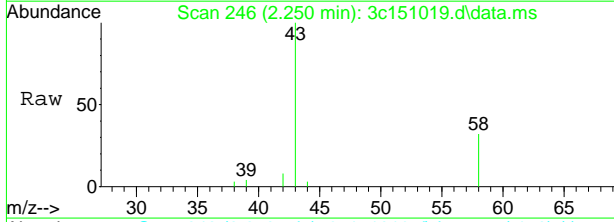
Quant Method : C:\MSDCHEM\1\METHODS\M3C6743.M
 Quant Results File: M3C6743.RES
 Quant Time: Apr 15 08:15:57 2019
 Quant Title : Method SW846 8260C, Rxi624 20m x 0.18mm x 1.0um
 QLast Update : Fri Feb 15 09:30:13 2019
 Response via : Initial Calibration





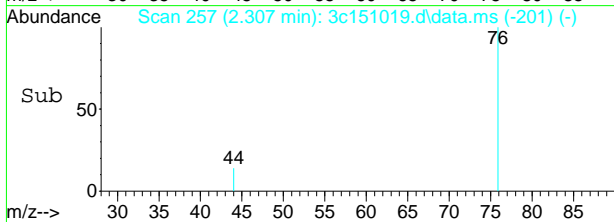
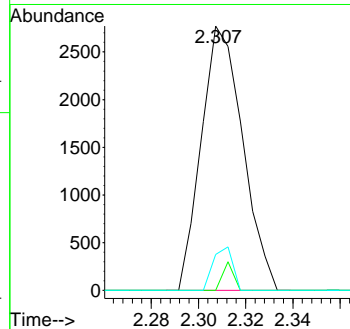
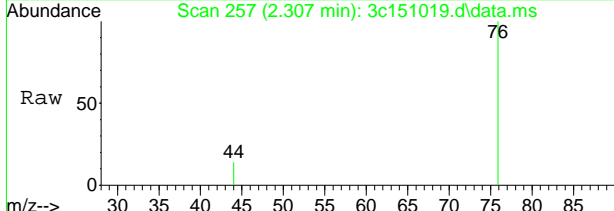
#20
acetone
Concen: 67.43 ug/L
RT: 2.250 min Scan# 246
Delta R.T. -0.000 min
Lab File: 3c151019.d
Acq: 12 Apr 2019 4:04 pm

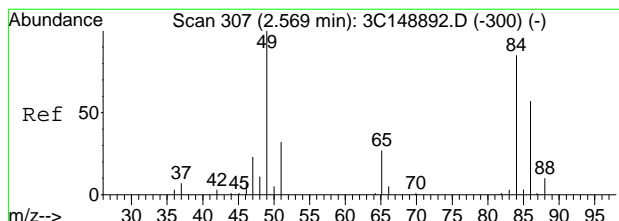
Tgt Ion	Resp	Lower	Upper
58	4589		
58	100		
43	308.1	284.5	344.5



#23
carbon disulfide
Concen: 0.98 ug/L
RT: 2.307 min Scan# 257
Delta R.T. -0.005 min
Lab File: 3c151019.d
Acq: 12 Apr 2019 4:04 pm

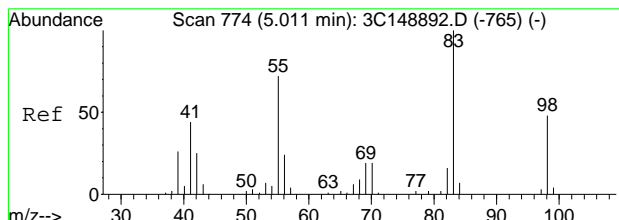
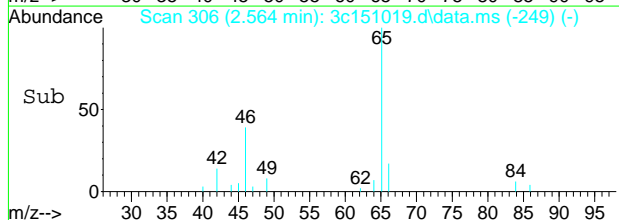
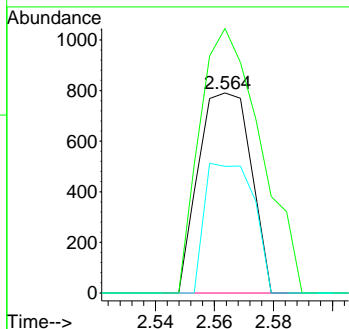
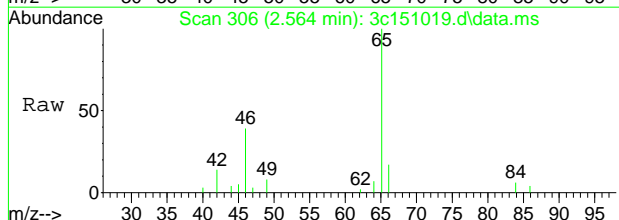
Tgt Ion	Resp	Lower	Upper
76	3379		
76	100		
78	0.0	0.0	39.0
44	13.6	0.0	44.0





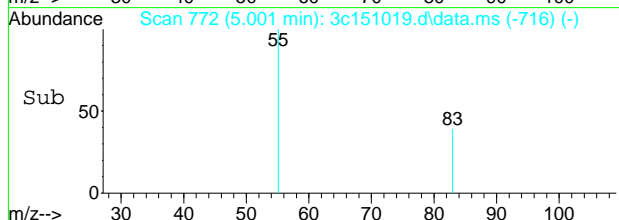
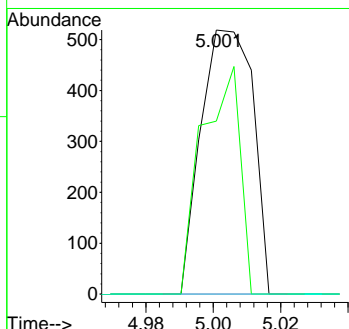
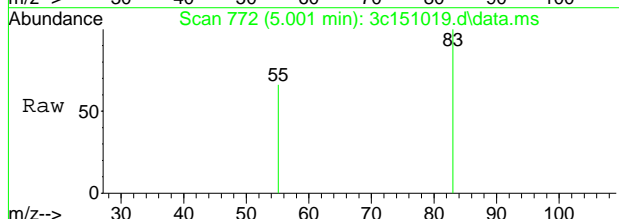
#24
 methylene chloride
 Concen: 0.72 ug/L
 RT: 2.564 min Scan# 306
 Delta R.T. -0.000 min
 Lab File: 3c151019.d
 Acq: 12 Apr 2019 4:04 pm

Tgt Ion	Resp	Lower	Upper
84	978		
84	100		
49	132.2	87.1	147.1
86	63.2	37.5	97.5



#67
 methylcyclohexane
 Concen: 0.20 ug/L
 RT: 5.001 min Scan# 772
 Delta R.T. -0.005 min
 Lab File: 3c151019.d
 Acq: 12 Apr 2019 4:04 pm

Tgt Ion	Resp	Lower	Upper
83	558		
83	100		
55	65.5	42.2	102.2
98	0.0	22.5	82.5#



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\04-15-19\v3c6794\
 Data File : 3c151020.d
 Acq On : 12 Apr 2019 4:27 pm
 Operator : Prashans
 Sample : JC86043-2 Inst : MS3C
 Misc : MS33845,V3C6794,4.0,,,,,1
 ALS Vial : 22 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M3C6743.M
 Quant Results File: M3C6743.RES
 Quant Time: Apr 15 08:16:56 2019
 Quant Title : Method SW846 8260C, Rxi624 20m x 0.18mm x 1.0um
 QLast Update : Fri Feb 15 09:30:13 2019
 Response via : Initial Calibration

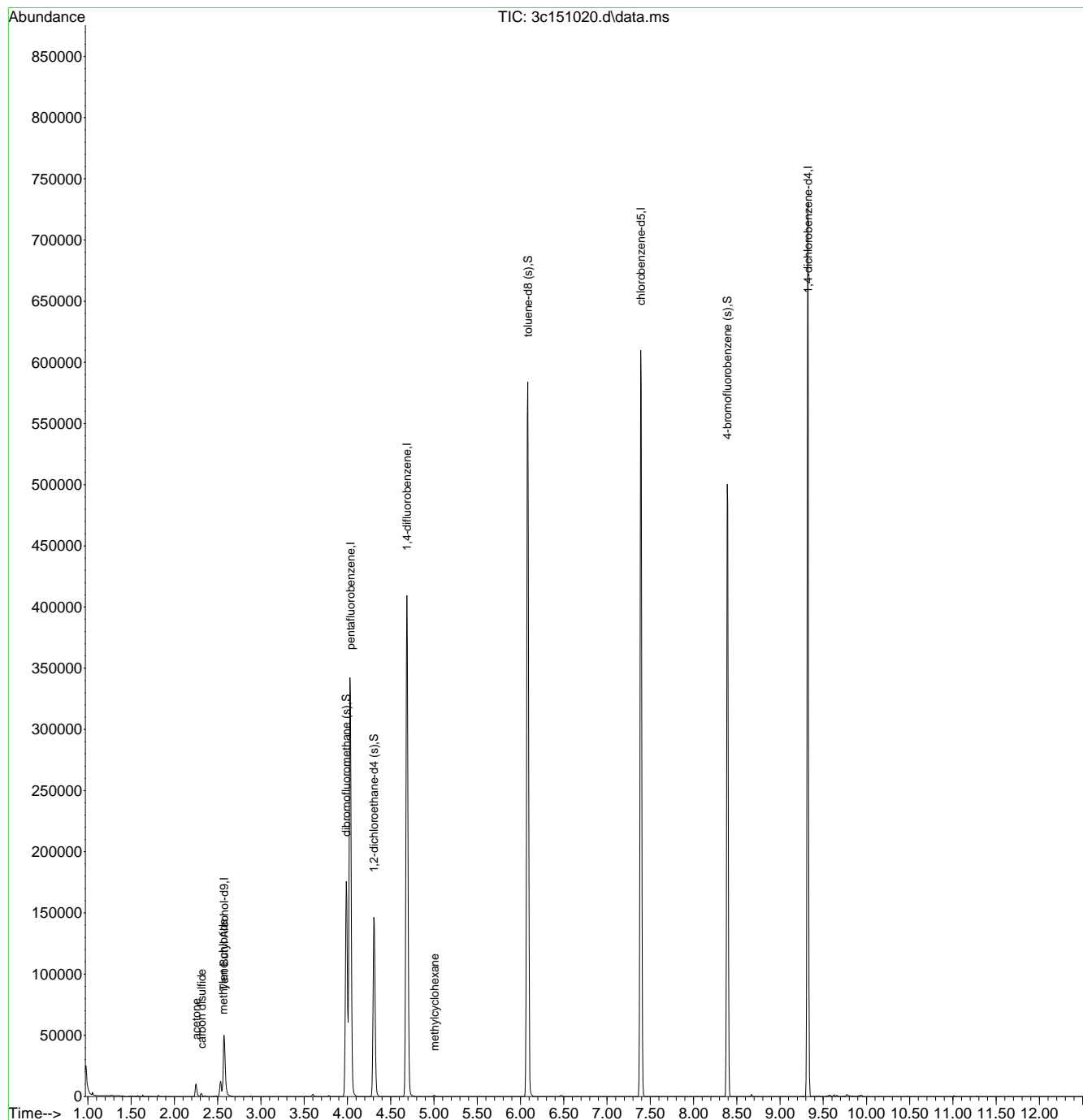
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	2.574	65	47910	500.00	ug/L	0.00
5) pentafluorobenzene	4.033	168	224209	50.00	ug/L	0.00
52) 1,4-difluorobenzene	4.687	114	308373	50.00	ug/L	0.00
74) chlorobenzene-d5	7.391	117	274085	50.00	ug/L	0.00
97) 1,4-dichlorobenzene-d4	9.321	152	146511	50.00	ug/L	0.00
System Monitoring Compounds						
45) dibromofluoromethane (s)	3.986	113	85479	52.76	ug/L	0.00
Spiked Amount	50.000	Range	75 - 127	Recovery	=	105.52%
53) 1,2-dichloroethane-d4 (s)	4.305	65	86885	51.86	ug/L	0.00
Spiked Amount	50.000	Range	75 - 130	Recovery	=	103.72%
75) toluene-d8 (s)	6.084	98	339912	50.10	ug/L	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	=	100.20%
98) 4-bromofluorobenzene (s)	8.390	95	123451	51.25	ug/L	0.00
Spiked Amount	50.000	Range	79 - 127	Recovery	=	102.50%
Target Compounds						
20) acetone	2.250	58	2954	42.29	ug/L	98
23) carbon disulfide	2.313	76	2603	0.73	ug/L	89
24) methylene chloride	2.564	84	393	0.28	ug/L	92
67) methylcyclohexane	5.006	83	842	0.29	ug/L #	59

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

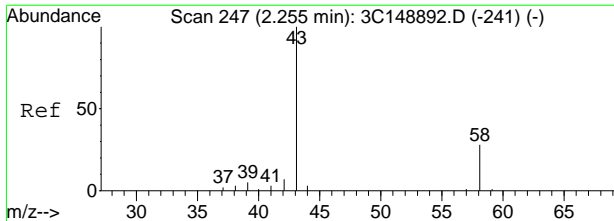
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janelac\04-15-19\v3c6794\
 Data File : 3c151020.d
 Acq On : 12 Apr 2019 4:27 pm
 Operator : Prashans
 Sample : JC86043-2 Inst : MS3C
 Misc : MS33845,V3C6794,4.0,,,1
 ALS Vial : 22 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M3C6743.M
 Quant Results File: M3C6743.RES
 Quant Time: Apr 15 08:16:56 2019
 Quant Title : Method SW846 8260C, Rxi624 20m x 0.18mm x 1.0um
 QLast Update : Fri Feb 15 09:30:13 2019
 Response via : Initial Calibration

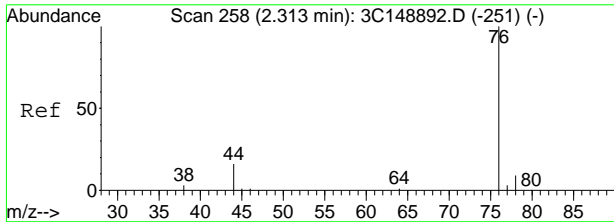
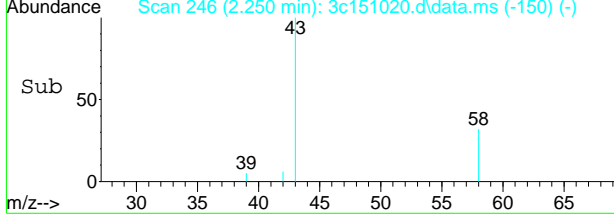
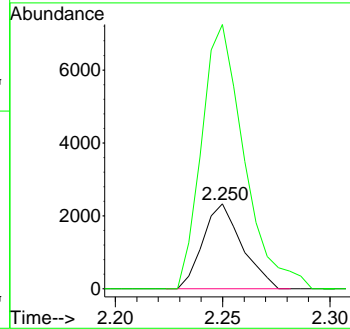
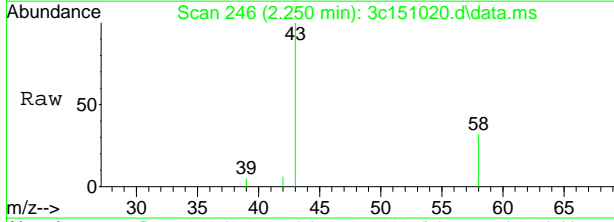


7.12
7



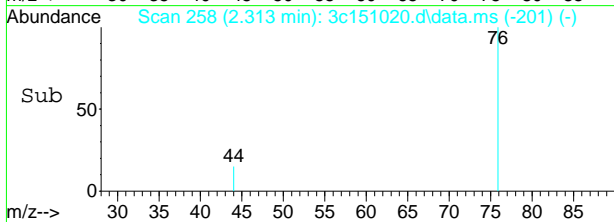
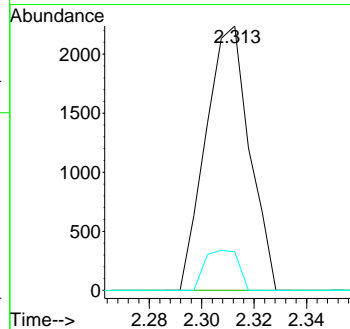
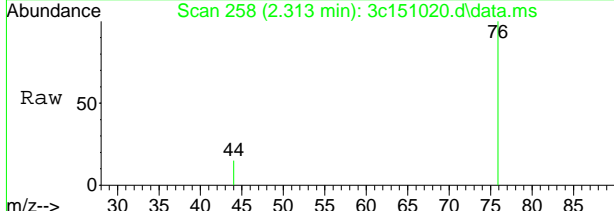
#20
acetone
Concen: 42.29 ug/L
RT: 2.250 min Scan# 246
Delta R.T. 0.000 min
Lab File: 3c151020.d
Acq: 12 Apr 2019 4:27 pm

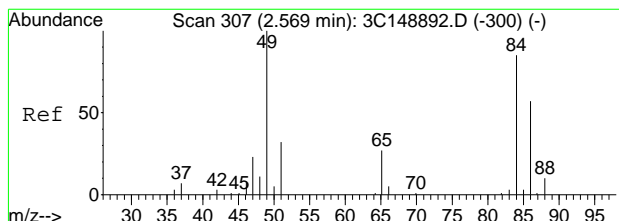
Tgt Ion	Resp	Lower	Upper
58	100		
43	310.9	284.5	344.5



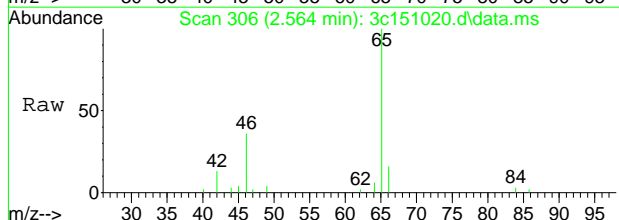
#23
carbon disulfide
Concen: 0.73 ug/L
RT: 2.313 min Scan# 258
Delta R.T. 0.000 min
Lab File: 3c151020.d
Acq: 12 Apr 2019 4:27 pm

Tgt Ion	Resp	Lower	Upper
76	100		
78	0.0	0.0	39.0
44	14.5	0.0	44.0



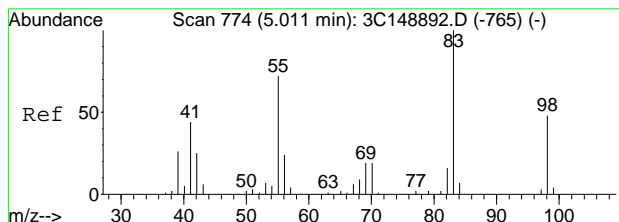
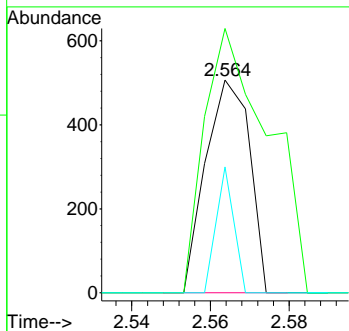
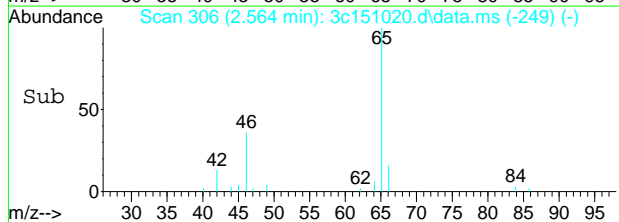


#24
 methylene chloride
 Concen: 0.28 ug/L
 RT: 2.564 min Scan# 306
 Delta R.T. 0.000 min
 Lab File: 3c151020.d
 Acq: 12 Apr 2019 4:27 pm

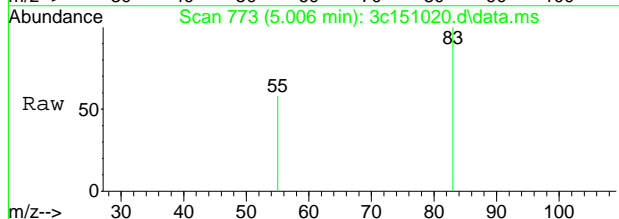


Tgt Ion: 84 Resp: 393

Ion	Ratio	Lower	Upper
84	100		
49	124.3	87.1	147.1
86	59.2	37.5	97.5

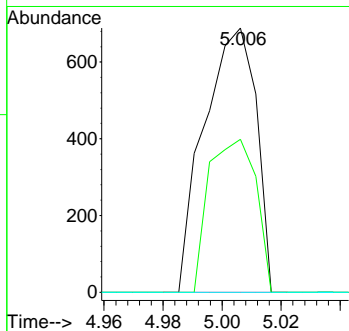
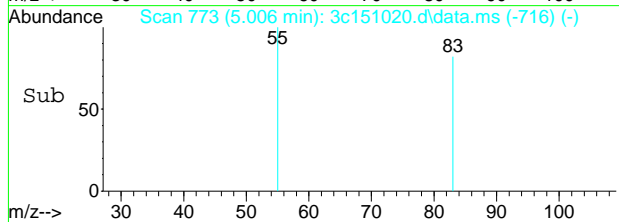


#67
 methylcyclohexane
 Concen: 0.29 ug/L
 RT: 5.006 min Scan# 773
 Delta R.T. 0.000 min
 Lab File: 3c151020.d
 Acq: 12 Apr 2019 4:27 pm



Tgt Ion: 83 Resp: 842

Ion	Ratio	Lower	Upper
83	100		
55	57.9	42.2	102.2
98	0.0	22.5	82.5#



7.12
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\04-15-19\v3c6794\
 Data File : 3c151022.d
 Acq On : 12 Apr 2019 5:13 pm
 Operator : Prashans
 Sample : JC86043-3 Inst : MS3C
 Misc : MS33845,V3C6794,4.9,,,,,1
 ALS Vial : 24 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M3C6743.M
 Quant Results File: M3C6743.RES
 Quant Time: Apr 15 08:19:14 2019
 Quant Title : Method SW846 8260C, Rxi624 20m x 0.18mm x 1.0um
 QLast Update : Fri Feb 15 09:30:13 2019
 Response via : Initial Calibration

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

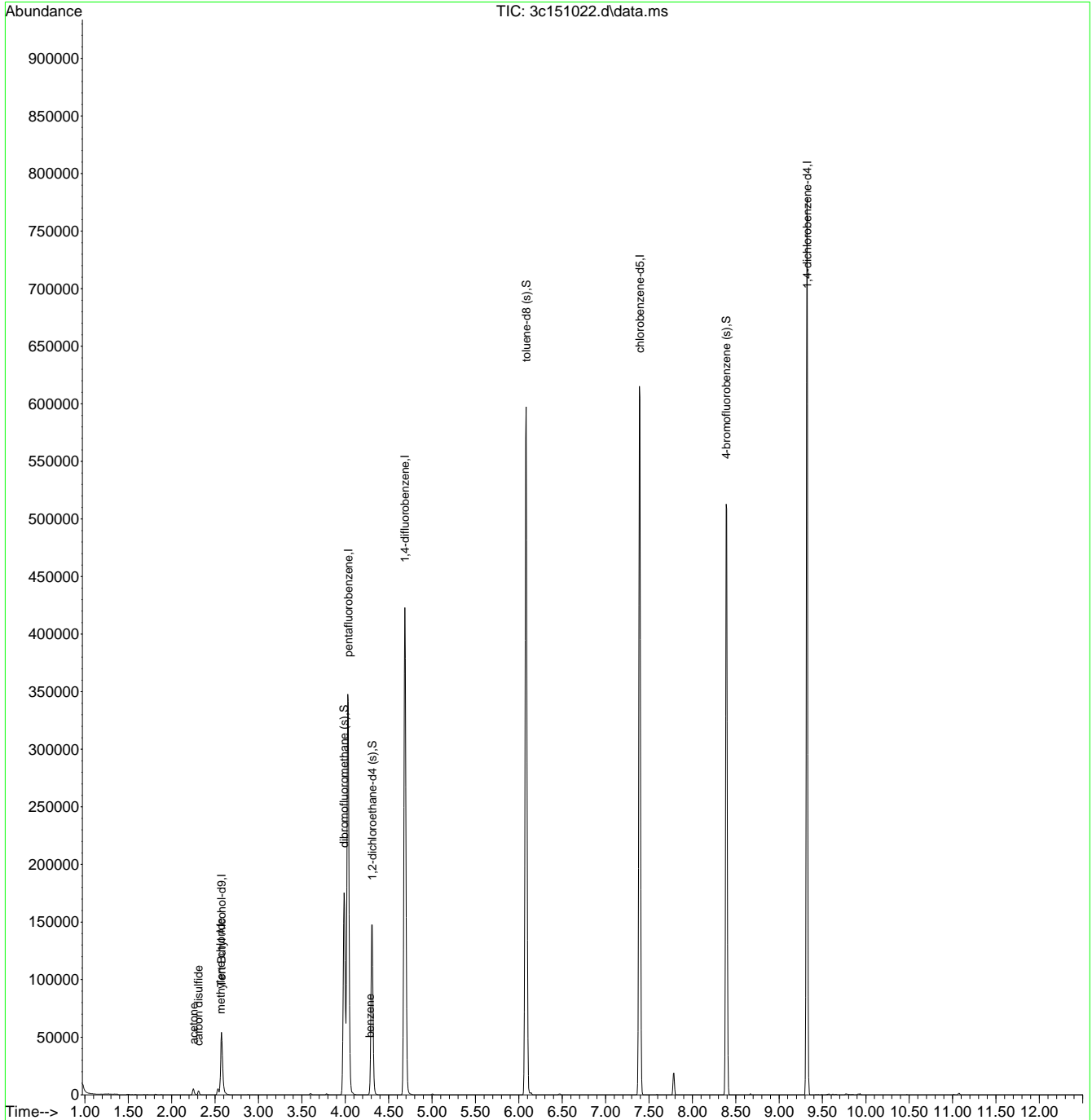
Internal Standards						
1) Tert Butyl Alcohol-d9	2.574	65	49832	500.00	ug/L	0.00
5) pentafluorobenzene	4.033	168	228905	50.00	ug/L	0.00
52) 1,4-difluorobenzene	4.687	114	318282	50.00	ug/L	0.00
74) chlorobenzene-d5	7.396	117	281853	50.00	ug/L	0.00
97) 1,4-dichlorobenzene-d4	9.321	152	152671	50.00	ug/L	0.00
System Monitoring Compounds						
45) dibromofluoromethane (s)	3.986	113	86146	52.08	ug/L	0.00
Spiked Amount	50.000	Range	75 - 127	Recovery	=	104.16%
53) 1,2-dichloroethane-d4 (s)	4.310	65	88548	51.20	ug/L	0.00
Spiked Amount	50.000	Range	75 - 130	Recovery	=	102.40%
75) toluene-d8 (s)	6.084	98	347604	49.83	ug/L	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	=	99.66%
98) 4-bromofluorobenzene (s)	8.390	95	129464	51.58	ug/L	0.00
Spiked Amount	50.000	Range	79 - 127	Recovery	=	103.16%
Target Compounds						
20) acetone	2.250	58	1583	22.20	ug/L	89
23) carbon disulfide	2.307	76	3585	0.99	ug/L	87
24) methylene chloride	2.564	84	610	0.43	ug/L	81
57) benzene	4.284	78	1567	0.27	ug/L	56

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

Quantitation Report (QT Reviewed)

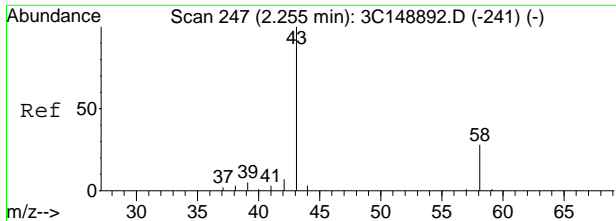
Data Path : C:\msdchem\1\data\janeliac\04-15-19\v3c6794\
 Data File : 3c151022.d
 Acq On : 12 Apr 2019 5:13 pm
 Operator : Prashans
 Sample : JC86043-3 Inst : MS3C
 Misc : MS33845,V3C6794,4.9,,,,,1
 ALS Vial : 24 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M3C6743.M
 Quant Results File: M3C6743.RES
 Quant Time: Apr 15 08:19:14 2019
 Quant Title : Method SW846 8260C, Rxi624 20m x 0.18mm x 1.0um
 QLast Update : Fri Feb 15 09:30:13 2019
 Response via : Initial Calibration



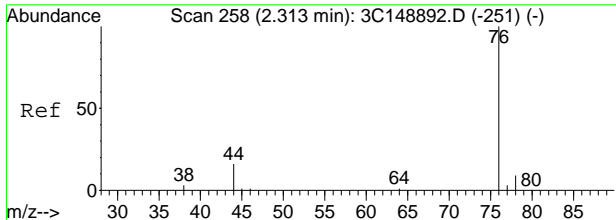
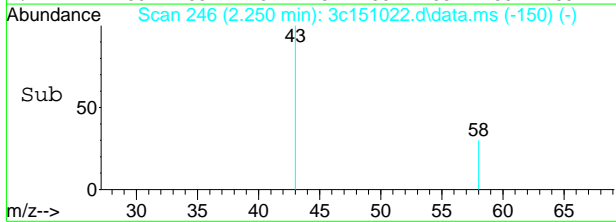
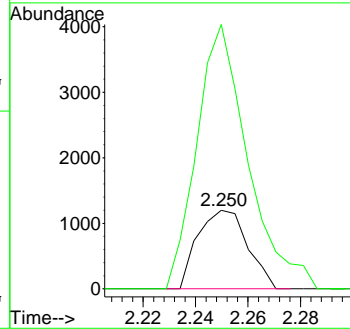
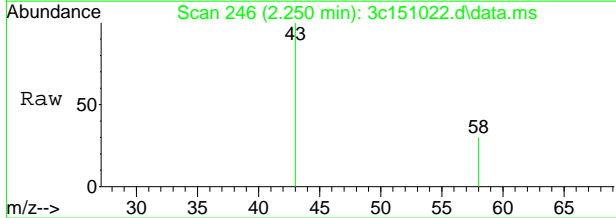
7.1.3
7





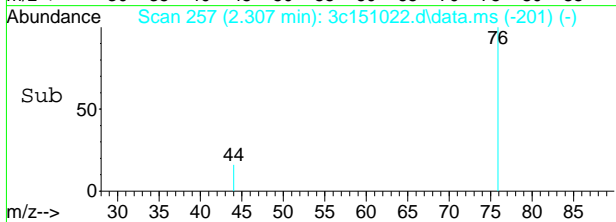
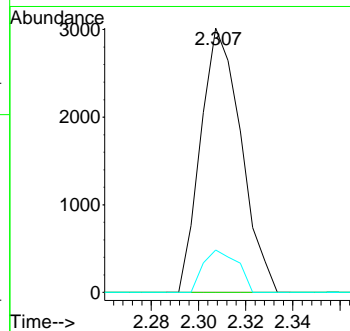
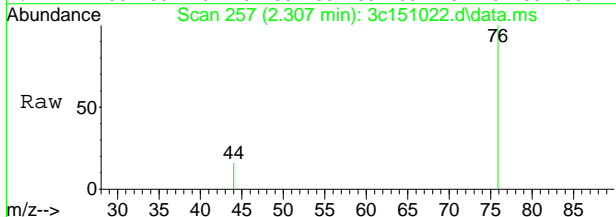
#20
acetone
Concen: 22.20 ug/L
RT: 2.250 min Scan# 246
Delta R.T. -0.000 min
Lab File: 3c151022.d
Acq: 12 Apr 2019 5:13 pm

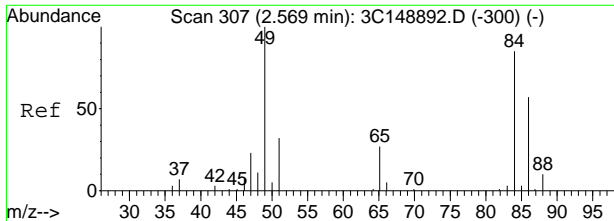
Tgt Ion	Resp	Lower	Upper
58	1583		
58	100		
43	336.2	284.5	344.5



#23
carbon disulfide
Concen: 0.99 ug/L
RT: 2.307 min Scan# 257
Delta R.T. -0.005 min
Lab File: 3c151022.d
Acq: 12 Apr 2019 5:13 pm

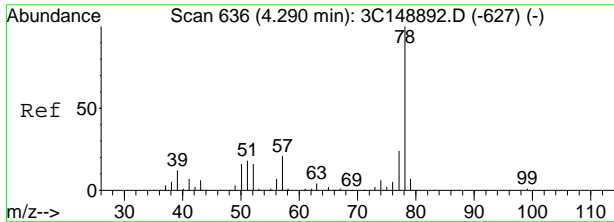
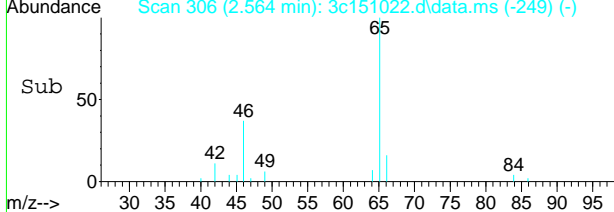
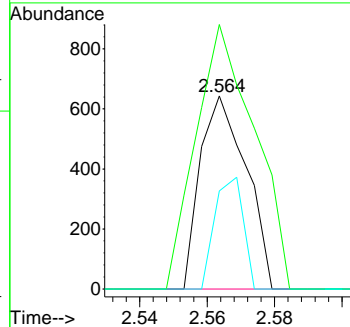
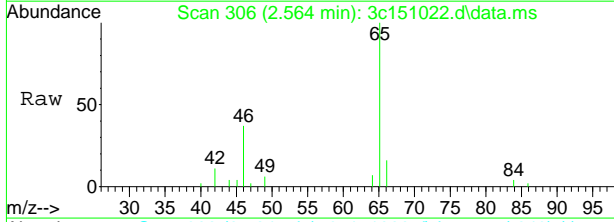
Tgt Ion	Resp	Lower	Upper
76	3585		
76	100		
78	0.0	0.0	39.0
44	16.0	0.0	44.0





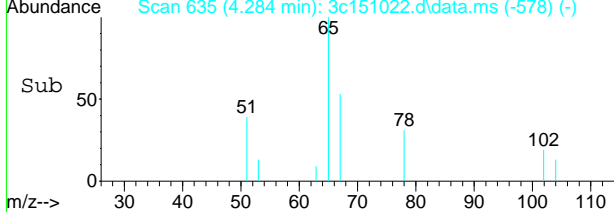
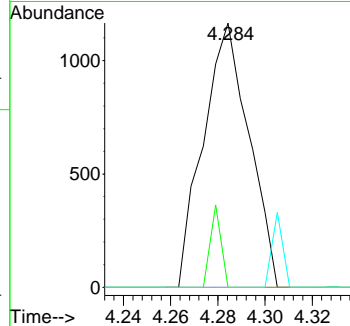
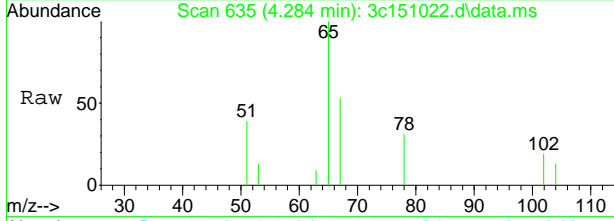
#24
 methylene chloride
 Concen: 0.43 ug/L
 RT: 2.564 min Scan# 306
 Delta R.T. -0.000 min
 Lab File: 3c151022.d
 Acq: 12 Apr 2019 5:13 pm

Tgt Ion	Ratio	Lower	Upper
84	100		
49	137.2	87.1	147.1
86	50.9	37.5	97.5



#57
 benzene
 Concen: 0.27 ug/L
 RT: 4.284 min Scan# 635
 Delta R.T. -0.000 min
 Lab File: 3c151022.d
 Acq: 12 Apr 2019 5:13 pm

Tgt Ion	Ratio	Lower	Upper
78	100		
77	0.0	0.0	54.0
52	0.0	0.0	44.9



7.13
7



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\04-15-19\v3c6794\
 Data File : 3c151021.d
 Acq On : 12 Apr 2019 4:50 pm
 Operator : Prashans
 Sample : JC86043-4 Inst : MS3C
 Misc : MS33845,V3C6794,5.5,,,,,1
 ALS Vial : 23 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M3C6743.M
 Quant Results File: M3C6743.RES
 Quant Time: Apr 15 08:18:25 2019
 Quant Title : Method SW846 8260C, Rxi624 20m x 0.18mm x 1.0um
 QLast Update : Fri Feb 15 09:30:13 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	2.574	65	46239	500.00	ug/L	0.00
5) pentafluorobenzene	4.028	168	220928	50.00	ug/L	0.00
52) 1,4-difluorobenzene	4.687	114	309849	50.00	ug/L	0.00
74) chlorobenzene-d5	7.391	117	269969	50.00	ug/L	0.00
97) 1,4-dichlorobenzene-d4	9.321	152	144611	50.00	ug/L	0.00
System Monitoring Compounds						
45) dibromofluoromethane (s)	3.986	113	83752	52.46	ug/L	0.00
Spiked Amount	50.000	Range	75 - 127	Recovery	=	104.92%
53) 1,2-dichloroethane-d4 (s)	4.305	65	85659	50.88	ug/L	0.00
Spiked Amount	50.000	Range	75 - 130	Recovery	=	101.76%
75) toluene-d8 (s)	6.084	98	332561	49.77	ug/L	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	=	99.54%
98) 4-bromofluorobenzene (s)	8.390	95	124392	52.32	ug/L	0.00
Spiked Amount	50.000	Range	79 - 127	Recovery	=	104.64%
Target Compounds						
20) acetone	2.250	58	11634	169.02	ug/L	96
23) carbon disulfide	2.307	76	5188	1.48	ug/L	95
24) methylene chloride	2.564	84	527	0.39	ug/L #	57
31) 2-butanone	3.594	72	1550	14.30	ug/L #	55
57) benzene	4.284	78	24512	4.30	ug/L	99
67) methylcyclohexane	4.996	83	968	0.33	ug/L #	62
76) toluene	6.146	92	6171	1.60	ug/L	97
89) ethylbenzene	7.490	91	1814	0.24	ug/L	94
90) m,p-xylene	7.595	106	2769	0.94	ug/L	93
91) o-xylene	7.930	91	1870	0.32	ug/L	84
95) isopropylbenzene	8.223	105	3144	0.42	ug/L	98

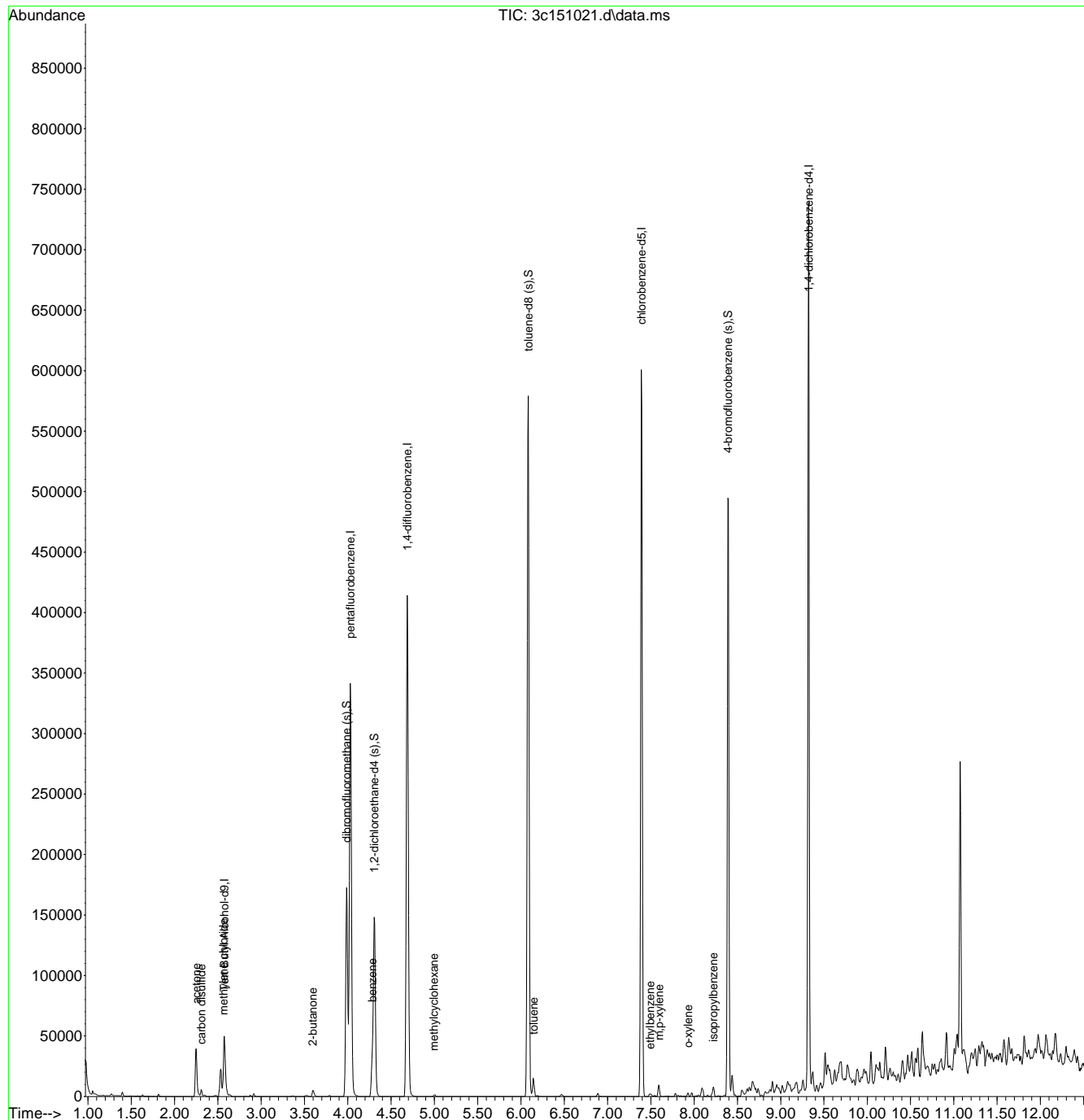
(#) = qualifier out of range (m) = manual integration (+) = signals summed

7.14
7

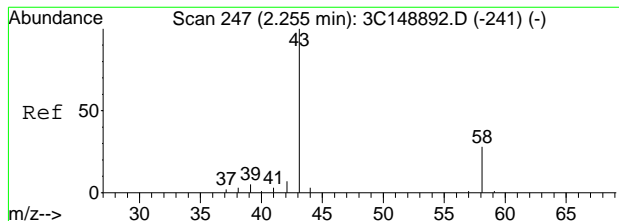
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\04-15-19\v3c6794\
 Data File : 3c151021.d
 Acq On : 12 Apr 2019 4:50 pm
 Operator : Prashans
 Sample : JC86043-4 Inst : MS3C
 Misc : MS33845,V3C6794,5.5,,,,,1
 ALS Vial : 23 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M3C6743.M
 Quant Results File: M3C6743.RES
 Quant Time: Apr 15 08:18:25 2019
 Quant Title : Method SW846 8260C, Rxi624 20m x 0.18mm x 1.0um
 QLast Update : Fri Feb 15 09:30:13 2019
 Response via : Initial Calibration

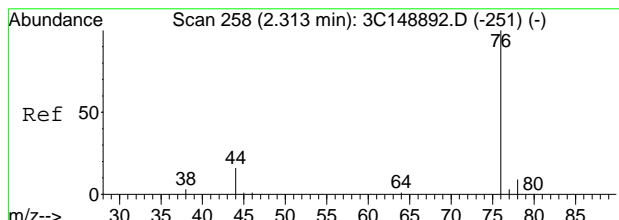
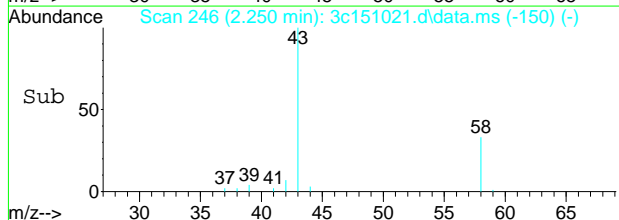
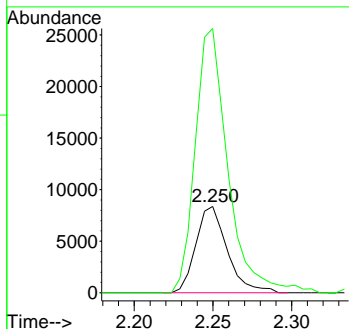
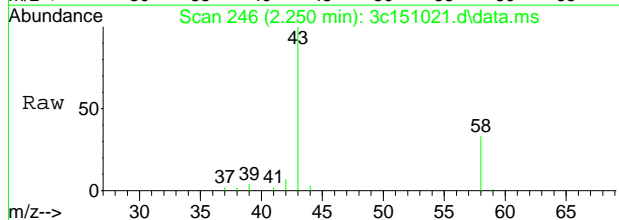


7.1.4
7



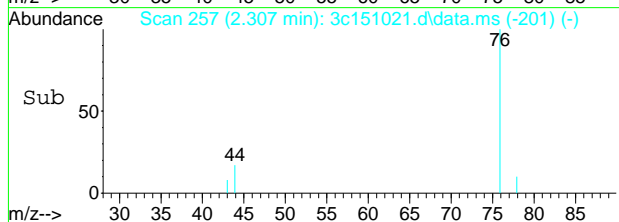
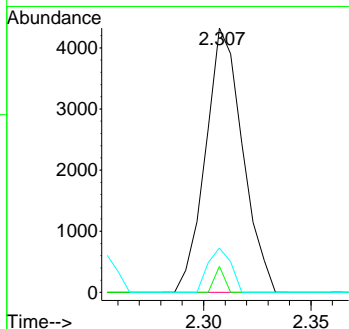
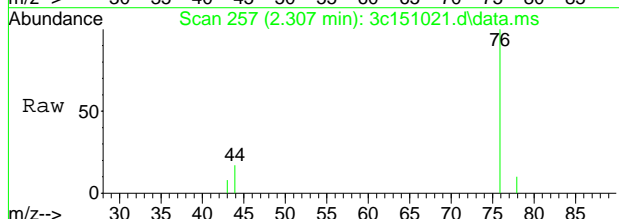
#20
 acetone
 Concen: 169.02 ug/L
 RT: 2.250 min Scan# 246
 Delta R.T. -0.000 min
 Lab File: 3c151021.d
 Acq: 12 Apr 2019 4:50 pm

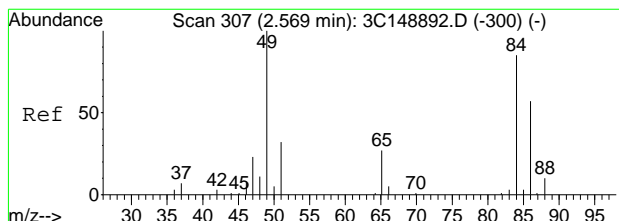
Tgt Ion	Resp	Lower	Upper
58	11634		
43	306.6	284.5	344.5



#23
 carbon disulfide
 Concen: 1.48 ug/L
 RT: 2.307 min Scan# 257
 Delta R.T. -0.005 min
 Lab File: 3c151021.d
 Acq: 12 Apr 2019 4:50 pm

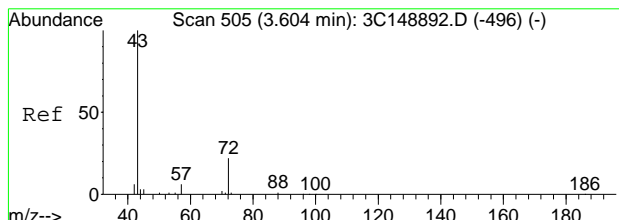
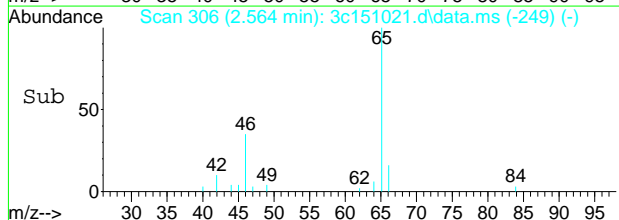
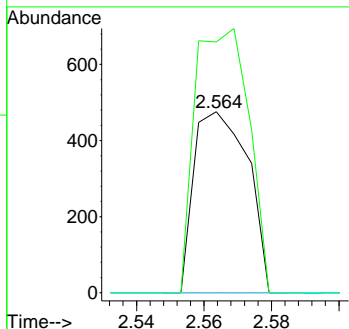
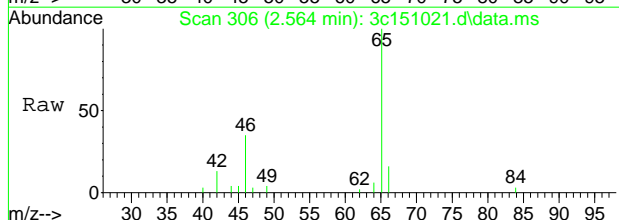
Tgt Ion	Resp	Lower	Upper
76	5188		
78	9.9	0.0	39.0
44	16.7	0.0	44.0





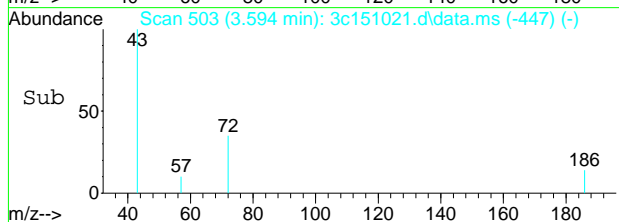
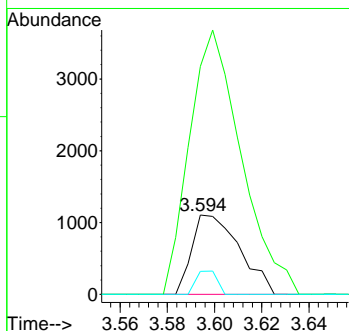
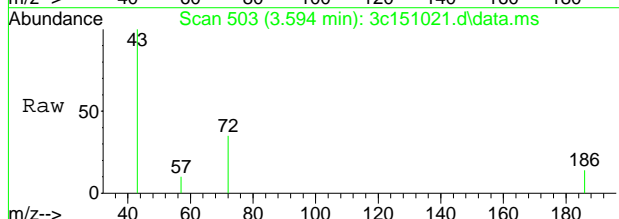
#24
 methylene chloride
 Concen: 0.39 ug/L
 RT: 2.564 min Scan# 306
 Delta R.T. -0.000 min
 Lab File: 3c151021.d
 Acq: 12 Apr 2019 4:50 pm

Tgt Ion	Resp	Lower	Upper
84	527		
84	100		
49	138.4	87.1	147.1
86	0.0	37.5	97.5#

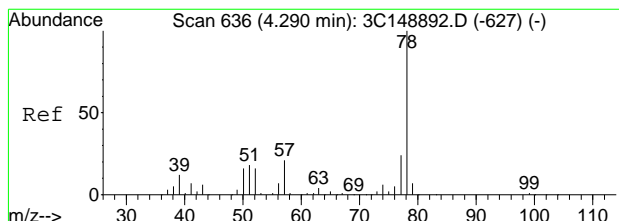


#31
 2-butanone
 Concen: 14.30 ug/L
 RT: 3.594 min Scan# 503
 Delta R.T. -0.005 min
 Lab File: 3c151021.d
 Acq: 12 Apr 2019 4:50 pm

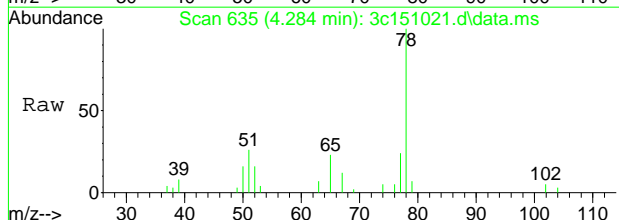
Tgt Ion	Resp	Lower	Upper
72	1550		
72	100		
43	287.5	372.9	432.9#
57	29.0	0.0	59.6



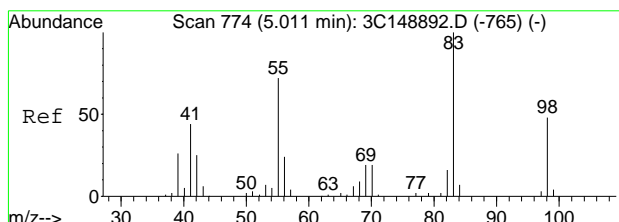
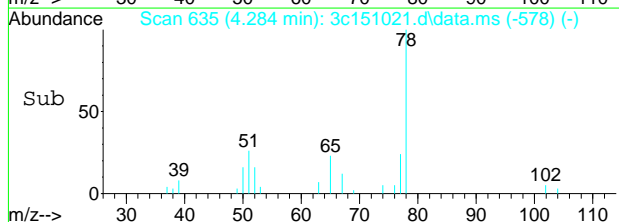
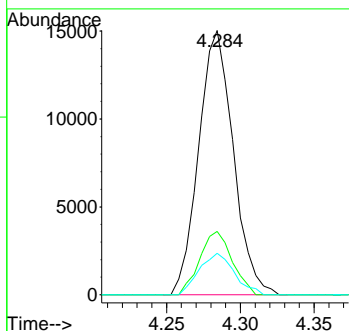
7.14
7



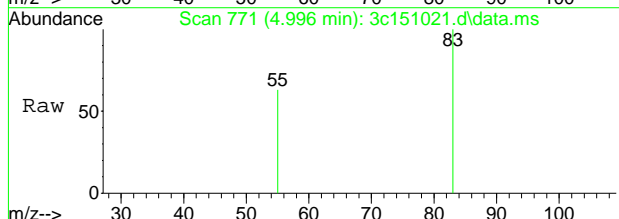
#57
benzene
Concen: 4.30 ug/L
RT: 4.284 min Scan# 635
Delta R.T. -0.000 min
Lab File: 3c151021.d
Acq: 12 Apr 2019 4:50 pm



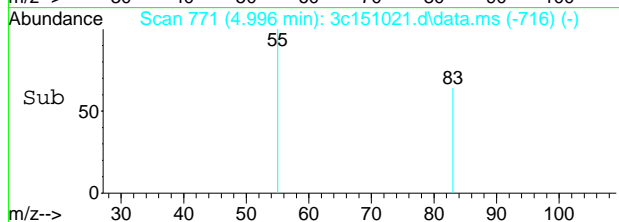
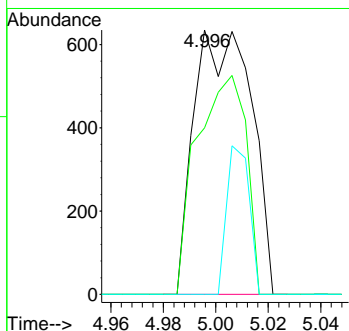
Tgt Ion: 78 Resp: 24512
Ion Ratio Lower Upper
78 100
77 23.9 0.0 54.0
52 15.7 0.0 44.9

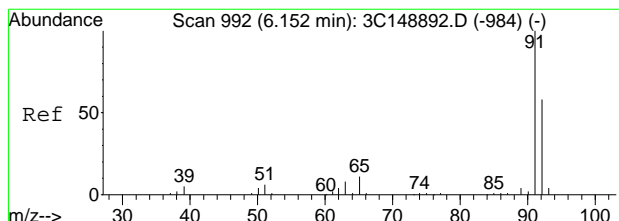


#67
methylcyclohexane
Concen: 0.33 ug/L
RT: 4.996 min Scan# 771
Delta R.T. -0.010 min
Lab File: 3c151021.d
Acq: 12 Apr 2019 4:50 pm



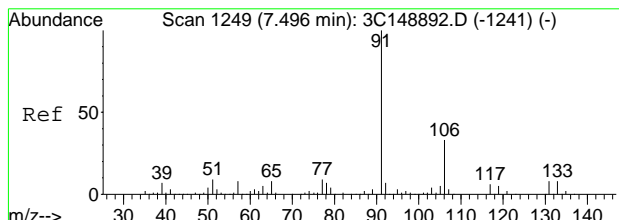
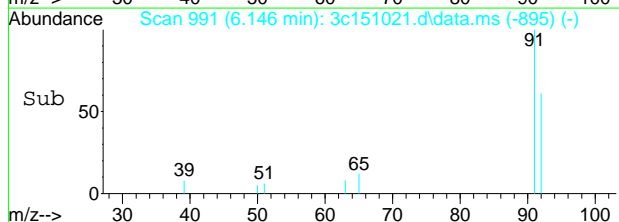
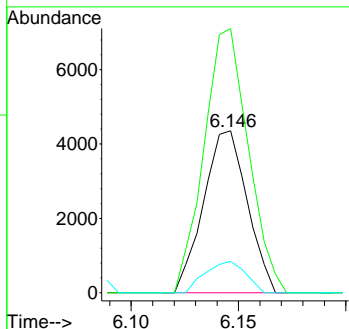
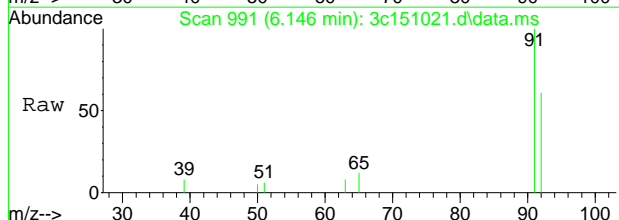
Tgt Ion: 83 Resp: 968
Ion Ratio Lower Upper
83 100
55 63.0 42.2 102.2
98 0.0 22.5 82.5#





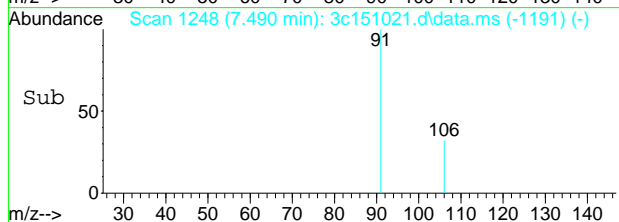
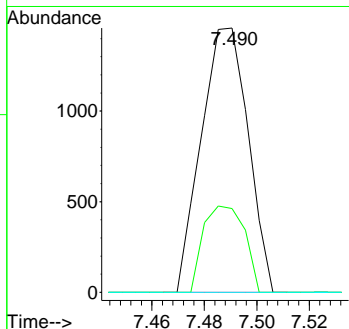
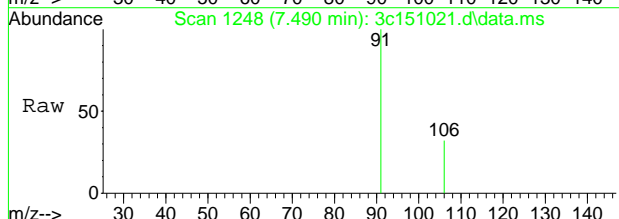
#76
toluene
Concen: 1.60 ug/L
RT: 6.146 min Scan# 991
Delta R.T. -0.000 min
Lab File: 3c151021.d
Acq: 12 Apr 2019 4:50 pm

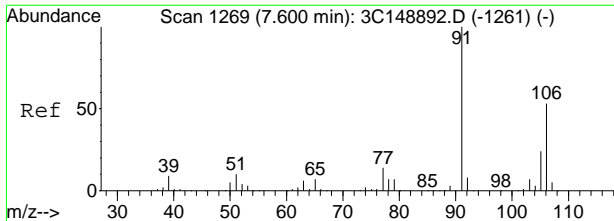
Tgt Ion	Resp	Lower	Upper
92	6171		
91	163.2	147.5	187.5
65	19.5	0.0	38.2



#89
ethylbenzene
Concen: 0.24 ug/L
RT: 7.490 min Scan# 1248
Delta R.T. -0.000 min
Lab File: 3c151021.d
Acq: 12 Apr 2019 4:50 pm

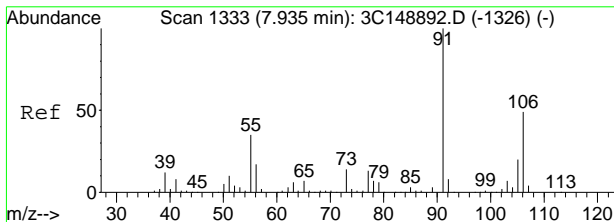
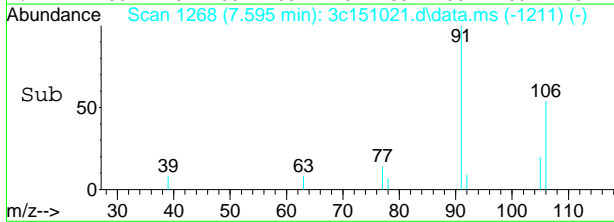
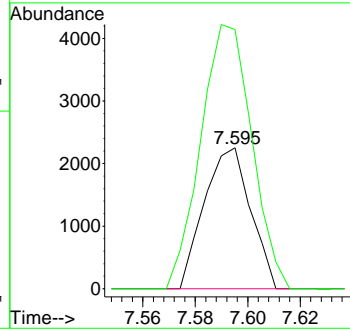
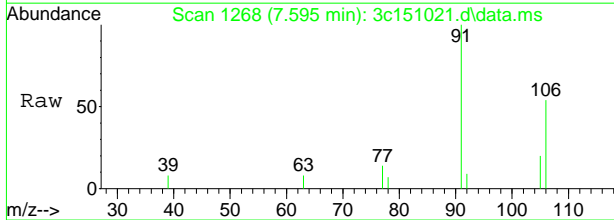
Tgt Ion	Resp	Lower	Upper
91	1814		
91	100		
106	31.7	2.2	62.2
77	0.0	0.0	38.4





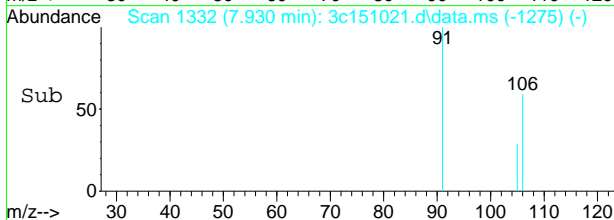
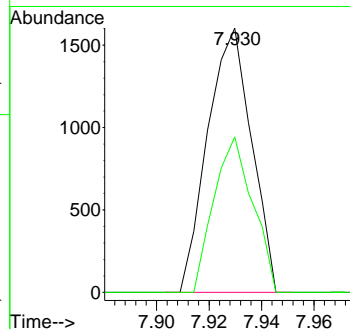
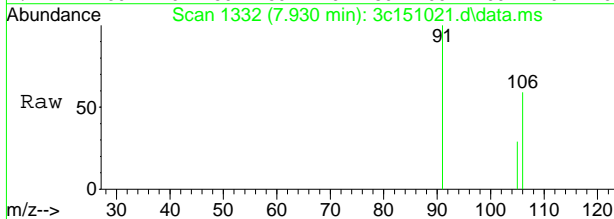
#90
 m,p-xylene
 Concen: 0.94 ug/L
 RT: 7.595 min Scan# 1268
 Delta R.T. -0.000 min
 Lab File: 3c151021.d
 Acq: 12 Apr 2019 4:50 pm

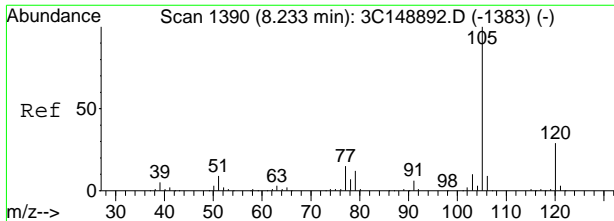
Tgt Ion:106 Resp: 2769
 Ion Ratio Lower Upper
 106 100
 91 184.0 164.8 224.8



#91
 o-xylene
 Concen: 0.32 ug/L
 RT: 7.930 min Scan# 1332
 Delta R.T. -0.000 min
 Lab File: 3c151021.d
 Acq: 12 Apr 2019 4:50 pm

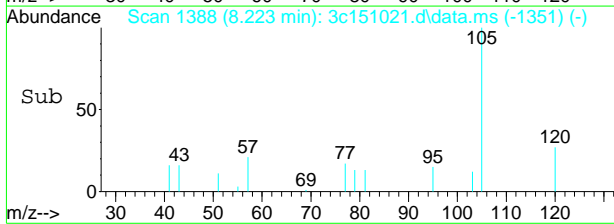
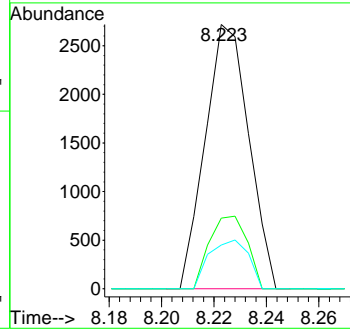
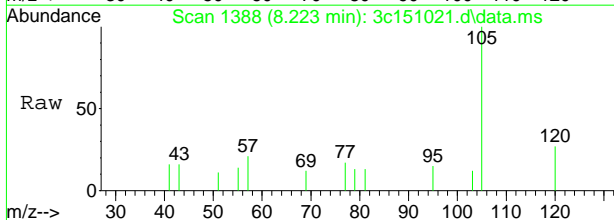
Tgt Ion: 91 Resp: 1870
 Ion Ratio Lower Upper
 91 100
 106 58.8 18.3 78.3





#95
 isopropylbenzene
 Concen: 0.42 ug/L
 RT: 8.223 min Scan# 1388
 Delta R.T. -0.005 min
 Lab File: 3c151021.d
 Acq: 12 Apr 2019 4:50 pm

Tgt Ion	Ratio	Lower	Upper
105	100		
120	26.8	7.6	47.6
77	16.6	0.0	35.1



7.14
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\eunicem041219\vi9080\
 Data File : i225322.d
 Acq On : 11 Apr 2019 3:04 pm
 Operator : thienn
 Sample : jc86043-5 Inst : GCMSI
 Misc : MS33845,VI9080,4.5,,100,10,1
 ALS Vial : 17 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MI8986.M
 Quant Results File: MI8986.RES
 Quant Time: Apr 12 02:32:35 2019
 Quant Title : Method SW846 8260C, Rxi-624 60m x 0.25mm x 1.4um
 QLast Update : Fri Jan 25 14:07:54 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.374	65	88394	500.00	ug/L	0.00
4) pentafluorobenzene	9.696	168	251428	50.00	ug/L	-0.02
51) 1,4-difluorobenzene	10.632	114	342361	50.00	ug/L	-0.02
73) chlorobenzene-d5	13.765	117	291022	50.00	ug/L	-0.02
96) 1,4-dichlorobenzene-d4	16.109	152	164360	50.00	ug/L	-0.02
System Monitoring Compounds						
47) dibromofluoromethane (s)	9.717	113	103486	52.38	ug/L	-0.02
Spiked Amount	50.000	Range	75 - 127	Recovery	=	104.76%
52) 1,2-dichloroethane-d4 (s)	10.136	65	109930	51.44	ug/L	-0.03
Spiked Amount	50.000	Range	75 - 130	Recovery	=	102.88%
74) toluene-d8 (s)	12.264	98	379505	50.87	ug/L	-0.02
Spiked Amount	50.000	Range	80 - 120	Recovery	=	101.74%
97) 4-bromofluorobenzene (s)	14.932	95	141081	56.29	ug/L	-0.02
Spiked Amount	50.000	Range	79 - 127	Recovery	=	112.58%
Target Compounds						
21) carbon disulfide	7.107	76	1633	0.32	ug/L	75
24) methylene chloride	7.426	84	6372	3.68	ug/L	93
28) hexane	8.227	57	1121	0.42	ug/L	91
55) benzene	10.219	78	1630	0.24	ug/L	88
62) methylcyclohexane	11.260	83	4559	1.50	ug/L	96
75) toluene	12.338	92	3793	0.94	ug/L	93
88) ethylbenzene	13.865	91	33967	4.53	ug/L	96
89) m,p-xylene	13.990	106	6222	2.11	ug/L	98
90) o-xylene	14.388	106	4109	1.40	ug/L	96
95) isopropylbenzene	14.738	105	58257	7.88	ug/L	98

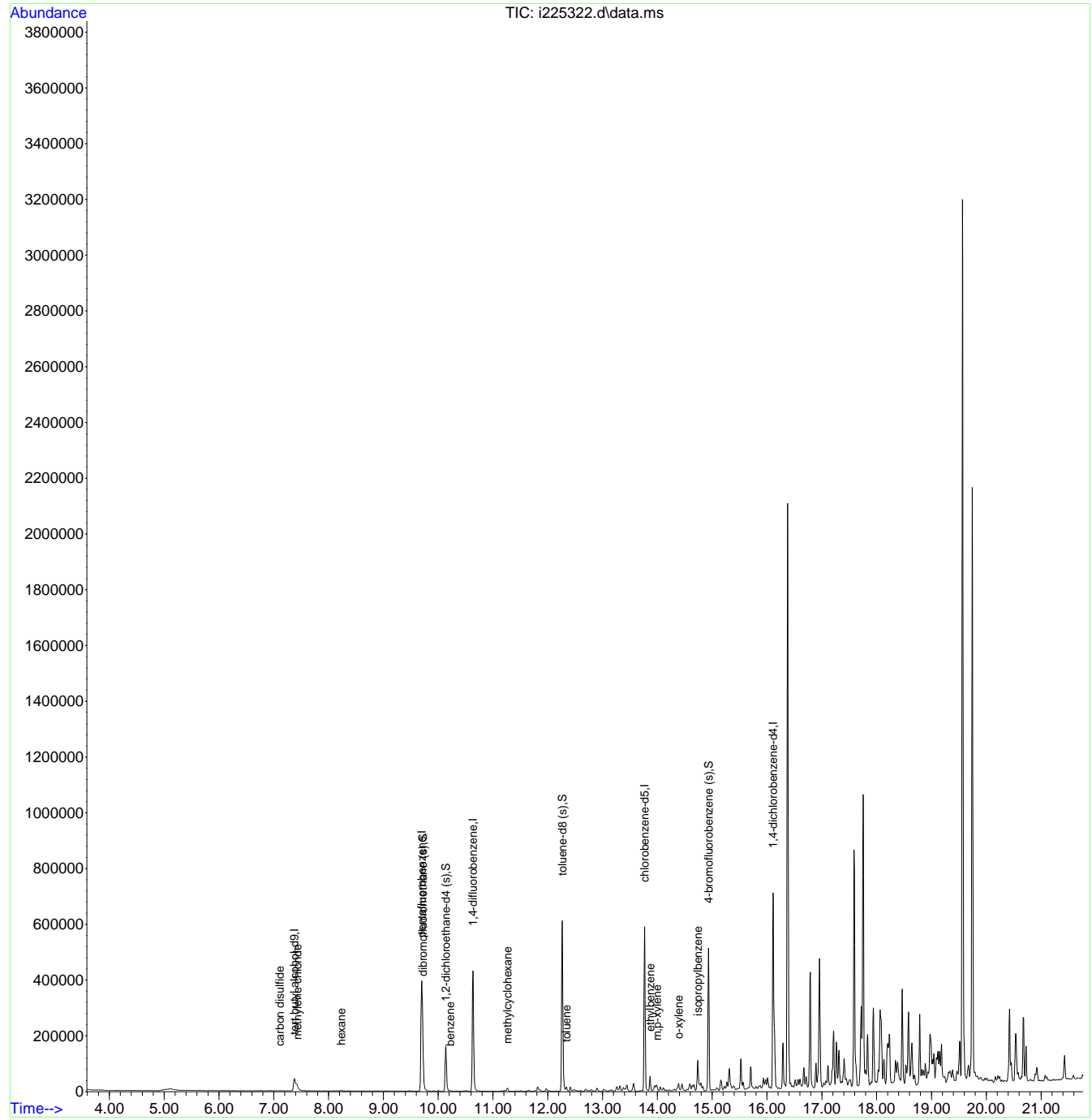
(#) = qualifier out of range (m) = manual integration (+) = signals summed

7.15
7

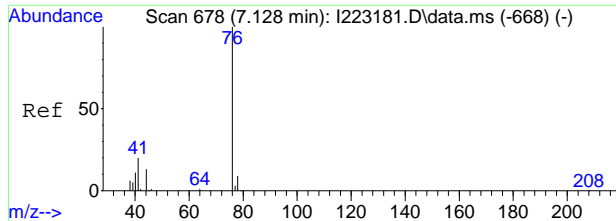
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\unicem041219\vi9080\
Data File : i225322.d
Acq On : 11 Apr 2019 3:04 pm
Operator : thienn
Sample : jc86043-5 Inst : GCMSI
Misc : MS33845,VI9080,4.5,,100,10,1
ALS Vial : 17 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MI8986.M
Quant Results File: MI8986.RES
Quant Time: Apr 12 02:32:35 2019
Quant Title : Method SW846 8260C, Rxi-624 60m x 0.25mm x 1.4um
QLast Update : Fri Jan 25 14:07:54 2019
Response via : Initial Calibration

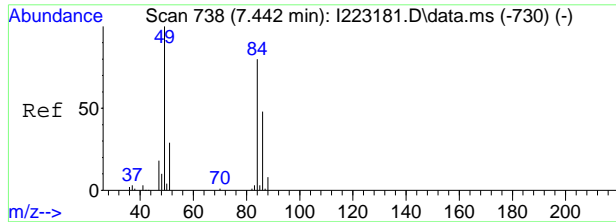
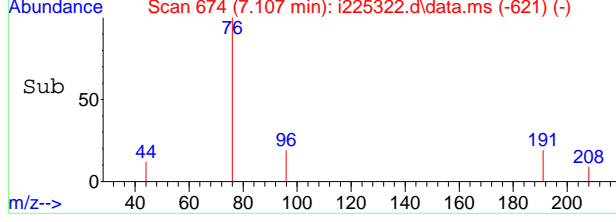
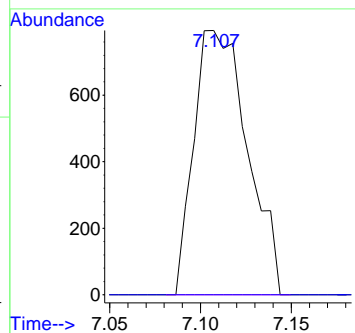
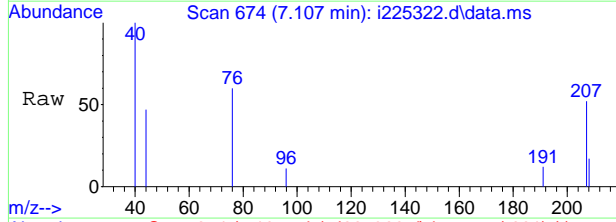


7.15
7



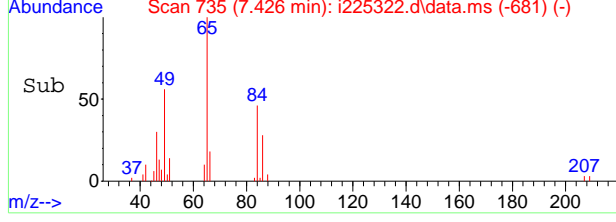
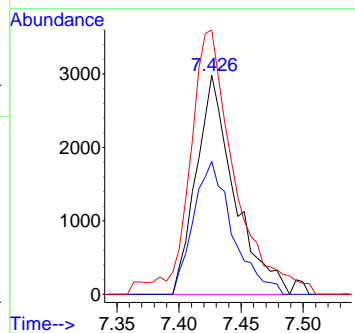
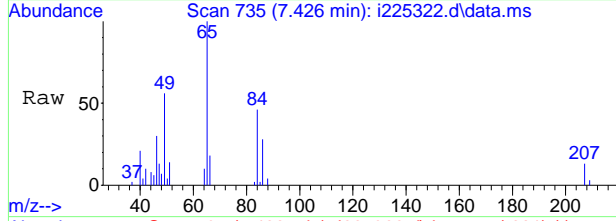
#21
 carbon disulfide
 Concen: 0.32 ug/L
 RT: 7.107 min Scan# 674
 Delta R.T. -0.021 min
 Lab File: i225322.d
 Acq: 11 Apr 2019 3:04 pm

Tgt Ion	Ratio	Lower	Upper
76	100		
78	0.0	0.0	29.0



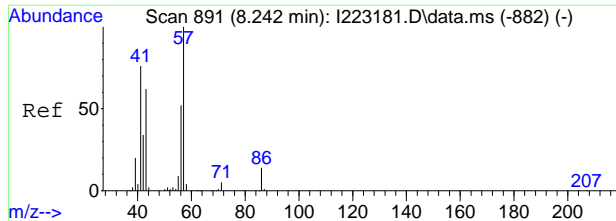
#24
 methylene chloride
 Concen: 3.68 ug/L
 RT: 7.426 min Scan# 735
 Delta R.T. -0.016 min
 Lab File: i225322.d
 Acq: 11 Apr 2019 3:04 pm

Tgt Ion	Ratio	Lower	Upper
84	100		
86	60.8	30.4	90.4
49	114.6	95.7	155.7



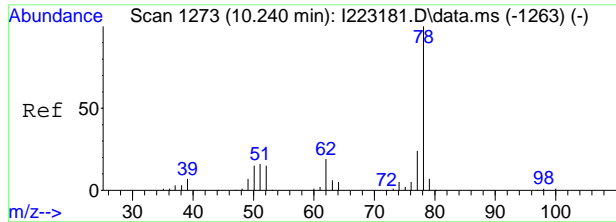
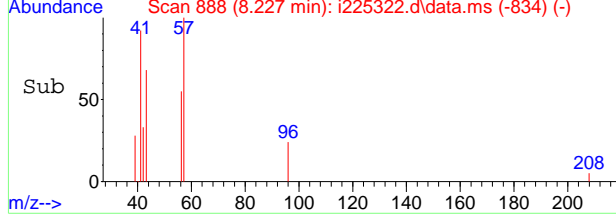
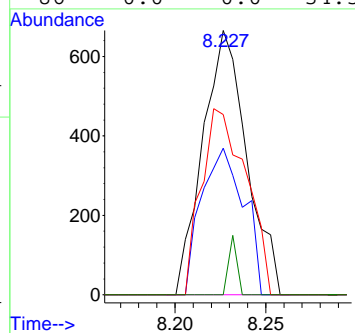
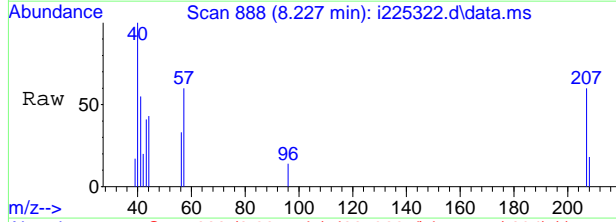
7.15
7





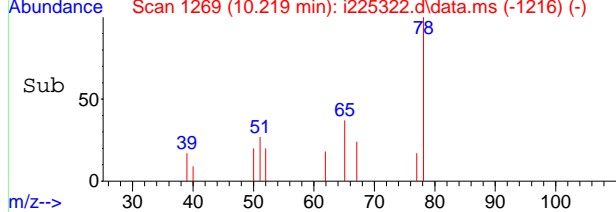
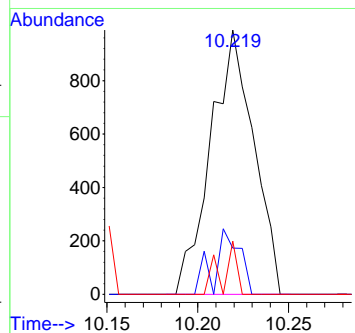
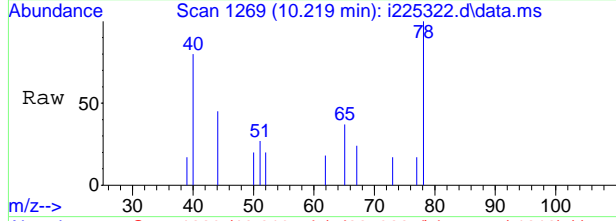
#28
hexane
Concen: 0.42 ug/L
RT: 8.227 min Scan# 888
Delta R.T. -0.016 min
Lab File: i225322.d
Acq: 11 Apr 2019 3:04 pm

Tgt Ion	Resp	Lower	Upper
57	1121		
56	55.4	32.4	72.4
43	68.2	42.4	82.4
86	0.0	0.0	34.3



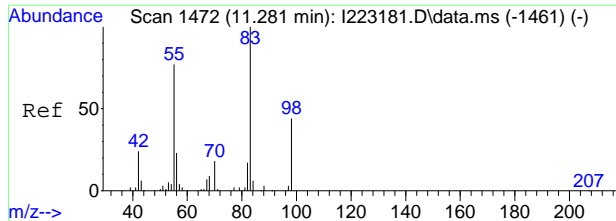
#55
benzene
Concen: 0.24 ug/L
RT: 10.219 min Scan# 1269
Delta R.T. -0.021 min
Lab File: i225322.d
Acq: 11 Apr 2019 3:04 pm

Tgt Ion	Resp	Lower	Upper
78	1630		
77	17.5	0.0	54.0
52	20.1	0.0	45.4

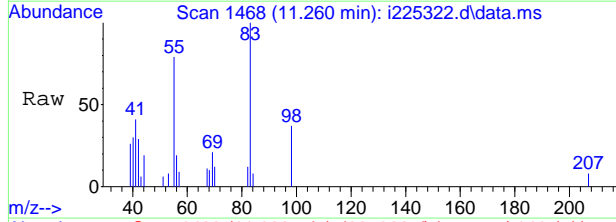


7.15
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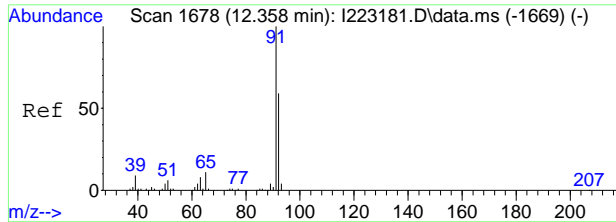
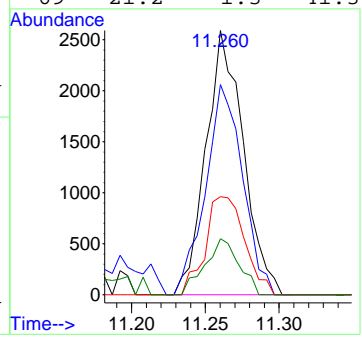
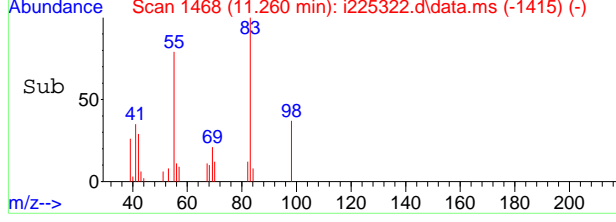


#62
 methylcyclohexane
 Concen: 1.50 ug/L
 RT: 11.260 min Scan# 1468
 Delta R.T. -0.021 min
 Lab File: i225322.d
 Acq: 11 Apr 2019 3:04 pm

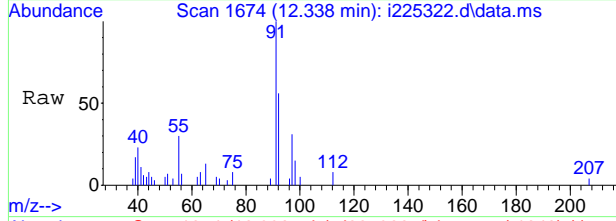


Tgt Ion: 83 Resp: 4559

Ion	Ratio	Lower	Upper
83	100		
55	79.5	59.8	99.8
98	37.1	24.4	64.4
69	21.2	1.3	41.3

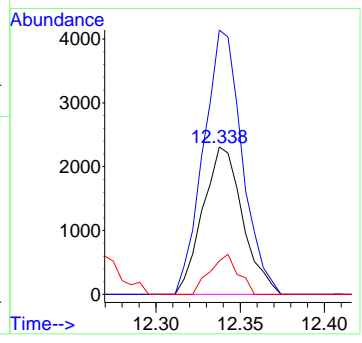
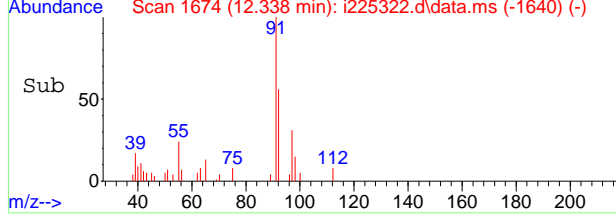


#75
 toluene
 Concen: 0.94 ug/L
 RT: 12.338 min Scan# 1674
 Delta R.T. -0.021 min
 Lab File: i225322.d
 Acq: 11 Apr 2019 3:04 pm

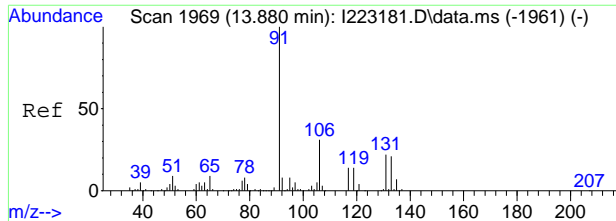


Tgt Ion: 92 Resp: 3793

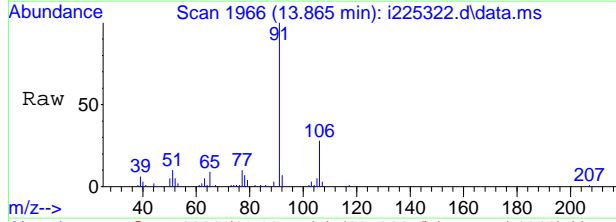
Ion	Ratio	Lower	Upper
92	100		
91	179.3	149.6	189.6
65	22.7	0.0	38.7



7.15
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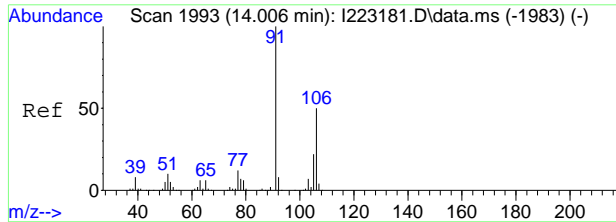
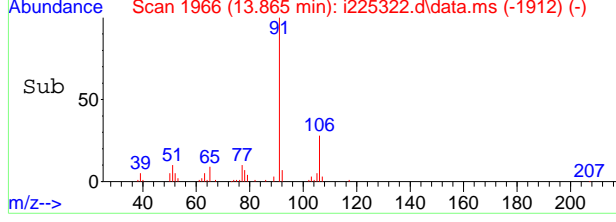
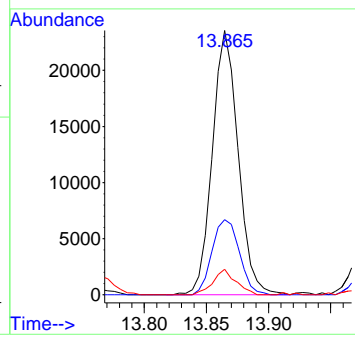


#88
ethylbenzene
Concen: 4.53 ug/L
RT: 13.865 min Scan# 1966
Delta R.T. -0.016 min
Lab File: i225322.d
Acq: 11 Apr 2019 3:04 pm

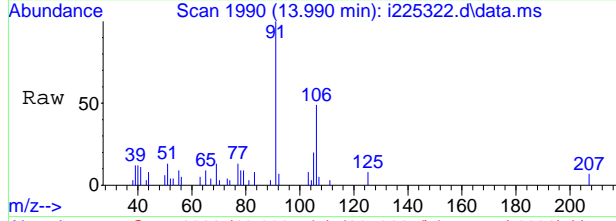


Tgt Ion: 91 Resp: 33967

Ion	Ratio	Lower	Upper
91	100		
106	28.4	0.7	60.7
77	9.6	0.0	38.1

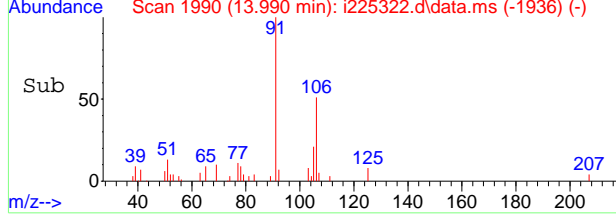
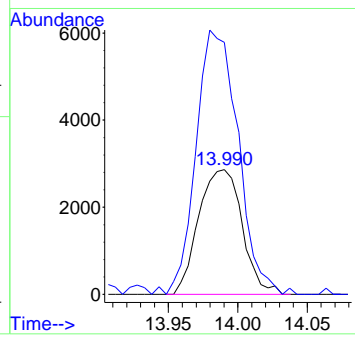


#89
m,p-xylene
Concen: 2.11 ug/L
RT: 13.990 min Scan# 1990
Delta R.T. -0.016 min
Lab File: i225322.d
Acq: 11 Apr 2019 3:04 pm



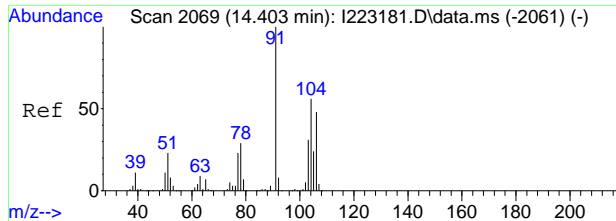
Tgt Ion: 106 Resp: 6222

Ion	Ratio	Lower	Upper
106	100		
91	202.2	169.5	229.5



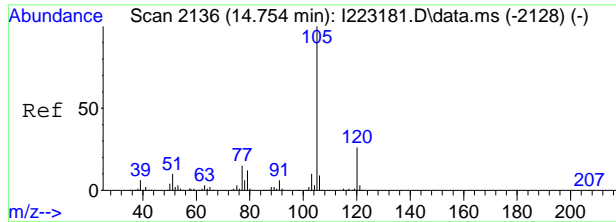
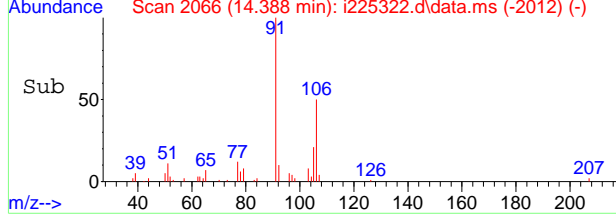
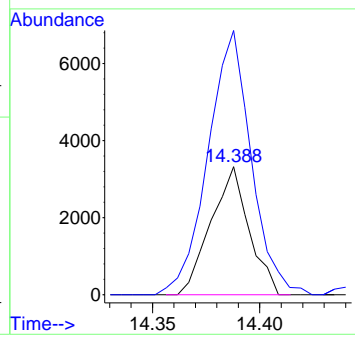
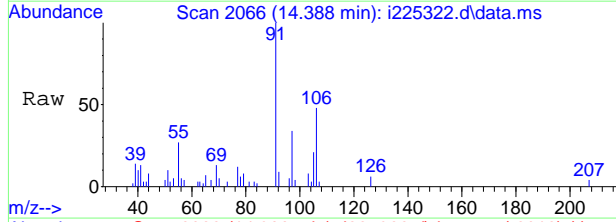
7.15
7





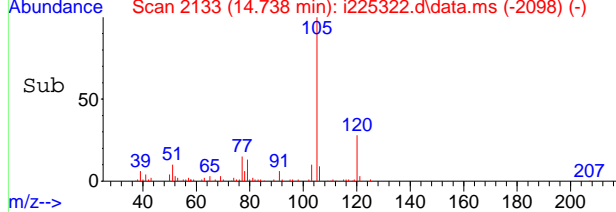
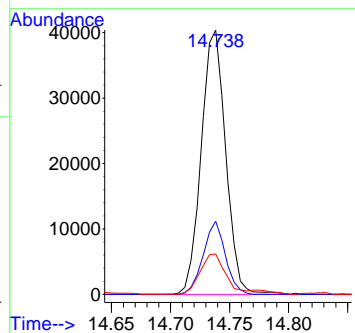
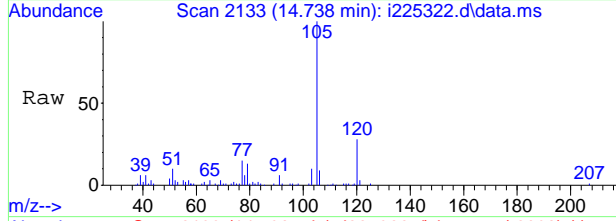
#90
 o-xylene
 Concen: 1.40 ug/L
 RT: 14.388 min Scan# 2066
 Delta R.T. -0.016 min
 Lab File: i225322.d
 Acq: 11 Apr 2019 3:04 pm

Tgt Ion	Resp	Lower	Upper
106	4109		
91	200.7	176.2	236.2



#95
 isopropylbenzene
 Concen: 7.88 ug/L
 RT: 14.738 min Scan# 2133
 Delta R.T. -0.016 min
 Lab File: i225322.d
 Acq: 11 Apr 2019 3:04 pm

Tgt Ion	Resp	Lower	Upper
105	58257		
105	100		
120	27.7	6.2	46.2
77	15.3	0.0	35.3



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA\Apr-2019\4-12\vi9080 rush\
 Data File : i225312.d
 Acq On : 11 Apr 2019 10:00 am
 Operator : thienn
 Sample : mb Inst : GCMSI
 Misc : MS33826,VI9080,5,,100,5,1
 ALS Vial : 7 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MI8986.M
 Quant Results File: MI8986.RES
 Quant Time: Apr 11 12:12:23 2019
 Quant Title : Method SW846 8260C, Rxi-624 60m x 0.25mm x 1.4um
 QLast Update : Fri Jan 25 14:07:54 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.384	65	84234	500.00	ug/L	0.00
4) pentafluorobenzene	9.696	168	208268	50.00	ug/L	-0.02
51) 1,4-difluorobenzene	10.632	114	281140	50.00	ug/L	-0.02
73) chlorobenzene-d5	13.765	117	236485	50.00	ug/L	-0.02
96) 1,4-dichlorobenzene-d4	16.114	152	136254	50.00	ug/L	-0.02
System Monitoring Compounds						
47) dibromofluoromethane (s)	9.717	113	87817	53.66	ug/L	-0.02
Spiked Amount	50.000	Range	75 - 127	Recovery	=	107.32%
52) 1,2-dichloroethane-d4 (s)	10.136	65	99077	56.46	ug/L	-0.03
Spiked Amount	50.000	Range	75 - 130	Recovery	=	112.92%
74) toluene-d8 (s)	12.264	98	301487	49.73	ug/L	-0.02
Spiked Amount	50.000	Range	80 - 120	Recovery	=	99.46%
97) 4-bromofluorobenzene (s)	14.932	95	111039	53.44	ug/L	-0.02
Spiked Amount	50.000	Range	79 - 127	Recovery	=	106.88%
Target Compounds						
21) carbon disulfide	7.107	76	1231	0.29	ug/L	75
42) tetrahydrofuran	9.482	71	227	1.50	ug/L #	73
62) methylcyclohexane	11.260	83	677	0.27	ug/L #	82
122) naphthalene	18.467	128	1634	0.29	ug/L	80

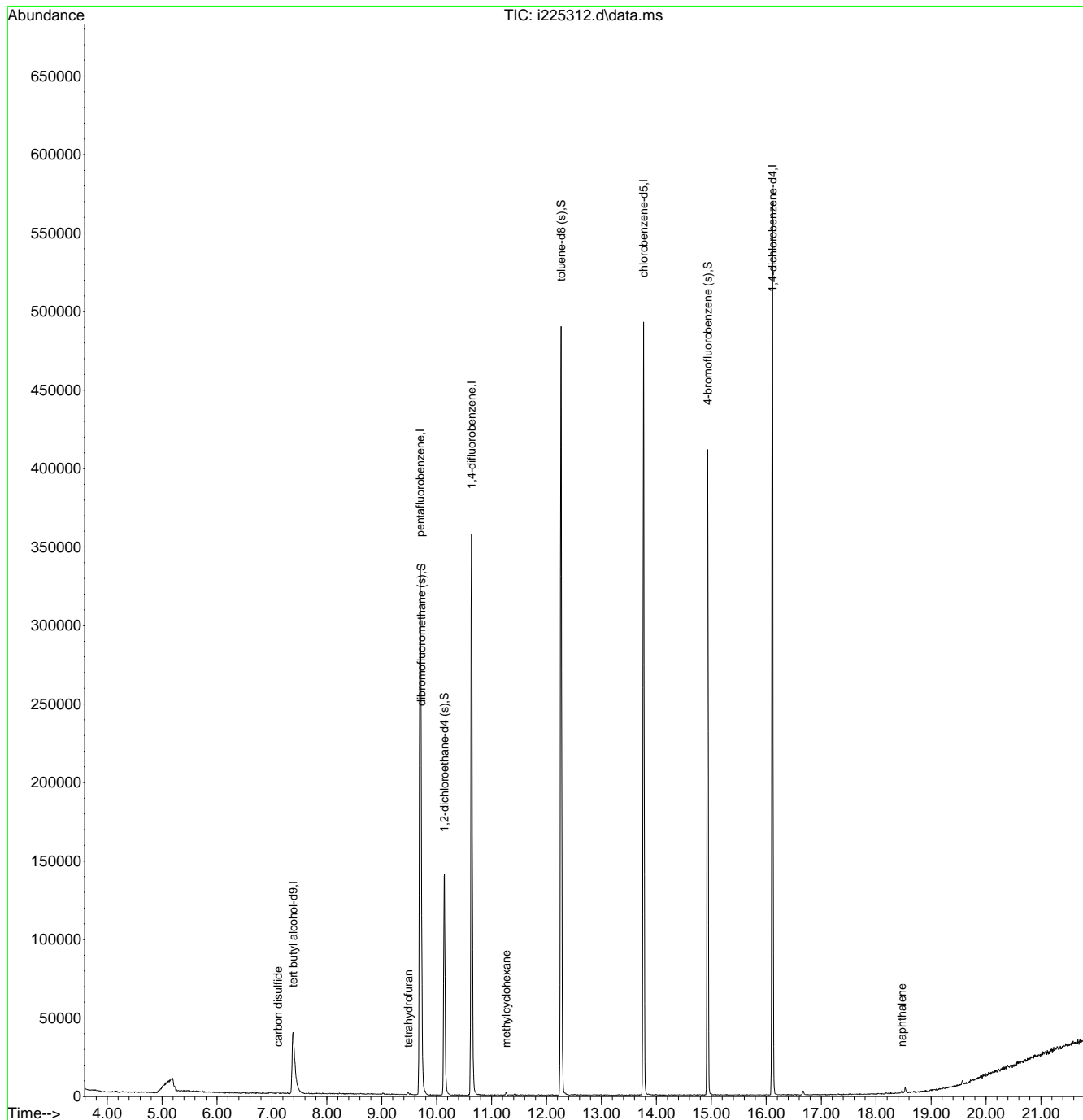
(#) = qualifier out of range (m) = manual integration (+) = signals summed

7.2.1
7

Quantitation Report (QT Reviewed)

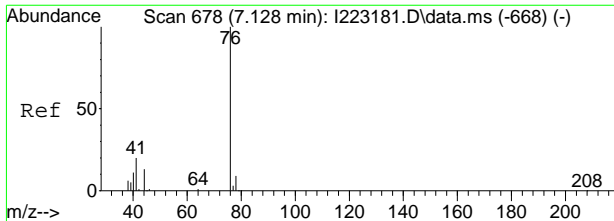
Data Path : C:\msdchem\1\data\lotusa\VOA\Apr-2019\4-12\vi9080 rush\
 Data File : i225312.d
 Acq On : 11 Apr 2019 10:00 am
 Operator : thienn
 Sample : mb
 Misc : MS33826,VI9080,5,,100,5,1
 ALS Vial : 7 Sample Multiplier: 1
 Inst : GCMSI

Quant Method : C:\MSDCHEM\1\METHODS\MI8986.M
 Quant Results File: MI8986.RES
 Quant Time: Apr 11 12:12:23 2019
 Quant Title : Method SW846 8260C, Rxi-624 60m x 0.25mm x 1.4um
 QLast Update : Fri Jan 25 14:07:54 2019
 Response via : Initial Calibration



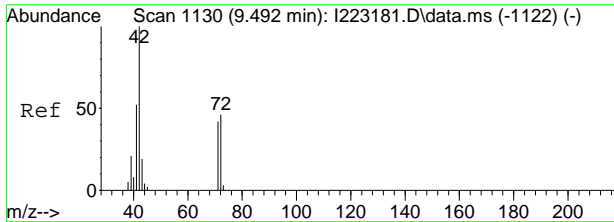
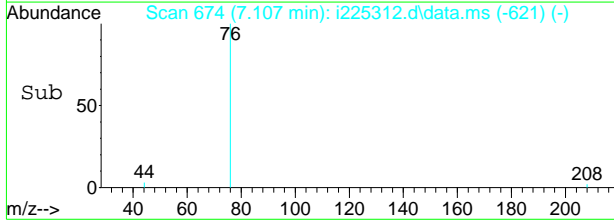
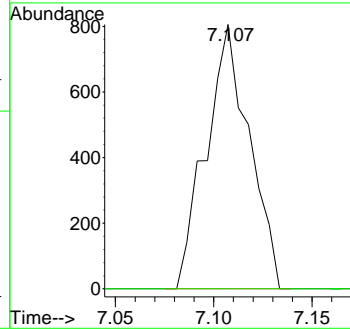
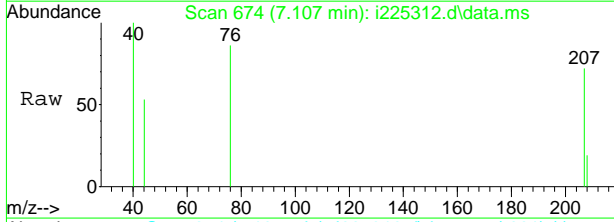
7.2.1
7





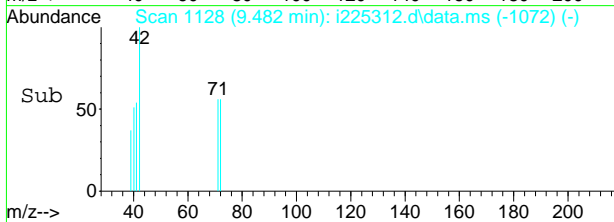
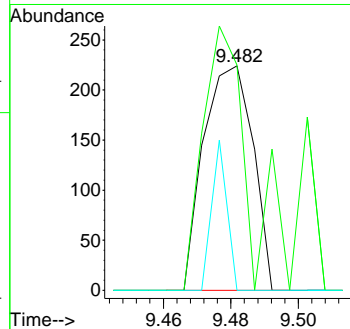
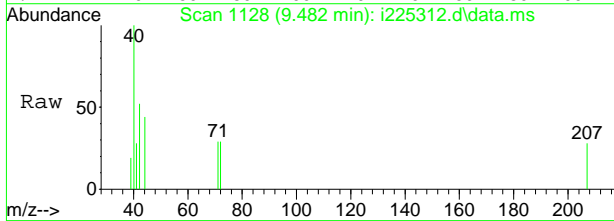
#21
 carbon disulfide
 Concen: 0.29 ug/L
 RT: 7.107 min Scan# 674
 Delta R.T. -0.021 min
 Lab File: i225312.d
 Acq: 11 Apr 2019 10:00 am

Tgt Ion	Resp	Lower	Upper
76	1231		
76	100		
78	0.0	0.0	29.0

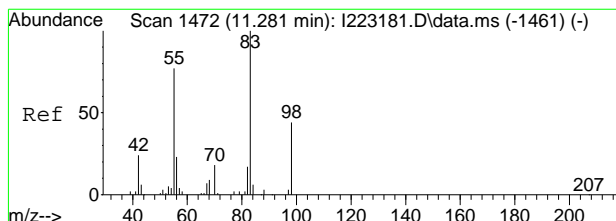


#42
 tetrahydrofuran
 Concen: 1.50 ug/L
 RT: 9.482 min Scan# 1128
 Delta R.T. -0.005 min
 Lab File: i225312.d
 Acq: 11 Apr 2019 10:00 am

Tgt Ion	Resp	Lower	Upper
71	227		
71	100		
72	100.4	79.7	139.7
43	0.0	16.1	76.1#

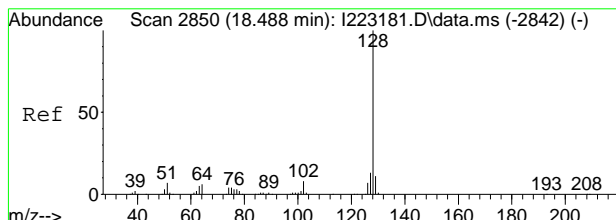
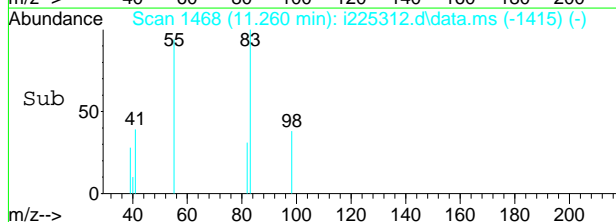
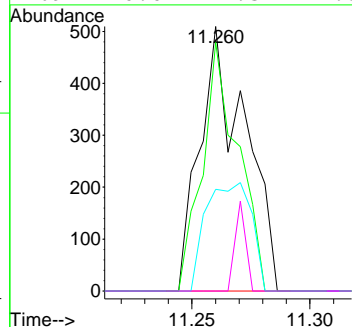
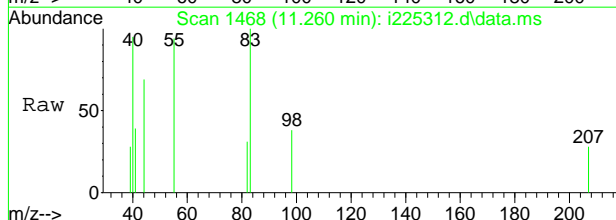


7.2.1
7



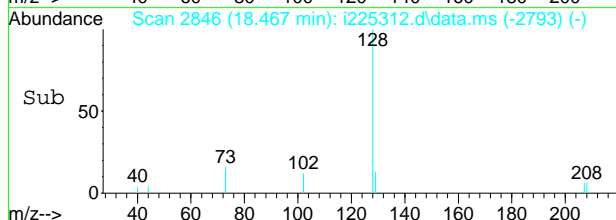
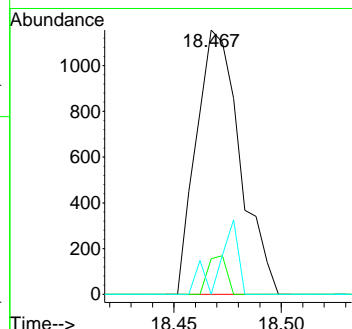
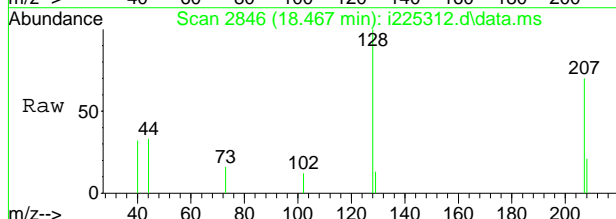
#62
 methylcyclohexane
 Concen: 0.27 ug/L
 RT: 11.260 min Scan# 1468
 Delta R.T. -0.021 min
 Lab File: i225312.d
 Acq: 11 Apr 2019 10:00 am

Tgt Ion	Ratio	Lower	Upper
83	100		
55	93.9	59.8	99.8
98	38.4	24.4	64.4
69	0.0	1.3	41.3#



#122
 naphthalene
 Concen: 0.29 ug/L
 RT: 18.467 min Scan# 2846
 Delta R.T. -0.021 min
 Lab File: i225312.d
 Acq: 11 Apr 2019 10:00 am

Tgt Ion	Ratio	Lower	Upper
128	100		
129	13.5	0.0	41.0
127	0.0	0.0	42.7



7.2.1
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\04-15-19\v3c6794\
 Data File : 3c151004.d
 Acq On : 12 Apr 2019 9:28 am
 Operator : Prashans
 Sample : MB Inst : MS3C
 Misc : MS33900,V3C6794,5.0,,,,,1
 ALS Vial : 6 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M3C6743.M
 Quant Results File: M3C6743.RES
 Quant Time: Apr 15 07:52:58 2019
 Quant Title : Method SW846 8260C, Rxi624 20m x 0.18mm x 1.0um
 QLast Update : Fri Feb 15 09:30:13 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	2.574	65	46812	500.00	ug/L	0.00
5) pentafluorobenzene	4.033	168	239547	50.00	ug/L	0.00
52) 1,4-difluorobenzene	4.687	114	320685	50.00	ug/L	0.00
74) chlorobenzene-d5	7.391	117	285985	50.00	ug/L	0.00
97) 1,4-dichlorobenzene-d4	9.321	152	159188	50.00	ug/L	0.00
System Monitoring Compounds						
45) dibromofluoromethane (s)	3.986	113	86914	50.21	ug/L	0.00
Spiked Amount	50.000	Range	75 - 127	Recovery	=	100.42%
53) 1,2-dichloroethane-d4 (s)	4.305	65	86133	49.43	ug/L	0.00
Spiked Amount	50.000	Range	75 - 130	Recovery	=	98.86%
75) toluene-d8 (s)	6.083	98	355740	50.26	ug/L	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	=	100.52%
98) 4-bromofluorobenzene (s)	8.390	95	128468	49.08	ug/L	0.00
Spiked Amount	50.000	Range	79 - 127	Recovery	=	98.16%
Target Compounds						
23) carbon disulfide	2.307	76	608	0.16	ug/L	69
24) methylene chloride	2.564	84	3437	2.32	ug/L	97

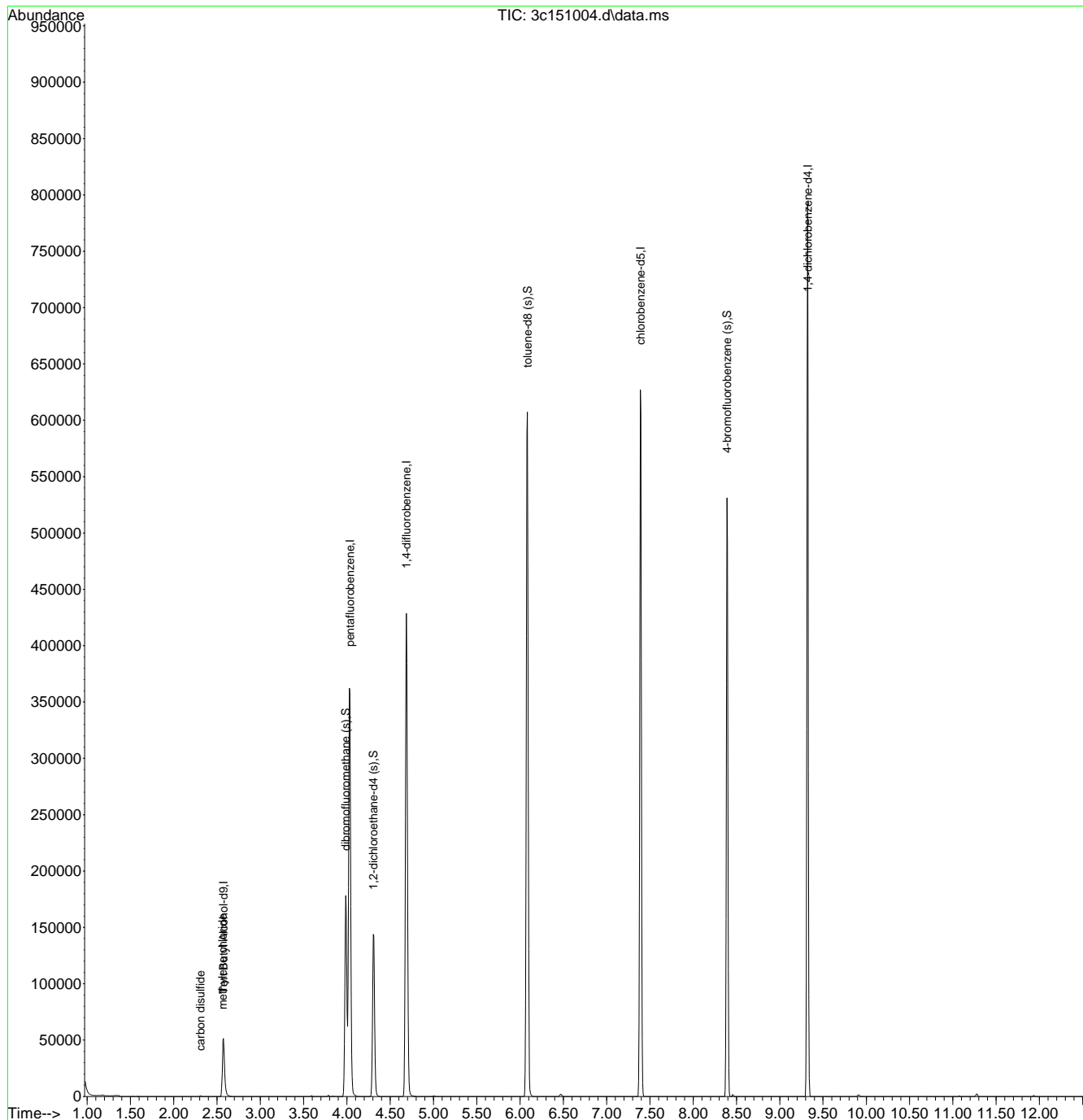
(#) = qualifier out of range (m) = manual integration (+) = signals summed

7.22
7

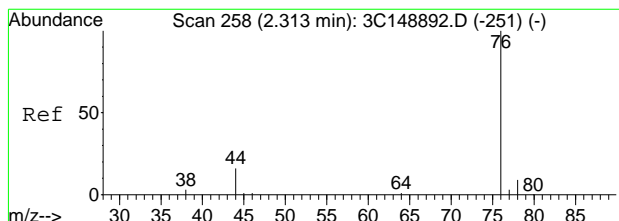
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janeliac\04-15-19\v3c6794\
 Data File : 3c151004.d
 Acq On : 12 Apr 2019 9:28 am
 Operator : Prashans
 Sample : MB Inst : MS3C
 Misc : MS33900,V3C6794,5.0,,,1
 ALS Vial : 6 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M3C6743.M
 Quant Results File: M3C6743.RES
 Quant Time: Apr 15 07:52:58 2019
 Quant Title : Method SW846 8260C, Rxi624 20m x 0.18mm x 1.0um
 QLast Update : Fri Feb 15 09:30:13 2019
 Response via : Initial Calibration

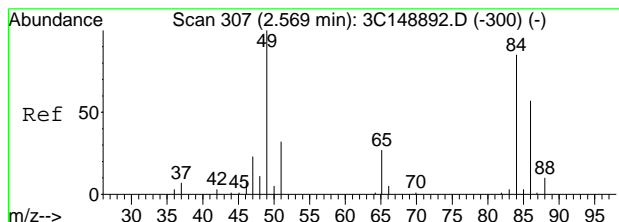
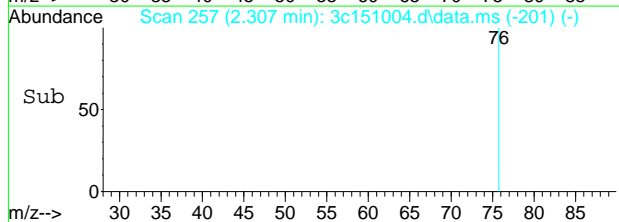
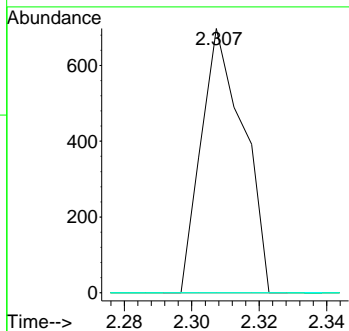
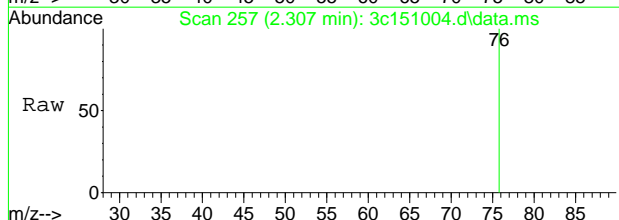


7.22
7



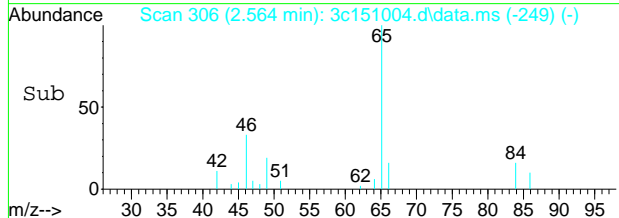
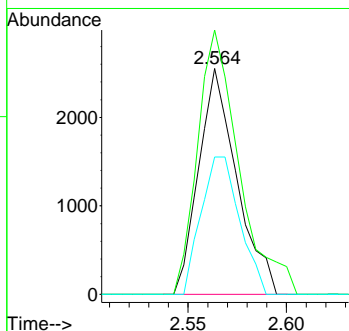
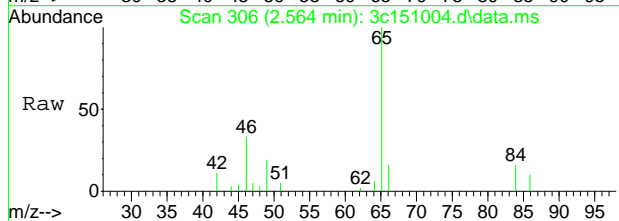
#23
 carbon disulfide
 Concen: 0.16 ug/L
 RT: 2.307 min Scan# 257
 Delta R.T. -0.005 min
 Lab File: 3c151004.d
 Acq: 12 Apr 2019 9:28 am

Tgt Ion	Resp	Lower	Upper
76	608		
78	0.0	0.0	39.0
44	0.0	0.0	44.0



#24
 methylene chloride
 Concen: 2.32 ug/L
 RT: 2.564 min Scan# 306
 Delta R.T. -0.000 min
 Lab File: 3c151004.d
 Acq: 12 Apr 2019 9:28 am

Tgt Ion	Resp	Lower	Upper
84	3437		
49	117.0	87.1	147.1
86	60.8	37.5	97.5



7.22
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA\Apr-2019\4-12\vi9080 rush\
 Data File : i225309.d
 Acq On : 11 Apr 2019 8:33 am
 Operator : thienn
 Sample : bs Inst : GCMSI
 Misc : MS33784,VI9080,5,,100,5,1
 ALS Vial : 4 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MI8986.M
 Quant Results File: MI8986.RES
 Quant Time: Apr 11 12:05:49 2019
 Quant Title : Method SW846 8260C, Rxi-624 60m x 0.25mm x 1.4um
 QLast Update : Fri Jan 25 14:07:54 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
Internal Standards							
1) tert butyl alcohol-d9	7.353	65	79826	500.00	ug/L	-0.03	
4) pentafluorobenzene	9.696	168	216195	50.00	ug/L	-0.02	
51) 1,4-difluorobenzene	10.632	114	298930	50.00	ug/L	-0.02	
73) chlorobenzene-d5	13.765	117	245444	50.00	ug/L	-0.02	
96) 1,4-dichlorobenzene-d4	16.114	152	144798	50.00	ug/L	-0.02	
System Monitoring Compounds							
47) dibromofluoromethane (s)	9.717	113	88850	52.30	ug/L	-0.02	
Spiked Amount	50.000	Range	75 - 127	Recovery	=	104.60%	
52) 1,2-dichloroethane-d4 (s)	10.141	65	100425	53.82	ug/L	-0.02	
Spiked Amount	50.000	Range	75 - 130	Recovery	=	107.64%	
74) toluene-d8 (s)	12.264	98	319088	50.71	ug/L	-0.02	
Spiked Amount	50.000	Range	80 - 120	Recovery	=	101.42%	
97) 4-bromofluorobenzene (s)	14.932	95	113016	51.18	ug/L	-0.02	
Spiked Amount	50.000	Range	79 - 127	Recovery	=	102.36%	
Target Compounds							
2) tertiary butyl alcohol	7.473	59	43149	261.16	ug/L	99	Qvalue
3) 1,4-dioxane	11.281	88	22596	1220.30	ug/L	99	
5) dichlorodifluoromethane	3.885	85	124284	65.80	ug/L	97	
6) chlorodifluoromethane	3.917	51	95127	53.34	ug/L	97	
7) chloromethane	4.277	50	103012	58.90	ug/L	97	
8) vinyl chloride	4.523	62	91569	62.17	ug/L	99	
9) 1,3-butadiene	4.612	54	56289	54.72	ug/L	97	
10) bromomethane	5.182	94	53385	54.40	ug/L	94	
11) chloroethane	5.386	64	51420	57.72	ug/L	99	
12) vinyl bromide	5.731	106	54175	47.59	ug/L	100	
13) trichlorofluoromethane	5.857	101	126193	55.99	ug/L	96	
14) ethyl ether	6.302	74	32978	51.65	ug/L	96	
15) 2-chloropropane	6.500	63	26619	51.14	ug/L	97	
16) acrolein	6.495	56	8613	41.40	ug/L	96	
17) freon 113	6.715	151	55119	49.91	ug/L	94	
18) 1,1-dichloroethene	6.710	61	104518	51.95	ug/L	98	
19) acetone	6.694	43	80457	220.87	ug/L	98	
20) iodomethane	6.961	142	72010	48.63	ug/L	96	
21) carbon disulfide	7.112	76	199127	45.95	ug/L	99	
22) acetonitrile	7.091	41	91199	501.34	ug/L	95	
23) methyl acetate	7.186	74	9664	45.46	ug/L #	89	
24) methylene chloride	7.426	84	70695	47.44	ug/L	97	
25) acrylonitrile	7.698	53	20495	47.83	ug/L	91	
26) methyl tert butyl ether	7.808	73	188392	53.34	ug/L	95	
27) trans-1,2-dichloroethene	7.839	61	99916	52.09	ug/L	96	
28) hexane	8.226	57	104127	45.01	ug/L	99	
29) 1,1-dichloroethane	8.415	63	124222	50.72	ug/L	99	
30) vinyl acetate	8.362	86	11775	50.50	ug/L #	88	
31) di-isopropyl ether	8.425	45	214495	49.41	ug/L	97	
32) chloroprene	8.530	53	114215	55.27	ug/L	98	
33) ethyl tert-butyl ether	8.891	59	220393	52.60	ug/L	97	
34) 2-butanone	9.058	72	29989	219.64	ug/L	90	
35) 2,2-dichloropropane	9.168	77	119489	56.27	ug/L	97	
36) ethyl acetate	9.100	45	9140	45.19	ug/L	99	
37) cis-1,2-dichloroethene	9.136	96	78193	49.56	ug/L	97	
38) propionitrile	9.110	54	103954	519.11	ug/L	98	
39) methyl acrylate	9.178	85	10160	48.68	ug/L	98	
40) methacrylonitrile	9.325	67	26057	51.55	ug/L	95	
41) bromochloromethane	9.435	128	36560	51.52	ug/L	99	

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA\Apr-2019\4-12\vi9080 rush\
 Data File : i225309.d
 Acq On : 11 Apr 2019 8:33 am
 Operator : thienn
 Sample : bs Inst : GCMSI
 Misc : MS33784,VI9080,5,,100,5,1
 ALS Vial : 4 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MI8986.M
 Quant Results File: MI8986.RES
 Quant Time: Apr 11 12:05:49 2019
 Quant Title : Method SW846 8260C, Rxi-624 60m x 0.25mm x 1.4um
 QLast Update : Fri Jan 25 14:07:54 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
42) tetrahydrofuran	9.466	71	8465	53.81	ug/L	86
43) chloroform	9.523	83	131190	51.77	ug/L	98
44) carbon tetrachloride	10.005	117	111210	53.73	ug/L	99
45) 1,1-dichloropropene	9.973	75	99640	52.23	ug/L	99
48) 1,1,1-trichloroethane	9.795	97	123594	54.65	ug/L	98
49) cyclohexane	9.926	84	98165	49.29	ug/L	91
50) tert-amyl alcohol	10.073	55	15177	265.12	ug/L	85
53) isopropyl acetate	10.130	87	13482	49.78	ug/L	# 95
54) 1,2-dichloroethane	10.230	62	101951	51.91	ug/L	99
55) benzene	10.219	78	284709	48.75	ug/L	98
56) 2,2,4-trimethylpentane	10.334	57	262132	43.84	ug/L	95
57) tert-amyl methyl ether	10.308	87	50309	50.47	ug/L	94
58) heptane	10.507	57	55845	44.74	ug/L	97
59) n-butyl alcohol	10.664	56	124627	2554.41	ug/L	92
60) trichloroethene	10.951	95	75955	48.55	ug/L	92
61) ethyl acrylate	10.930	55	80659	48.78	ug/L	98
62) methylcyclohexane	11.265	83	119693	45.18	ug/L	98
63) 1,2-dichloropropane	11.228	63	67986	45.47	ug/L	90
64) methyl methacrylate	11.197	100	17460	49.63	ug/L	# 83
65) dibromomethane	11.333	93	41960	48.17	ug/L	98
66) bromodichloromethane	11.490	83	101808	49.15	ug/L	95
67) 2-nitropropane	11.663	41	20224	56.40	ug/L	95
68) 2-chloroethyl vinyl ether	11.725	63	213260	243.79	ug/L	99
69) epichlorohydrin	11.799	57	37315	255.40	ug/L	99
70) cis-1,3-dichloropropene	11.945	75	115988	49.60	ug/L	95
71) 4-methyl-2-pentanone	12.039	58	93675	201.38	ug/L	97
72) 3-methyl-1-butanol	12.039	70	39748	983.71	ug/L	93
75) toluene	12.337	92	171842	50.58	ug/L	97
76) trans-1,3-dichloropropene	12.510	75	107858	52.76	ug/L	97
77) ethyl methacrylate	12.510	69	73220	47.52	ug/L	97
78) 1,1,2-trichloroethane	12.730	83	47570	47.73	ug/L	97
79) 1,3-dichloropropane	12.907	76	91090	50.21	ug/L	99
80) tetrachloroethene	12.902	166	82410	48.32	ug/L	94
81) 2-hexanone	12.886	58	88362	198.41	ug/L	97
82) butyl acetate	12.981	56	37013	47.77	ug/L	89
83) n-butyl ether	13.776	57	236253	42.11	ug/L	96
84) dibromochloromethane	13.158	129	76605	49.19	ug/L	97
85) 1,2-dibromoethane	13.310	107	79016	58.28	ug/L	98
86) chlorobenzene	13.797	112	181841	50.24	ug/L	97
87) 1,1,1,2-tetrachloroethane	13.859	131	71669	49.88	ug/L	99
88) ethylbenzene	13.865	91	313157	49.48	ug/L	99
89) m,p-xylene	13.985	106	245416	98.61	ug/L	98
90) o-xylene	14.382	106	115960	46.80	ug/L	93
91) styrene	14.393	104	203396	48.88	ug/L	97
92) butyl acrylate	14.210	55	114838	48.38	ug/L	99
93) cis-1,4-dichloro-2-butene	14.748	88	34506	56.58	ug/L	96
94) bromoform	14.612	173	53920	49.29	ug/L	98
95) isopropylbenzene	14.738	105	310873	49.84	ug/L	97
98) 1,1,2,2-tetrachloroethane	14.994	83	74622	49.83	ug/L	99
99) trans-1,4-dichloro-2-b...	15.026	53	21570	55.27	ug/L	96
100) 1,2,3-trichloropropane	15.083	110	20348	52.75	ug/L	96
101) bromobenzene	15.115	156	86835	48.57	ug/L	96
102) n-propylbenzene	15.151	91	369262	49.76	ug/L	99
103) 2-chlorotoluene	15.282	126	77160	49.50	ug/L	99
104) 4-chlorotoluene	15.392	91	227672	51.32	ug/L	99
105) 1,3,5-trimethylbenzene	15.313	105	275913	49.40	ug/L	100
106) tert-butylbenzene	15.653	134	48128	46.52	ug/L	91

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA\Apr-2019\4-12\vi9080 rush\
 Data File : i225309.d
 Acq On : 11 Apr 2019 8:33 am
 Operator : thienn
 Sample : bs Inst : GCMSI
 Misc : MS33784,VI9080,5,,100,5,1
 ALS Vial : 4 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MI8986.M
 Quant Results File: MI8986.RES
 Quant Time: Apr 11 12:05:49 2019
 Quant Title : Method SW846 8260C, Rxi-624 60m x 0.25mm x 1.4um
 QLast Update : Fri Jan 25 14:07:54 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
107) 1,2,4-trimethylbenzene	15.700	105	283127	49.48	ug/L	97
108) sec-butylbenzene	15.873	105	349911	48.61	ug/L	97
109) p-isopropyltoluene	16.009	119	315466	50.50	ug/l	98
110) benzyl chloride	16.223	91	186397	53.19	ug/L	98
111) 1,3-dichlorobenzene	16.040	146	174189	51.07	ug/L	98
112) 1,4-dichlorobenzene	16.140	146	174836	50.18	ug/L	99
113) 1,2-dichlorobenzene	16.516	146	168645	50.51	ug/L	97
114) n-butylbenzene	16.433	92	168712	51.92	ug/L	99
115) hexachloroethane	16.841	201	62847	50.45	ug/L	93
116) 1,2-dibromo-3-chloropr...	17.306	157	22740	48.96	ug/L	92
117) nitrobenzene	17.494	77	8643	54.17	ug/L	92
118) 1,3,5-trichlorobenzene	17.526	180	172934	50.99	ug/L	99
119) 1,2,4-trichlorobenzene	18.179	180	154963	50.80	ug/L	98
120) 2-ethylhexyl acrylate	18.206	55	26585	10.69	ug/L	97
121) hexachlorobutadiene	18.310	225	98154	48.88	ug/L	99
122) naphthalene	18.467	128	317065	53.76	ug/L	100
123) 1,2,3-trichlorobenzene	18.687	180	144932	48.29	ug/L	99
124) 2-methylnaphthalene	19.565	142	79163	37.64	ug/L	96

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

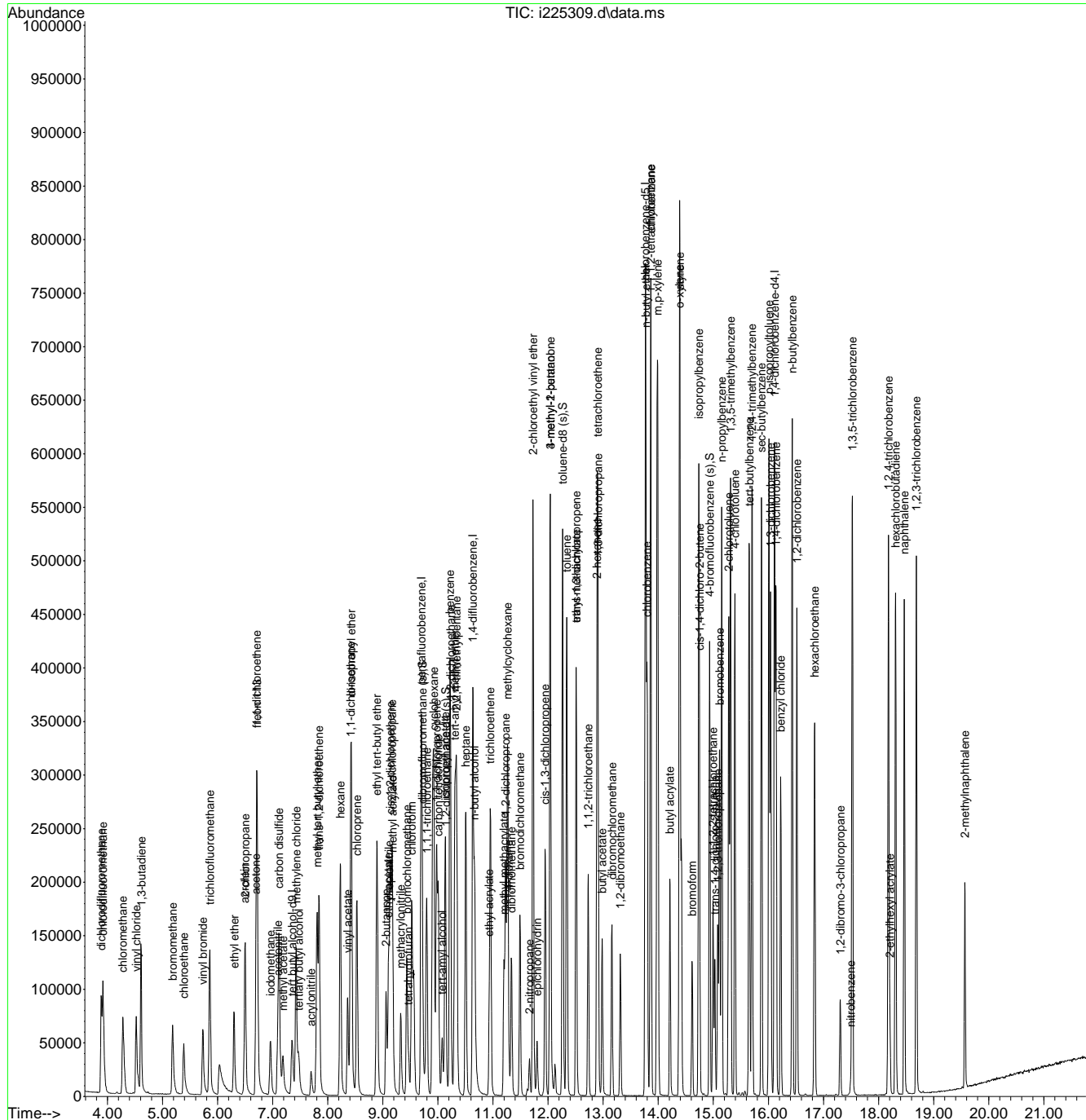
7.3.1

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA\Apr-2019\4-12\vi9080 rush\
 Data File : i225309.d
 Acq On : 11 Apr 2019 8:33 am
 Operator : thienn
 Sample : bs
 Misc : MS33784,VI9080,5,,100,5,1
 ALS Vial : 4 Sample Multiplier: 1
 Inst : GCMSI

Quant Method : C:\MSDCHEM\1\METHODS\MI8986.M
 Quant Results File: MI8986.RES
 Quant Time: Apr 11 12:05:49 2019
 Quant Title : Method SW846 8260C, Rxi-624 60m x 0.25mm x 1.4um
 QLast Update : Fri Jan 25 14:07:54 2019
 Response via : Initial Calibration



7.3.1
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA\Apr-2019\4-12\vi9080 rush\
 Data File : i225310.d
 Acq On : 11 Apr 2019 9:02 am
 Operator : thienn
 Sample : BSD Inst : GCMSI
 Misc : MS31989,VI9080,5,,100,5,1
 ALS Vial : 5 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MI8986.M
 Quant Results File: MI8986.RES
 Quant Time: Apr 11 12:07:18 2019
 Quant Title : Method SW846 8260C, Rxi-624 60m x 0.25mm x 1.4um
 QLast Update : Fri Jan 25 14:07:54 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.353	65	83554	500.00	ug/L	-0.03
4) pentafluorobenzene	9.696	168	216256	50.00	ug/L	-0.02
51) 1,4-difluorobenzene	10.638	114	299810	50.00	ug/L	-0.02
73) chlorobenzene-d5	13.765	117	244087	50.00	ug/L	-0.02
96) 1,4-dichlorobenzene-d4	16.114	152	142995	50.00	ug/L	-0.02
System Monitoring Compounds						
47) dibromofluoromethane (s)	9.717	113	89767	52.83	ug/L	-0.02
Spiked Amount	50.000	Range	75 - 127	Recovery	=	105.66%
52) 1,2-dichloroethane-d4 (s)	10.141	65	100498	53.70	ug/L	-0.02
Spiked Amount	50.000	Range	75 - 130	Recovery	=	107.40%
74) toluene-d8 (s)	12.264	98	320687	51.25	ug/L	-0.02
Spiked Amount	50.000	Range	80 - 120	Recovery	=	102.50%
97) 4-bromofluorobenzene (s)	14.932	95	115427	52.93	ug/L	-0.02
Spiked Amount	50.000	Range	79 - 127	Recovery	=	105.86%
Target Compounds						
2) tertiary butyl alcohol	7.473	59	46586	269.38	ug/L	95
3) 1,4-dioxane	11.281	88	24259	1251.65	ug/L	84
5) dichlorodifluoromethane	3.885	85	133026	70.41	ug/L	98
6) chlorodifluoromethane	3.922	51	102436	57.43	ug/L	97
7) chloromethane	4.283	50	109038	62.33	ug/L	97
8) vinyl chloride	4.524	62	96404	65.44	ug/L	98
9) 1,3-butadiene	4.607	54	60957	59.24	ug/L	96
10) bromomethane	5.183	94	56539	57.60	ug/L	97
11) chloroethane	5.387	64	54606	61.28	ug/L	99
12) vinyl bromide	5.732	106	56580	49.69	ug/L	98
13) trichlorofluoromethane	5.857	101	135300	60.01	ug/L	99
14) ethyl ether	6.297	74	34959	54.74	ug/L	95
15) 2-chloropropane	6.501	63	28902	55.51	ug/L	92
16) acrolein	6.501	56	9842	47.29	ug/L	98
17) freon 113	6.715	151	60262	54.55	ug/L	96
18) 1,1-dichloroethene	6.710	61	110991	55.15	ug/L	97
19) acetone	6.694	43	86662	237.84	ug/L	98
20) iodomethane	6.961	142	74751	50.49	ug/L	97
21) carbon disulfide	7.113	76	211880	48.87	ug/L	99
22) acetonitrile	7.097	41	98621	541.98	ug/L	94
23) methyl acetate	7.186	74	9786	45.99	ug/L	94
24) methylene chloride	7.426	84	74816	50.19	ug/L	96
25) acrylonitrile	7.693	53	22230	51.87	ug/L	99
26) methyl tert butyl ether	7.808	73	199844	56.57	ug/L	96
27) trans-1,2-dichloroethene	7.845	61	105113	54.78	ug/L	98
28) hexane	8.227	57	113457	49.03	ug/L	99
29) 1,1-dichloroethane	8.415	63	130916	53.44	ug/L	96
30) vinyl acetate	8.363	86	12588	53.97	ug/L #	84
31) di-isopropyl ether	8.425	45	225134	51.85	ug/L	96
32) chloroprene	8.530	53	122144	59.09	ug/L	95
33) ethyl tert-butyl ether	8.896	59	229224	54.69	ug/L	98
34) 2-butanone	9.058	72	32270	236.28	ug/L	96
35) 2,2-dichloropropane	9.168	77	125657	59.16	ug/L	99
36) ethyl acetate	9.100	45	9337	46.10	ug/L #	79
37) cis-1,2-dichloroethene	9.137	96	81887	51.88	ug/L	95
38) propionitrile	9.110	54	113436	566.30	ug/L	97
39) methyl acrylate	9.184	85	10832	51.72	ug/L #	88
40) methacrylonitrile	9.325	67	27822	55.02	ug/L	92
41) bromochloromethane	9.440	128	37766	53.21	ug/L	97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA\Apr-2019\4-12\vi9080 rush\
 Data File : i225310.d
 Acq On : 11 Apr 2019 9:02 am
 Operator : thienn
 Sample : bsd Inst : GCMSI
 Misc : MS31989,VI9080,5,,100,5,1
 ALS Vial : 5 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MI8986.M
 Quant Results File: MI8986.RES
 Quant Time: Apr 11 12:07:18 2019
 Quant Title : Method SW846 8260C, Rxi-624 60m x 0.25mm x 1.4um
 QLast Update : Fri Jan 25 14:07:54 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
42) tetrahydrofuran	9.466	71	8793	55.87	ug/L	93
43) chloroform	9.524	83	138267	54.55	ug/L	99
44) carbon tetrachloride	10.005	117	115739	55.91	ug/L	98
45) 1,1-dichloropropene	9.973	75	105904	55.50	ug/L	99
48) 1,1,1-trichloroethane	9.796	97	129903	57.42	ug/L	98
49) cyclohexane	9.926	84	105384	52.90	ug/L	95
50) tert-amyl alcohol	10.078	55	16772	292.22	ug/L	85
53) isopropyl acetate	10.130	87	14115	51.96	ug/L	97
54) 1,2-dichloroethane	10.230	62	104758	53.19	ug/L	97
55) benzene	10.219	78	298677	50.99	ug/L	98
56) 2,2,4-trimethylpentane	10.334	57	280568	46.79	ug/L	95
57) tert-amyl methyl ether	10.313	87	51573	51.59	ug/L	94
58) heptane	10.507	57	59160	47.26	ug/L	98
59) n-butyl alcohol	10.664	56	131870	2694.94	ug/L	93
60) trichloroethene	10.952	95	79158	50.45	ug/L	92
61) ethyl acrylate	10.931	55	83875	50.57	ug/L	98
62) methylcyclohexane	11.265	83	128002	48.17	ug/L	98
63) 1,2-dichloropropane	11.229	63	71415	47.63	ug/L	93
64) methyl methacrylate	11.197	100	18155	51.45	ug/L #	92
65) dibromomethane	11.333	93	43927	50.28	ug/L	98
66) bromodichloromethane	11.490	83	107224	51.61	ug/L	97
67) 2-nitropropane	11.663	41	21085	58.63	ug/L	96
68) 2-chloroethyl vinyl ether	11.726	63	223042	254.23	ug/L	99
69) epichlorohydrin	11.799	57	39306	268.24	ug/L	99
70) cis-1,3-dichloropropene	11.945	75	121966	52.00	ug/L	94
71) 4-methyl-2-pentanone	12.039	58	98072	210.21	ug/L	97
72) 3-methyl-1-butanol	12.034	70	41406	1021.73	ug/L	94
75) toluene	12.338	92	178498	52.83	ug/L	97
76) trans-1,3-dichloropropene	12.510	75	113327	55.75	ug/L	97
77) ethyl methacrylate	12.510	69	77723	50.72	ug/L	99
78) 1,1,2-trichloroethane	12.730	83	50804	51.26	ug/L	98
79) 1,3-dichloropropane	12.908	76	94686	52.49	ug/L	97
80) tetrachloroethene	12.902	166	87303	51.47	ug/L	99
81) 2-hexanone	12.887	58	93529	211.18	ug/L	95
82) butyl acetate	12.981	56	39025	50.64	ug/L	88
83) n-butyl ether	13.776	57	247960	44.44	ug/L	95
84) dibromochloromethane	13.159	129	80549	52.01	ug/L	99
85) 1,2-dibromoethane	13.310	107	82535	61.21	ug/L	98
86) chlorobenzene	13.797	112	188329	52.32	ug/L	97
87) 1,1,1,2-tetrachloroethane	13.860	131	73610	51.51	ug/L	98
88) ethylbenzene	13.865	91	331003	52.59	ug/L	100
89) m,p-xylene	13.990	106	255061	103.05	ug/L	96
90) o-xylene	14.383	106	123571	50.14	ug/L	91
91) styrene	14.393	104	212001	51.23	ug/L	96
92) butyl acrylate	14.210	55	123266	52.22	ug/L	99
93) cis-1,4-dichloro-2-butene	14.749	88	35519	58.56	ug/L	94
94) bromoform	14.613	173	55842	51.34	ug/L	99
95) isopropylbenzene	14.738	105	326730	52.68	ug/L	98
98) 1,1,2,2-tetrachloroethane	14.995	83	78774	53.27	ug/L	97
99) trans-1,4-dichloro-2-b...	15.026	53	23292	60.44	ug/L	89
100) 1,2,3-trichloropropane	15.078	110	20917	54.91	ug/L	97
101) bromobenzene	15.115	156	90536	51.28	ug/L	100
102) n-propylbenzene	15.151	91	387543	52.88	ug/L	100
103) 2-chlorotoluene	15.282	126	80339	52.19	ug/L	97
104) 4-chlorotoluene	15.392	91	240081	54.79	ug/L	99
105) 1,3,5-trimethylbenzene	15.314	105	289751	52.54	ug/L	98
106) tert-butylbenzene	15.648	134	51701	50.60	ug/L #	85

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA\Apr-2019\4-12\vi9080 rush\
 Data File : i225310.d
 Acq On : 11 Apr 2019 9:02 am
 Operator : thienn
 Sample : bsd Inst : GCMSI
 Misc : MS31989,VI9080,5,,100,5,1
 ALS Vial : 5 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MI8986.M
 Quant Results File: MI8986.RES
 Quant Time: Apr 11 12:07:18 2019
 Quant Title : Method SW846 8260C, Rxi-624 60m x 0.25mm x 1.4um
 QLast Update : Fri Jan 25 14:07:54 2019
 Response via : Initial Calibration

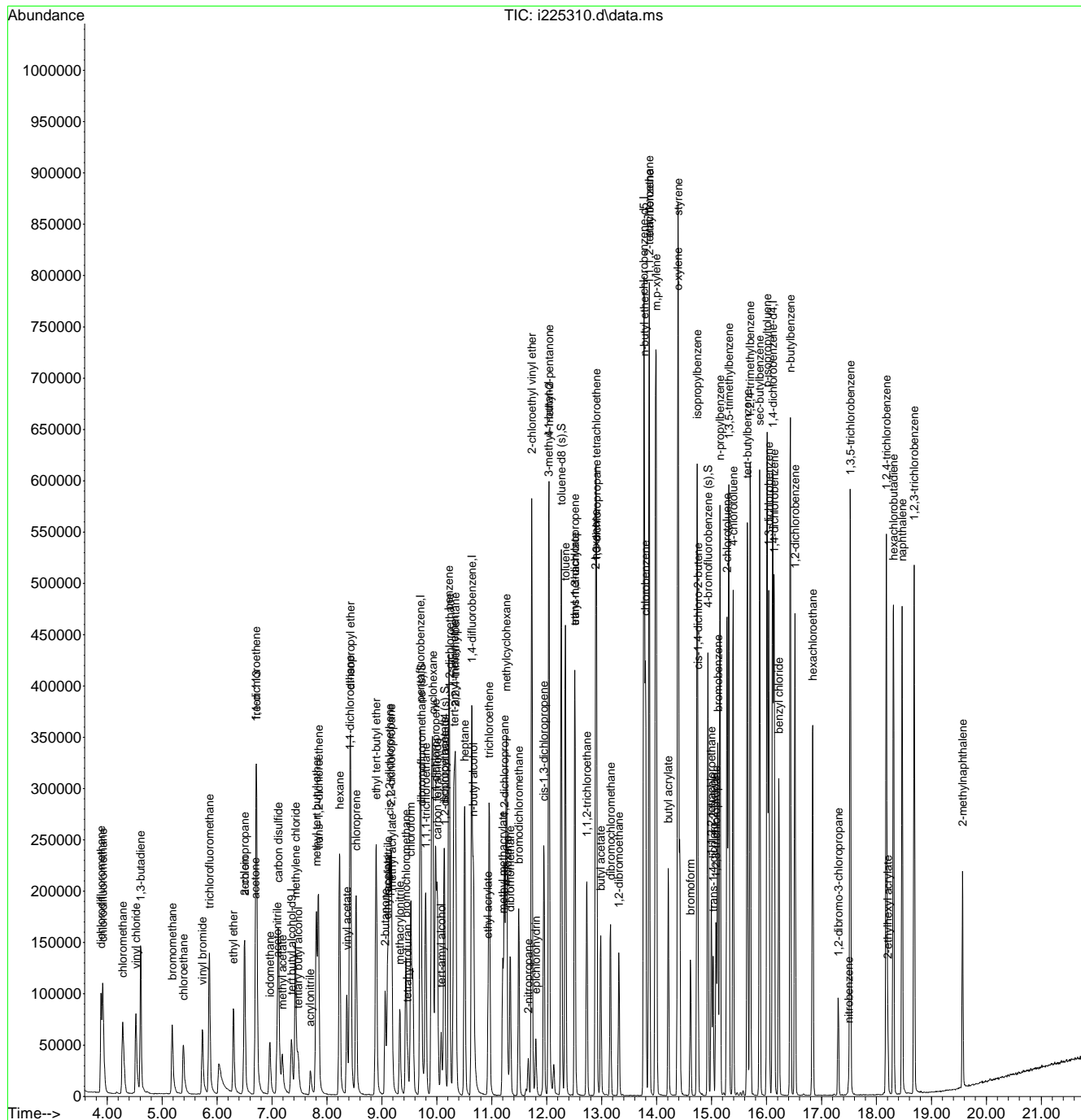
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
107) 1,2,4-trimethylbenzene	15.701	105	298160	52.77	ug/L	96
108) sec-butylbenzene	15.873	105	373231	52.51	ug/L	98
109) p-isopropyltoluene	16.009	119	330107	53.51	ug/l	97
110) benzyl chloride	16.224	91	194858	56.30	ug/L	97
111) 1,3-dichlorobenzene	16.041	146	180930	53.71	ug/L	98
112) 1,4-dichlorobenzene	16.140	146	183268	53.27	ug/L	99
113) 1,2-dichlorobenzene	16.517	146	175419	53.20	ug/L	98
114) n-butylbenzene	16.433	92	178843	55.73	ug/L	99
115) hexachloroethane	16.841	201	66156	53.78	ug/L	93
116) 1,2-dibromo-3-chloropr...	17.306	157	23866	52.04	ug/L	92
117) nitrobenzene	17.495	77	9877	62.68	ug/L	95
118) 1,3,5-trichlorobenzene	17.526	180	182543	54.51	ug/L	99
119) 1,2,4-trichlorobenzene	18.180	180	161903	53.74	ug/L	98
120) 2-ethylhexyl acrylate	18.206	55	27608	11.24	ug/L	97
121) hexachlorobutadiene	18.310	225	103311	52.10	ug/L	98
122) naphthalene	18.467	128	333823	57.31	ug/L	99
123) 1,2,3-trichlorobenzene	18.687	180	150186	50.67	ug/L	98
124) 2-methylnaphthalene	19.566	142	84856	40.86	ug/L	96

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA\Apr-2019\4-12\vi9080 rush\
Data File : i225310.d
Acq On : 11 Apr 2019 9:02 am
Operator : thienn
Sample : bsd
Misc : MS31989,VI9080,5,,100,5,1
ALS Vial : 5 Sample Multiplier: 1
Inst : GCMSI

Quant Method : C:\MSDCHEM\1\METHODS\MI8986.M
Quant Results File: MI8986.RES
Quant Time: Apr 11 12:07:18 2019
Quant Title : Method SW846 8260C, Rxi-624 60m x 0.25mm x 1.4um
QLast Update : Fri Jan 25 14:07:54 2019
Response via : Initial Calibration



7.3.2
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\04-15-19\v3c6794\
 Data File : 3c151002.d
 Acq On : 12 Apr 2019 8:42 am
 Operator : Prashans
 Sample : BS Inst : MS3C
 Misc : MS33737,V3C6794,5.0,,,1
 ALS Vial : 4 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M3C6743.M
 Quant Results File: M3C6743.RES
 Quant Time: Apr 15 07:51:33 2019
 Quant Title : Method SW846 8260C, Rxi624 20m x 0.18mm x 1.0um
 QLast Update : Fri Feb 15 09:30:13 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	2.579	65	56202	500.00	ug/L	0.00
5) pentafluorobenzene	4.033	168	242484	50.00	ug/L	0.00
52) 1,4-difluorobenzene	4.687	114	327873	50.00	ug/L	0.00
74) chlorobenzene-d5	7.391	117	288525	50.00	ug/L	0.00
97) 1,4-dichlorobenzene-d4	9.321	152	159270	50.00	ug/L	0.00
System Monitoring Compounds						
45) dibromofluoromethane (s)	3.986	113	89587	51.13	ug/L	0.00
Spiked Amount	50.000	Range	75 - 127	Recovery	=	102.26%
53) 1,2-dichloroethane-d4 (s)	4.305	65	90138	50.60	ug/L	0.00
Spiked Amount	50.000	Range	75 - 130	Recovery	=	101.20%
75) toluene-d8 (s)	6.084	98	358650	50.22	ug/L	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	=	100.44%
98) 4-bromofluorobenzene (s)	8.390	95	132842	50.73	ug/L	0.00
Spiked Amount	50.000	Range	79 - 127	Recovery	=	101.46%
Target Compounds						
3) tertiary butyl alcohol	2.637	59	31213	251.93	ug/L	97
4) 1,4-dioxane	5.289	88	20379	1349.59	ug/L	98
6) chlorodifluoromethane	1.104	51	76366	51.99	ug/L	98
7) dichlorodifluoromethane	1.078	85	99488	47.50	ug/L	98
8) chloromethane	1.225	50	90726	52.47	ug/L	100
9) 1,3-butadiene	1.319	54	59816	53.14	ug/L	99
10) vinyl chloride	1.298	62	88280	50.75	ug/L	97
11) bromomethane	1.538	94	44188	42.46	ug/L	98
12) chloroethane	1.617	64	53217	51.48	ug/L	98
13) vinyl Bromide	1.748	106	52388	35.09	ug/L	97
14) trichlorofluoromethane	1.774	101	116813	45.37	ug/L	98
15) ethyl ether	1.993	74	40518	55.27	ug/L	91
16) 2-chloropropane	2.072	63	28667	48.97	ug/L	89
17) acrolein	2.140	56	10081	66.87	ug/L	98
18) freon 113	2.135	151	61942	50.33	ug/L	98
19) 1,1-dichloroethene	2.161	96	70346	51.26	ug/L	97
20) acetone	2.250	58	17163	227.18	ug/L	99
21) acetonitrile	2.511	41	64143	550.18	ug/L	100
22) iodomethane	2.286	142	64713	57.51	ug/L	97
23) carbon disulfide	2.307	76	189718	49.35	ug/L	98
24) methylene chloride	2.564	84	73673	49.10	ug/L	97
25) methyl acetate	2.469	43	39393	54.44	ug/L	97
26) methyl tert butyl ether	2.710	73	189187	51.73	ug/L	98
27) trans-1,2-dichloroethene	2.731	96	79193	50.69	ug/L	99
28) hexane	2.877	57	122199	49.43	ug/L	99
29) di-isopropyl ether	3.076	45	224605	50.59	ug/L	98
30) ethyl tert-butyl ether	3.364	59	222142	50.61	ug/L	99
31) 2-butanone	3.599	72	28329	238.09	ug/L #	88
32) 1,1-dichloroethane	3.092	63	128845	50.76	ug/L	97
33) chloroprene	3.134	53	112336	49.81	ug/L	97
34) acrylonitrile	2.804	53	18125	58.76	ug/L	95
35) vinyl acetate	3.123	86	16147	58.38	ug/L #	84
36) ethyl acetate	3.610	45	9058	57.64	ug/L	94
37) 2,2-dichloropropane	3.542	77	112069	47.98	ug/L	98
38) cis-1,2-dichloroethene	3.573	96	86289	51.11	ug/L	97
39) propionitrile	3.714	54	79480	580.52	ug/L	99
40) bromochloromethane	3.782	130	49324	52.11	ug/L	94
41) tetrahydrofuran	3.782	71	7276	61.48	ug/L	89
42) chloroform	3.840	83	129958	47.34	ug/L	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\04-15-19\v3c6794\
 Data File : 3c151002.d
 Acq On : 12 Apr 2019 8:42 am
 Operator : Prashans
 Sample : BS Inst : MS3C
 Misc : MS33737,V3C6794,5.0,,,1
 ALS Vial : 4 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M3C6743.M
 Quant Results File: M3C6743.RES
 Quant Time: Apr 15 07:51:33 2019
 Quant Title : Method SW846 8260C, Rxi624 20m x 0.18mm x 1.0um
 QLast Update : Fri Feb 15 09:30:13 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
43) tert-Butyl Formate	3.850	59	38791	44.65	ug/L	90
44) isobutyl alcohol	4.263	41	99039	464.82	ug/L	97
46) methacrylonitrile	3.814	67	24104	59.32	ug/L	89
47) 1,1,1-trichloroethane	3.955	97	117457	47.41	ug/L	99
48) cyclohexane	3.939	84	118810	46.89	ug/L	97
49) 1,1-dichloropropene	4.106	110	40557	49.81	ug/L	97
50) tert-amyl alcohol	4.326	59	26748	247.98	ug/L	80
51) carbon tetrachloride	4.070	119	99259	50.69	ug/L	99
54) 2,2,4-trimethylpentane	4.263	57	295328	48.56	ug/L	99
55) tert-amyl methyl ether	4.363	87	68344	50.29	ug/L	92
56) n-butyl alcohol	4.896	56	92275	3041.20	ug/L	97
57) benzene	4.284	78	301676	50.03	ug/L	99
58) heptane	4.452	57	63828	49.48	ug/L	99
59) isopropyl acetate	4.363	87	68344	49.11	ug/L #	80
60) 1,2-dichloroethane	4.378	62	88681	46.31	ug/L	99
61) trichloroethene	4.902	95	80730	49.27	ug/L	93
62) ethyl acrylate	5.037	55	76781	57.35	ug/L	98
63) 2-nitropropane	5.754	41	21009	51.48	ug/L #	88
64) 2-chloroethyl vinyl ether	5.764	63	218542	275.56	ug/L	99
65) methyl methacrylate	5.273	100	18979	56.10	ug/L #	95
66) 1,2-dichloropropane	5.168	63	72399	50.53	ug/L	98
67) methylcyclohexane	5.006	83	140988	46.09	ug/L	99
68) dibromomethane	5.294	93	41301	52.64	ug/L	94
69) bromodichloromethane	5.445	83	97480	53.50	ug/L	98
70) epichlorohydrin	5.843	57	30944	310.98	ug/L	97
71) cis-1,3-dichloropropene	5.890	75	122477	53.73	ug/L	94
72) 4-methyl-2-pentanone	6.031	85	45094	236.31	ug/L #	89
76) toluene	6.146	92	197520	47.97	ug/L	99
77) trans-1,3-dichloropropene	6.434	75	103513	54.70	ug/L	99
78) ethyl methacrylate	6.465	69	85070	54.06	ug/L	98
79) 1,1,2-trichloroethane	6.596	83	51271	50.60	ug/L	98
80) 2-hexanone	6.800	58	88472	228.22	ug/L	95
81) tetrachloroethene	6.617	166	99502	50.93	ug/L	98
82) 1,3-dichloropropane	6.748	76	104171	50.97	ug/L	99
83) butyl acetate	6.889	56	41155	56.47	ug/L	94
84) dibromochloromethane	6.915	129	71518	59.94	ug/L	100
85) 1,2-dibromoethane	7.015	107	82393	56.06	ug/L	98
86) n-butyl ether	7.470	57	304300	45.41	ug/L	98
87) chlorobenzene	7.417	112	218617	48.22	ug/L	98
88) 1,1,1,2-tetrachloroethane	7.501	131	78170	52.23	ug/L	97
89) ethylbenzene	7.490	91	373884	46.91	ug/L	99
90) m,p-xylene	7.595	106	299249	95.29	ug/L	97
91) o-xylene	7.930	91	298873	47.42	ug/L	99
92) styrene	7.956	104	245693	48.68	ug/L	98
93) bromoform	8.129	173	47489	54.52	ug/L	98
94) butyl acrylate	7.925	55	121780	55.63	ug/L	99
95) isopropylbenzene	8.223	105	379023	47.19	ug/L	100
96) cis-1,4-dichloro-2-butene	8.359	53	24809	55.92	ug/L	95
99) bromobenzene	8.505	156	102749	48.67	ug/L	95
100) 1,1,2,2-tetrachloroethane	8.547	83	76830	53.51	ug/L	100
101) trans-1,4-dichloro-2-b...	8.605	88	10562	53.42	ug/L	93
102) 1,2,3-trichloropropane	8.584	110	24071	52.70	ug/L	98
103) n-propylbenzene	8.563	91	445849	46.03	ug/L	99
104) 2-chlorotoluene	8.652	126	95617	48.28	ug/L	97
105) 4-chlorotoluene	8.751	126	96185	48.66	ug/L	91
106) 1,3,5-trimethylbenzene	8.714	105	325745	46.22	ug/L	99
107) tert-butylbenzene	8.965	119	292410	46.63	ug/L	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\04-15-19\v3c6794\
 Data File : 3c151002.d
 Acq On : 12 Apr 2019 8:42 am
 Operator : Prashans
 Sample : BS Inst : MS3C
 Misc : MS33737,V3C6794,5.0,,,,,1
 ALS Vial : 4 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M3C6743.M
 Quant Results File: M3C6743.RES
 Quant Time: Apr 15 07:51:33 2019
 Quant Title : Method SW846 8260C, Rxi624 20m x 0.18mm x 1.0um
 QLast Update : Fri Feb 15 09:30:13 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
108) 1,2,4-trimethylbenzene	9.018	105	329120	45.89	ug/L	100
109) sec-butylbenzene	9.143	105	427677	46.92	ug/L	98
110) 1,3-dichlorobenzene	9.264	146	198980	47.97	ug/L	98
111) p-isopropyltoluene	9.258	119	379093	47.27	ug/L	99
112) 1,4-dichlorobenzene	9.342	146	198778	46.87	ug/L	98
113) 1,2-dichlorobenzene	9.635	146	186968	48.09	ug/L	99
114) n-butylbenzene	9.588	92	189741	47.87	ug/L	98
115) 1,2-dibromo-3-chloropr...	10.273	157	20758	57.98	ug/L	93
116) 1,3,5-Trichlorobenzene	10.383	180	193352	51.28	ug/L	99
117) 1,2,4-trichlorobenzene	10.880	180	168206	51.80	ug/L	97
118) hexachlorobutadiene	10.969	225	106389	52.60	ug/L	98
119) naphthalene	11.073	128	311099	54.71	ug/L	100
120) 1,2,3-trichlorobenzene	11.267	180	156890	52.10	ug/L	99
121) hexachloroethane	9.797	201	62615	51.26	ug/L	91
122) Benzyl chloride	9.457	91	151501	60.38	ug/L	99
123) 2-ethylhexyl acrylate	11.016	70	15844	9.86	ug/L	96
124) 2-methylnaphthalene	11.936	142	107167	31.47	ug/L	97

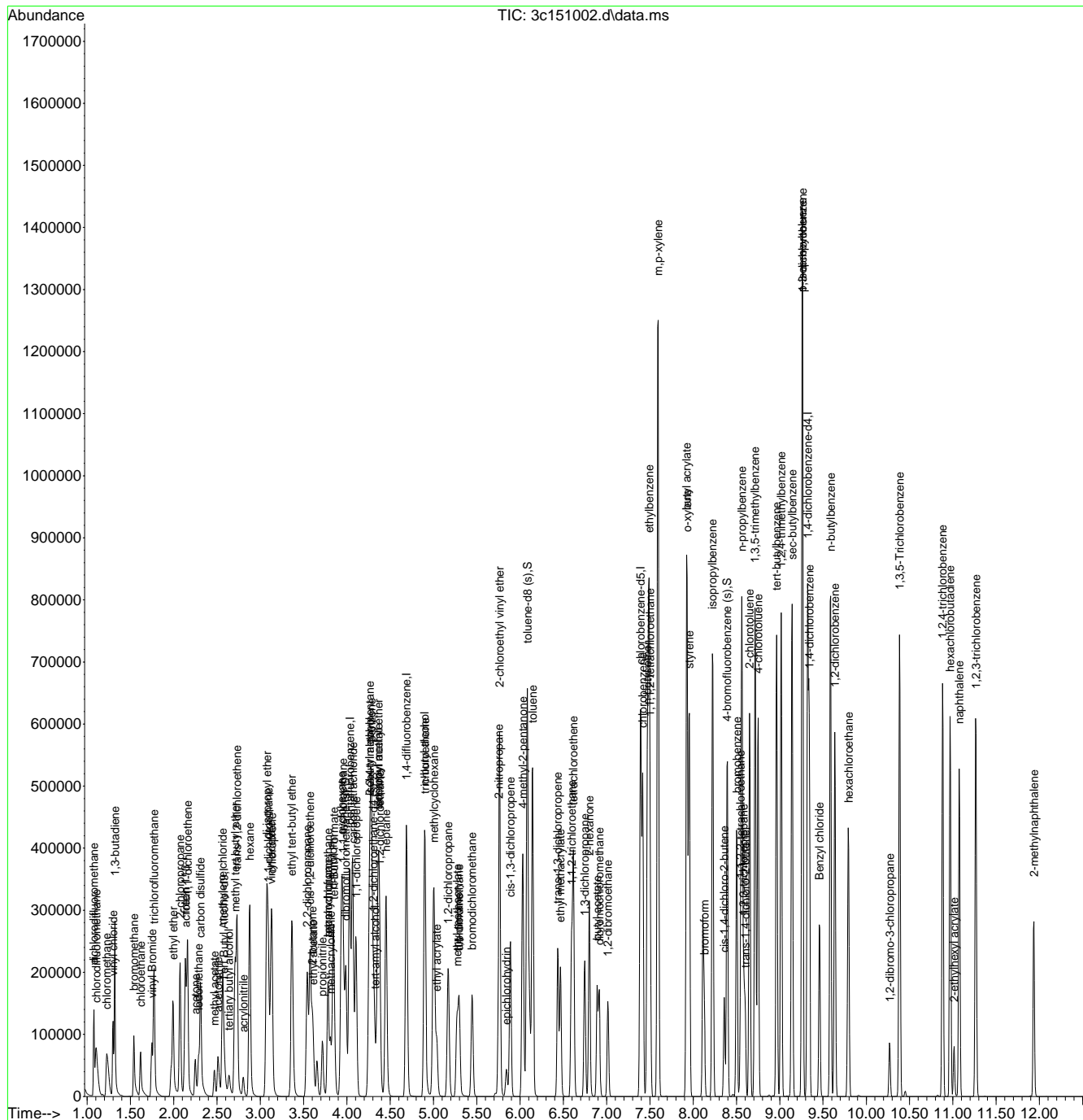
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\04-15-19\v3c6794\
 Data File : 3c151002.d
 Acq On : 12 Apr 2019 8:42 am
 Operator : Prashans
 Sample : BS
 Misc : MS33737,V3C6794,5.0,,1
 ALS Vial : 4 Sample Multiplier: 1

Inst : MS3C

Quant Method : C:\MSDCHEM\1\METHODS\M3C6743.M
 Quant Results File: M3C6743.RES
 Quant Time: Apr 15 07:51:33 2019
 Quant Title : Method SW846 8260C, Rxi624 20m x 0.18mm x 1.0um
 QLast Update : Fri Feb 15 09:30:13 2019
 Response via : Initial Calibration



7.3.3
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\eunicem041219\vi9080\
 Data File : i225326.d
 Acq On : 11 Apr 2019 5:01 pm
 Operator : thienn
 Sample : jc85995-1ms Inst : GCMSI
 Misc : MS33845,VI9080,6.1,,100,10,1
 ALS Vial : 21 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MI8986.M
 Quant Results File: MI8986.RES
 Quant Time: Apr 12 02:49:29 2019
 Quant Title : Method SW846 8260C, Rxi-624 60m x 0.25mm x 1.4um
 QLast Update : Fri Jan 25 14:07:54 2019
 Response via : Initial Calibration

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

Internal Standards						
1) tert butyl alcohol-d9	7.384	65	118472	500.00	ug/L	0.00
4) pentafluorobenzene	9.696	168	252168	50.00	ug/L	-0.02
51) 1,4-difluorobenzene	10.632	114	365242	50.00	ug/L	-0.02
73) chlorobenzene-d5	13.765	117	303920	50.00	ug/L	-0.02
96) 1,4-dichlorobenzene-d4	16.114	152	191112	50.00	ug/L	-0.02
System Monitoring Compounds						
47) dibromofluoromethane (s)	9.717	113	103100	52.03	ug/L	-0.02
Spiked Amount	50.000	Range	75 - 127	Recovery	=	104.06%
52) 1,2-dichloroethane-d4 (s)	10.141	65	114267	50.12	ug/L	-0.02
Spiked Amount	50.000	Range	75 - 130	Recovery	=	100.24%
74) toluene-d8 (s)	12.264	98	457839	58.76	ug/L	-0.02
Spiked Amount	50.000	Range	80 - 120	Recovery	=	117.52%
97) 4-bromofluorobenzene (s)	14.932	95	263824	90.52	ug/L	-0.02
Spiked Amount	50.000	Range	79 - 127	Recovery	=	181.04%#
Target Compounds						
2) tertiary butyl alcohol	7.505	59	64949	264.88	ug/L	Qvalue # 1
3) 1,4-dioxane	11.291	88	27399	997.01	ug/L	99
5) dichlorodifluoromethane	3.885	85	128239	58.21	ug/L	97
6) chlorodifluoromethane	3.922	51	127214	61.16	ug/L	98
7) chloromethane	4.283	50	132168	64.79	ug/L	97
8) vinyl chloride	4.523	62	118446	68.95	ug/L	98
9) 1,3-butadiene	4.607	54	76828	64.03	ug/L	98
10) bromomethane	5.146	94	28719	25.09	ug/L	98
11) chloroethane	5.350	64	68582	66.00	ug/L	98
12) vinyl bromide	5.711	106	70134	52.82	ug/L	97
13) trichlorofluoromethane	5.841	101	150387	57.20	ug/L	96
14) ethyl ether	6.307	74	44916	60.31	ug/L	96
15) 2-chloropropane	6.495	63	32789	54.01	ug/L	98
16) acrolein	6.500	56	15094	62.20	ug/L	# 24
17) freon 113	6.704	151	66592	51.70	ug/L	96
18) 1,1-dichloroethene	6.704	61	131708	56.12	ug/L	96
19) acetone	6.715	43	132792	312.54	ug/L	98
20) iodomethane	6.950	142	77561	44.87	ug/L	99
21) carbon disulfide	7.107	76	261883	51.81	ug/L	100
22) acetonitrile	7.112	41	142722	672.64	ug/L	95
23) methyl acetate	7.191	74	13785	55.05	ug/L	94
24) methylene chloride	7.426	84	96018	55.24	ug/L	97
25) acrylonitrile	7.703	53	31191	62.41	ug/L	97
26) methyl tert butyl ether	7.813	73	241494	58.62	ug/L	98
27) trans-1,2-dichloroethene	7.839	61	124389	55.59	ug/L	97
28) hexane	8.221	57	195057	72.29	ug/L	97
29) 1,1-dichloroethane	8.415	63	158035	55.32	ug/L	97
30) vinyl acetate	8.362	86	15355	56.46	ug/L	# 82
31) di-isopropyl ether	8.430	45	289931	57.26	ug/L	98
32) chloroprene	8.524	53	141454	58.69	ug/L	97
33) ethyl tert-butyl ether	8.896	59	284261	58.16	ug/L	96
34) 2-butanone	9.068	72	42307	265.65	ug/L	# 81
35) 2,2-dichloropropane	9.168	77	116060	46.86	ug/L	99
36) ethyl acetate	9.105	45	13771	57.69	ug/L	# 89
37) cis-1,2-dichloroethene	9.136	96	97498	52.98	ug/L	97
38) propionitrile	9.121	54	157896	676.00	ug/L	99
39) methyl acrylate	9.183	85	20788	83.53	ug/L	# 69
40) methacrylonitrile	9.330	67	35932	60.94	ug/L	86
41) bromochloromethane	9.435	128	44757	54.08	ug/L	90

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\eunicem041219\vi9080\
 Data File : i225326.d
 Acq On : 11 Apr 2019 5:01 pm
 Operator : thienn
 Sample : jc85995-1ms Inst : GCMSI
 Misc : MS33845,VI9080,6.1,,100,10,1
 ALS Vial : 21 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MI8986.M
 Quant Results File: MI8986.RES
 Quant Time: Apr 12 02:49:29 2019
 Quant Title : Method SW846 8260C, Rxi-624 60m x 0.25mm x 1.4um
 QLast Update : Fri Jan 25 14:07:54 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
42) tetrahydrofuran	9.476	71	12433	67.75	ug/L	92
43) chloroform	9.523	83	166169	56.22	ug/L	98
44) carbon tetrachloride	10.005	117	120905	50.09	ug/L	97
45) 1,1-dichloropropene	9.973	75	121509	54.61	ug/L	99
48) 1,1,1-trichloroethane	9.795	97	139134	52.74	ug/L	99
49) cyclohexane	9.921	84	244237	105.14	ug/L #	17
50) tert-amyl alcohol	10.135	55	138499	2029.82	ug/L #	1
53) isopropyl acetate	10.130	87	18059	54.57	ug/L #	93
54) 1,2-dichloroethane	10.230	62	119220	49.69	ug/L	99
55) benzene	10.219	78	366417	51.35	ug/L	99
56) 2,2,4-trimethylpentane	10.334	57	332819	45.56	ug/L #	1
57) tert-amyl methyl ether	10.313	87	62705	51.49	ug/L #	67
58) heptane	10.501	57	81291	53.31	ug/L	95
59) n-butyl alcohol	10.685	56	143018	2399.16	ug/L	87
60) trichloroethene	10.951	95	94546	49.46	ug/L	93
61) ethyl acrylate	10.930	55	228432	113.06	ug/L	74
62) methylcyclohexane	11.265	83	583523	180.25	ug/L	98
63) 1,2-dichloropropane	11.229	63	96154	52.64	ug/L	97
64) methyl methacrylate	11.197	100	24630	57.30	ug/L #	1
65) dibromomethane	11.333	93	52633	49.46	ug/L	98
66) bromodichloromethane	11.490	83	140972	55.70	ug/L	93
67) 2-nitropropane	11.652	41	285916	652.55	ug/L #	45
68) 2-chloroethyl vinyl ether	11.725	63	295217	276.21	ug/L	97
69) epichlorohydrin	11.809	57	214858	1203.59	ug/L #	57
70) cis-1,3-dichloropropene	11.945	75	141078	49.38	ug/L	95
71) 4-methyl-2-pentanone	12.039	58	139167	244.86	ug/L	95
72) 3-methyl-1-butanol	12.044	70	120347	2437.67	ug/L #	74
75) toluene	12.337	92	217080	51.60	ug/L	98
76) trans-1,3-dichloropropene	12.510	75	127190	50.25	ug/L	96
77) ethyl methacrylate	12.505	69	295557	154.91	ug/L	78
78) 1,1,2-trichloroethane	12.730	83	53880	43.66	ug/L	83
79) 1,3-dichloropropane	12.907	76	116517	51.87	ug/L	99
80) tetrachloroethene	12.902	166	97501	46.16	ug/L	97
81) 2-hexanone	12.892	58	142691	258.75	ug/L #	1
82) butyl acetate	12.981	56	49547	51.64	ug/L	90
83) n-butyl ether	13.776	57	361806	52.08	ug/L	97
84) dibromochloromethane	13.158	129	93175	48.32	ug/L	98
85) 1,2-dibromoethane	13.310	107	101722	60.59	ug/L	83
86) chlorobenzene	13.797	112	231079	51.56	ug/L	96
87) 1,1,1,2-tetrachloroethane	13.859	131	88068	49.50	ug/L	98
88) ethylbenzene	13.865	91	442692	56.49	ug/L	98
89) m,p-xylene	13.985	106	319577	103.70	ug/L	96
90) o-xylene	14.382	106	152524	49.71	ug/L	91
91) styrene	14.393	104	257411	49.96	ug/L	97
92) butyl acrylate	14.210	55	162510	55.29	ug/L	93
93) cis-1,4-dichloro-2-butene	14.748	88	38444	50.91	ug/L	91
94) bromoform	14.612	173	69373	51.22	ug/L	98
95) isopropylbenzene	14.738	105	458083	59.31	ug/L	97
98) 1,1,2,2-tetrachloroethane	14.994	83	104806	53.03	ug/L	98
99) trans-1,4-dichloro-2-b...	15.026	53	37345	72.50	ug/L	86
100) 1,2,3-trichloropropane	15.083	110	33728	66.25	ug/L #	25
101) bromobenzene	15.115	156	110652	46.90	ug/L	99
102) n-propylbenzene	15.151	91	585156	59.74	ug/L	99
103) 2-chlorotoluene	15.282	126	102193	49.67	ug/L	98
104) 4-chlorotoluene	15.392	91	296513	50.64	ug/L	99
105) 1,3,5-trimethylbenzene	15.313	105	376529	51.08	ug/L	99
106) tert-butylbenzene	15.653	134	67002	49.06	ug/L	95

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\eunicem041219\vi9080\
 Data File : i225326.d
 Acq On : 11 Apr 2019 5:01 pm
 Operator : thienn
 Sample : jc85995-1ms Inst : GCMSI
 Misc : MS33845,VI9080,6.1,,100,10,1
 ALS Vial : 21 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MI8986.M
 Quant Results File: MI8986.RES
 Quant Time: Apr 12 02:49:29 2019
 Quant Title : Method SW846 8260C, Rxi-624 60m x 0.25mm x 1.4um
 QLast Update : Fri Jan 25 14:07:54 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
107) 1,2,4-trimethylbenzene	15.706	105	764877	101.28	ug/L	97
108) sec-butylbenzene	15.873	105	581217	61.18	ug/L	97
109) p-isopropyltoluene	16.009	119	632112	76.67	ug/l	97
110) benzyl chloride	16.223	91	171700	37.12	ug/L	95
111) 1,3-dichlorobenzene	16.040	146	218819	48.60	ug/L	99
112) 1,4-dichlorobenzene	16.140	146	222509	48.39	ug/L	97
113) 1,2-dichlorobenzene	16.516	146	214734	48.73	ug/L	94
114) n-butylbenzene	16.433	92	223014	52.00	ug/L	98
115) hexachloroethane	16.841	201	82781	50.35	ug/L #	78
116) 1,2-dibromo-3-chloropr...	17.306	157	29397	47.96	ug/L	91
117) nitrobenzene	17.500	77	46397	220.30	ug/L #	73
118) 1,3,5-trichlorobenzene	17.526	180	187827	41.96	ug/L	99
119) 1,2,4-trichlorobenzene	18.179	180	164107	40.76	ug/L	97
120) 2-ethylhexyl acrylate	18.206	55	35423	10.79	ug/L	88
121) hexachlorobutadiene	18.310	225	76711	28.94	ug/L	98
122) naphthalene	18.467	128	384154	49.35	ug/L	100
123) 1,2,3-trichlorobenzene	18.687	180	147756	37.30	ug/L	96
124) 2-methylnaphthalene	19.566	142	69932	25.20	ug/L	96

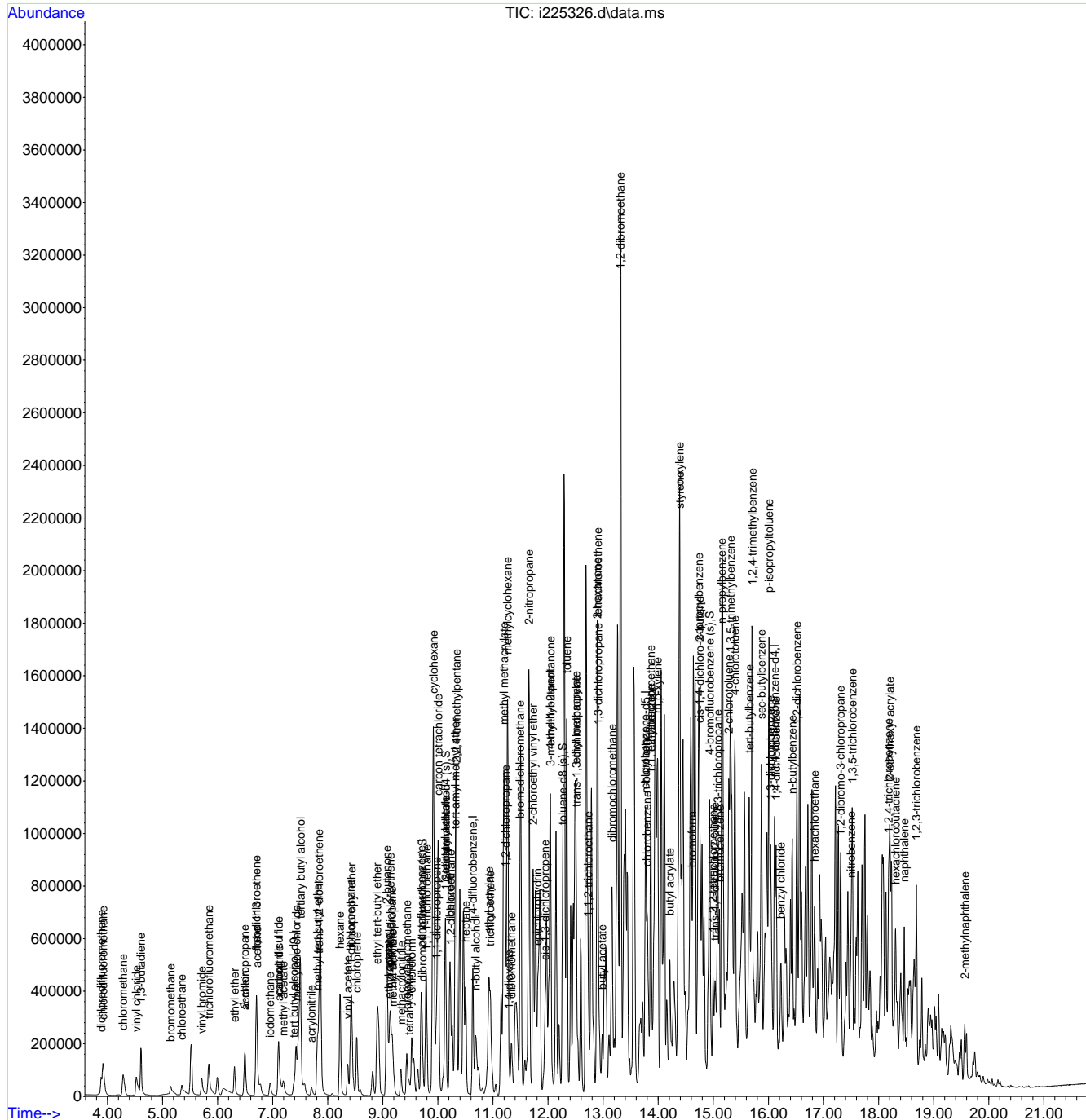
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\unicem041219\vi9080\
Data File : i225326.d
Acq On : 11 Apr 2019 5:01 pm
Operator : thienn
Sample : jc85995-1ms
Misc : MS33845,VI9080,6.1,,100,10,1
ALS Vial : 21 Sample Multiplier: 1

Inst : GCMSI

Quant Method : C:\MSDCHEM\1\METHODS\MI8986.M
Quant Results File: MI8986.RES
Quant Time: Apr 12 02:49:29 2019
Quant Title : Method SW846 8260C, Rxi-624 60m x 0.25mm x 1.4um
QLast Update : Fri Jan 25 14:07:54 2019
Response via : Initial Calibration



7.4.1
7



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\eunicem041219\vi9080\
 Data File : i225327.d
 Acq On : 11 Apr 2019 5:30 pm
 Operator : thienn
 Sample : jc85995-1msd Inst : GCMSI
 Misc : MS33845,VI9080,6.1,,100,10,1
 ALS Vial : 22 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MI8986.M
 Quant Results File: MI8986.RES
 Quant Time: Apr 12 02:50:12 2019
 Quant Title : Method SW846 8260C, Rxi-624 60m x 0.25mm x 1.4um
 QLast Update : Fri Jan 25 14:07:54 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.390	65	123209	500.00	ug/L	0.01
4) pentafluorobenzene	9.696	168	267602	50.00	ug/L	-0.02
51) 1,4-difluorobenzene	10.632	114	384052	50.00	ug/L	-0.02
73) chlorobenzene-d5	13.765	117	317138	50.00	ug/L	-0.02
96) 1,4-dichlorobenzene-d4	16.114	152	201051	50.00	ug/L	-0.02
System Monitoring Compounds						
47) dibromofluoromethane (s)	9.717	113	108480	51.59	ug/L	-0.02
Spiked Amount	50.000	Range	75 - 127	Recovery	=	103.18%
52) 1,2-dichloroethane-d4 (s)	10.141	65	120705	50.35	ug/L	-0.02
Spiked Amount	50.000	Range	75 - 130	Recovery	=	100.70%
74) toluene-d8 (s)	12.264	98	487402	59.95	ug/L	-0.02
Spiked Amount	50.000	Range	80 - 120	Recovery	=	119.90%
97) 4-bromofluorobenzene (s)	14.932	95	280422	91.46	ug/L	-0.02
Spiked Amount	50.000	Range	79 - 127	Recovery	=	182.92%#
Target Compounds						
2) tertiary butyl alcohol	7.505	59	63207	247.86	ug/L	Qvalue # 1
3) 1,4-dioxane	11.291	88	26205	916.90	ug/L	95
5) dichlorodifluoromethane	3.885	85	119375	51.06	ug/L	96
6) chlorodifluoromethane	3.917	51	121116	54.87	ug/L	96
7) chloromethane	4.283	50	132307	61.12	ug/L	99
8) vinyl chloride	4.523	62	114798	62.97	ug/L	98
9) 1,3-butadiene	4.607	54	74041	58.15	ug/L	98
10) bromomethane	5.146	94	27555	22.69	ug/L	98
11) chloroethane	5.350	64	64786	58.75	ug/L	95
12) vinyl bromide	5.711	106	65997	46.83	ug/L	99
13) trichlorofluoromethane	5.841	101	142050	50.92	ug/L	99
14) ethyl ether	6.307	74	45054	57.01	ug/L	96
15) 2-chloropropane	6.490	63	31229	48.47	ug/L	95
16) acrolein	6.616	56	236	0.92	ug/L	86
17) freon 113	6.704	151	63900	46.75	ug/L	98
18) 1,1-dichloroethene	6.704	61	127249	51.09	ug/L	98
19) acetone	6.715	43	127781	283.40	ug/L	100
20) iodomethane	6.955	142	74145	40.36	ug/L	98
21) carbon disulfide	7.107	76	251285	46.84	ug/L	100
22) acetonitrile	7.112	41	137892	612.40	ug/L	96
23) methyl acetate	7.196	74	13519	51.06	ug/L #	91
24) methylene chloride	7.421	84	93633	50.76	ug/L	99
25) acrylonitrile	7.703	53	31106	58.65	ug/L	97
26) methyl tert butyl ether	7.813	73	236520	54.10	ug/L	97
27) trans-1,2-dichloroethene	7.839	61	121769	51.28	ug/L	96
28) hexane	8.226	57	194274	67.85	ug/L	98
29) 1,1-dichloroethane	8.415	63	154627	51.00	ug/L	98
30) vinyl acetate	8.362	86	15194	52.64	ug/L #	71
31) di-isopropyl ether	8.430	45	289343	53.85	ug/L	98
32) chloroprene	8.525	53	135991	53.17	ug/L	98
33) ethyl tert-butyl ether	8.896	59	280813	54.14	ug/L	98
34) 2-butanone	9.063	72	41404	244.99	ug/L	93
35) 2,2-dichloropropane	9.163	77	110300	41.96	ug/L	98
36) ethyl acetate	9.105	45	13597	53.84	ug/L #	86
37) cis-1,2-dichloroethene	9.136	96	94507	48.39	ug/L	96
38) propionitrile	9.121	54	152771	616.34	ug/L	91
39) methyl acrylate	9.184	85	19899	75.59	ug/L #	81
40) methacrylonitrile	9.330	67	35466	56.68	ug/L	91
41) bromochloromethane	9.435	128	43374	49.38	ug/L	90

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\eunicem041219\vi9080\
 Data File : i225327.d
 Acq On : 11 Apr 2019 5:30 pm
 Operator : thienn
 Sample : jc85995-1msd Inst : GCMSI
 Misc : MS33845,VI9080,6.1,,100,10,1
 ALS Vial : 22 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MI8986.M
 Quant Results File: MI8986.RES
 Quant Time: Apr 12 02:50:12 2019
 Quant Title : Method SW846 8260C, Rxi-624 60m x 0.25mm x 1.4um
 QLast Update : Fri Jan 25 14:07:54 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
42) tetrahydrofuran	9.471	71	12018	61.71	ug/L	85
43) chloroform	9.524	83	160624	51.21	ug/L	100
44) carbon tetrachloride	10.005	117	114835	44.83	ug/L	98
45) 1,1-dichloropropene	9.973	75	116293	49.25	ug/L	100
48) 1,1,1-trichloroethane	9.796	97	132805	47.44	ug/L	96
49) cyclohexane	9.921	84	234844	95.27	ug/L #	13
50) tert-amyl alcohol	10.135	55	138048	1906.92	ug/L #	1
53) isopropyl acetate	10.130	87	17887	51.40	ug/L #	78
54) 1,2-dichloroethane	10.230	62	116122	46.02	ug/L	97
55) benzene	10.219	78	351758	46.88	ug/L	98
56) 2,2,4-trimethylpentane	10.334	57	349831	45.54	ug/L #	1
57) tert-amyl methyl ether	10.313	87	60730	47.42	ug/L #	68
58) heptane	10.502	57	84306	52.58	ug/L	95
59) n-butyl alcohol	10.690	56	151047	2409.74	ug/L	91
60) trichloroethene	10.951	95	91435	45.49	ug/L	90
61) ethyl acrylate	10.930	55	225422	106.10	ug/L	75
62) methylcyclohexane	11.265	83	577184	169.56	ug/L	99
63) 1,2-dichloropropane	11.229	63	94115	49.00	ug/L	99
64) methyl methacrylate	11.197	100	23216	51.37	ug/L #	1
65) dibromomethane	11.333	93	50739	45.34	ug/L	99
66) bromodichloromethane	11.490	83	137910	51.82	ug/L	92
67) 2-nitropropane	11.652	41	299501	650.08	ug/L #	45
68) 2-chloroethyl vinyl ether	11.725	63	288140	256.39	ug/L	97
69) epichlorohydrin	11.809	57	232493	1238.59	ug/L #	54
70) cis-1,3-dichloropropene	11.945	75	137018	45.61	ug/L	95
71) 4-methyl-2-pentanone	12.039	58	135136	226.12	ug/L	97
72) 3-methyl-1-butanol	12.045	70	141068	2717.44	ug/L #	73
75) toluene	12.337	92	204881	46.67	ug/L	98
76) trans-1,3-dichloropropene	12.510	75	123792	46.87	ug/L	97
77) ethyl methacrylate	12.505	69	294129	147.74	ug/L	81
78) 1,1,2-trichloroethane	12.730	83	52825	41.02	ug/L #	81
79) 1,3-dichloropropane	12.908	76	113401	48.38	ug/L	96
80) tetrachloroethene	12.897	166	92185	41.83	ug/L	96
81) 2-hexanone	12.887	58	144501	251.11	ug/L #	1
82) butyl acetate	12.981	56	49566	49.51	ug/L #	82
83) n-butyl ether	13.776	57	350565	48.36	ug/L	97
84) dibromochloromethane	13.159	129	91344	45.39	ug/L	98
85) 1,2-dibromoethane	13.310	107	97693	55.76	ug/L	84
86) chlorobenzene	13.797	112	218965	46.82	ug/L	96
87) 1,1,1,2-tetrachloroethane	13.859	131	86092	46.37	ug/L	98
88) ethylbenzene	13.865	91	425373	52.02	ug/L	98
89) m,p-xylene	13.990	106	307055	95.48	ug/L	100
90) o-xylene	14.382	106	148627	46.42	ug/L	90
91) styrene	14.393	104	249652	46.43	ug/L	97
92) butyl acrylate	14.210	55	160133	52.21	ug/L	92
93) cis-1,4-dichloro-2-butene	14.749	88	37477	47.56	ug/L	92
94) bromoform	14.613	173	66211	46.85	ug/L	98
95) isopropylbenzene	14.738	105	437288	54.26	ug/L	97
98) 1,1,2,2-tetrachloroethane	14.994	83	97272	46.78	ug/L	95
99) trans-1,4-dichloro-2-b...	15.026	53	37817	69.79	ug/L	90
100) 1,2,3-trichloropropane	15.083	110	34512	64.44	ug/L #	16
101) bromobenzene	15.115	156	106174	42.77	ug/L	96
102) n-propylbenzene	15.151	91	564200	54.76	ug/L	99
103) 2-chlorotoluene	15.282	126	98308	45.42	ug/L	98
104) 4-chlorotoluene	15.392	91	281876	45.76	ug/L	97
105) 1,3,5-trimethylbenzene	15.313	105	360919	46.54	ug/L	100
106) tert-butylbenzene	15.653	134	64184	44.68	ug/L #	90

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\eunicem041219\vi9080\
 Data File : i225327.d
 Acq On : 11 Apr 2019 5:30 pm
 Operator : thienn
 Sample : jc85995-1msd Inst : GCMSI
 Misc : MS33845,VI9080,6.1,,100,10,1
 ALS Vial : 22 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MI8986.M
 Quant Results File: MI8986.RES
 Quant Time: Apr 12 02:50:12 2019
 Quant Title : Method SW846 8260C, Rxi-624 60m x 0.25mm x 1.4um
 QLast Update : Fri Jan 25 14:07:54 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
107) 1,2,4-trimethylbenzene	15.706	105	742016	93.40	ug/L	98
108) sec-butylbenzene	15.873	105	554208	55.45	ug/L	97
109) p-isopropyltoluene	16.009	119	613713	70.76	ug/l	97
110) benzyl chloride	16.223	91	163862	33.68	ug/L	95
111) 1,3-dichlorobenzene	16.040	146	205961	43.49	ug/L	97
112) 1,4-dichlorobenzene	16.140	146	212452	43.92	ug/L	98
113) 1,2-dichlorobenzene	16.516	146	204462	44.11	ug/L	92
114) n-butylbenzene	16.433	92	214932	47.64	ug/L	98
115) hexachloroethane	16.841	201	77910	45.04	ug/L #	76
116) 1,2-dibromo-3-chloropr...	17.306	157	28675	44.47	ug/L	93
117) nitrobenzene	17.442	77	14791	66.76	ug/L	93
118) 1,3,5-trichlorobenzene	17.526	180	181313	38.51	ug/L	99
119) 1,2,4-trichlorobenzene	18.180	180	162728	38.42	ug/L	97
120) 2-ethylhexyl acrylate	18.201	55	37337	10.81	ug/L	91
121) hexachlorobutadiene	18.310	225	78387	28.11	ug/L	99
122) naphthalene	18.467	128	377755	46.13	ug/L	99
123) 1,2,3-trichlorobenzene	18.687	180	146103	35.06	ug/L	94
124) 2-methylnaphthalene	19.566	142	68953	23.61	ug/L	97

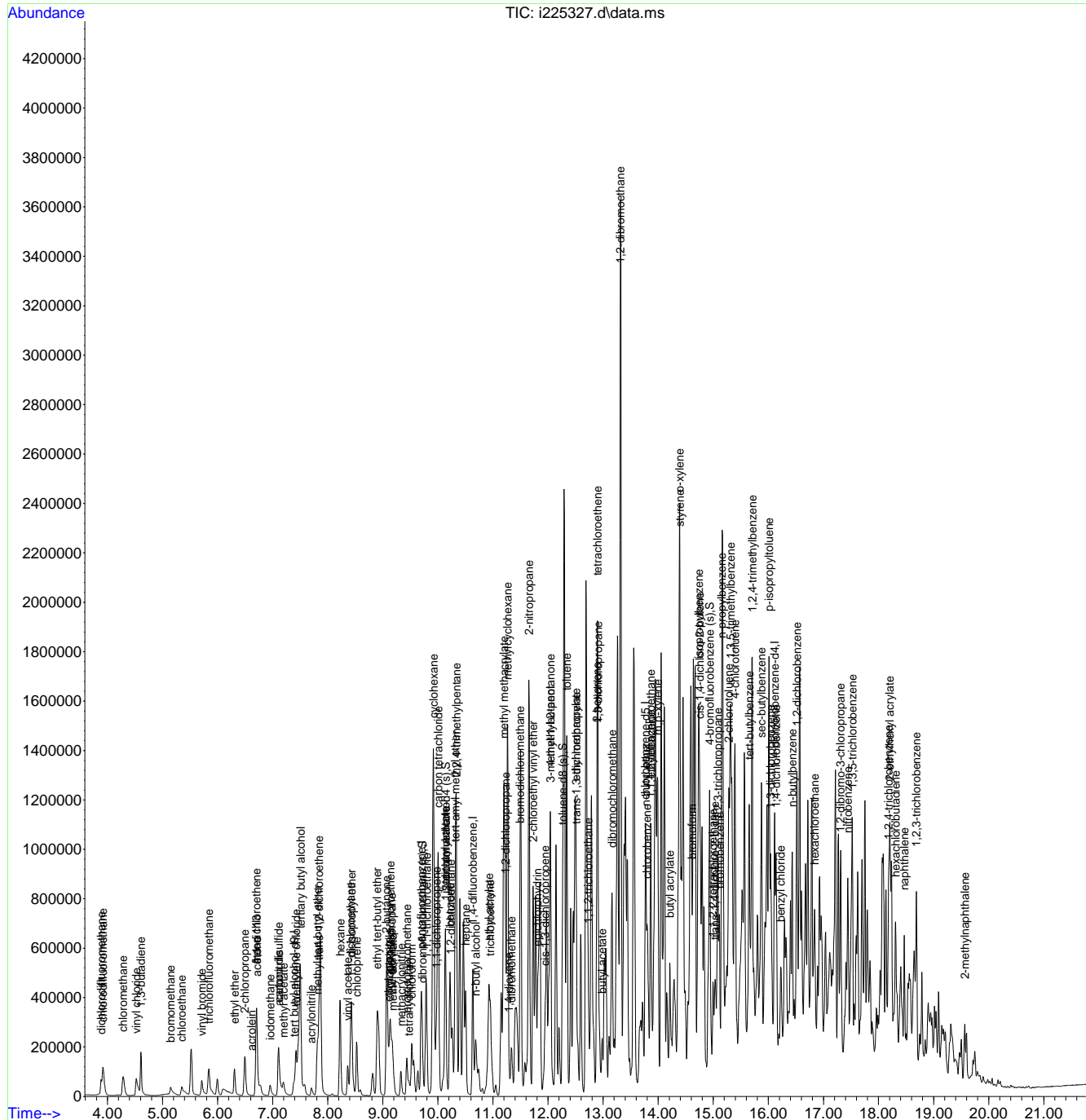
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\unicem041219\vi9080\
Data File : i225327.d
Acq On : 11 Apr 2019 5:30 pm
Operator : thienn
Sample : jc85995-1msd
Misc : MS33845,VI9080,6.1,,100,10,1
ALS Vial : 22 Sample Multiplier: 1

Inst : GCMSI

Quant Method : C:\MSDCHEM\1\METHODS\MI8986.M
Quant Results File: MI8986.RES
Quant Time: Apr 12 02:50:12 2019
Quant Title : Method SW846 8260C, Rxi-624 60m x 0.25mm x 1.4um
QLast Update : Fri Jan 25 14:07:54 2019
Response via : Initial Calibration



7.4.2
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\04-15-19\v3c6794\
 Data File : 3c151008.d
 Acq On : 12 Apr 2019 11:17 am
 Operator : Prashans
 Sample : JC86104-1MS Inst : MS3C
 Misc : MS33900,V3C6794,5.3,,,,,1
 ALS Vial : 10 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M3C6743.M
 Quant Results File: M3C6743.RES
 Quant Time: Apr 15 07:59:42 2019
 Quant Title : Method SW846 8260C, Rxi624 20m x 0.18mm x 1.0um
 QLast Update : Fri Feb 15 09:30:13 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	2.574	65	37913	500.00	ug/L	0.00
5) pentafluorobenzene	4.033	168	233854	50.00	ug/L	0.00
52) 1,4-difluorobenzene	4.687	114	319088	50.00	ug/L	0.00
74) chlorobenzene-d5	7.396	117	280118	50.00	ug/L	0.00
97) 1,4-dichlorobenzene-d4	9.321	152	148518	50.00	ug/L	0.00
System Monitoring Compounds						
45) dibromofluoromethane (s)	3.986	113	87155	51.58	ug/L	0.00
Spiked Amount	50.000	Range	75 - 127	Recovery	=	103.16%
53) 1,2-dichloroethane-d4 (s)	4.311	65	84627	48.81	ug/L	0.00
Spiked Amount	50.000	Range	75 - 130	Recovery	=	97.62%
75) toluene-d8 (s)	6.084	98	353003	50.91	ug/L	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	=	101.82%
98) 4-bromofluorobenzene (s)	8.390	95	125050	51.21	ug/L	0.00
Spiked Amount	50.000	Range	79 - 127	Recovery	=	102.42%
Target Compounds						
3) tertiary butyl alcohol	2.637	59	24173	289.22	ug/L	92
4) 1,4-dioxane	5.289	88	14421	1415.72	ug/L	100
6) chlorodifluoromethane	1.104	51	76210	53.80	ug/L	98
7) dichlorodifluoromethane	1.078	85	103993	51.48	ug/L	98
8) chloromethane	1.225	50	89996	53.97	ug/L	98
9) 1,3-butadiene	1.319	54	61100	56.28	ug/L	99
10) vinyl chloride	1.298	62	89236	53.19	ug/L	99
11) bromomethane	1.539	94	45211	45.04	ug/L	99
12) chloroethane	1.617	64	52994	53.16	ug/L	98
13) vinyl Bromide	1.748	106	51556	35.81	ug/L	97
14) trichlorofluoromethane	1.774	101	119971	48.32	ug/L	100
15) ethyl ether	1.994	74	36542	51.68	ug/L	84
16) 2-chloropropane	2.072	63	29000	51.37	ug/L	95
17) acrolein	2.140	56	3611	24.84	ug/L	97
18) freon 113	2.135	151	63094	53.15	ug/L	98
19) 1,1-dichloroethene	2.161	96	70952	53.61	ug/L	96
20) acetone	2.250	58	31129	427.25	ug/L	94
21) acetonitrile	2.511	41	49258	438.09	ug/L	98
22) iodomethane	2.286	142	60315	55.58	ug/L	100
23) carbon disulfide	2.313	76	188340	50.80	ug/L	98
24) methylene chloride	2.564	84	70972	49.05	ug/L	95
25) methyl acetate	2.470	43	42521	60.93	ug/L	97
26) methyl tert butyl ether	2.710	73	165128	46.82	ug/L	98
27) trans-1,2-dichloroethene	2.731	96	77449	51.41	ug/L	99
28) hexane	2.877	57	115181	48.31	ug/L	99
29) di-isopropyl ether	3.076	45	210843	49.24	ug/L	99
30) ethyl tert-butyl ether	3.364	59	202208	47.77	ug/L	99
31) 2-butanone	3.599	72	20261	176.56	ug/L	91
32) 1,1-dichloroethane	3.092	63	126632	51.73	ug/L	97
33) chloroprene	3.134	53	113765	52.31	ug/L	97
34) acrylonitrile	2.804	53	13896	46.71	ug/L	98
35) vinyl acetate	3.123	86	6175	23.15	ug/L #	59
36) ethyl acetate	3.610	45	5996	40.15	ug/L	85
37) 2,2-dichloropropane	3.542	77	114732	50.93	ug/L	98
38) cis-1,2-dichloroethene	3.573	96	83584	51.33	ug/L	99
39) propionitrile	3.714	54	58828	445.54	ug/L	99
40) bromochloromethane	3.782	130	45887	50.27	ug/L	96
41) tetrahydrofuran	3.782	71	5890	51.61	ug/L	88
42) chloroform	3.840	83	127348	48.10	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\04-15-19\v3c6794\
 Data File : 3c151008.d
 Acq On : 12 Apr 2019 11:17 am
 Operator : Prashans
 Sample : JC86104-1MS Inst : MS3C
 Misc : MS33900,V3C6794,5.3,,,,,1
 ALS Vial : 10 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M3C6743.M
 Quant Results File: M3C6743.RES
 Quant Time: Apr 15 07:59:42 2019
 Quant Title : Method SW846 8260C, Rxi624 20m x 0.18mm x 1.0um
 QLast Update : Fri Feb 15 09:30:13 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
43) tert-Butyl Formate	3.850	59	18304	21.85	ug/L #	74
44) isobutyl alcohol	4.263	41	78494	381.99	ug/L	99
46) methacrylonitrile	3.814	67	18783	47.93	ug/L	95
47) 1,1,1-trichloroethane	3.955	97	117312	49.10	ug/L	99
48) cyclohexane	3.939	84	116396	47.63	ug/L	98
49) 1,1-dichloropropene	4.107	110	40075	51.03	ug/L	98
50) tert-amyl alcohol	4.326	59	17597	169.16	ug/L	71
51) carbon tetrachloride	4.070	119	98103	51.95	ug/L	98
54) 2,2,4-trimethylpentane	4.263	57	243184	41.09	ug/L	99
55) tert-amyl methyl ether	4.363	87	57988	43.84	ug/L	94
56) n-butyl alcohol	4.891	56	61091	2068.87	ug/L	98
57) benzene	4.284	78	295789	50.41	ug/L	100
58) heptane	4.452	57	54790	43.64	ug/L	98
59) isopropyl acetate	4.363	87	57988	42.82	ug/L	93
60) 1,2-dichloroethane	4.379	62	82331	44.18	ug/L	98
61) trichloroethene	4.902	95	79227	49.68	ug/L	95
62) ethyl acrylate	5.038	55	42076	32.29	ug/L	98
63) 2-nitropropane	5.759	41	17324	43.62	ug/L #	48
64) 2-chloroethyl vinyl ether	5.765	63	184652	239.23	ug/L	99
65) methyl methacrylate	5.268	100	16629	50.51	ug/L	95
66) 1,2-dichloropropane	5.168	63	69084	49.54	ug/L	95
67) methylcyclohexane	5.006	83	135165	45.40	ug/L	98
68) dibromomethane	5.294	93	36118	47.30	ug/L	93
69) bromodichloromethane	5.446	83	91232	51.45	ug/L	99
70) epichlorohydrin	5.843	57	25525	263.59	ug/L	98
71) cis-1,3-dichloropropene	5.890	75	111778	50.39	ug/L	95
72) 4-methyl-2-pentanone	6.031	85	35534	191.34	ug/L	92
76) toluene	6.146	92	191316	47.86	ug/L	99
77) trans-1,3-dichloropropene	6.434	75	90295	49.14	ug/L	99
78) ethyl methacrylate	6.465	69	59582	39.00	ug/L	98
79) 1,1,2-trichloroethane	6.596	83	45428	46.18	ug/L	96
80) 2-hexanone	6.800	58	73258	194.65	ug/L	94
81) tetrachloroethene	6.617	166	96103	50.67	ug/L	98
82) 1,3-dichloropropane	6.748	76	93147	46.94	ug/L	99
83) butyl acetate	6.889	56	23153	32.72	ug/L	97
84) dibromochloromethane	6.915	129	62151	53.65	ug/L	100
85) 1,2-dibromoethane	7.015	107	69080	48.41	ug/L	98
86) n-butyl ether	7.470	57	288391	44.32	ug/L	97
87) chlorobenzene	7.417	112	203305	46.19	ug/L	98
88) 1,1,1,2-tetrachloroethane	7.501	131	72219	49.71	ug/L	97
89) ethylbenzene	7.485	91	356430	46.07	ug/L	100
90) m,p-xylene	7.595	106	279976	91.83	ug/L	97
91) o-xylene	7.930	91	278762	45.55	ug/L	99
92) styrene	7.956	104	221447	45.19	ug/L	98
93) bromoform	8.129	173	38182	45.55	ug/L	98
94) butyl acrylate	7.925	55	77380	36.41	ug/L	98
95) isopropylbenzene	8.228	105	357951	45.90	ug/L	98
96) cis-1,4-dichloro-2-butene	8.359	53	19439	45.13	ug/L	95
99) bromobenzene	8.505	156	89830	45.63	ug/L	94
100) 1,1,2,2-tetrachloroethane	8.547	83	61344	45.82	ug/L	99
101) trans-1,4-dichloro-2-b...	8.605	88	7712	42.39	ug/L	97
102) 1,2,3-trichloropropane	8.584	110	19061	44.75	ug/L	99
103) n-propylbenzene	8.563	91	413840	45.82	ug/L	99
104) 2-chlorotoluene	8.652	126	85875	46.50	ug/L	98
105) 4-chlorotoluene	8.751	126	85883	46.60	ug/L	92
106) 1,3,5-trimethylbenzene	8.714	105	297469	45.27	ug/L	99
107) tert-butylbenzene	8.965	119	267933	45.82	ug/L	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\04-15-19\v3c6794\
 Data File : 3c151008.d
 Acq On : 12 Apr 2019 11:17 am
 Operator : Prashans
 Sample : JC86104-1MS Inst : MS3C
 Misc : MS33900,V3C6794,5.3,,,,,1
 ALS Vial : 10 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M3C6743.M
 Quant Results File: M3C6743.RES
 Quant Time: Apr 15 07:59:42 2019
 Quant Title : Method SW846 8260C, Rxi624 20m x 0.18mm x 1.0um
 QLast Update : Fri Feb 15 09:30:13 2019
 Response via : Initial Calibration

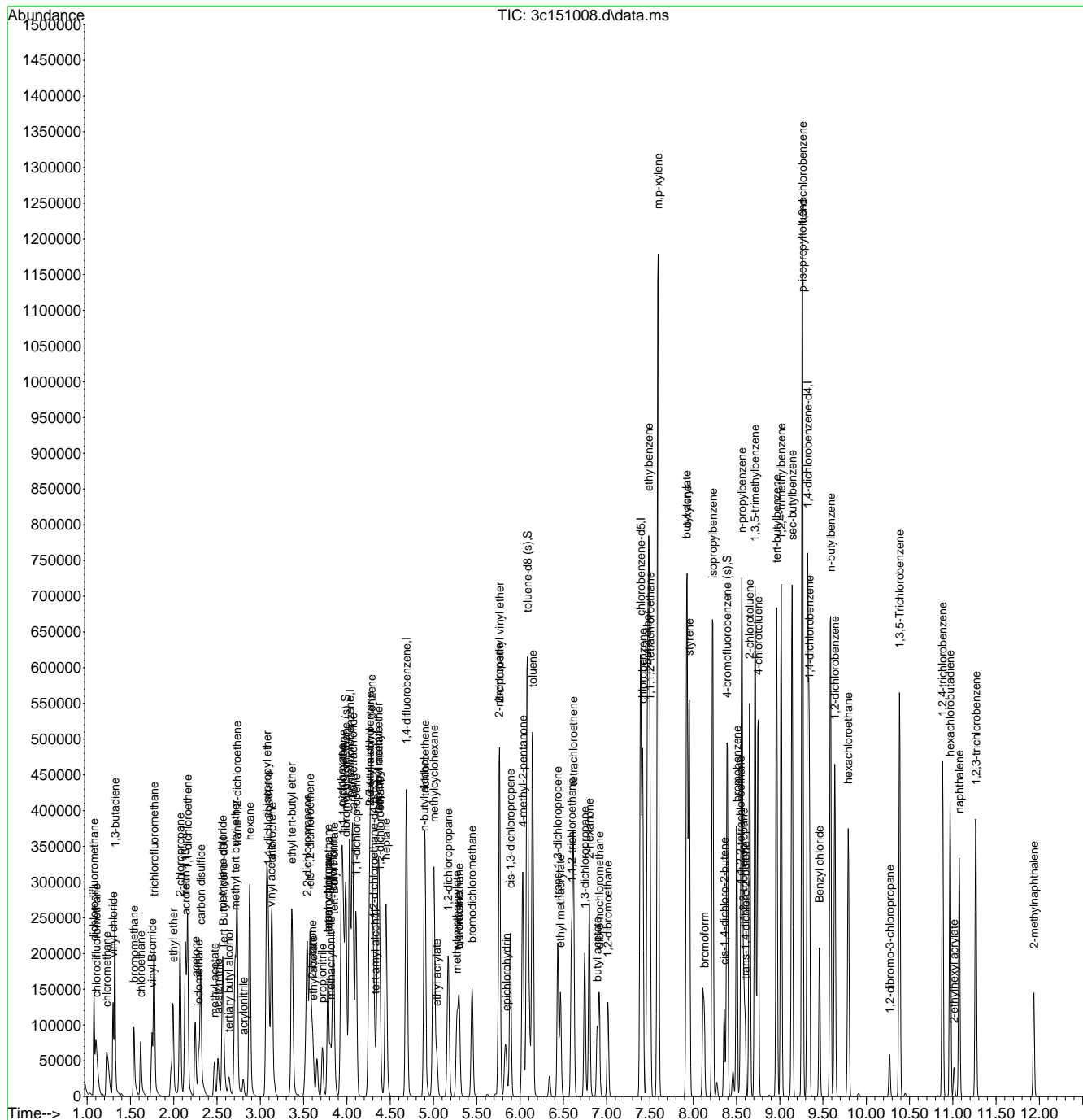
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
108) 1,2,4-trimethylbenzene	9.018	105	294155	43.98	ug/L	99
109) sec-butylbenzene	9.143	105	384650	45.26	ug/L	98
110) 1,3-dichlorobenzene	9.264	146	166898	43.15	ug/L	99
111) p-isopropyltoluene	9.258	119	331242	44.29	ug/L	100
112) 1,4-dichlorobenzene	9.342	146	167405	42.33	ug/L	97
113) 1,2-dichlorobenzene	9.635	146	152754	42.14	ug/L	99
114) n-butylbenzene	9.588	92	159530	43.17	ug/L	98
115) 1,2-dibromo-3-chloropr...	10.273	157	14503	43.80	ug/L	93
116) 1,3,5-Trichlorobenzene	10.383	180	147358	41.91	ug/L	99
117) 1,2,4-trichlorobenzene	10.880	180	116976	38.63	ug/L	99
118) hexachlorobutadiene	10.969	225	72491	38.44	ug/L	96
119) naphthalene	11.073	128	196324	37.02	ug/L	100
120) 1,2,3-trichlorobenzene	11.267	180	101387	36.11	ug/L	97
121) hexachloroethane	9.792	201	53055	46.79	ug/L	95
122) Benzyl chloride	9.457	91	110303	47.14	ug/L	100
123) 2-ethylhexyl acrylate	11.010	70	8781	6.16	ug/L	96
124) 2-methylnaphthalene	11.936	142	54986	17.31	ug/L	97

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janelac\04-15-19\v3c6794\
 Data File : 3c151008.d
 Acq On : 12 Apr 2019 11:17 am
 Operator : Prashans
 Sample : JC86104-1MS Inst : MS3C
 Misc : MS33900,V3C6794,5.3,,1
 ALS Vial : 10 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M3C6743.M
 Quant Results File: M3C6743.RES
 Quant Time: Apr 15 07:59:42 2019
 Quant Title : Method SW846 8260C, Rxi624 20m x 0.18mm x 1.0um
 QLast Update : Fri Feb 15 09:30:13 2019
 Response via : Initial Calibration



7.4.3
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\04-15-19\v3c6794\
 Data File : 3c151006.d
 Acq On : 12 Apr 2019 10:31 am
 Operator : Prashans
 Sample : JC86132-1DUP Inst : MS3C
 Misc : MS33900,V3C6794,5.6,,,,,1
 ALS Vial : 8 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M3C6743.M
 Quant Results File: M3C6743.RES
 Quant Time: Apr 15 07:57:30 2019
 Quant Title : Method SW846 8260C, Rxi624 20m x 0.18mm x 1.0um
 QLast Update : Fri Feb 15 09:30:13 2019
 Response via : Initial Calibration

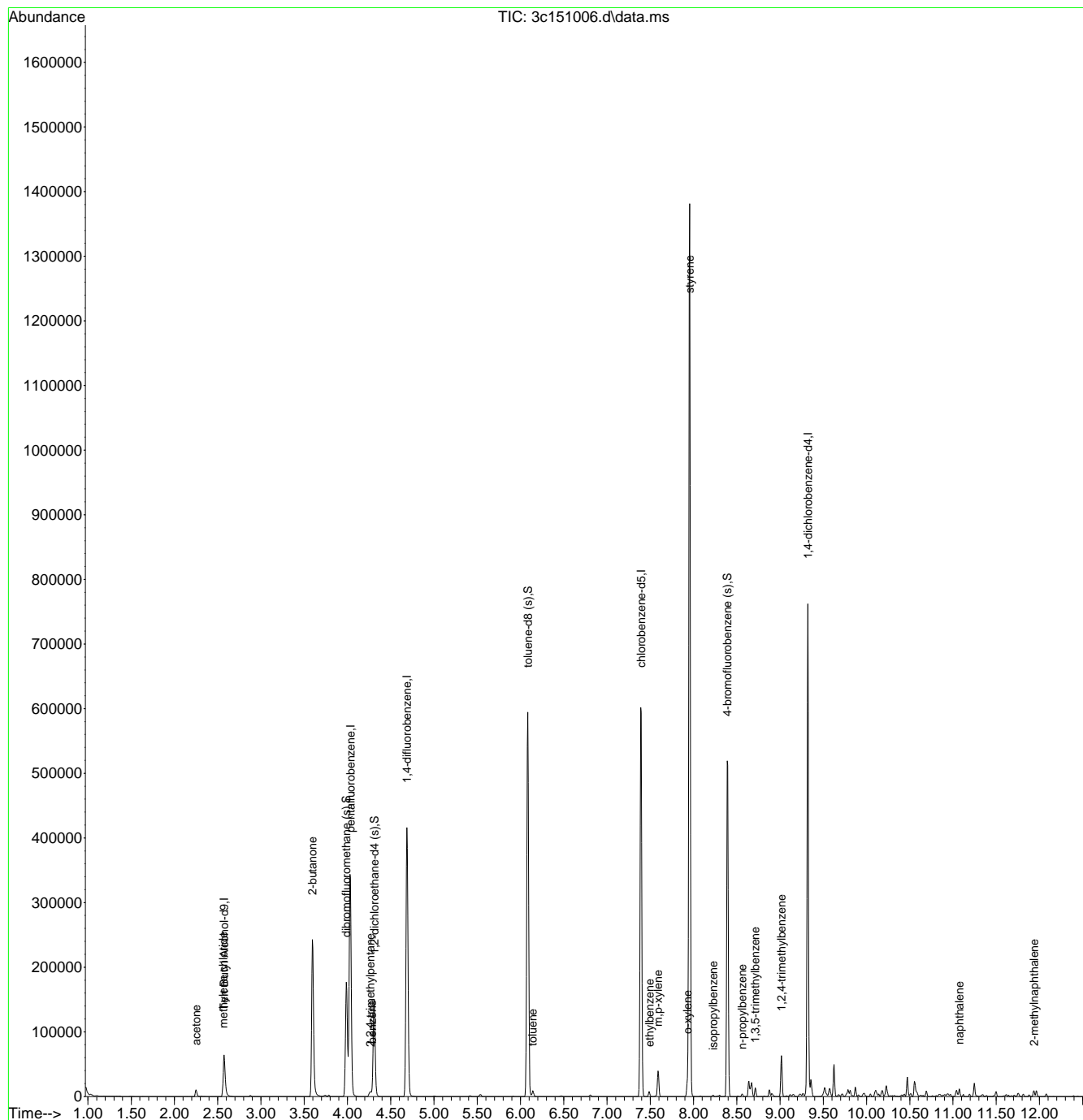
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	2.574	65	56593	500.00	ug/L	0.00
5) pentafluorobenzene	4.033	168	227026	50.00	ug/L	0.00
52) 1,4-difluorobenzene	4.687	114	315282	50.00	ug/L	0.00
74) chlorobenzene-d5	7.396	117	280146	50.00	ug/L	0.00
97) 1,4-dichlorobenzene-d4	9.321	152	151119	50.00	ug/L	0.00
System Monitoring Compounds						
45) dibromofluoromethane (s)	3.986	113	85877	52.35	ug/L	0.00
Spiked Amount	50.000	Range	75 - 127	Recovery	=	104.70%
53) 1,2-dichloroethane-d4 (s)	4.310	65	90202	52.66	ug/L	0.00
Spiked Amount	50.000	Range	75 - 130	Recovery	=	105.32%
75) toluene-d8 (s)	6.083	98	342362	49.37	ug/L	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	=	98.74%
98) 4-bromofluorobenzene (s)	8.390	95	127672	51.39	ug/L	0.00
Spiked Amount	50.000	Range	79 - 127	Recovery	=	102.78%
Target Compounds						
20) acetone	2.250	58	3205	45.31	ug/L	82
24) methylene chloride	2.563	84	1945	1.38	ug/L	79
31) 2-butanone	3.594	72	67492	605.85	ug/L	80
54) 2,2,4-trimethylpentane	4.263	57	7887	1.35	ug/L	93
57) benzene	4.284	78	2238	0.39	ug/L	56
76) toluene	6.141	92	3767	0.94	ug/L	94
89) ethylbenzene	7.490	91	5787	0.75	ug/L	98
90) m,p-xylene	7.590	106	9743	3.20	ug/L	96
91) o-xylene	7.930	91	10258	1.68	ug/L	98
92) styrene	7.956	104	513259	104.73	ug/L	98
95) isopropylbenzene	8.228	105	1839	0.24	ug/L	81
103) n-propylbenzene	8.563	91	3511	0.38	ug/L	98
106) 1,3,5-trimethylbenzene	8.714	105	6993	1.05	ug/L	96
108) 1,2,4-trimethylbenzene	9.018	105	27202	4.00	ug/L	99
119) naphthalene	11.073	128	8288	1.54	ug/L	98
124) 2-methylnaphthalene	11.936	142	3750	1.16	ug/L	92

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

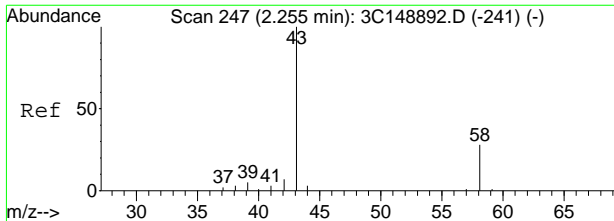
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janelac\04-15-19\v3c6794\
 Data File : 3c151006.d
 Acq On : 12 Apr 2019 10:31 am
 Operator : Prashans
 Sample : JC86132-1DUP Inst : MS3C
 Misc : MS33900,V3C6794,5.6,,,1
 ALS Vial : 8 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M3C6743.M
 Quant Results File: M3C6743.RES
 Quant Time: Apr 15 07:57:30 2019
 Quant Title : Method SW846 8260C, Rxi624 20m x 0.18mm x 1.0um
 QLast Update : Fri Feb 15 09:30:13 2019
 Response via : Initial Calibration

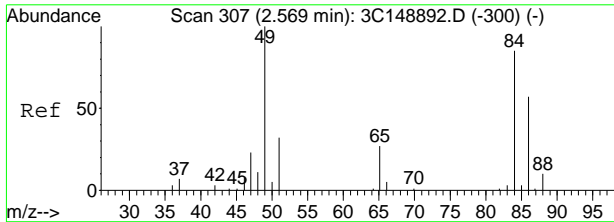
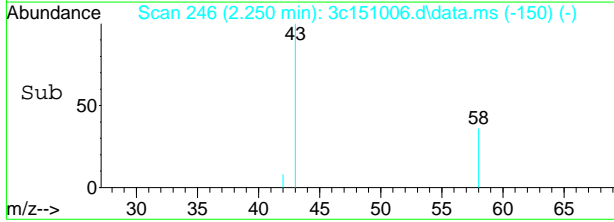
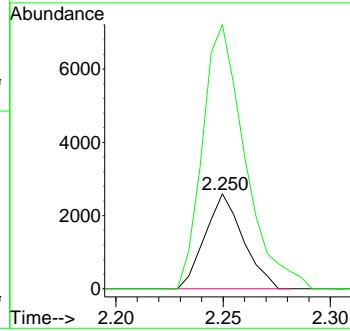
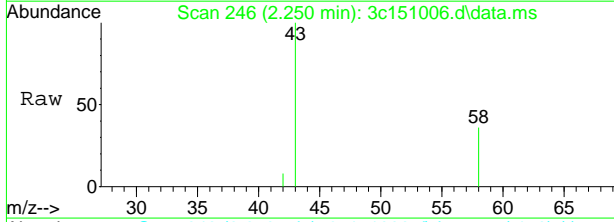


7.5.1
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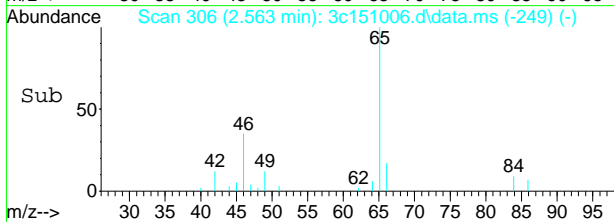
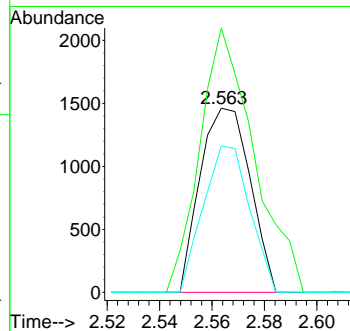
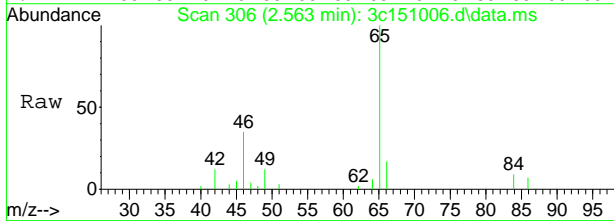
#20
acetone
Concen: 45.31 ug/L
RT: 2.250 min Scan# 246
Delta R.T. -0.000 min
Lab File: 3c151006.d
Acq: 12 Apr 2019 10:31 am

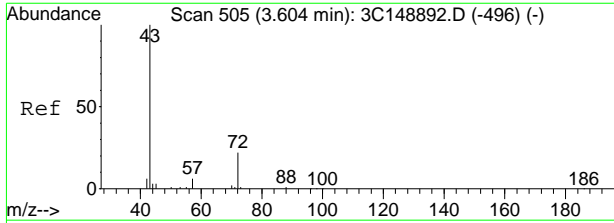
Tgt Ion	Ratio	Lower	Upper
58	100		
43	278.5	284.5	344.5#



#24
methylene chloride
Concen: 1.38 ug/L
RT: 2.563 min Scan# 306
Delta R.T. -0.000 min
Lab File: 3c151006.d
Acq: 12 Apr 2019 10:31 am

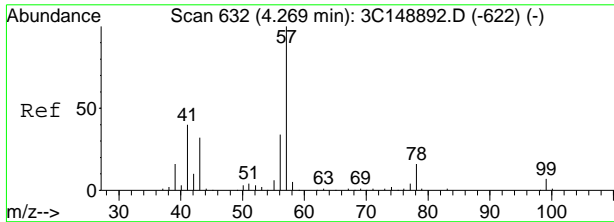
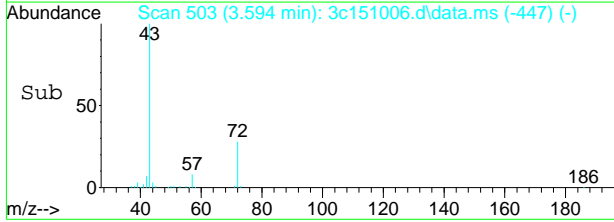
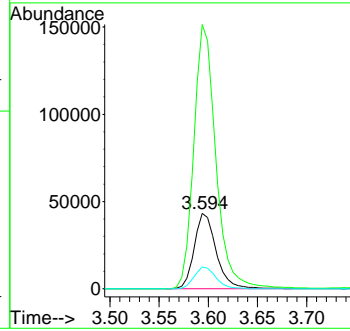
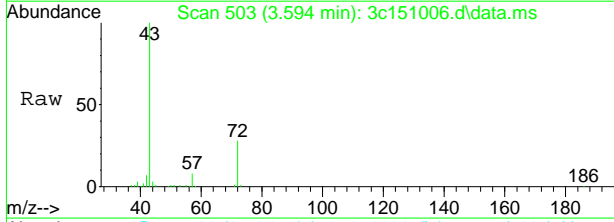
Tgt Ion	Ratio	Lower	Upper
84	100		
49	143.5	87.1	147.1
86	79.5	37.5	97.5





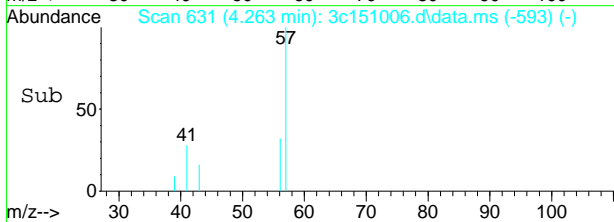
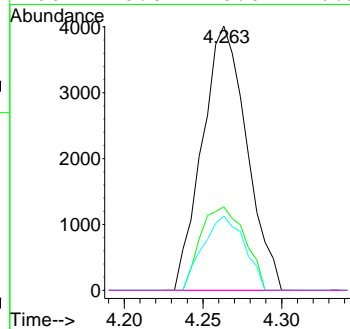
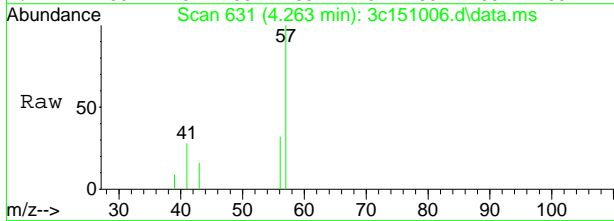
#31
 2-butanone
 Concen: 605.85 ug/L
 RT: 3.594 min Scan# 503
 Delta R.T. -0.005 min
 Lab File: 3c151006.d
 Acq: 12 Apr 2019 10:31 am

Tgt Ion	Ratio	Lower	Upper
72	100		
43	351.1	372.9	432.9#
57	29.1	0.0	59.6

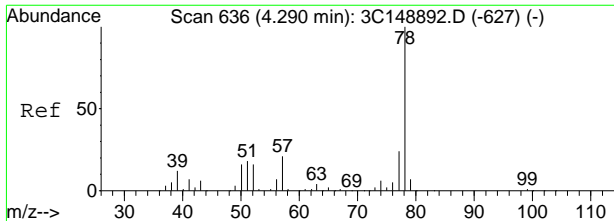


#54
 2,2,4-trimethylpentane
 Concen: 1.35 ug/L
 RT: 4.263 min Scan# 631
 Delta R.T. -0.000 min
 Lab File: 3c151006.d
 Acq: 12 Apr 2019 10:31 am

Tgt Ion	Ratio	Lower	Upper
57	100		
56	31.7	13.5	53.5
41	28.1	13.2	53.2
99	0.0	0.0	26.9

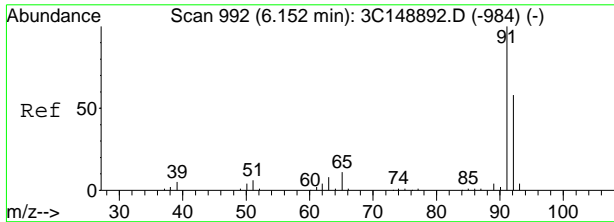
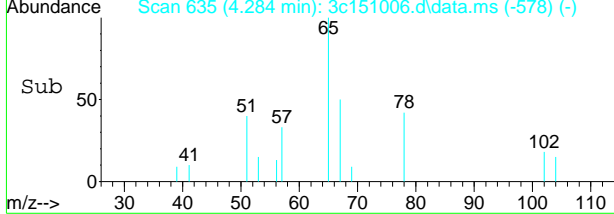
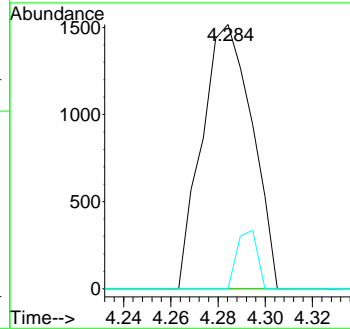
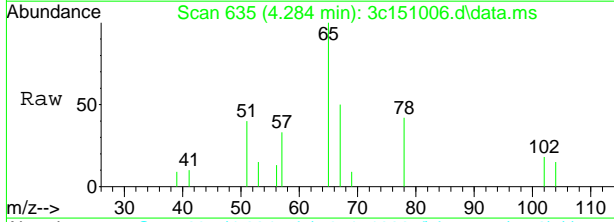


7.5.1
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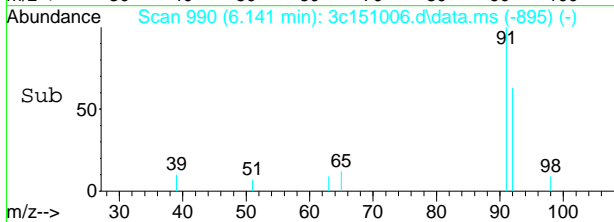
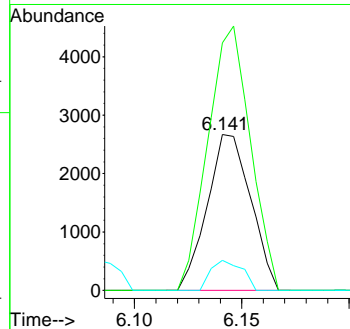
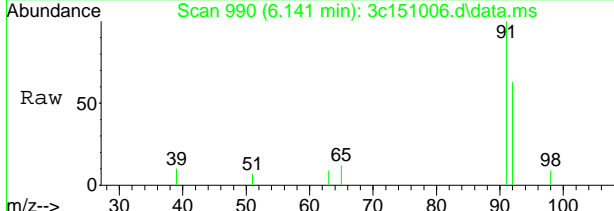
#57
benzene
Concen: 0.39 ug/L
RT: 4.284 min Scan# 635
Delta R.T. -0.000 min
Lab File: 3c151006.d
Acq: 12 Apr 2019 10:31 am

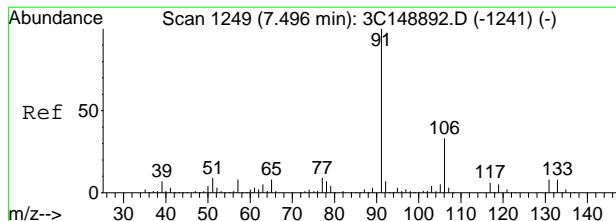
Tgt Ion	Resp	Lower	Upper
78	2238		
77	0.0	0.0	54.0
52	0.0	0.0	44.9



#76
toluene
Concen: 0.94 ug/L
RT: 6.141 min Scan# 990
Delta R.T. -0.005 min
Lab File: 3c151006.d
Acq: 12 Apr 2019 10:31 am

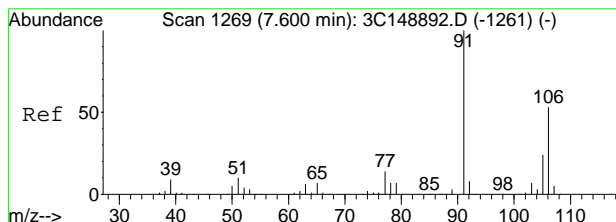
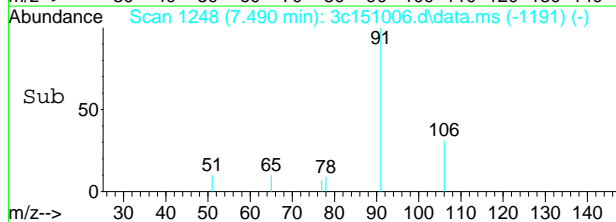
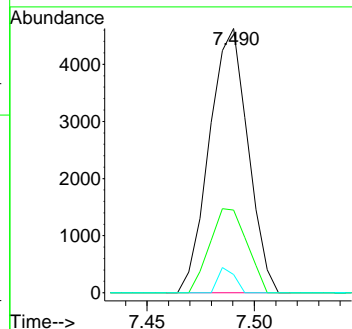
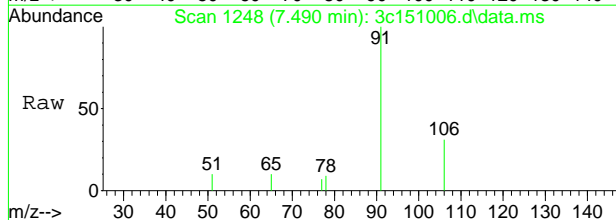
Tgt Ion	Resp	Lower	Upper
92	3767		
91	158.9	147.5	187.5
65	19.3	0.0	38.2





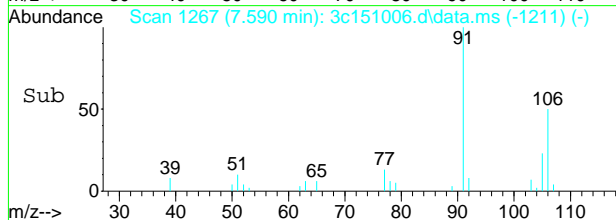
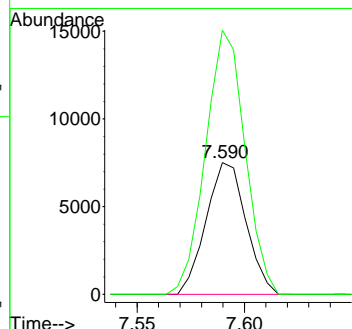
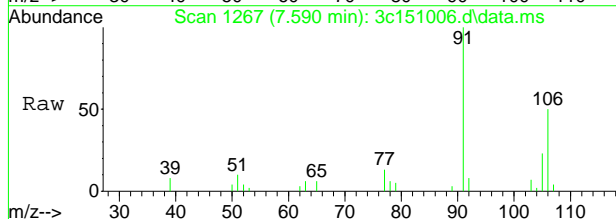
#89
ethylbenzene
Concen: 0.75 ug/L
RT: 7.490 min Scan# 1248
Delta R.T. -0.000 min
Lab File: 3c151006.d
Acq: 12 Apr 2019 10:31 am

Tgt Ion	Resp	Lower	Upper
91	5787		
106	31.3	2.2	62.2
77	6.9	0.0	38.4

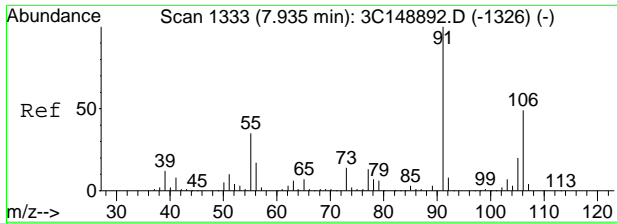


#90
m,p-xylene
Concen: 3.20 ug/L
RT: 7.590 min Scan# 1267
Delta R.T. -0.005 min
Lab File: 3c151006.d
Acq: 12 Apr 2019 10:31 am

Tgt Ion	Resp	Lower	Upper
106	9743		
91	200.5	164.8	224.8

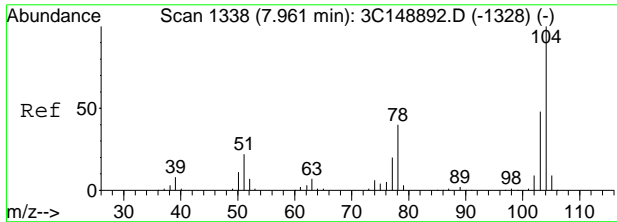
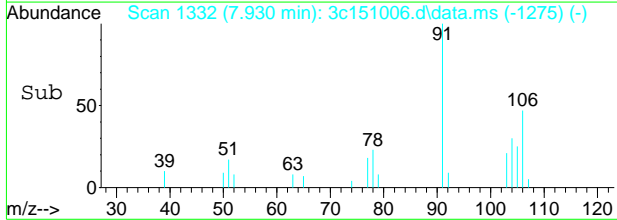
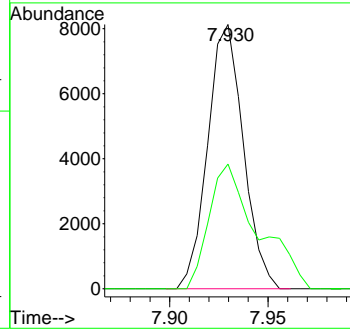
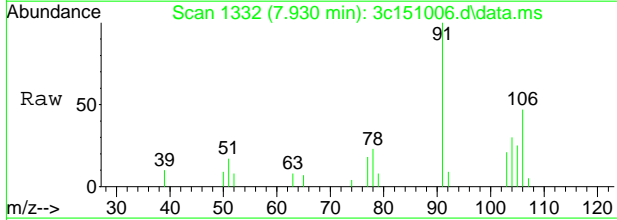


7.51
7



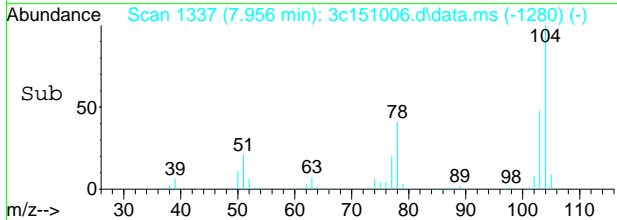
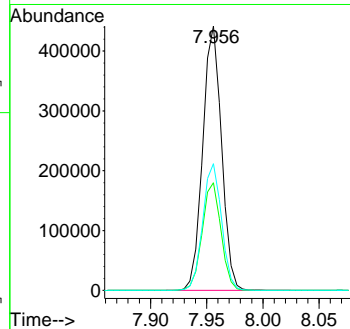
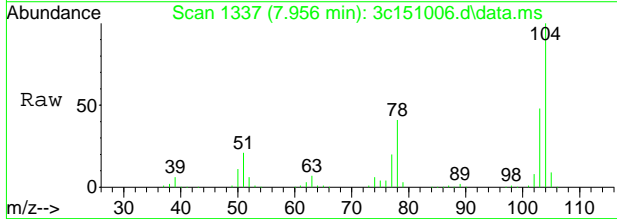
#91
 o-xylene
 Concen: 1.68 ug/L
 RT: 7.930 min Scan# 1332
 Delta R.T. -0.000 min
 Lab File: 3c151006.d
 Acq: 12 Apr 2019 10:31 am

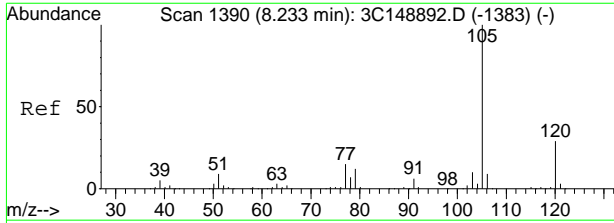
Tgt Ion	Resp	Lower	Upper
91	10258		
106	47.2	18.3	78.3



#92
 styrene
 Concen: 104.73 ug/L
 RT: 7.956 min Scan# 1337
 Delta R.T. -0.000 min
 Lab File: 3c151006.d
 Acq: 12 Apr 2019 10:31 am

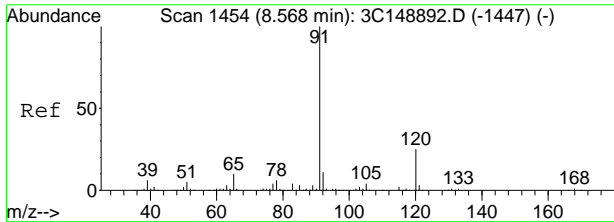
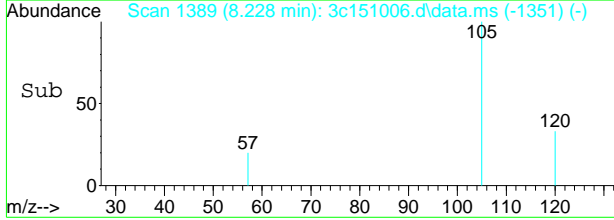
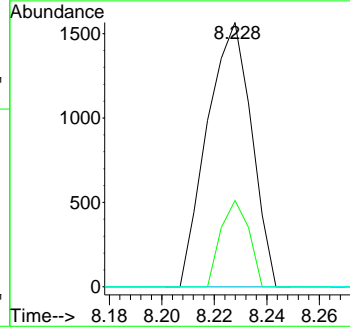
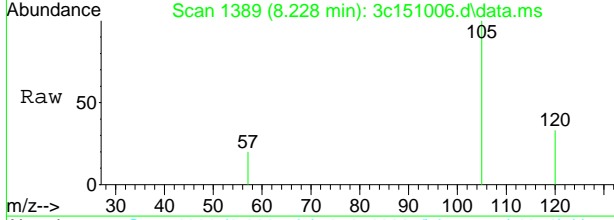
Tgt Ion	Resp	Lower	Upper
104	513259		
78	40.7	12.6	72.6
103	48.0	17.4	77.4





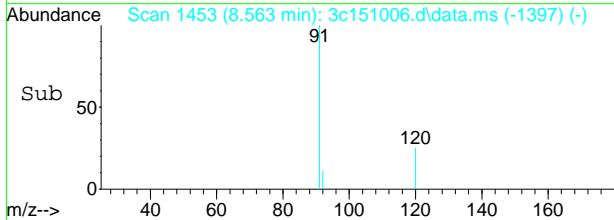
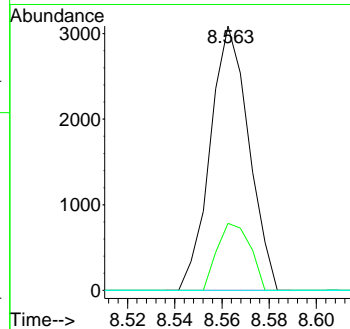
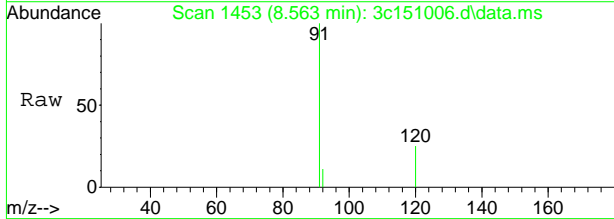
#95
 isopropylbenzene
 Concen: 0.24 ug/L
 RT: 8.228 min Scan# 1389
 Delta R.T. -0.000 min
 Lab File: 3c151006.d
 Acq: 12 Apr 2019 10:31 am

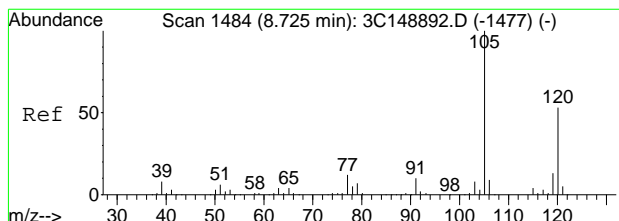
Tgt Ion	Ratio	Lower	Upper
105	100		
120	32.6	7.6	47.6
77	0.0	0.0	35.1



#103
 n-propylbenzene
 Concen: 0.38 ug/L
 RT: 8.563 min Scan# 1453
 Delta R.T. -0.005 min
 Lab File: 3c151006.d
 Acq: 12 Apr 2019 10:31 am

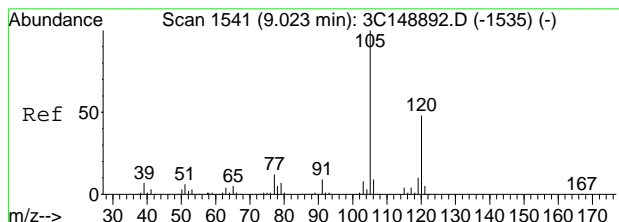
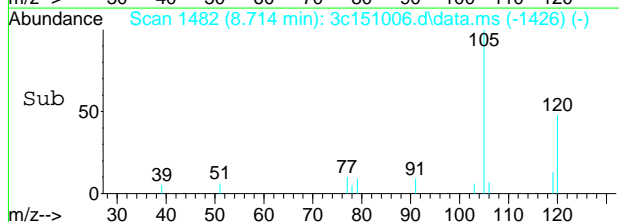
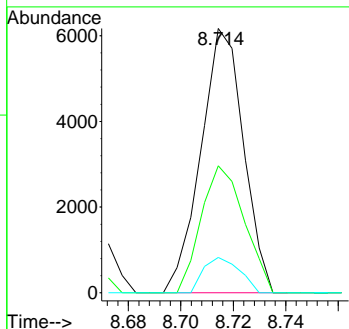
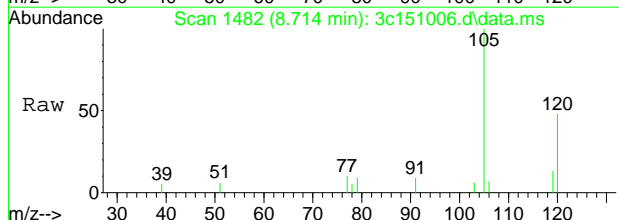
Tgt Ion	Ratio	Lower	Upper
91	100		
120	25.3	0.0	55.1
105	0.0	0.0	33.8





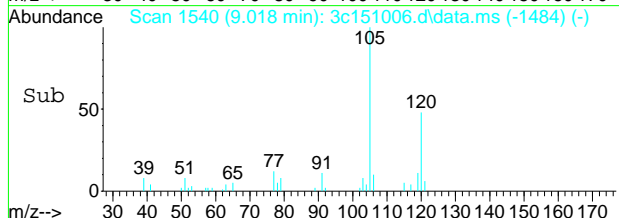
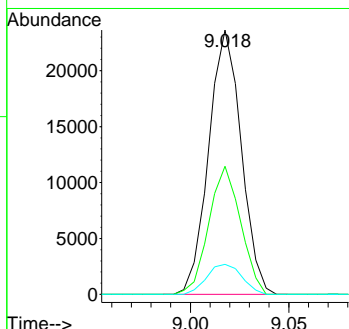
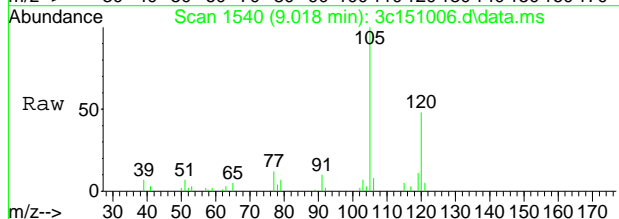
#106
 1,3,5-trimethylbenzene
 Concen: 1.05 ug/L
 RT: 8.714 min Scan# 1482
 Delta R.T. -0.005 min
 Lab File: 3c151006.d
 Acq: 12 Apr 2019 10:31 am

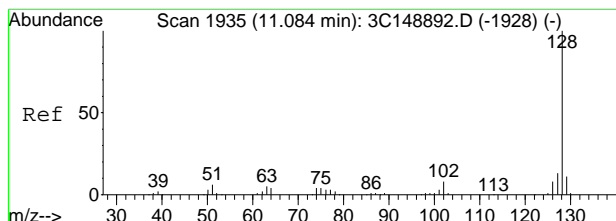
Tgt Ion	Resp	Lower	Upper
105	6993		
105	100		
120	48.0	20.9	80.9
119	13.4	0.0	42.6



#108
 1,2,4-trimethylbenzene
 Concen: 4.00 ug/L
 RT: 9.018 min Scan# 1540
 Delta R.T. -0.005 min
 Lab File: 3c151006.d
 Acq: 12 Apr 2019 10:31 am

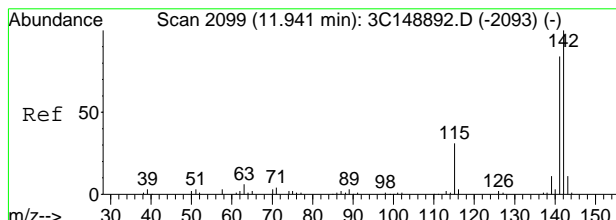
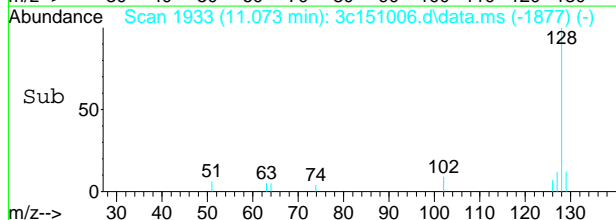
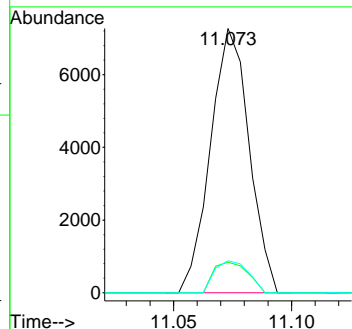
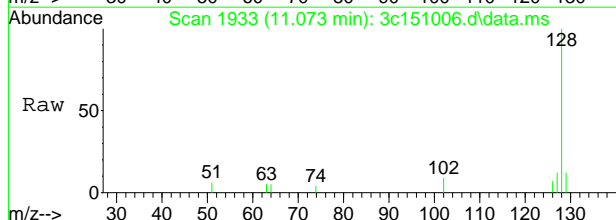
Tgt Ion	Resp	Lower	Upper
105	27202		
105	100		
120	48.4	18.5	78.5
119	11.3	0.0	43.1





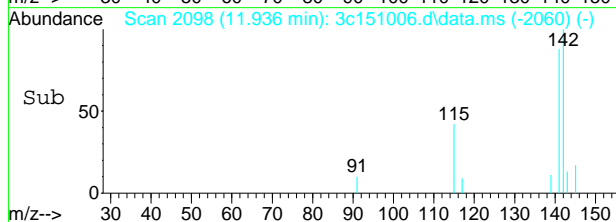
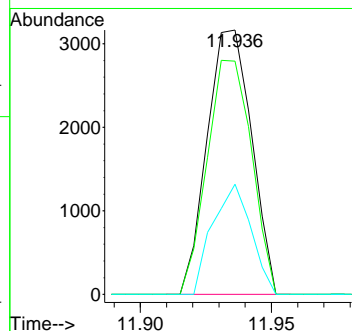
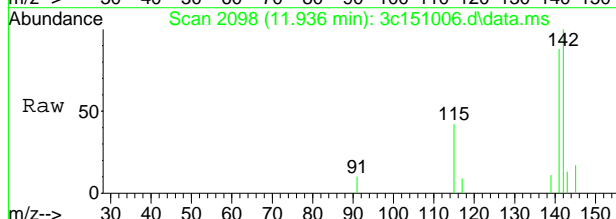
#119
 naphthalene
 Concen: 1.54 ug/L
 RT: 11.073 min Scan# 1933
 Delta R.T. -0.005 min
 Lab File: 3c151006.d
 Acq: 12 Apr 2019 10:31 am

Tgt Ion	Resp	Lower	Upper
128	8288		
129	11.5	0.0	40.9
127	12.1	0.0	42.7



#124
 2-methylnaphthalene
 Concen: 1.16 ug/L
 RT: 11.936 min Scan# 2098
 Delta R.T. -0.000 min
 Lab File: 3c151006.d
 Acq: 12 Apr 2019 10:31 am

Tgt Ion	Resp	Lower	Upper
142	3750		
141	88.2	64.5	104.5
115	41.6	12.0	52.0

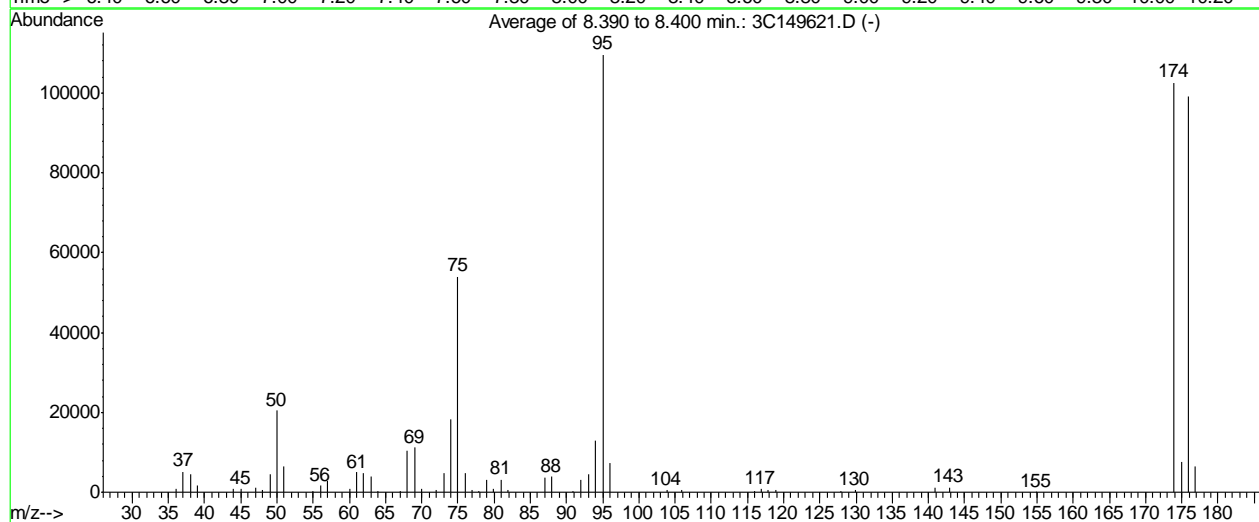
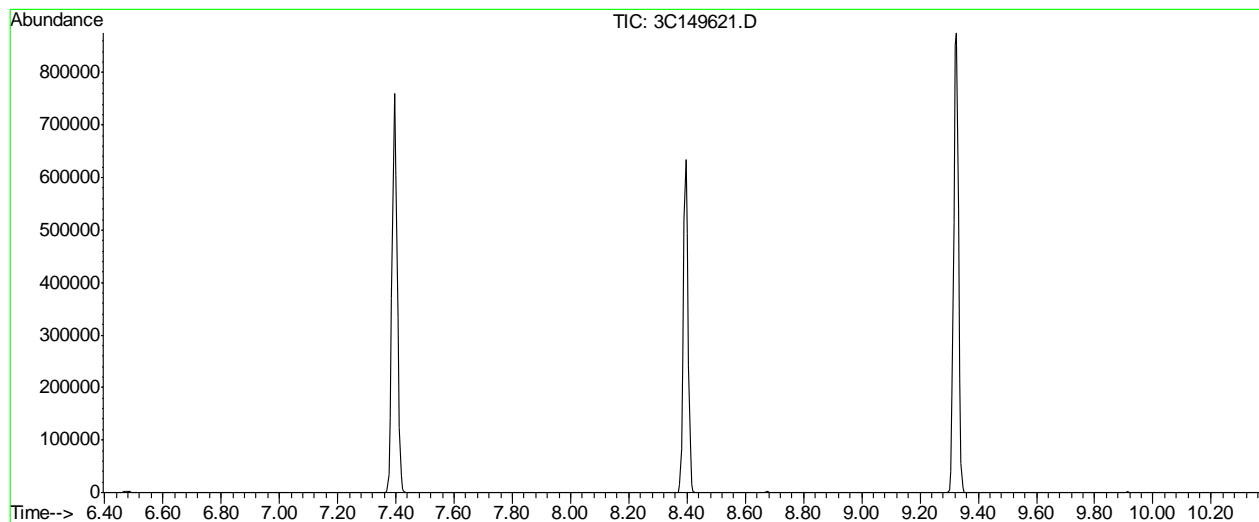


7.5.1
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SW-846 Method 8260

Data File : C:\MSDCHEM\1\DATA\V3C6743\3C149621.D Vial: 1
 Acq On : 13 Feb 2019 5:27 pm Operator: Prashans
 Sample : BFB Inst : MS3C
 Misc : MS32156,V3C6743,5.0,,,,,1 Multiplr: 1.00
 MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M3C6743.M (RTE Integrator)
 Title : Method SW846 8260C, Rxi624 20m x 0.18mm x 1.0um



AutoFind: Scans 1420, 1421, 1422; Background Corrected with Scan 1413

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	18.6	20405	PASS
75	95	30	60	49.2	53912	PASS
95	95	100	100	100.0	109629	PASS
96	95	5	9	6.8	7437	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	93.6	102597	PASS
175	174	5	9	7.4	7596	PASS
176	174	95	101	96.7	99168	PASS
177	176	5	9	6.4	6330	PASS

3C149621.D M3C6743.M Thu Feb 14 12:05:00 2019 MS3C

Average of 8.390 to 8.400 min.: 3C149621.D

BFB

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.00	944	55.00	222	69.95	874	81.85	580
37.00	5143	56.00	1612	72.00	606	86.95	3755
38.00	4500	57.00	2915	73.00	4818	87.90	3859
39.00	1751	60.00	972	74.00	18363	90.90	404
43.95	794	61.00	4985	75.00	53912	92.00	3069
45.00	802	62.00	4861	76.00	4816	93.00	4612
47.00	1036	63.00	3813	76.95	471	94.00	12919
47.95	634	63.95	349	77.90	385	95.00	109629
49.00	4386	67.05	358	78.90	3099	96.00	7437
50.00	20405	68.00	10382	79.95	870	103.85	450
51.00	6362	69.00	11173	80.90	3109	105.85	449

Average of 8.390 to 8.400 min.: 3C149621.D

BFB

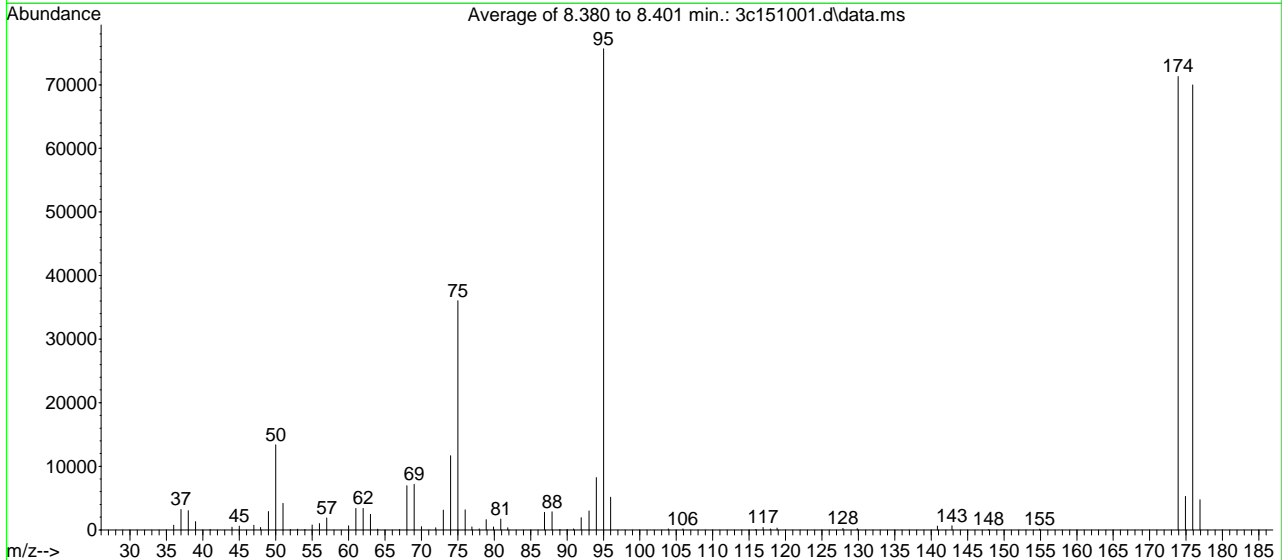
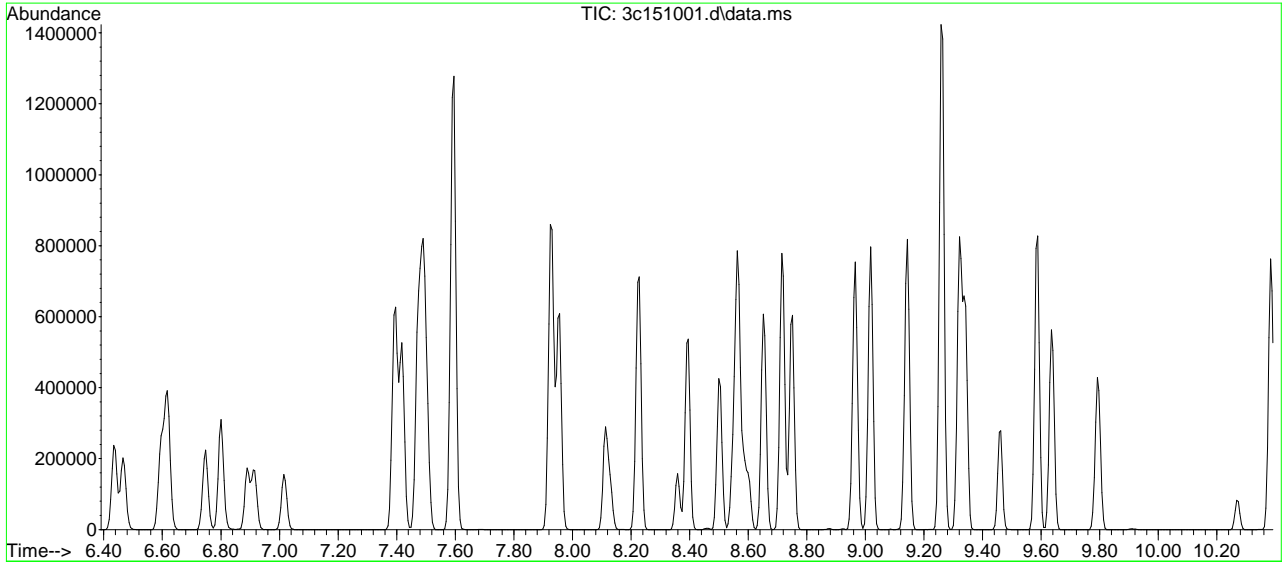
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
115.90	409	175.90	99168				
116.90	716	176.90	6330				
117.85	439						
118.90	604						
127.90	400						
129.85	441						
140.90	1180						
142.90	1210						
154.90	113						
173.90	102597						
174.90	7596						

SW-846 Method 8260

Data File : C:\msdchem\1\data\ja...19\v3c6794\3c151001.d Vial: 3
 Acq On : 12 Apr 2019 8:03 am Operator: Prashans
 Sample : BFB Inst : MS3C
 Misc : MS33737,V3C6794,5.0,,,,,1 Multiplr: 1.00
 MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M3C6743.M (RTE Integrator)
 Title : Method SW846 8260C, Rxi624 20m x 0.18mm x 1.0um



Spectrum Information: Average of 8.380 to 8.401 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	17.7	13399	PASS
75	95	30	60	47.6	36021	PASS
95	95	100	100	100.0	75650	PASS
96	95	5	9	6.8	5134	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	94.3	71314	PASS
175	174	5	9	7.4	5274	PASS
176	174	95	101	98.1	69984	PASS
177	176	5	9	6.8	4725	PASS

3c151001.d M3C6743.M Mon Apr 15 07:49:15 2019

Average of 8.380 to 8.401 min.: 3c151001.d\data.ms
BFB

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.00	711.8	51.00	4176.8	64.00	128.4	77.95	147.6
37.00	3212.6	52.00	66.2	67.00	63.4	78.90	1631.4
38.00	3033.4	53.00	111.6	68.00	6958.8	79.90	454
39.00	1294.2	54.00	65	69.00	7158.6	80.90	1713.2
41.00	63.6	55.00	765.2	70.00	498.6	81.85	338.2
44.00	417.8	56.00	985	71.95	326.2	86.90	2768
45.00	577.8	57.00	1893	73.00	3100	87.95	2825.2
47.00	731	60.00	642.2	74.00	11681	89.00	65.4
47.90	357.8	61.00	3353	75.00	36020.8	90.00	82.2
49.00	2880	62.00	3366.2	76.00	3139.6	90.90	136
50.00	13398.8	63.00	2453.4	76.95	456.6	91.95	1932.4

Average of 8.380 to 8.401 min.: 3c151001.d\data.ms
BFB

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
93.00	2995.8	129.85	180.8				
94.00	8235.6	140.85	585.4				
95.00	75649.6	142.85	655.4				
96.00	5133.6	147.90	73.8				
103.90	161.2	154.90	122.8				
105.90	167	173.90	71313.6				
115.90	82.4	174.90	5274				
116.90	392	175.90	69984				
117.90	145.2	176.90	4724.6				
118.85	268						
127.90	225.8						

SW-846 Method 8260

Data File : C:\msdchem\1\DATA\VI8986\I223174.D

Vial: 1

Acq On : 27 Nov 2018 5:41 pm

Operator: thienn

Sample : BFB

Inst : GCMSI

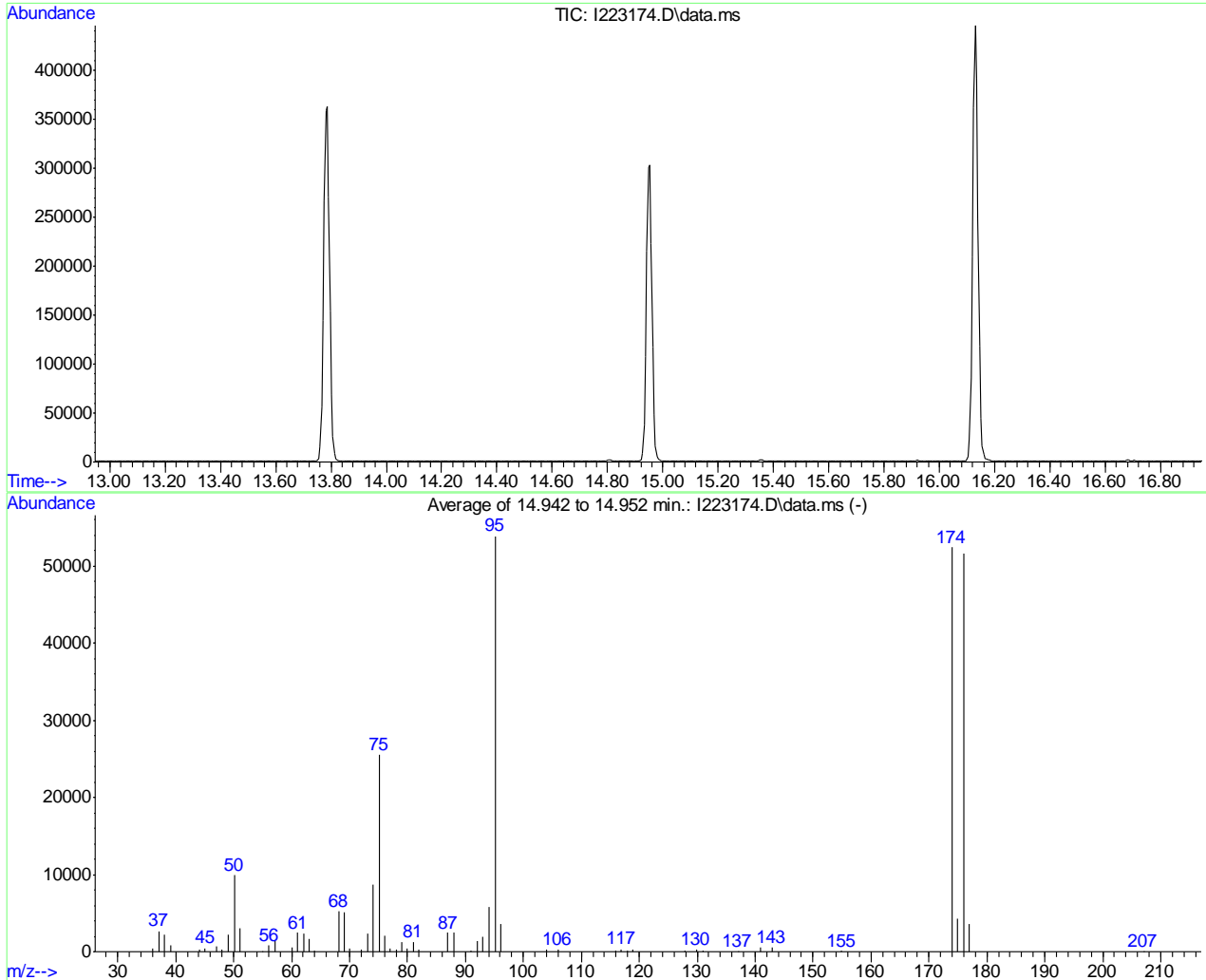
Misc : MS30885,VI8986,5.0,,,,,1

Multiplr: 1.00

MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MI8986.M (RTE Integrator)

Title : Method SW846 8260C, Rxi-624 60m x 0.25mm x 1.4um



AutoFind: Scans 2172, 2173, 2174; Background Corrected with Scan 2165

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	18.4	9909	PASS
75	95	30	60	47.3	25472	PASS
95	95	100	100	100.0	53864	PASS
96	95	5	9	6.6	3552	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	97.2	52357	PASS
175	174	5	9	8.2	4272	PASS
176	174	95	101	98.5	51597	PASS
177	176	5	9	6.9	3571	PASS

I223174.D MI8986.M

Wed Nov 28 14:05:27 2018

Average of 14.942 to 14.952 min.: I223174.D\data.ms

BFB

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.10	461	55.00	51	72.00	308	87.00	2457
37.10	2623	56.05	764	73.10	2349	88.00	2420
38.10	2222	57.10	1362	74.10	8690	90.95	125
39.10	855	60.05	490	75.10	25472	92.00	1448
44.10	291	61.05	2449	76.05	2058	93.05	2005
45.10	447	62.10	2360	77.05	361	94.10	5755
47.10	646	63.10	1727	78.05	222	95.10	53864
48.05	318	64.00	122	79.00	1289	96.05	3552
49.10	2190	68.10	5234	80.00	359	103.95	231
50.10	9909	69.05	5171	80.95	1313	105.95	258
51.10	2973	70.05	377	81.95	278	116.00	185

Average of 14.942 to 14.952 min.: I223174.D\data.ms

BFB

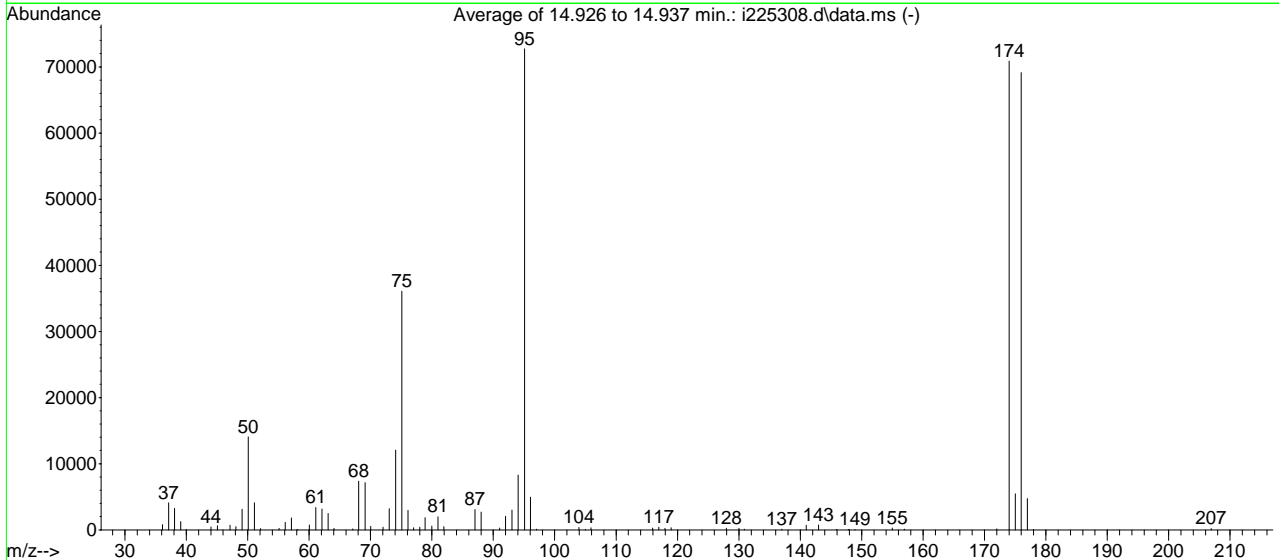
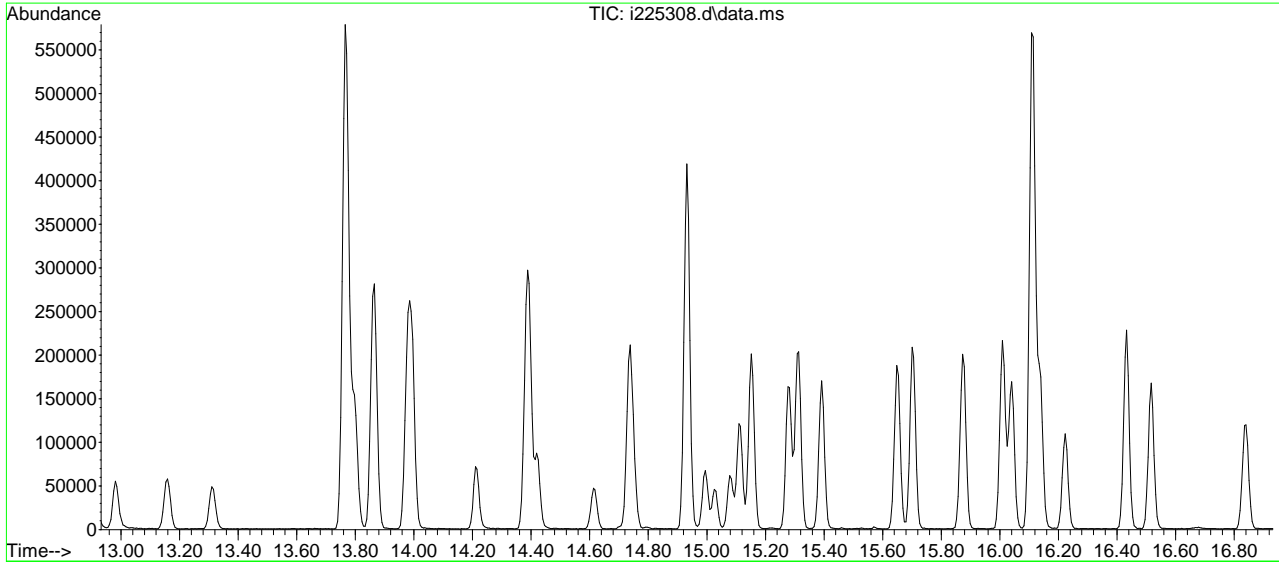
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
116.95	290	175.00	4272				
117.95	191	176.00	51597				
118.95	274	176.95	3571				
127.90	139	207.00	61				
129.90	242						
130.95	102						
137.00	51						
141.00	503						
142.90	521						
154.95	122						
174.00	52357						

SW-846 Method 8260

Data File : C:\msdchem\1\data\lo...vi9080 rush\i225308.d Vial: 3
 Acq On : 11 Apr 2019 7:52 am Operator: thienn
 Sample : BFB Inst : GCMSI
 Misc : MS31989,VI9080,5,,100,5,1 Multiplr: 1.00
 MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MI8986.M (RTE Integrator)
 Title : Method SW846 8260C, Rxi-624 60m x 0.25mm x 1.4um



AutoFind: Scans 2169, 2170, 2171; Background Corrected with Scan 2162

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	19.3	14033	PASS
75	95	30	60	49.6	36067	PASS
95	95	100	100	100.0	72725	PASS
96	95	5	9	6.8	4932	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	97.5	70880	PASS
175	174	5	9	7.7	5438	PASS
176	174	95	101	97.5	69133	PASS
177	176	5	9	6.9	4742	PASS

i225308.d MI8986.M Thu Apr 11 11:58:41 2019

Average of 14.926 to 14.937 min.: i225308.d\data.ms

BFB

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.10	793	51.10	4097	67.10	169	78.90	1857
37.10	4098	52.10	202	68.05	7363	80.00	589
38.10	3225	55.10	221	69.10	7145	81.00	1993
39.10	1250	56.10	1137	70.05	529	81.95	504
40.00	20	57.10	1785	72.05	393	87.00	3058
44.00	465	58.10	48	73.05	3182	88.00	2700
45.05	605	60.05	737	74.10	12062	91.05	265
47.10	695	61.10	3387	75.10	36067	92.00	2044
48.10	507	62.10	3145	76.10	2963	93.05	2997
49.10	3109	63.10	2469	77.00	307	94.05	8299
50.10	14033	64.05	248	78.00	406	95.10	72725

Average of 14.926 to 14.937 min.: i225308.d\data.ms

BFB

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
96.05	4932	130.90	98	174.00	70880		
97.05	121	137.00	98	175.00	5438		
103.95	346	140.95	720	176.00	69133		
105.00	55	143.00	732	177.00	4742		
105.90	317	145.90	73	178.00	54		
115.95	280	147.80	50	206.95	173		
116.95	386	148.00	79				
117.95	254	148.90	48				
118.95	313	155.00	273				
127.95	251	156.95	103				
130.00	216	172.00	170				

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V3C6743\
 Data File : 3C149623.D
 Acq On : 13 Feb 2019 6:33 pm
 Operator : juntaep
 Sample : IC6743-0.5
 Misc : MS32156,V3C6743,5.0,,,,,1
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 14 12:07:19 2019
 Quant Method : C:\MSDCHEM\1\METHODS\M3C6743.M
 Quant Title : Method SW846 8260C, Rxi624 20m x 0.18mm x 1.0um
 QLast Update : Thu Feb 14 08:04:39 2019
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	2.57	65	66046	500.00	ug/L	0.00
5) pentafluorobenzene	4.03	168	269547	50.00	ug/L	0.00
52) 1,4-difluorobenzene	4.69	114	369488	50.00	ug/L	0.00
74) chlorobenzene-d5	7.40	117	320218	50.00	ug/L	0.00
97) 1,4-dichlorobenzene-d4	9.32	152	172617	50.00	ug/L	0.00

System Monitoring Compounds

45) dibromofluoromethane (s)	3.99	113	96787	48.88	ug/L	0.00
Spiked Amount	50.000	Range	75 - 127	Recovery	=	97.76%
53) 1,2-dichloroethane-d4 (s)	4.31	65	102679	51.62	ug/L	0.00
Spiked Amount	50.000	Range	75 - 130	Recovery	=	103.24%
75) toluene-d8 (s)	6.08	98	395305	49.77	ug/L	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	=	99.54%
98) 4-bromofluorobenzene (s)	8.40	95	145960	51.87	ug/L	0.00
Spiked Amount	50.000	Range	79 - 127	Recovery	=	103.74%

Target Compounds

						Qvalue
14) trichlorofluoromethane	1.77	101	1340	0.42	ug/L	86
29) di-isopropyl ether	3.08	45	2174	0.40	ug/L	90
30) ethyl tert-butyl ether	3.37	59	2070	0.39	ug/L	95
32) 1,1-dichloroethane	3.10	63	1094	0.35	ug/L #	48
33) chloroprene	3.13	53	1083	0.39	ug/L #	74
48) cyclohexane	3.94	84	1368	0.44	ug/L #	85
57) benzene	4.28	78	3096	0.43	ug/L	89
64) 2-chloroethyl vinyl ether	5.77	63	2034	2.15	ug/L	88
76) toluene	6.15	92	2107	0.44	ug/L	90
81) tetrachloroethene	6.62	166	858	0.36	ug/L	79
82) 1,3-dichloropropane	6.75	76	972	0.40	ug/L	88
86) n-butyl ether	7.47	57	3396	0.43	ug/L	97
87) chlorobenzene	7.42	112	2282	0.44	ug/L	91
89) ethylbenzene	7.49	91	4215	0.46	ug/L	97
90) m,p-xylene	7.60	106	3293	0.91	ug/L	92
91) o-xylene	7.93	91	3327	0.46	ug/L	98
92) styrene	7.96	104	2482	0.41	ug/L	98
95) isopropylbenzene	8.23	105	3951	0.42	ug/L	97
99) bromobenzene	8.51	156	1080	0.46	ug/L	93
100) 1,1,2,2-tetrachloroethane	8.55	83	744	0.46	ug/L	80
104) 2-chlorotoluene	8.66	126	922	0.41	ug/L #	80
105) 4-chlorotoluene	8.75	126	933	0.41	ug/L #	92
106) 1,3,5-trimethylbenzene	8.72	105	3466	0.43	ug/L	96
107) tert-butylbenzene	8.97	119	2977	0.41	ug/L	95
108) 1,2,4-trimethylbenzene	9.02	105	3509	0.43	ug/L	94
109) sec-butylbenzene	9.14	105	4025	0.38	ug/L	89
110) 1,3-dichlorobenzene	9.26	146	2155	0.46	ug/L	94
111) p-isopropyltoluene	9.26	119	3859	0.41	ug/L	99
112) 1,4-dichlorobenzene	9.34	146	2397	0.52	ug/L	81
113) 1,2-dichlorobenzene	9.64	146	2089	0.48	ug/L	99
114) n-butylbenzene	9.59	92	1783	0.38	ug/L	82
116) 1,3,5-Trichlorobenzene	10.39	180	1768	0.41	ug/L	92
117) 1,2,4-trichlorobenzene	10.88	180	1631	0.44	ug/L	80

7.7.1
7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V3C6743\
 Data File : 3C149623.D
 Acq On : 13 Feb 2019 6:33 pm
 Operator : juntaep
 Sample : IC6743-0.5
 Misc : MS32156,V3C6743,5.0,,,,1
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 14 12:07:19 2019
 Quant Method : C:\MSDCHEM\1\METHODS\M3C6743.M
 Quant Title : Method SW846 8260C, Rxi624 20m x 0.18mm x 1.0um
 QLast Update : Thu Feb 14 08:04:39 2019
 Response via : Initial Calibration

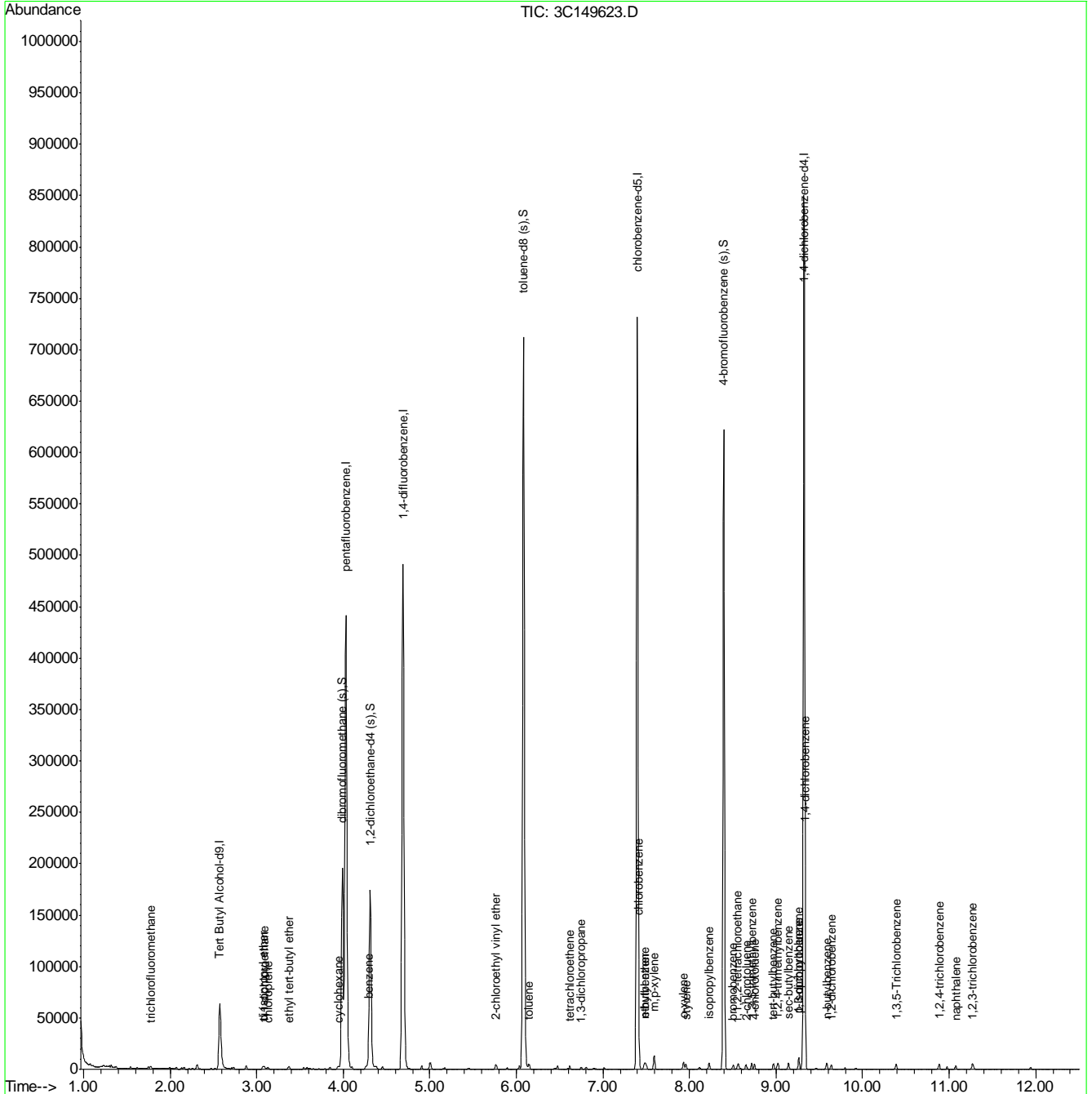
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
119) naphthalene	11.08	128	2974	0.45	ug/L	99
120) 1,2,3-trichlorobenzene	11.27	180	1518	0.44	ug/L	94

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

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V3C6743\
 Data File : 3C149623.D
 Acq On : 13 Feb 2019 6:33 pm
 Operator : juntaep
 Sample : IC6743-0.5
 Misc : MS32156,V3C6743,5.0,,,,,1
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 14 12:07:19 2019
 Quant Method : C:\MSDCHEM\1\METHODS\M3C6743.M
 Quant Title : Method SW846 8260C, Rxi624 20m x 0.18mm x 1.0um
 QLast Update : Thu Feb 14 08:04:39 2019
 Response via : Initial Calibration



7.7.1
7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V3C6743\
 Data File : 3C149624.D
 Acq On : 13 Feb 2019 6:56 pm
 Operator : juntaep
 Sample : IC6743-1
 Misc : MS32156,V3C6743,5.0,,,,,1
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 14 12:09:20 2019
 Quant Method : C:\MSDCHEM\1\METHODS\M3C6743.M
 Quant Title : Method SW846 8260C, Rxi624 20m x 0.18mm x 1.0um
 QLast Update : Thu Feb 14 08:04:39 2019
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	2.57	65	64875	500.00	ug/L	0.00
5) pentafluorobenzene	4.03	168	271398	50.00	ug/L	0.00
52) 1,4-difluorobenzene	4.69	114	371367	50.00	ug/L	0.00
74) chlorobenzene-d5	7.40	117	322858	50.00	ug/L	0.00
97) 1,4-dichlorobenzene-d4	9.33	152	175460	50.00	ug/L	0.00

System Monitoring Compounds

45) dibromofluoromethane (s)	3.99	113	98061	49.18	ug/L	0.00
Spiked Amount	50.000	Range	75 - 127	Recovery	=	98.36%
53) 1,2-dichloroethane-d4 (s)	4.31	65	103697	51.87	ug/L	0.00
Spiked Amount	50.000	Range	75 - 130	Recovery	=	103.74%
75) toluene-d8 (s)	6.08	98	397971	49.70	ug/L	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	=	99.40%
98) 4-bromofluorobenzene (s)	8.40	95	144585	50.54	ug/L	0.00
Spiked Amount	50.000	Range	79 - 127	Recovery	=	101.08%

Target Compounds

						Qvalue
7) dichlorodifluoromethane	1.08	85	2075	0.80	ug/L	87
8) chloromethane	1.22	50	1747	0.84	ug/L	85
9) 1,3-butadiene	1.32	54	1314	0.96	ug/L	95
10) vinyl chloride	1.30	62	1448	0.67	ug/L	76
12) chloroethane	1.62	64	849	0.66	ug/L	74
13) vinyl Bromide	1.75	106	1264	0.67	ug/L	91
14) trichlorofluoromethane	1.77	101	2584	0.81	ug/L	91
16) 2-chloropropane	2.07	63	635	0.86	ug/L #	77
18) freon 113	2.13	151	1221	0.78	ug/L	95
19) 1,1-dichloroethene	2.16	96	1491	0.88	ug/L	94
20) acetone	2.25	58	330	3.52	ug/L #	62
26) methyl tert butyl ether	2.72	73	4192	0.95	ug/L	91
27) trans-1,2-dichloroethene	2.73	96	1827	0.97	ug/L	97
28) hexane	2.88	57	2963	1.00	ug/L	94
29) di-isopropyl ether	3.08	45	5385	0.99	ug/L	95
30) ethyl tert-butyl ether	3.36	59	5327	0.99	ug/L	98
32) 1,1-dichloroethane	3.10	63	2987	0.94	ug/L	98
33) chloroprene	3.13	53	2654	0.94	ug/L	92
37) 2,2-dichloropropane	3.54	77	2688	0.93	ug/L	91
38) cis-1,2-dichloroethene	3.57	96	1848	0.89	ug/L	92
39) propionitrile	3.72	54	1681	10.35	ug/L	64
40) bromochloromethane	3.79	130	1073	0.94	ug/L	96
42) chloroform	3.84	83	3458	1.07	ug/L	99
47) 1,1,1-trichloroethane	3.96	97	2723	0.89	ug/L	98
48) cyclohexane	3.93	84	2401	0.77	ug/L	96
51) carbon tetrachloride	4.06	119	1970	0.79	ug/L #	80
54) 2,2,4-trimethylpentane	4.26	57	7237	0.98	ug/L	97
55) tert-amyl methyl ether	4.37	87	1608	0.97	ug/L #	72
57) benzene	4.29	78	7480	1.03	ug/L	94
60) 1,2-dichloroethane	4.38	62	2576	1.18	ug/L	86
61) trichloroethene	4.90	95	1886	0.95	ug/L	96
64) 2-chloroethyl vinyl ether	5.76	63	5143	5.41	ug/L	96
66) 1,2-dichloropropane	5.17	63	1849	1.07	ug/L	98

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V3C6743\
 Data File : 3C149624.D
 Acq On : 13 Feb 2019 6:56 pm
 Operator : juntaep
 Sample : IC6743-1
 Misc : MS32156,V3C6743,5.0,,,,,1
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 14 12:09:20 2019
 Quant Method : C:\MSDCHEM\1\METHODS\M3C6743.M
 Quant Title : Method SW846 8260C, Rxi624 20m x 0.18mm x 1.0um
 QLast Update : Thu Feb 14 08:04:39 2019
 Response via : Initial Calibration

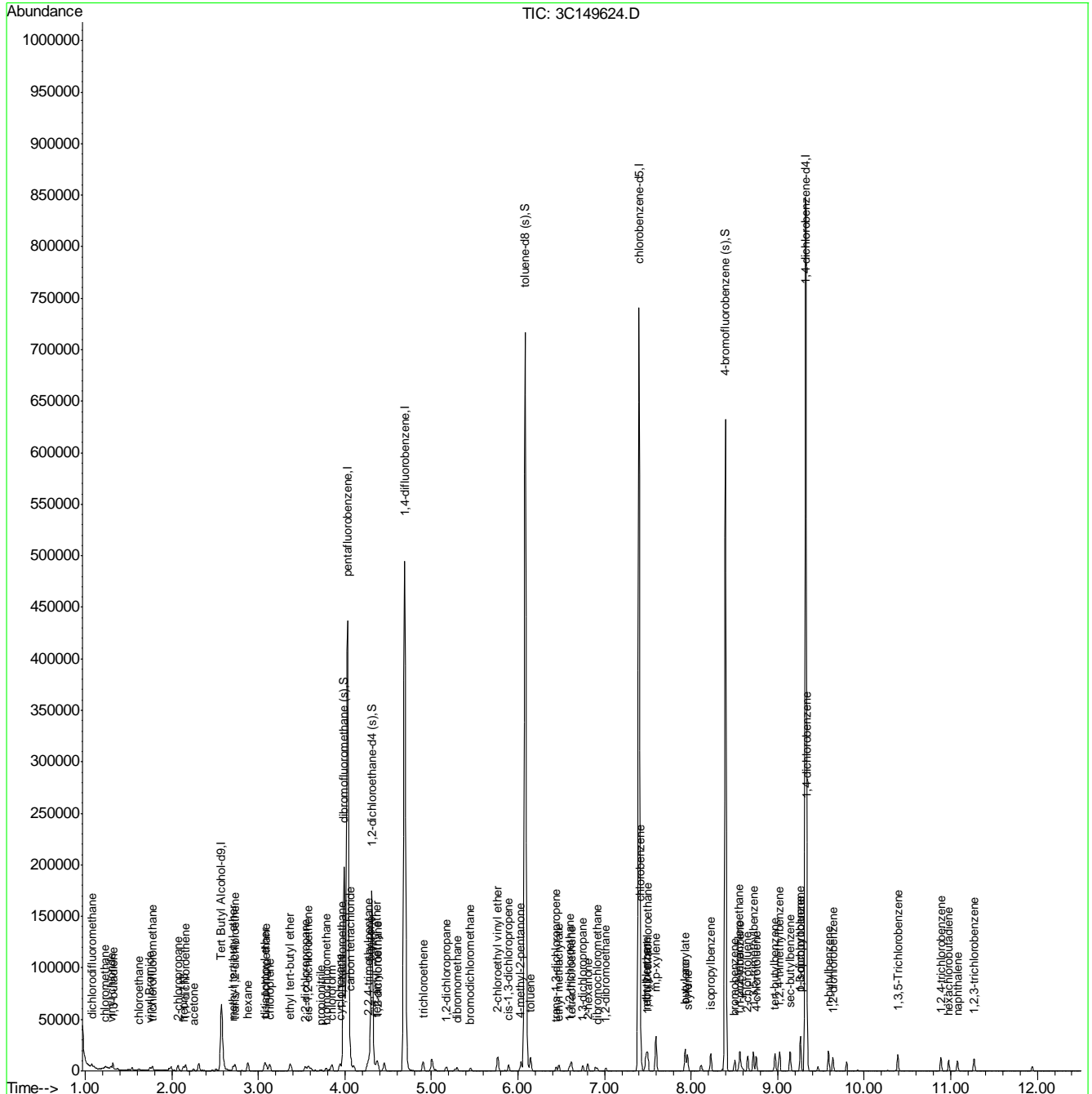
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
68) dibromomethane	5.29	93	856	0.90	ug/L	91
69) bromodichloromethane	5.45	83	2203	0.97	ug/L	87
71) cis-1,3-dichloropropene	5.89	75	2775	0.99	ug/L	92
72) 4-methyl-2-pentanone	6.03	85	918	3.80	ug/L #	59
76) toluene	6.15	92	5193	1.07	ug/L	99
77) trans-1,3-dichloropropene	6.44	75	2103	0.87	ug/L	89
78) ethyl methacrylate	6.47	69	1997	1.04	ug/L	92
79) 1,1,2-trichloroethane	6.60	83	1316	1.11	ug/L	89
80) 2-hexanone	6.81	58	2027	4.41	ug/L	95
81) tetrachloroethene	6.62	166	2363	0.98	ug/L	98
82) 1,3-dichloropropane	6.75	76	2619	1.08	ug/L	90
84) dibromochloromethane	6.92	129	1302	0.84	ug/L	78
85) 1,2-dibromoethane	7.02	107	1738	0.97	ug/L	91
86) n-butyl ether	7.47	57	8334	1.05	ug/L	93
87) chlorobenzene	7.42	112	5941	1.13	ug/L	94
88) 1,1,1,2-tetrachloroethane	7.51	131	1731	0.91	ug/L	95
89) ethylbenzene	7.49	91	10233	1.10	ug/L	96
90) m,p-xylene	7.59	106	8013	2.19	ug/L	98
91) o-xylene	7.93	91	7760	1.06	ug/L	99
92) styrene	7.96	104	6324	1.04	ug/L	96
94) butyl acrylate	7.92	55	2725	1.01	ug/L	91
95) isopropylbenzene	8.23	105	9813	1.03	ug/L	98
99) bromobenzene	8.51	156	2722	1.13	ug/L	95
100) 1,1,2,2-tetrachloroethane	8.55	83	1833	1.11	ug/L	88
103) n-propylbenzene	8.57	91	12347	1.12	ug/L	93
104) 2-chlorotoluene	8.65	126	2484	1.08	ug/L	96
105) 4-chlorotoluene	8.75	126	2410	1.04	ug/L	87
106) 1,3,5-trimethylbenzene	8.72	105	9012	1.09	ug/L	98
107) tert-butylbenzene	8.97	119	7530	1.03	ug/L	96
108) 1,2,4-trimethylbenzene	9.02	105	9007	1.09	ug/L	97
109) sec-butylbenzene	9.15	105	11292	1.05	ug/L	95
110) 1,3-dichlorobenzene	9.26	146	5135	1.08	ug/L	93
111) p-isopropyltoluene	9.26	119	9423	0.99	ug/L	95
112) 1,4-dichlorobenzene	9.34	146	5630	1.19	ug/L	95
113) 1,2-dichlorobenzene	9.64	146	5006	1.14	ug/L	93
114) n-butylbenzene	9.59	92	4607	0.97	ug/L	97
116) 1,3,5-Trichlorobenzene	10.39	180	4685	1.06	ug/L	96
117) 1,2,4-trichlorobenzene	10.88	180	4173	1.11	ug/L	94
118) hexachlorobutadiene	10.97	225	2116	0.86	ug/L	95
119) naphthalene	11.08	128	7256	1.09	ug/L	97
120) 1,2,3-trichlorobenzene	11.27	180	3646	1.04	ug/L	95

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

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V3C6743\
 Data File : 3C149624.D
 Acq On : 13 Feb 2019 6:56 pm
 Operator : juntaep
 Sample : IC6743-1
 Misc : MS32156,V3C6743,5.0,,,,,1
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 14 12:09:20 2019
 Quant Method : C:\MSDCHEM\1\METHODS\M3C6743.M
 Quant Title : Method SW846 8260C, Rxi624 20m x 0.18mm x 1.0um
 QLast Update : Thu Feb 14 08:04:39 2019
 Response via : Initial Calibration



7.7.2
7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V3C6743\
 Data File : 3C149628.D
 Acq On : 13 Feb 2019 8:29 pm
 Operator : juntaep
 Sample : IC6743-2
 Misc : MS32156,V3C6743,5.0,,,,,1
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Feb 15 09:29:51 2019
 Quant Method : C:\MSDCHEM\1\METHODS\M3C6743.M
 Quant Title : Method SW846 8260C, Rxi624 20m x 0.18mm x 1.0um
 QLast Update : Thu Feb 14 08:04:39 2019
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	2.57	65	60494	500.00	ug/L	0.00
5) pentafluorobenzene	4.03	168	271779	50.00	ug/L	0.00
52) 1,4-difluorobenzene	4.69	114	372621	50.00	ug/L	0.00
74) chlorobenzene-d5	7.40	117	325263	50.00	ug/L	0.00
97) 1,4-dichlorobenzene-d4	9.32	152	176611	50.00	ug/L	0.00

System Monitoring Compounds

45) dibromofluoromethane (s)	3.99	113	97280	48.72	ug/L	0.00
Spiked Amount	50.000	Range	75 - 127	Recovery	=	97.44%
53) 1,2-dichloroethane-d4 (s)	4.31	65	102125	50.91	ug/L	0.00
Spiked Amount	50.000	Range	75 - 130	Recovery	=	101.82%
75) toluene-d8 (s)	6.08	98	400741	49.68	ug/L	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	=	99.36%
98) 4-bromofluorobenzene (s)	8.40	95	146661	50.94	ug/L	0.00
Spiked Amount	50.000	Range	79 - 127	Recovery	=	101.88%

Target Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
3) tertiary butyl alcohol	2.64	59	1260	8.95	ug/L	60
6) chlorodifluoromethane	1.09	51	3077	1.73	ug/L	87
7) dichlorodifluoromethane	1.07	85	4449	1.72	ug/L	98
8) chloromethane	1.22	50	3740	1.79	ug/L	92
9) 1,3-butadiene	1.31	54	2091	1.53	ug/L	98
10) vinyl chloride	1.29	62	3623	1.67	ug/L	99
11) bromomethane	1.54	94	2246	1.76	ug/L	90
12) chloroethane	1.62	64	2069	1.60	ug/L	89
13) vinyl Bromide	1.74	106	3009	1.60	ug/L	82
14) trichlorofluoromethane	1.77	101	5082	1.59	ug/L	95
15) ethyl ether	1.99	74	1279	1.43	ug/L	98
16) 2-chloropropane	2.07	63	1070	1.45	ug/L #	82
18) freon 113	2.13	151	1955	1.25	ug/L	95
19) 1,1-dichloroethene	2.16	96	2514	1.48	ug/L	95
20) acetone	2.25	58	573	6.10	ug/L #	69
23) carbon disulfide	2.31	76	8937	2.01	ug/L	93
24) methylene chloride	2.56	84	3366	1.96	ug/L	82
25) methyl acetate	2.47	43	1357	1.56	ug/L	89
26) methyl tert butyl ether	2.71	73	6798	1.53	ug/L	98
27) trans-1,2-dichloroethene	2.73	96	2881	1.52	ug/L	97
28) hexane	2.87	57	4563	1.54	ug/L	95
29) di-isopropyl ether	3.08	45	8377	1.54	ug/L	88
30) ethyl tert-butyl ether	3.37	59	8402	1.55	ug/L	97
31) 2-butanone	3.60	72	826	5.51	ug/L #	67
32) 1,1-dichloroethane	3.09	63	4934	1.56	ug/L	98
33) chloroprene	3.13	53	3815	1.35	ug/L	98
37) 2,2-dichloropropane	3.54	77	3971	1.37	ug/L	88
38) cis-1,2-dichloroethene	3.58	96	3078	1.49	ug/L	93
39) propionitrile	3.72	54	2591	15.92	ug/L	86
40) bromochloromethane	3.78	130	1772	1.55	ug/L	87
42) chloroform	3.85	83	5102	1.57	ug/L	99
43) tert-Butyl Formate	3.85	59	1260	1.13	ug/L	81
46) methacrylonitrile	3.82	67	683	1.34	ug/L #	51

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V3C6743\
 Data File : 3C149628.D
 Acq On : 13 Feb 2019 8:29 pm
 Operator : juntaep
 Sample : IC6743-2
 Misc : MS32156,V3C6743,5.0,,,,,1
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Feb 15 09:29:51 2019
 Quant Method : C:\MSDCHEM\1\METHODS\M3C6743.M
 Quant Title : Method SW846 8260C, Rxi624 20m x 0.18mm x 1.0um
 QLast Update : Thu Feb 14 08:04:39 2019
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
47) 1,1,1-trichloroethane	3.95	97	4208	1.37	ug/L	95
48) cyclohexane	3.94	84	5256	1.69	ug/L	97
49) 1,1-dichloropropene	4.11	110	1334	1.32	ug/L	93
51) carbon tetrachloride	4.06	119	3131	1.26	ug/L	85
54) 2,2,4-trimethylpentane	4.26	57	10955	1.48	ug/L	93
55) tert-amyl methyl ether	4.36	87	2506	1.51	ug/L #	82
57) benzene	4.28	78	11862	1.63	ug/L	97
58) heptane	4.45	57	2261	1.43	ug/L	87
60) 1,2-dichloroethane	4.38	62	3930	1.80	ug/L	89
61) trichloroethene	4.90	95	2941	1.47	ug/L	95
64) 2-chloroethyl vinyl ether	5.76	63	7906	8.30	ug/L	96
66) 1,2-dichloropropane	5.17	63	2586	1.49	ug/L	91
67) methylcyclohexane	5.01	83	6626	1.86	ug/L	97
68) dibromomethane	5.29	93	1552	1.63	ug/L	95
69) bromodichloromethane	5.45	83	3223	1.41	ug/L	96
71) cis-1,3-dichloropropene	5.89	75	4189	1.48	ug/L	97
72) 4-methyl-2-pentanone	6.03	85	1385	5.71	ug/L	97
76) toluene	6.15	92	8104	1.66	ug/L	95
77) trans-1,3-dichloropropene	6.44	75	3381	1.39	ug/L	95
78) ethyl methacrylate	6.47	69	3036	1.57	ug/L	95
79) 1,1,2-trichloroethane	6.60	83	1877	1.57	ug/L #	85
80) 2-hexanone	6.80	58	2904	6.27	ug/L	95
81) tetrachloroethene	6.62	166	3676	1.52	ug/L	96
82) 1,3-dichloropropane	6.75	76	4248	1.73	ug/L	97
83) butyl acetate	6.89	56	1407	1.58	ug/L	90
84) dibromochloromethane	6.92	129	2007	1.29	ug/L	89
85) 1,2-dibromoethane	7.02	107	2629	1.45	ug/L	98
86) n-butyl ether	7.47	57	13078	1.64	ug/L	98
87) chlorobenzene	7.42	112	9164	1.73	ug/L	94
88) 1,1,1,2-tetrachloroethane	7.50	131	2621	1.37	ug/L	97
89) ethylbenzene	7.49	91	15689	1.68	ug/L	96
90) m,p-xylene	7.60	106	12484	3.39	ug/L	99
91) o-xylene	7.93	91	12686	1.71	ug/L	99
92) styrene	7.96	104	9797	1.60	ug/L	95
94) butyl acrylate	7.92	55	3946	1.46	ug/L	93
95) isopropylbenzene	8.23	105	15798	1.64	ug/L	99
99) bromobenzene	8.51	156	4197	1.73	ug/L	99
100) 1,1,2,2-tetrachloroethane	8.55	83	2856m	1.72	ug/L	
102) 1,2,3-trichloropropane	8.59	110	859	1.58	ug/L	95
103) n-propylbenzene	8.57	91	18458	1.66	ug/L	99
104) 2-chlorotoluene	8.66	126	3810	1.64	ug/L	87
105) 4-chlorotoluene	8.75	126	3762	1.61	ug/L	97
106) 1,3,5-trimethylbenzene	8.72	105	13128	1.58	ug/L	97
107) tert-butylbenzene	8.97	119	12024	1.63	ug/L	97
108) 1,2,4-trimethylbenzene	9.02	105	14417	1.73	ug/L	98
109) sec-butylbenzene	9.14	105	17796	1.65	ug/L	99
110) 1,3-dichlorobenzene	9.26	146	8219	1.72	ug/L	96
111) p-isopropyltoluene	9.26	119	15048	1.57	ug/L	97
112) 1,4-dichlorobenzene	9.34	146	8355	1.76	ug/L	97
113) 1,2-dichlorobenzene	9.64	146	7623	1.72	ug/L	97

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V3C6743\
 Data File : 3C149628.D
 Acq On : 13 Feb 2019 8:29 pm
 Operator : juntaep
 Sample : IC6743-2
 Misc : MS32156,V3C6743,5.0,,,,,1
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Feb 15 09:29:51 2019
 Quant Method : C:\MSDCHEM\1\METHODS\M3C6743.M
 Quant Title : Method SW846 8260C, Rxi624 20m x 0.18mm x 1.0um
 QLast Update : Thu Feb 14 08:04:39 2019
 Response via : Initial Calibration

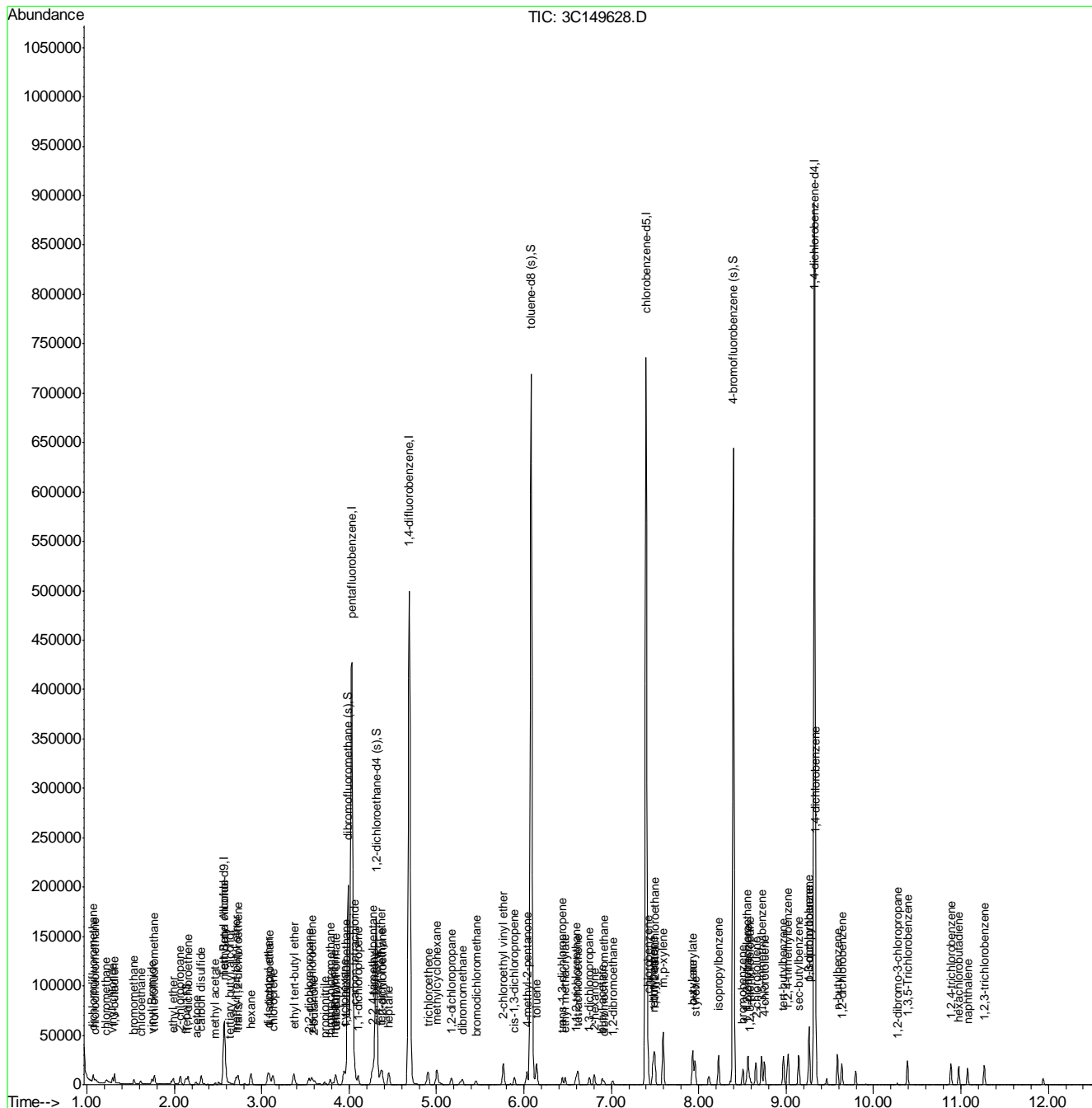
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
114) n-butylbenzene	9.59	92	7221	1.51	ug/L	91
115) 1,2-dibromo-3-chloropropan	10.27	157	369	0.91	ug/L	93
116) 1,3,5-Trichlorobenzene	10.39	180	7410	1.67	ug/L	90
117) 1,2,4-trichlorobenzene	10.88	180	6165	1.63	ug/L	96
118) hexachlorobutadiene	10.97	225	3460	1.40	ug/L	92
119) naphthalene	11.08	128	10598	1.58	ug/L	97
120) 1,2,3-trichlorobenzene	11.27	180	5860	1.65	ug/L	98

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

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V3C6743\
 Data File : 3C149628.D
 Acq On : 13 Feb 2019 8:29 pm
 Operator : juntaep
 Sample : IC6743-2
 Misc : MS32156,V3C6743,5.0,,,,1
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Feb 15 09:29:51 2019
 Quant Method : C:\MSDCHEM\1\METHODS\M3C6743.M
 Quant Title : Method SW846 8260C, Rxi624 20m x 0.18mm x 1.0um
 QLast Update : Thu Feb 14 08:04:39 2019
 Response via : Initial Calibration



Manual Integration Approval Summary

Sample Number: V3C6743-IC6743 Method: SW846 8260C
Lab FileID: 3C149628.D Analyst approved: 02/15/19 11:18 Robert Szot
Injection Time: 02/13/19 20:29 Supervisor approved: 02/15/19 13:53 Kanya Veerawat

Parameter	CAS	Sig#	R.T. (min.)	Reason
1,1,2,2-Tetrachloroethane	79-34-5		8.55	Missed peak

7.7.3.1

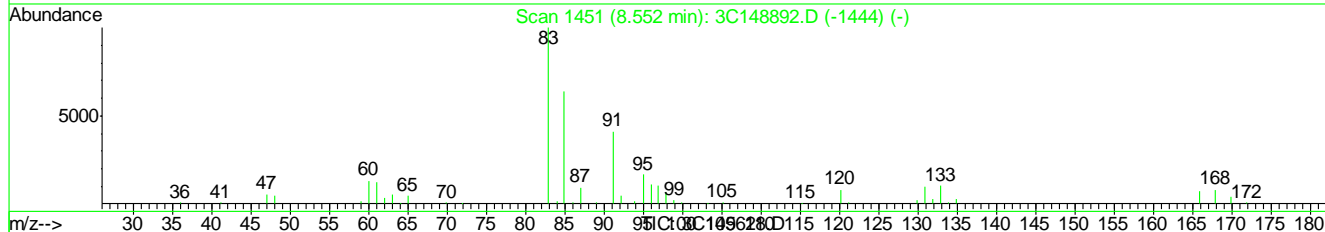
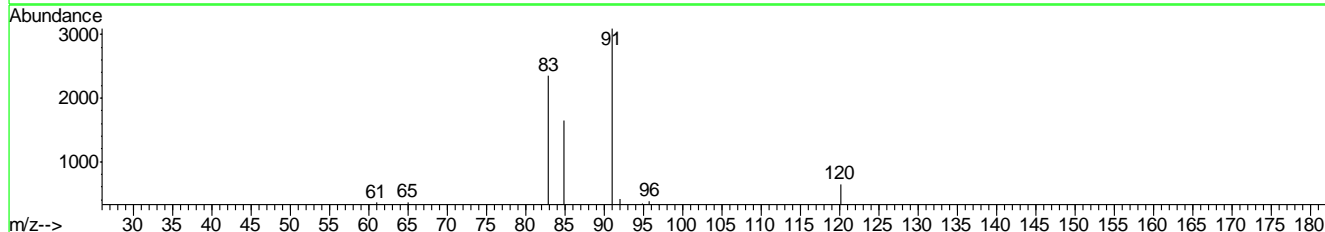
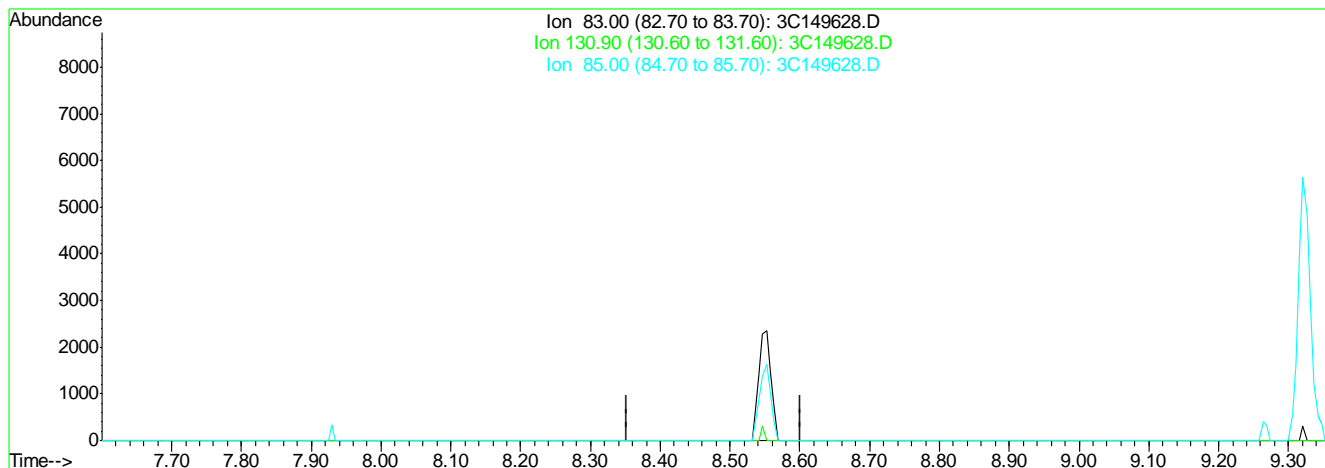
7

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\V3C6743\3C149628.D Vial: 8
 Acq On : 13 Feb 2019 8:29 pm Operator: juntaep
 Sample : IC6743-2 Inst : MS3C
 Misc : MS32156,V3C6743,5.0,,,,,1 Multiplr: 1.00
 MS Integration Params: rteint.p

Quant Time: Feb 14 14:06:04 2019 Results File: M3C6743.RES

Method : C:\MSDCHEM\1\METHODS\M3C6743.M (RTE Integrator)
 Title : Method SW846 8260C, Rxi624 20m x 0.18mm x 1.0um
 Last Update : Thu Feb 14 14:08:59 2019
 Response via : Multiple Level Calibration



(100) 1,1,2,2-tetrachloroethane

8.55min 0.00ug/L d

response 0

Ion	Exp%	Act%
83.00	100	0.00
130.90	11.30	0.00
85.00	64.20	0.00
0.00	0.00	0.00

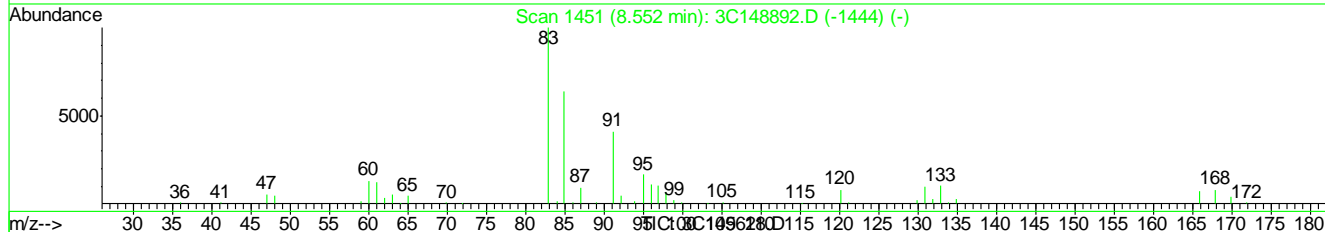
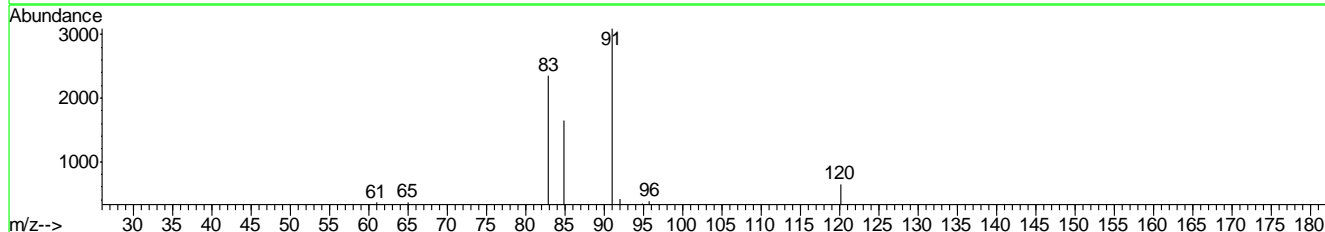
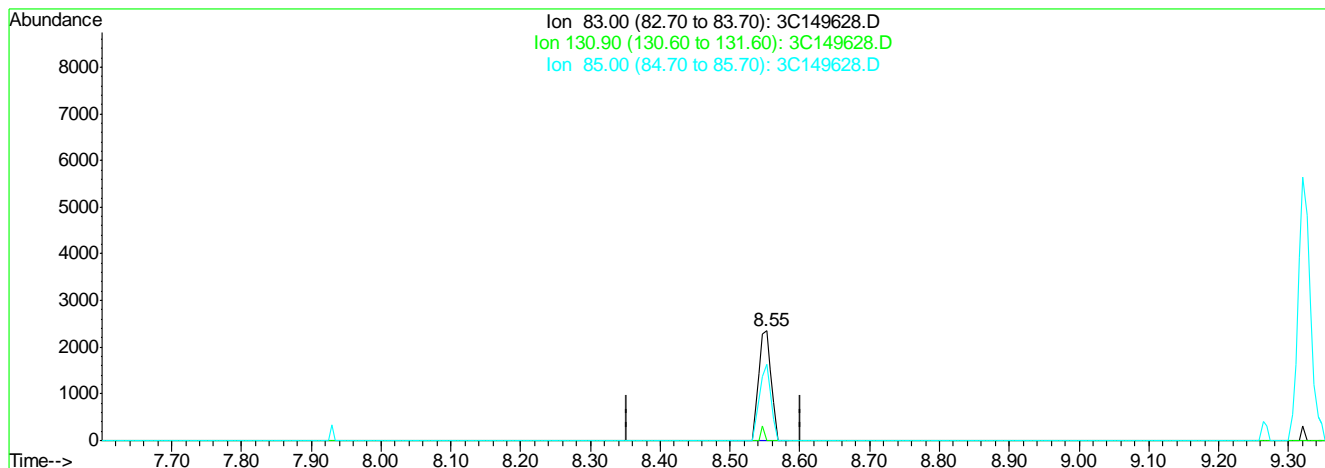
7.7.3.2
7

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\V3C6743\3C149628.D Vial: 8
 Acq On : 13 Feb 2019 8:29 pm Operator: juntaep
 Sample : IC6743-2 Inst : MS3C
 Misc : MS32156,V3C6743,5.0,,,,,1 Multiplr: 1.00
 MS Integration Params: rteint.p

Quant Time: Feb 14 14:06:04 2019 Results File: M3C6743.RES

Method : C:\MSDCHEM\1\METHODS\M3C6743.M (RTE Integrator)
 Title : Method SW846 8260C, Rxi624 20m x 0.18mm x 1.0um
 Last Update : Thu Feb 14 14:08:59 2019
 Response via : Multiple Level Calibration



(100) 1,1,2,2-tetrachloroethane

8.55min 1.72ug/L m

response 2856

Ion	Exp%	Act%
83.00	100	100
130.90	11.30	0.00
85.00	64.20	69.94
0.00	0.00	0.00

7.7.3.3
7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V3C6743\
 Data File : 3C149629.D
 Acq On : 13 Feb 2019 8:52 pm
 Operator : juntaep
 Sample : IC6743-4
 Misc : MS32156,V3C6743,5.0,,,,,1
 ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 14 12:14:27 2019
 Quant Method : C:\MSDCHEM\1\METHODS\M3C6743.M
 Quant Title : Method SW846 8260C, Rxi624 20m x 0.18mm x 1.0um
 QLast Update : Thu Feb 14 08:04:39 2019
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	2.57	65	58359	500.00	ug/L	0.00
5) pentafluorobenzene	4.03	168	265395	50.00	ug/L	0.00
52) 1,4-difluorobenzene	4.69	114	361985	50.00	ug/L	0.00
74) chlorobenzene-d5	7.40	117	316370	50.00	ug/L	0.00
97) 1,4-dichlorobenzene-d4	9.33	152	172390	50.00	ug/L	0.00

System Monitoring Compounds

45) dibromofluoromethane (s)	3.99	113	94641	48.54	ug/L	0.00
Spiked Amount	50.000	Range	75 - 127	Recovery	=	97.08%
53) 1,2-dichloroethane-d4 (s)	4.31	65	98675	50.64	ug/L	0.00
Spiked Amount	50.000	Range	75 - 130	Recovery	=	101.28%
75) toluene-d8 (s)	6.08	98	391816	49.93	ug/L	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	=	99.86%
98) 4-bromofluorobenzene (s)	8.40	95	140867	50.12	ug/L	0.00
Spiked Amount	50.000	Range	79 - 127	Recovery	=	100.24%

Target Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
3) tertiary butyl alcohol	2.64	59	2465	18.15	ug/L	68
4) 1,4-dioxane	5.29	88	1532	92.35	ug/L	83
6) chlorodifluoromethane	1.10	51	6803	3.93	ug/L	98
7) dichlorodifluoromethane	1.08	85	9254	3.66	ug/L	98
8) chloromethane	1.22	50	7897	3.87	ug/L	97
9) 1,3-butadiene	1.32	54	5263	3.95	ug/L	100
10) vinyl chloride	1.30	62	8269	3.89	ug/L	99
11) bromomethane	1.54	94	5036	4.05	ug/L	96
12) chloroethane	1.62	64	4849	3.84	ug/L	98
13) vinyl Bromide	1.75	106	6714	3.65	ug/L	99
14) trichlorofluoromethane	1.77	101	11557	3.69	ug/L	96
15) ethyl ether	1.99	74	3333	3.83	ug/L	89
16) 2-chloropropane	2.08	63	2530	3.51	ug/L #	82
17) acrolein	2.13	56	485	2.55	ug/L	95
18) freon 113	2.13	151	5689	3.73	ug/L	94
19) 1,1-dichloroethene	2.16	96	6018	3.64	ug/L	86
20) acetone	2.25	58	1327	14.47	ug/L	99
21) acetonitrile	2.52	41	5673	42.53	ug/L	92
22) iodomethane	2.29	142	2292	1.32	ug/L	87
23) carbon disulfide	2.31	76	17541	4.04	ug/L	96
24) methylene chloride	2.57	84	7186	4.28	ug/L	92
25) methyl acetate	2.47	43	3292	3.87	ug/L	86
26) methyl tert butyl ether	2.72	73	16859	3.89	ug/L	99
27) trans-1,2-dichloroethene	2.73	96	7055	3.82	ug/L	99
28) hexane	2.88	57	11137	3.85	ug/L	95
29) di-isopropyl ether	3.08	45	20300	3.82	ug/L	97
30) ethyl tert-butyl ether	3.37	59	19847	3.75	ug/L	97
31) 2-butanone	3.60	72	1961	13.40	ug/L #	80
32) 1,1-dichloroethane	3.10	63	11438	3.69	ug/L	98
33) chloroprene	3.13	53	10267	3.73	ug/L	97
34) acrylonitrile	2.81	53	1315	3.58	ug/L	88
35) vinyl acetate	3.12	86	1053	3.13	ug/L #	45
36) ethyl acetate	3.62	45	234	1.22	ug/L #	70

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V3C6743\
 Data File : 3C149629.D
 Acq On : 13 Feb 2019 8:52 pm
 Operator : juntaep
 Sample : IC6743-4
 Misc : MS32156,V3C6743,5.0,,,,,1
 ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 14 12:14:27 2019
 Quant Method : C:\MSDCHEM\1\METHODS\M3C6743.M
 Quant Title : Method SW846 8260C, Rxi624 20m x 0.18mm x 1.0um
 QLast Update : Thu Feb 14 08:04:39 2019
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
37) 2,2-dichloropropane	3.55	77	10441	3.68	ug/L	99
38) cis-1,2-dichloroethene	3.57	96	7528	3.72	ug/L	98
39) propionitrile	3.72	54	6085	38.30	ug/L	95
40) bromochloromethane	3.79	130	4282	3.84	ug/L	88
42) chloroform	3.84	83	12462	3.93	ug/L	98
43) tert-Butyl Formate	3.85	59	3675	3.37	ug/L	89
44) isobutyl alcohol	4.26	41	9146	36.87	ug/L	90
46) methacrylonitrile	3.82	67	1697	3.41	ug/L	94
47) 1,1,1-trichloroethane	3.96	97	11014	3.67	ug/L	93
48) cyclohexane	3.94	84	11524	3.80	ug/L	96
49) 1,1-dichloropropene	4.11	110	3852	3.90	ug/L #	84
50) tert-amyl alcohol	4.33	59	2358	19.91	ug/L	88
51) carbon tetrachloride	4.07	119	8564	3.52	ug/L	90
54) 2,2,4-trimethylpentane	4.26	57	27110	3.76	ug/L	99
55) tert-amyl methyl ether	4.37	87	6055	3.76	ug/L #	81
56) n-butyl alcohol	4.90	56	5570	151.11	ug/L	98
57) benzene	4.28	78	27783	3.93	ug/L	99
58) heptane	4.46	57	5651	3.68	ug/L	92
59) isopropyl acetate	4.37	87	6055	3.76	ug/L	94
60) 1,2-dichloroethane	4.38	62	8844	4.17	ug/L	94
61) trichloroethene	4.90	95	7403	3.81	ug/L	100
62) ethyl acrylate	5.04	55	5799	3.71	ug/L	84
63) 2-nitropropane	5.76	41	1689	3.51	ug/L	98
64) 2-chloroethyl vinyl ether	5.76	63	17871	19.30	ug/L	98
65) methyl methacrylate	5.28	100	1207	2.89	ug/L #	81
66) 1,2-dichloropropane	5.17	63	6229	3.71	ug/L	93
67) methylcyclohexane	5.01	83	14688	4.25	ug/L	97
68) dibromomethane	5.30	93	3533	3.82	ug/L	94
69) bromodichloromethane	5.45	83	7656	3.45	ug/L	97
70) epichlorohydrin	5.85	57	2198	18.97	ug/L	85
71) cis-1,3-dichloropropene	5.89	75	9596	3.50	ug/L	95
72) 4-methyl-2-pentanone	6.03	85	3079	13.07	ug/L	99
76) toluene	6.15	92	18779	3.96	ug/L	99
77) trans-1,3-dichloropropene	6.44	75	7807	3.31	ug/L	97
78) ethyl methacrylate	6.47	69	6421	3.41	ug/L	88
79) 1,1,2-trichloroethane	6.60	83	4482	3.86	ug/L	97
80) 2-hexanone	6.81	58	6718	14.91	ug/L	97
81) tetrachloroethene	6.62	166	8750	3.71	ug/L	95
82) 1,3-dichloropropane	6.75	76	9116	3.82	ug/L	94
83) butyl acetate	6.89	56	3233	3.74	ug/L	93
84) dibromochloromethane	6.92	129	4513	2.98	ug/L	97
85) 1,2-dibromoethane	7.02	107	6552	3.72	ug/L	96
86) n-butyl ether	7.47	57	30098	3.88	ug/L	96
87) chlorobenzene	7.42	112	20673	4.01	ug/L	96
88) 1,1,1,2-tetrachloroethane	7.50	131	6055	3.26	ug/L	97
89) ethylbenzene	7.49	91	35962	3.95	ug/L	97
90) m,p-xylene	7.59	106	28515	7.96	ug/L	99
91) o-xylene	7.93	91	29147	4.05	ug/L	99
92) styrene	7.96	104	22370	3.76	ug/L	99
93) bromoform	8.13	173	2464	2.70	ug/L	88

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V3C6743\
 Data File : 3C149629.D
 Acq On : 13 Feb 2019 8:52 pm
 Operator : juntaep
 Sample : IC6743-4
 Misc : MS32156,V3C6743,5.0,,,,,1
 ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 14 12:14:27 2019
 Quant Method : C:\MSDCHEM\1\METHODS\M3C6743.M
 Quant Title : Method SW846 8260C, Rxi624 20m x 0.18mm x 1.0um
 QLast Update : Thu Feb 14 08:04:39 2019
 Response via : Initial Calibration

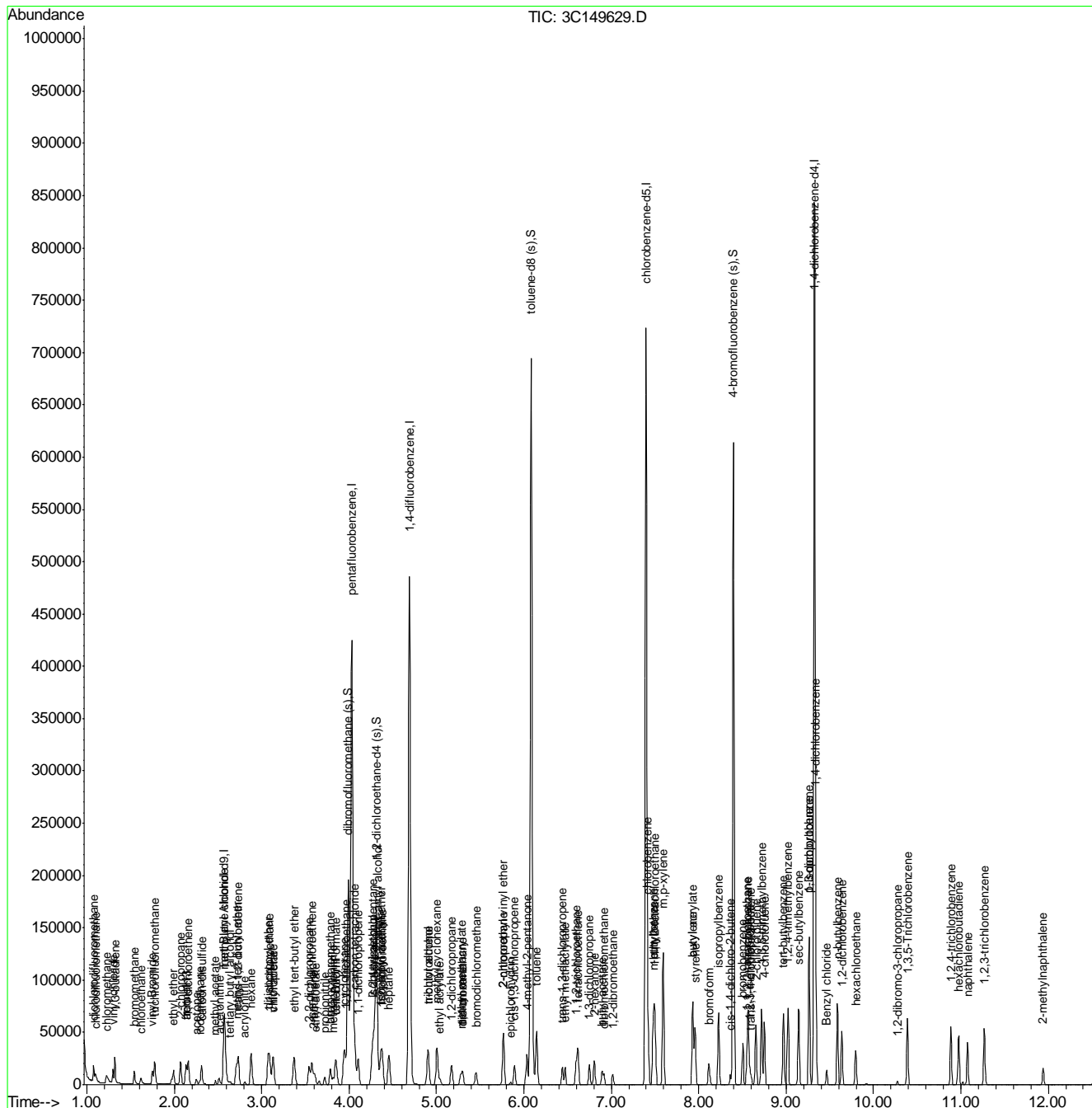
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
94) butyl acrylate	7.92	55	8704	3.31	ug/L	99
95) isopropylbenzene	8.23	105	36885	3.93	ug/L	99
96) cis-1,4-dichloro-2-butene	8.36	53	1654	3.16	ug/L #	77
99) bromobenzene	8.51	156	9271	3.92	ug/L	96
100) 1,1,2,2-tetrachloroethane	8.55	83	6229	3.85	ug/L	100
101) trans-1,4-dichloro-2-buten	8.60	88	456	2.05	ug/L #	48
102) 1,2,3-trichloropropane	8.59	110	2009	3.79	ug/L	96
103) n-propylbenzene	8.57	91	43326	3.99	ug/L	98
104) 2-chlorotoluene	8.66	126	8941	3.94	ug/L	99
105) 4-chlorotoluene	8.75	126	9009	3.96	ug/L	96
106) 1,3,5-trimethylbenzene	8.72	105	31332	3.87	ug/L	98
107) tert-butylbenzene	8.97	119	28601	3.98	ug/L	97
108) 1,2,4-trimethylbenzene	9.02	105	32165	3.96	ug/L	100
109) sec-butylbenzene	9.15	105	41398	3.93	ug/L	97
110) 1,3-dichlorobenzene	9.26	146	18635	4.00	ug/L	97
111) p-isopropyltoluene	9.26	119	36312	3.89	ug/L	98
112) 1,4-dichlorobenzene	9.34	146	18220	3.92	ug/L	94
113) 1,2-dichlorobenzene	9.64	146	17065	3.94	ug/L	96
114) n-butylbenzene	9.59	92	17910	3.84	ug/L	98
115) 1,2-dibromo-3-chloropropan	10.27	157	962	2.44	ug/L	93
116) 1,3,5-Trichlorobenzene	10.39	180	17209	3.98	ug/L	93
117) 1,2,4-trichlorobenzene	10.88	180	14394	3.90	ug/L	93
118) hexachlorobutadiene	10.97	225	8881	3.68	ug/L	97
119) naphthalene	11.08	128	24785	3.80	ug/L	96
120) 1,2,3-trichlorobenzene	11.27	180	13623	3.94	ug/L	99
121) hexachloroethane	9.80	201	3272	2.54	ug/L #	74
122) Benzyl chloride	9.46	91	8474	2.74	ug/L	95
124) 2-methylnaphthalene	11.94	142	7529	1.88	ug/L	97

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

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V3C6743\
Data File : 3C149629.D
Acq On : 13 Feb 2019 8:52 pm
Operator : juntaep
Sample : IC6743-4
Misc : MS32156,V3C6743,5.0,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 14 12:14:27 2019
Quant Method : C:\MSDCHEM\1\METHODS\M3C6743.M
Quant Title : Method SW846 8260C, Rxi624 20m x 0.18mm x 1.0um
QLast Update : Thu Feb 14 08:04:39 2019
Response via : Initial Calibration



7.7.4
7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V3C6743\
 Data File : 3C149630.D
 Acq On : 13 Feb 2019 9:15 pm
 Operator : juntaep
 Sample : IC6743-8
 Misc : MS32156,V3C6743,5.0,,,,,1
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 14 12:15:05 2019
 Quant Method : C:\MSDCHEM\1\METHODS\M3C6743.M
 Quant Title : Method SW846 8260C, Rxi624 20m x 0.18mm x 1.0um
 QLast Update : Thu Feb 14 08:04:39 2019
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	2.57	65	57495	500.00	ug/L	0.00
5) pentafluorobenzene	4.03	168	265783	50.00	ug/L	0.00
52) 1,4-difluorobenzene	4.69	114	365228	50.00	ug/L	0.00
74) chlorobenzene-d5	7.40	117	313215	50.00	ug/L	0.00
97) 1,4-dichlorobenzene-d4	9.33	152	170087	50.00	ug/L	0.00

System Monitoring Compounds

45) dibromofluoromethane (s)	3.99	113	96469	49.40	ug/L	0.00
Spiked Amount	50.000	Range	75 - 127	Recovery	=	98.80%
53) 1,2-dichloroethane-d4 (s)	4.31	65	98968	50.34	ug/L	0.00
Spiked Amount	50.000	Range	75 - 130	Recovery	=	100.68%
75) toluene-d8 (s)	6.08	98	388948	50.07	ug/L	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	=	100.14%
98) 4-bromofluorobenzene (s)	8.40	95	142556	51.41	ug/L	0.00
Spiked Amount	50.000	Range	79 - 127	Recovery	=	102.82%

Target Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
3) tertiary butyl alcohol	2.64	59	5276	39.43	ug/L	95
4) 1,4-dioxane	5.29	88	2834	173.41	ug/L	95
6) chlorodifluoromethane	1.10	51	13319	7.67	ug/L	96
7) dichlorodifluoromethane	1.08	85	19943	7.88	ug/L	98
8) chloromethane	1.22	50	16559	8.10	ug/L	96
9) 1,3-butadiene	1.32	54	10274	7.69	ug/L	98
10) vinyl chloride	1.30	62	16915	7.95	ug/L	99
11) bromomethane	1.54	94	9993	8.03	ug/L	95
12) chloroethane	1.62	64	9936	7.85	ug/L	97
13) vinyl Bromide	1.75	106	14238	7.73	ug/L	95
14) trichlorofluoromethane	1.77	101	24526	7.83	ug/L	99
15) ethyl ether	1.99	74	6631	7.60	ug/L	91
16) 2-chloropropane	2.07	63	5382	7.45	ug/L	99
17) acrolein	2.14	56	1259	6.62	ug/L	88
18) freon 113	2.13	151	11301	7.39	ug/L	97
19) 1,1-dichloroethene	2.16	96	12557	7.58	ug/L	95
20) acetone	2.26	58	2752	29.96	ug/L #	72
21) acetonitrile	2.51	41	10315	77.21	ug/L	97
22) iodomethane	2.29	142	5353	3.08	ug/L	97
23) carbon disulfide	2.31	76	34164	7.85	ug/L	96
24) methylene chloride	2.56	84	13567	8.07	ug/L	97
25) methyl acetate	2.47	43	6801	7.99	ug/L	94
26) methyl tert butyl ether	2.71	73	33140	7.64	ug/L	99
27) trans-1,2-dichloroethene	2.74	96	13871	7.49	ug/L	98
28) hexane	2.88	57	22369	7.72	ug/L	99
29) di-isopropyl ether	3.08	45	40868	7.69	ug/L	99
30) ethyl tert-butyl ether	3.37	59	39812	7.52	ug/L	99
31) 2-butanone	3.60	72	4349	29.67	ug/L	98
32) 1,1-dichloroethane	3.10	63	23493	7.57	ug/L	96
33) chloroprene	3.13	53	21031	7.62	ug/L	95
34) acrylonitrile	2.80	53	2592	7.04	ug/L	95
35) vinyl acetate	3.12	86	2198	6.53	ug/L #	74
36) ethyl acetate	3.61	45	1197	6.25	ug/L	86

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V3C6743\
 Data File : 3C149630.D
 Acq On : 13 Feb 2019 9:15 pm
 Operator : juntaep
 Sample : IC6743-8
 Misc : MS32156,V3C6743,5.0,,,,,1
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 14 12:15:05 2019
 Quant Method : C:\MSDCHEM\1\METHODS\M3C6743.M
 Quant Title : Method SW846 8260C, Rxi624 20m x 0.18mm x 1.0um
 QLast Update : Thu Feb 14 08:04:39 2019
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
37) 2,2-dichloropropane	3.55	77	20423	7.19	ug/L	98
38) cis-1,2-dichloroethene	3.58	96	15314	7.57	ug/L	98
39) propionitrile	3.72	54	12567	78.98	ug/L	97
40) bromochloromethane	3.79	130	8687	7.77	ug/L	89
41) tetrahydrofuran	3.79	71	998	7.26	ug/L	96
42) chloroform	3.84	83	24239	7.64	ug/L	95
43) tert-Butyl Formate	3.86	59	6954	6.36	ug/L	93
44) isobutyl alcohol	4.26	41	18823	75.76	ug/L	94
46) methacrylonitrile	3.81	67	3673	7.37	ug/L	93
47) 1,1,1-trichloroethane	3.96	97	22331	7.43	ug/L	97
48) cyclohexane	3.94	84	24346	8.02	ug/L	97
49) 1,1-dichloropropene	4.11	110	7352	7.44	ug/L	96
50) tert-amyl alcohol	4.33	59	4630	39.04	ug/L #	68
51) carbon tetrachloride	4.07	119	17652	7.24	ug/L	97
54) 2,2,4-trimethylpentane	4.27	57	55472	7.63	ug/L	98
55) tert-amyl methyl ether	4.36	87	12205	7.50	ug/L	95
56) n-butyl alcohol	4.90	56	11537	310.21	ug/L	90
57) benzene	4.28	78	55823	7.83	ug/L	98
58) heptane	4.46	57	11941	7.71	ug/L	98
59) isopropyl acetate	4.36	87	12205	7.50	ug/L	96
60) 1,2-dichloroethane	4.38	62	16793	7.85	ug/L	98
61) trichloroethene	4.90	95	15251	7.77	ug/L	99
62) ethyl acrylate	5.04	55	11594	7.36	ug/L	90
63) 2-nitropropane	5.76	41	3351	6.91	ug/L #	53
64) 2-chloroethyl vinyl ether	5.76	63	36013	38.55	ug/L	97
65) methyl methacrylate	5.27	100	2852	6.77	ug/L	95
66) 1,2-dichloropropane	5.17	63	13217	7.80	ug/L	95
67) methylcyclohexane	5.01	83	27898	8.00	ug/L	98
68) dibromomethane	5.29	93	7019	7.52	ug/L	96
69) bromodichloromethane	5.45	83	15392	6.87	ug/L	99
70) epichlorohydrin	5.85	57	4231	36.20	ug/L	84
71) cis-1,3-dichloropropene	5.89	75	19469	7.03	ug/L	97
72) 4-methyl-2-pentanone	6.03	85	6524	27.45	ug/L	99
76) toluene	6.15	92	36744	7.82	ug/L	96
77) trans-1,3-dichloropropene	6.44	75	15862	6.78	ug/L	93
78) ethyl methacrylate	6.47	69	13424	7.19	ug/L	98
79) 1,1,2-trichloroethane	6.60	83	8824	7.69	ug/L	96
80) 2-hexanone	6.81	58	13181	29.54	ug/L	98
81) tetrachloroethene	6.62	166	17991	7.71	ug/L	97
82) 1,3-dichloropropane	6.75	76	18660	7.90	ug/L	97
83) butyl acetate	6.89	56	6446	7.53	ug/L	96
84) dibromochloromethane	6.92	129	9458	6.30	ug/L	95
85) 1,2-dibromoethane	7.02	107	13033	7.47	ug/L	98
86) n-butyl ether	7.47	57	61329	7.99	ug/L	98
87) chlorobenzene	7.42	112	40458	7.92	ug/L	97
88) 1,1,1,2-tetrachloroethane	7.51	131	12150	6.62	ug/L	98
89) ethylbenzene	7.49	91	71203	7.90	ug/L	98
90) m,p-xylene	7.60	106	57168	16.11	ug/L	97
91) o-xylene	7.93	91	56131	7.88	ug/L	100
92) styrene	7.96	104	45496	7.73	ug/L	98

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V3C6743\
 Data File : 3C149630.D
 Acq On : 13 Feb 2019 9:15 pm
 Operator : juntaep
 Sample : IC6743-8
 Misc : MS32156,V3C6743,5.0,,,,,1
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 14 12:15:05 2019
 Quant Method : C:\MSDCHEM\1\METHODS\M3C6743.M
 Quant Title : Method SW846 8260C, Rxi624 20m x 0.18mm x 1.0um
 QLast Update : Thu Feb 14 08:04:39 2019
 Response via : Initial Calibration

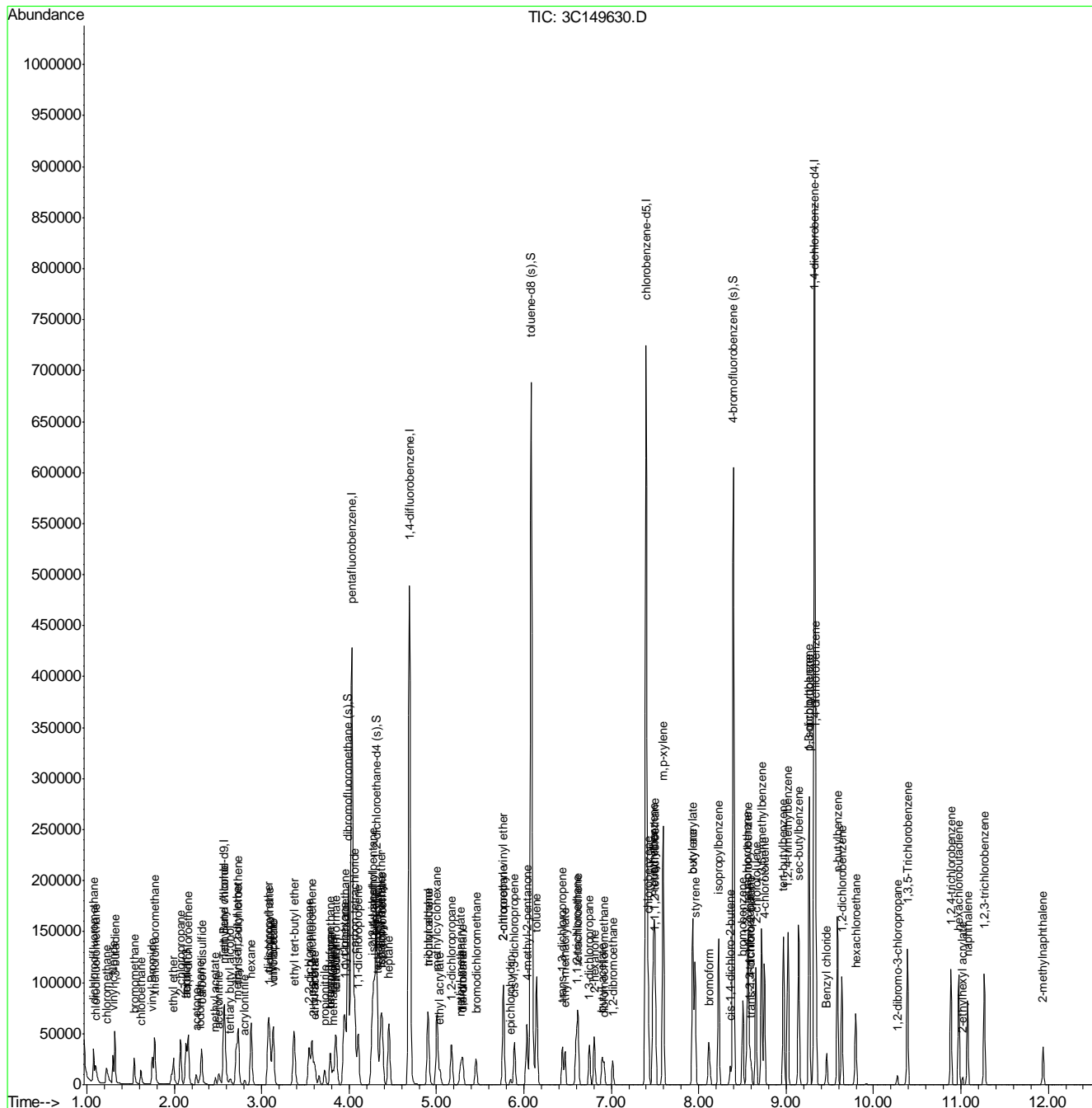
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
93) bromoform	8.13	173	5194	5.74	ug/L	98
94) butyl acrylate	7.92	55	18121	6.95	ug/L	100
95) isopropylbenzene	8.23	105	72694	7.83	ug/L	99
96) cis-1,4-dichloro-2-butene	8.36	53	3492	6.73	ug/L #	80
99) bromobenzene	8.51	156	18829	8.07	ug/L	100
100) 1,1,2,2-tetrachloroethane	8.55	83	11999	7.52	ug/L	99
101) trans-1,4-dichloro-2-buten	8.60	88	1060	4.83	ug/L #	73
102) 1,2,3-trichloropropane	8.59	110	4050	7.75	ug/L	89
103) n-propylbenzene	8.57	91	87286	8.14	ug/L	97
104) 2-chlorotoluene	8.66	126	18134	8.11	ug/L	97
105) 4-chlorotoluene	8.75	126	17887	7.97	ug/L	98
106) 1,3,5-trimethylbenzene	8.72	105	63194	7.92	ug/L	99
107) tert-butylbenzene	8.97	119	56877	8.01	ug/L	99
108) 1,2,4-trimethylbenzene	9.02	105	64151	8.01	ug/L	95
109) sec-butylbenzene	9.14	105	83152	8.00	ug/L	100
110) 1,3-dichlorobenzene	9.26	146	37000	8.04	ug/L	99
111) p-isopropyltoluene	9.26	119	72840	7.92	ug/L	98
112) 1,4-dichlorobenzene	9.34	146	36688	8.01	ug/L	98
113) 1,2-dichlorobenzene	9.64	146	33584	7.86	ug/L	99
114) n-butylbenzene	9.59	92	36159	7.86	ug/L	98
115) 1,2-dibromo-3-chloropropan	10.27	157	2306	5.94	ug/L	94
116) 1,3,5-Trichlorobenzene	10.39	180	33222	7.79	ug/L	97
117) 1,2,4-trichlorobenzene	10.88	180	28699	7.88	ug/L	99
118) hexachlorobutadiene	10.97	225	17737	7.45	ug/L	98
119) naphthalene	11.08	128	48417	7.51	ug/L	98
120) 1,2,3-trichlorobenzene	11.27	180	26585	7.79	ug/L	96
121) hexachloroethane	9.80	201	7209	5.68	ug/L #	80
122) Benzyl chloride	9.46	91	17416	5.71	ug/L	98
123) 2-ethylhexyl acrylate	11.02	70	1723	0.97	ug/L	99
124) 2-methylnaphthalene	11.94	142	15111	3.82	ug/L	93

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

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V3C6743\
 Data File : 3C149630.D
 Acq On : 13 Feb 2019 9:15 pm
 Operator : juntaep
 Sample : IC6743-8
 Misc : MS32156,V3C6743,5.0,,,,1
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 14 12:15:05 2019
 Quant Method : C:\MSDCHEM\1\METHODS\M3C6743.M
 Quant Title : Method SW846 8260C, Rxi624 20m x 0.18mm x 1.0um
 QLast Update : Thu Feb 14 08:04:39 2019
 Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V3C6743\
 Data File : 3C149631.D
 Acq On : 13 Feb 2019 9:39 pm
 Operator : juntaep
 Sample : IC6743-20
 Misc : MS32156,V3C6743,5.0,,,,,1
 ALS Vial : 11 Sample Multiplier: 1

Quant Time: Feb 14 12:15:42 2019
 Quant Method : C:\MSDCHEM\1\METHODS\M3C6743.M
 Quant Title : Method SW846 8260C, Rxi624 20m x 0.18mm x 1.0um
 QLast Update : Thu Feb 14 08:04:39 2019
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	2.57	65	57466	500.00	ug/L	0.00
5) pentafluorobenzene	4.03	168	264012	50.00	ug/L	0.00
52) 1,4-difluorobenzene	4.69	114	361189	50.00	ug/L	0.00
74) chlorobenzene-d5	7.40	117	312299	50.00	ug/L	0.00
97) 1,4-dichlorobenzene-d4	9.33	152	167909	50.00	ug/L	0.00

System Monitoring Compounds

45) dibromofluoromethane (s)	3.99	113	94940	48.95	ug/L	0.00
Spiked Amount	50.000	Range	75 - 127	Recovery	=	97.90%
53) 1,2-dichloroethane-d4 (s)	4.31	65	97091	49.94	ug/L	0.00
Spiked Amount	50.000	Range	75 - 130	Recovery	=	99.88%
75) toluene-d8 (s)	6.08	98	388689	50.18	ug/L	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	=	100.36%
98) 4-bromofluorobenzene (s)	8.40	95	137896	50.37	ug/L	0.00
Spiked Amount	50.000	Range	79 - 127	Recovery	=	100.74%

Target Compounds

						Qvalue
3) tertiary butyl alcohol	2.64	59	12948	96.81	ug/L	94
4) 1,4-dioxane	5.29	88	7780	476.28	ug/L	99
6) chlorodifluoromethane	1.10	51	33844	19.63	ug/L	99
7) dichlorodifluoromethane	1.08	85	49410	19.66	ug/L	99
8) chloromethane	1.22	50	40327	19.86	ug/L	99
9) 1,3-butadiene	1.32	54	26757	20.17	ug/L	97
10) vinyl chloride	1.30	62	41265	19.52	ug/L	100
11) bromomethane	1.54	94	25030	20.24	ug/L	99
12) chloroethane	1.62	64	24777	19.72	ug/L	99
13) vinyl Bromide	1.75	106	35894	19.62	ug/L	98
14) trichlorofluoromethane	1.77	101	60669	19.49	ug/L	99
15) ethyl ether	1.99	74	17356	20.03	ug/L	92
16) 2-chloropropane	2.07	63	13656	19.03	ug/L	93
17) acrolein	2.13	56	3504	18.55	ug/L	91
18) freon 113	2.13	151	29629	19.52	ug/L	99
19) 1,1-dichloroethene	2.16	96	32219	19.57	ug/L	98
20) acetone	2.25	58	6803	74.56	ug/L	90
21) acetonitrile	2.51	41	25699	193.66	ug/L	97
22) iodomethane	2.29	142	20186	11.71	ug/L	97
23) carbon disulfide	2.31	76	85054	19.67	ug/L	99
24) methylene chloride	2.56	84	33420	20.00	ug/L	97
25) methyl acetate	2.47	43	16379	19.37	ug/L	97
26) methyl tert butyl ether	2.71	73	82585	19.17	ug/L	99
27) trans-1,2-dichloroethene	2.73	96	36211	19.69	ug/L	95
28) hexane	2.88	57	58243	20.24	ug/L	98
29) di-isopropyl ether	3.08	45	103251	19.55	ug/L	98
30) ethyl tert-butyl ether	3.37	59	102238	19.44	ug/L	99
31) 2-butanone	3.60	72	11222	77.08	ug/L	99
32) 1,1-dichloroethane	3.10	63	60840	19.74	ug/L	97
33) chloroprene	3.13	53	53393	19.48	ug/L	99
34) acrylonitrile	2.80	53	6890	18.85	ug/L	90
35) vinyl acetate	3.12	86	6076	18.17	ug/L	96
36) ethyl acetate	3.61	45	3361	17.68	ug/L	97

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V3C6743\
 Data File : 3C149631.D
 Acq On : 13 Feb 2019 9:39 pm
 Operator : juntaep
 Sample : IC6743-20
 Misc : MS32156,V3C6743,5.0,,,,,1
 ALS Vial : 11 Sample Multiplier: 1

Quant Time: Feb 14 12:15:42 2019
 Quant Method : C:\MSDCHEM\1\METHODS\M3C6743.M
 Quant Title : Method SW846 8260C, Rxi624 20m x 0.18mm x 1.0um
 QLast Update : Thu Feb 14 08:04:39 2019
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
37) 2,2-dichloropropane	3.55	77	54113	19.18	ug/L	97
38) cis-1,2-dichloroethene	3.58	96	39639	19.71	ug/L	94
39) propionitrile	3.72	54	30355	192.06	ug/L	99
40) bromochloromethane	3.79	130	22152	19.96	ug/L	90
41) tetrahydrofuran	3.79	71	2452	17.96	ug/L #	76
42) chloroform	3.84	83	61722	19.58	ug/L	99
43) tert-Butyl Formate	3.86	59	19122	17.61	ug/L	93
44) isobutyl alcohol	4.26	41	48940	198.31	ug/L	93
46) methacrylonitrile	3.81	67	9377	18.94	ug/L	96
47) 1,1,1-trichloroethane	3.96	97	58033	19.43	ug/L	99
48) cyclohexane	3.94	84	59658	19.79	ug/L	98
49) 1,1-dichloropropene	4.11	110	19165	19.52	ug/L	98
50) tert-amyl alcohol	4.33	59	11511	97.70	ug/L	93
51) carbon tetrachloride	4.07	119	45765	18.89	ug/L	99
54) 2,2,4-trimethylpentane	4.26	57	144769	20.13	ug/L	99
55) tert-amyl methyl ether	4.36	87	30664	19.06	ug/L	92
56) n-butyl alcohol	4.90	56	32127	873.50	ug/L	92
57) benzene	4.28	78	140809	19.97	ug/L	99
58) heptane	4.45	57	31190	20.36	ug/L	96
59) isopropyl acetate	4.36	87	30664	19.06	ug/L	97
60) 1,2-dichloroethane	4.38	62	42359	20.01	ug/L	99
61) trichloroethene	4.90	95	38834	20.01	ug/L	95
62) ethyl acrylate	5.04	55	29478	18.93	ug/L	99
63) 2-nitropropane	5.75	41	8905	18.56	ug/L #	42
64) 2-chloroethyl vinyl ether	5.76	63	89470	96.85	ug/L	98
65) methyl methacrylate	5.27	100	7823	18.79	ug/L #	88
66) 1,2-dichloropropane	5.17	63	32844	19.59	ug/L	99
67) methylcyclohexane	5.01	83	70500	20.46	ug/L	98
68) dibromomethane	5.30	93	18124	19.63	ug/L	93
69) bromodichloromethane	5.45	83	40504	18.28	ug/L	100
70) epichlorohydrin	5.85	57	10804	93.47	ug/L	95
71) cis-1,3-dichloropropene	5.89	75	51673	18.88	ug/L	98
72) 4-methyl-2-pentanone	6.04	85	17644	75.08	ug/L	97
76) toluene	6.15	92	92635	19.77	ug/L	99
77) trans-1,3-dichloropropene	6.44	75	42165	18.09	ug/L	98
78) ethyl methacrylate	6.47	69	34052	18.30	ug/L	98
79) 1,1,2-trichloroethane	6.60	83	22939	20.04	ug/L	96
80) 2-hexanone	6.81	58	33729	75.81	ug/L	92
81) tetrachloroethene	6.62	166	46003	19.76	ug/L	98
82) 1,3-dichloropropane	6.75	76	45563	19.36	ug/L	98
83) butyl acetate	6.89	56	16118	18.88	ug/L	94
84) dibromochloromethane	6.92	129	26339	17.59	ug/L	99
85) 1,2-dibromoethane	7.01	107	32911	18.91	ug/L	98
86) n-butyl ether	7.47	57	150650	19.69	ug/L	99
87) chlorobenzene	7.42	112	99389	19.52	ug/L	97
88) 1,1,1,2-tetrachloroethane	7.51	131	33098	18.08	ug/L	99
89) ethylbenzene	7.49	91	178507	19.87	ug/L	99
90) m,p-xylene	7.60	106	139272	39.36	ug/L	97
91) o-xylene	7.93	91	139910	19.70	ug/L	98
92) styrene	7.96	104	113352	19.31	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V3C6743\
 Data File : 3C149631.D
 Acq On : 13 Feb 2019 9:39 pm
 Operator : juntaep
 Sample : IC6743-20
 Misc : MS32156,V3C6743,5.0,,,,,1
 ALS Vial : 11 Sample Multiplier: 1

Quant Time: Feb 14 12:15:42 2019
 Quant Method : C:\MSDCHEM\1\METHODS\M3C6743.M
 Quant Title : Method SW846 8260C, Rxi624 20m x 0.18mm x 1.0um
 QLast Update : Thu Feb 14 08:04:39 2019
 Response via : Initial Calibration

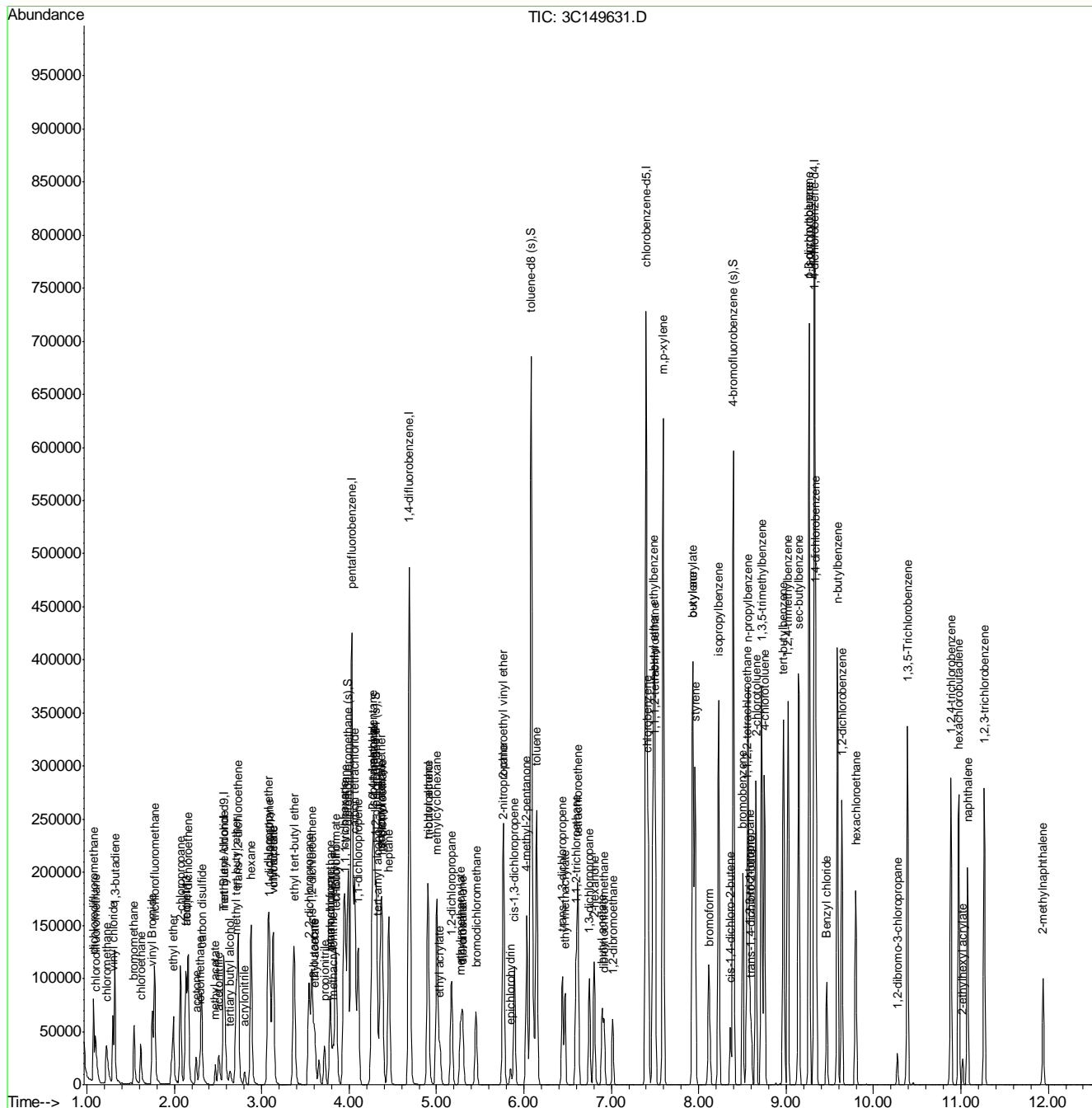
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
93) bromoform	8.13	173	14740	16.34	ug/L	98
94) butyl acrylate	7.92	55	47744	18.37	ug/L	98
95) isopropylbenzene	8.23	105	183774	19.85	ug/L	100
96) cis-1,4-dichloro-2-butene	8.36	53	9414	18.20	ug/L	87
99) bromobenzene	8.51	156	45663	19.82	ug/L	97
100) 1,1,2,2-tetrachloroethane	8.55	83	30769	19.53	ug/L	98
101) trans-1,4-dichloro-2-buten	8.60	88	3284	15.17	ug/L	82
102) 1,2,3-trichloropropane	8.59	110	10048	19.47	ug/L	95
103) n-propylbenzene	8.57	91	215396	20.35	ug/L	98
104) 2-chlorotoluene	8.66	126	43887	19.88	ug/L	96
105) 4-chlorotoluene	8.75	126	43955	19.84	ug/L	98
106) 1,3,5-trimethylbenzene	8.72	105	156235	19.83	ug/L	99
107) tert-butylbenzene	8.97	119	143014	20.41	ug/L	97
108) 1,2,4-trimethylbenzene	9.02	105	157128	19.88	ug/L	99
109) sec-butylbenzene	9.14	105	209430	20.41	ug/L	100
110) 1,3-dichlorobenzene	9.26	146	90092	19.84	ug/L	97
111) p-isopropyltoluene	9.26	119	182950	20.14	ug/L	99
112) 1,4-dichlorobenzene	9.34	146	89785	19.85	ug/L	98
113) 1,2-dichlorobenzene	9.64	146	83186	19.72	ug/L	98
114) n-butylbenzene	9.59	92	91096	20.06	ug/L	99
115) 1,2-dibromo-3-chloropropan	10.27	157	6426	16.76	ug/L	98
116) 1,3,5-Trichlorobenzene	10.39	180	83573	19.85	ug/L	99
117) 1,2,4-trichlorobenzene	10.88	180	70549	19.61	ug/L	99
118) hexachlorobutadiene	10.97	225	46483	19.77	ug/L	98
119) naphthalene	11.08	128	124878	19.63	ug/L	99
120) 1,2,3-trichlorobenzene	11.27	180	66669	19.79	ug/L	99
121) hexachloroethane	9.80	201	20818	16.60	ug/L #	86
122) Benzyl chloride	9.46	91	50828	16.88	ug/L	99
123) 2-ethylhexyl acrylate	11.02	70	5321	3.02	ug/L	95
124) 2-methylnaphthalene	11.94	142	38140	9.77	ug/L	96

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

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V3C6743\
Data File : 3C149631.D
Acq On : 13 Feb 2019 9:39 pm
Operator : juntaep
Sample : IC6743-20
Misc : MS32156,V3C6743,5.0,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Feb 14 12:15:42 2019
Quant Method : C:\MSDCHEM\1\METHODS\M3C6743.M
Quant Title : Method SW846 8260C, Rxi624 20m x 0.18mm x 1.0um
QLast Update : Thu Feb 14 08:04:39 2019
Response via : Initial Calibration



7.7.6
7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V3C6743\
 Data File : 3C149632.D
 Acq On : 13 Feb 2019 10:02 pm
 Operator : juntaep
 Sample : ICC6743-50
 Misc : MS32156,V3C6743,5.0,,,,,1
 ALS Vial : 12 Sample Multiplier: 1

Quant Time: Feb 14 12:16:13 2019
 Quant Method : C:\MSDCHEM\1\METHODS\M3C6743.M
 Quant Title : Method SW846 8260C, Rxi624 20m x 0.18mm x 1.0um
 QLast Update : Thu Feb 14 08:04:39 2019
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	2.58	65	59966	500.00	ug/L	0.00
5) pentafluorobenzene	4.03	168	268857	50.00	ug/L	0.00
52) 1,4-difluorobenzene	4.69	114	370813	50.00	ug/L	0.00
74) chlorobenzene-d5	7.40	117	318032	50.00	ug/L	0.00
97) 1,4-dichlorobenzene-d4	9.32	152	175134	50.00	ug/L	0.00

System Monitoring Compounds

45) dibromofluoromethane (s)	3.99	113	98761	50.00	ug/L	0.00
Spiked Amount	50.000	Range	75 - 127	Recovery	=	100.00%
53) 1,2-dichloroethane-d4 (s)	4.31	65	99805	50.00	ug/L	0.00
Spiked Amount	50.000	Range	75 - 130	Recovery	=	100.00%
75) toluene-d8 (s)	6.08	98	394391	50.00	ug/L	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	=	100.00%
98) 4-bromofluorobenzene (s)	8.40	95	142762	50.00	ug/L	0.00
Spiked Amount	50.000	Range	79 - 127	Recovery	=	100.00%

Target Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
3) tertiary butyl alcohol	2.64	59	34892	250.00	ug/L	100
4) 1,4-dioxane	5.29	88	21307	1250.00	ug/L	100
6) chlorodifluoromethane	1.10	51	87785	50.00	ug/L	100
7) dichlorodifluoromethane	1.08	85	127951	50.00	ug/L	100
8) chloromethane	1.22	50	103403	50.00	ug/L	100
9) 1,3-butadiene	1.32	54	67537	50.00	ug/L	100
10) vinyl chloride	1.30	62	107620	50.00	ug/L	100
11) bromomethane	1.54	94	62966	50.00	ug/L	100
12) chloroethane	1.62	64	63990	50.00	ug/L	100
13) vinyl Bromide	1.75	106	93144	50.00	ug/L	100
14) trichlorofluoromethane	1.77	101	158481	50.00	ug/L	100
15) ethyl ether	1.99	74	44125	50.00	ug/L	100
16) 2-chloropropane	2.07	63	36546	50.00	ug/L	100
17) acrolein	2.14	56	9617	50.00	ug/L	100
18) freon 113	2.13	151	77299	50.00	ug/L	100
19) 1,1-dichloroethene	2.16	96	83820	50.00	ug/L	100
20) acetone	2.25	58	18583	200.00	ug/L	100
21) acetonitrile	2.51	41	67568	500.00	ug/L	100
22) iodomethane	2.29	142	87780	50.00	ug/L	100
23) carbon disulfide	2.31	76	220126	50.00	ug/L	100
24) methylene chloride	2.56	84	85075	50.00	ug/L	100
25) methyl acetate	2.47	43	43055	50.00	ug/L	100
26) methyl tert butyl ether	2.71	73	219396	50.00	ug/L	100
27) trans-1,2-dichloroethene	2.73	96	93653	50.00	ug/L	100
28) hexane	2.88	57	146491	50.00	ug/L	100
29) di-isopropyl ether	3.08	45	268940	50.00	ug/L	100
30) ethyl tert-butyl ether	3.37	59	267787	50.00	ug/L	100
31) 2-butanone	3.60	72	29653	200.00	ug/L	100
32) 1,1-dichloroethane	3.10	63	156907	50.00	ug/L	100
33) chloroprene	3.13	53	139581	50.00	ug/L	100
34) acrylonitrile	2.80	53	18609	50.00	ug/L	100
35) vinyl acetate	3.12	86	17028	50.00	ug/L	100
36) ethyl acetate	3.61	45	9681	50.00	ug/L	100

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V3C6743\
 Data File : 3C149632.D
 Acq On : 13 Feb 2019 10:02 pm
 Operator : juntaep
 Sample : ICC6743-50
 Misc : MS32156,V3C6743,5.0,,,,,1
 ALS Vial : 12 Sample Multiplier: 1

Quant Time: Feb 14 12:16:13 2019
 Quant Method : C:\MSDCHEM\1\METHODS\M3C6743.M
 Quant Title : Method SW846 8260C, Rxi624 20m x 0.18mm x 1.0um
 QLast Update : Thu Feb 14 08:04:39 2019
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
37) 2,2-dichloropropane	3.55	77	143629	50.00	ug/L	100
38) cis-1,2-dichloroethene	3.58	96	102381	50.00	ug/L	100
39) propionitrile	3.72	54	80477	500.00	ug/L	100
40) bromochloromethane	3.78	130	56512	50.00	ug/L	100
41) tetrahydrofuran	3.78	71	6950	50.00	ug/L	100
42) chloroform	3.85	83	160507	50.00	ug/L	100
43) tert-Butyl Formate	3.86	59	55274	50.00	ug/L	100
44) isobutyl alcohol	4.26	41	125660	500.00	ug/L	100
46) methacrylonitrile	3.81	67	25203	50.00	ug/L	100
47) 1,1,1-trichloroethane	3.96	97	152098	50.00	ug/L	100
48) cyclohexane	3.94	84	153487	50.00	ug/L	100
49) 1,1-dichloropropene	4.11	110	49990	50.00	ug/L	100
50) tert-amyl alcohol	4.33	59	29995	250.00	ug/L	100
51) carbon tetrachloride	4.07	119	123350	50.00	ug/L	100
54) 2,2,4-trimethylpentane	4.26	57	369079	50.00	ug/L	100
55) tert-amyl methyl ether	4.36	87	82565	50.00	ug/L	100
56) n-butyl alcohol	4.90	56	94399	2500.00	ug/L	100
57) benzene	4.28	78	361942	50.00	ug/L	100
58) heptane	4.45	57	78642	50.00	ug/L	100
59) isopropyl acetate	4.36	87	82565	50.00	ug/L	100
60) 1,2-dichloroethane	4.38	62	108654	50.00	ug/L	100
61) trichloroethene	4.90	95	99607	50.00	ug/L	100
62) ethyl acrylate	5.04	55	79953	50.00	ug/L	100
63) 2-nitropropane	5.76	41	24624	50.00	ug/L	100
64) 2-chloroethyl vinyl ether	5.76	63	237109	250.00	ug/L	100
65) methyl methacrylate	5.27	100	21376	50.00	ug/L	100
66) 1,2-dichloropropane	5.17	63	86069	50.00	ug/L	100
67) methylcyclohexane	5.01	83	176921	50.00	ug/L	100
68) dibromomethane	5.29	93	47387	50.00	ug/L	100
69) bromodichloromethane	5.45	83	113754	50.00	ug/L	100
70) epichlorohydrin	5.85	57	29668	250.00	ug/L	100
71) cis-1,3-dichloropropene	5.89	75	140522	50.00	ug/L	100
72) 4-methyl-2-pentanone	6.04	85	48254	200.00	ug/L	100
76) toluene	6.15	92	238529	50.00	ug/L	100
77) trans-1,3-dichloropropene	6.44	75	118703	50.00	ug/L	100
78) ethyl methacrylate	6.47	69	94735	50.00	ug/L	100
79) 1,1,2-trichloroethane	6.60	83	58288	50.00	ug/L	100
80) 2-hexanone	6.80	58	90614	200.00	ug/L	100
81) tetrachloroethene	6.62	166	118536	50.00	ug/L	100
82) 1,3-dichloropropane	6.75	76	119864	50.00	ug/L	100
83) butyl acetate	6.89	56	43466	50.00	ug/L	100
84) dibromochloromethane	6.92	129	76225	50.00	ug/L	100
85) 1,2-dibromoethane	7.02	107	88619	50.00	ug/L	100
86) n-butyl ether	7.47	57	389655	50.00	ug/L	100
87) chlorobenzene	7.42	112	259219	50.00	ug/L	100
88) 1,1,1,2-tetrachloroethane	7.51	131	93226	50.00	ug/L	100
89) ethylbenzene	7.49	91	457486	50.00	ug/L	100
90) m,p-xylene	7.60	106	360331	100.00	ug/L	100
91) o-xylene	7.93	91	361635	50.00	ug/L	100
92) styrene	7.96	104	298865	50.00	ug/L	100

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V3C6743\
 Data File : 3C149632.D
 Acq On : 13 Feb 2019 10:02 pm
 Operator : juntaep
 Sample : ICC6743-50
 Misc : MS32156,V3C6743,5.0,,,,,1
 ALS Vial : 12 Sample Multiplier: 1

Quant Time: Feb 14 12:16:13 2019
 Quant Method : C:\MSDCHEM\1\METHODS\M3C6743.M
 Quant Title : Method SW846 8260C, Rxi624 20m x 0.18mm x 1.0um
 QLast Update : Thu Feb 14 08:04:39 2019
 Response via : Initial Calibration

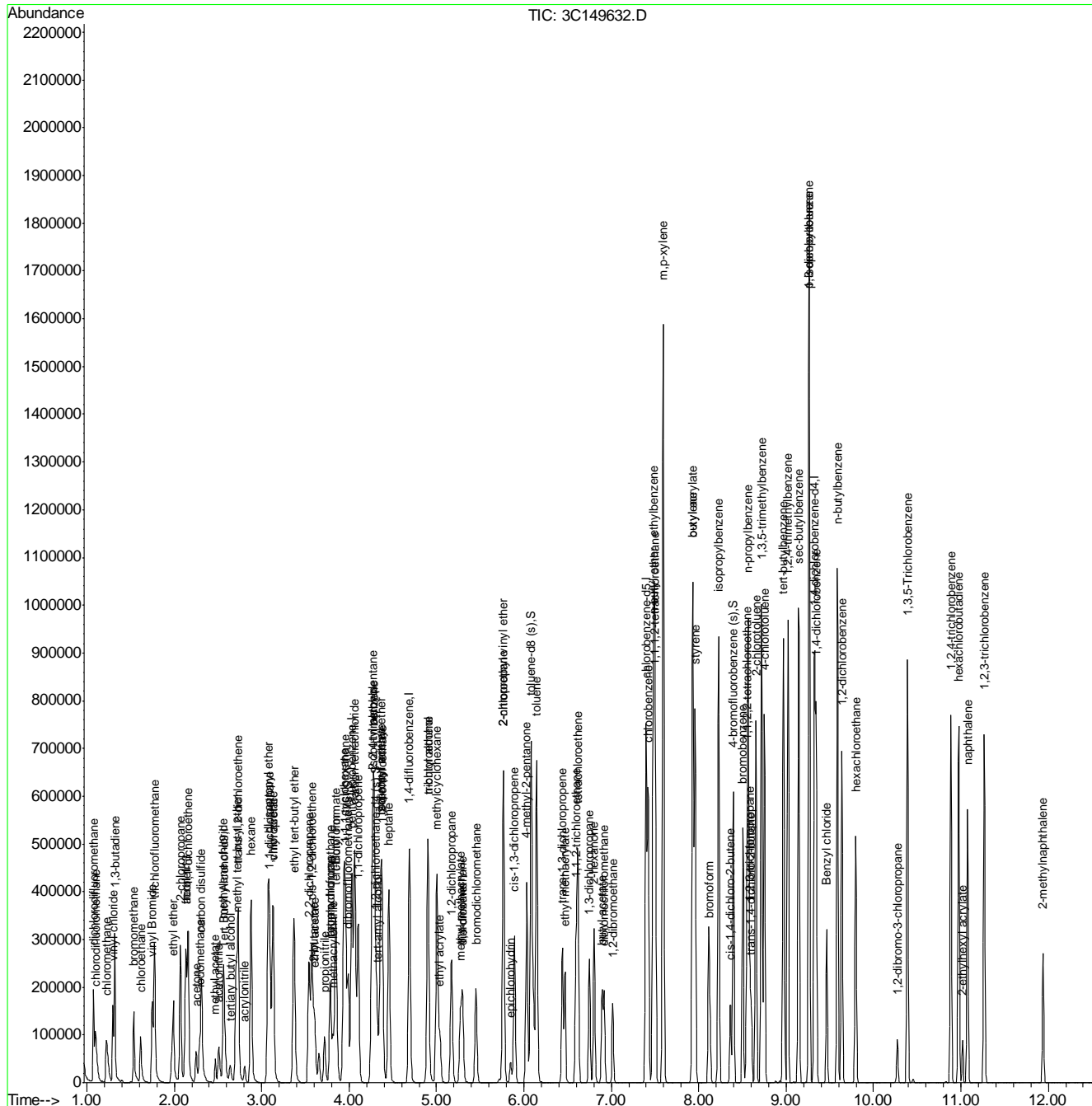
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
93) bromoform	8.13	173	45928	50.00	ug/L	100
94) butyl acrylate	7.92	55	132352	50.00	ug/L	100
95) isopropylbenzene	8.23	105	471466	50.00	ug/L	100
96) cis-1,4-dichloro-2-butene	8.36	53	26337	50.00	ug/L	100
99) bromobenzene	8.51	156	120147	50.00	ug/L	100
100) 1,1,2,2-tetrachloroethane	8.55	83	82147	50.00	ug/L	100
101) trans-1,4-dichloro-2-buten	8.60	88	11291	50.00	ug/L	100
102) 1,2,3-trichloropropane	8.59	110	26917	50.00	ug/L	100
103) n-propylbenzene	8.57	91	552084	50.00	ug/L	100
104) 2-chlorotoluene	8.66	126	115148	50.00	ug/L	100
105) 4-chlorotoluene	8.75	126	115517	50.00	ug/L	100
106) 1,3,5-trimethylbenzene	8.72	105	410786	50.00	ug/L	100
107) tert-butylbenzene	8.97	119	365432	50.00	ug/L	100
108) 1,2,4-trimethylbenzene	9.02	105	412124	50.00	ug/L	100
109) sec-butylbenzene	9.14	105	535046	50.00	ug/L	100
110) 1,3-dichlorobenzene	9.26	146	236824	50.00	ug/L	100
111) p-isopropyltoluene	9.26	119	473720	50.00	ug/L	100
112) 1,4-dichlorobenzene	9.34	146	235893	50.00	ug/L	100
113) 1,2-dichlorobenzene	9.64	146	219998	50.00	ug/L	100
114) n-butylbenzene	9.59	92	236824	50.00	ug/L	100
115) 1,2-dibromo-3-chloropropan	10.27	157	20001	50.00	ug/L	100
116) 1,3,5-Trichlorobenzene	10.39	180	219546	50.00	ug/L	100
117) 1,2,4-trichlorobenzene	10.88	180	187603	50.00	ug/L	100
118) hexachlorobutadiene	10.97	225	122641	50.00	ug/L	100
119) naphthalene	11.08	128	331729	50.00	ug/L	100
120) 1,2,3-trichlorobenzene	11.27	180	175714	50.00	ug/L	100
121) hexachloroethane	9.80	201	65397	50.00	ug/L	100
122) Benzyl chloride	9.46	91	156995	50.00	ug/L	100
123) 2-ethylhexyl acrylate	11.02	70	18355	10.00	ug/L	100
124) 2-methylnaphthalene	11.94	142	101795	25.00	ug/L	100

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

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V3C6743\
 Data File : 3C149632.D
 Acq On : 13 Feb 2019 10:02 pm
 Operator : juntaep
 Sample : ICC6743-50
 Misc : MS32156,V3C6743,5.0,,,,,1
 ALS Vial : 12 Sample Multiplier: 1

Quant Time: Feb 14 12:16:13 2019
 Quant Method : C:\MSDCHEM\1\METHODS\M3C6743.M
 Quant Title : Method SW846 8260C, Rxi624 20m x 0.18mm x 1.0um
 QLast Update : Thu Feb 14 08:04:39 2019
 Response via : Initial Calibration



7.7.7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V3C6743\
 Data File : 3C149633.D
 Acq On : 13 Feb 2019 10:25 pm
 Operator : juntaep
 Sample : IC6743-100
 Misc : MS32156,V3C6743,5.0,,,,,1
 ALS Vial : 13 Sample Multiplier: 1

Quant Time: Feb 14 12:16:50 2019
 Quant Method : C:\MSDCHEM\1\METHODS\M3C6743.M
 Quant Title : Method SW846 8260C, Rxi624 20m x 0.18mm x 1.0um
 QLast Update : Thu Feb 14 08:04:39 2019
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	2.58	65	60394	500.00	ug/L	0.00
5) pentafluorobenzene	4.03	168	275607	50.00	ug/L	0.00
52) 1,4-difluorobenzene	4.69	114	373320	50.00	ug/L	0.00
74) chlorobenzene-d5	7.40	117	326743	50.00	ug/L	0.00
97) 1,4-dichlorobenzene-d4	9.33	152	182455	50.00	ug/L	0.00

System Monitoring Compounds

45) dibromofluoromethane (s)	3.99	113	100426	49.60	ug/L	0.00
Spiked Amount	50.000	Range	75 - 127	Recovery	=	99.20%
53) 1,2-dichloroethane-d4 (s)	4.31	65	98987	49.26	ug/L	0.00
Spiked Amount	50.000	Range	75 - 130	Recovery	=	98.52%
75) toluene-d8 (s)	6.08	98	405055	49.98	ug/L	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	=	99.96%
98) 4-bromofluorobenzene (s)	8.40	95	147350	49.54	ug/L	0.00
Spiked Amount	50.000	Range	79 - 127	Recovery	=	99.08%

Target Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
3) tertiary butyl alcohol	2.64	59	67248	478.42	ug/L	98
4) 1,4-dioxane	5.29	88	42134	2454.32	ug/L	99
6) chlorodifluoromethane	1.10	51	160445	89.15	ug/L	98
7) dichlorodifluoromethane	1.08	85	235928	89.94	ug/L	98
8) chloromethane	1.22	50	188296	88.82	ug/L	99
9) 1,3-butadiene	1.32	54	123973	89.53	ug/L	99
10) vinyl chloride	1.30	62	197972	89.72	ug/L	98
11) bromomethane	1.54	94	101350	78.51	ug/L	99
12) chloroethane	1.61	64	118388	90.24	ug/L	99
13) vinyl Bromide	1.75	106	173599	90.91	ug/L	98
14) trichlorofluoromethane	1.77	101	296466	91.24	ug/L	97
15) ethyl ether	1.99	74	84923	93.87	ug/L	95
16) 2-chloropropane	2.07	63	69637	92.94	ug/L	99
17) acrolein	2.14	56	18435	93.50	ug/L	98
18) freon 113	2.13	151	148387	93.63	ug/L	100
19) 1,1-dichloroethene	2.16	96	160248	93.25	ug/L	100
20) acetone	2.25	58	35216	369.73	ug/L	88
21) acetonitrile	2.51	41	123413	890.88	ug/L	99
22) iodomethane	2.29	142	181424	100.81	ug/L	97
23) carbon disulfide	2.31	76	419428	92.94	ug/L	99
24) methylene chloride	2.56	84	159871	91.66	ug/L	98
25) methyl acetate	2.47	43	81736	92.60	ug/L	99
26) methyl tert butyl ether	2.71	73	412254	91.65	ug/L	99
27) trans-1,2-dichloroethene	2.73	96	177130	92.25	ug/L	99
28) hexane	2.88	57	274296	91.33	ug/L	99
29) di-isopropyl ether	3.08	45	502399	91.12	ug/L	100
30) ethyl tert-butyl ether	3.37	59	502895	91.60	ug/L	99
31) 2-butanone	3.60	72	55997	368.43	ug/L	96
32) 1,1-dichloroethane	3.10	63	297394	92.45	ug/L	97
33) chloroprene	3.13	53	265106	92.64	ug/L	100
34) acrylonitrile	2.80	53	34921	91.53	ug/L	98
35) vinyl acetate	3.12	86	33750	96.67	ug/L #	88
36) ethyl acetate	3.61	45	18247	91.93	ug/L	97

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V3C6743\
 Data File : 3C149633.D
 Acq On : 13 Feb 2019 10:25 pm
 Operator : juntaep
 Sample : IC6743-100
 Misc : MS32156,V3C6743,5.0,,,,,1
 ALS Vial : 13 Sample Multiplier: 1

Quant Time: Feb 14 12:16:50 2019
 Quant Method : C:\MSDCHEM\1\METHODS\M3C6743.M
 Quant Title : Method SW846 8260C, Rxi624 20m x 0.18mm x 1.0um
 QLast Update : Thu Feb 14 08:04:39 2019
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
37) 2,2-dichloropropane	3.54	77	274762	93.31	ug/L	98
38) cis-1,2-dichloroethene	3.58	96	195858	93.31	ug/L	98
39) propionitrile	3.72	54	151143	916.05	ug/L	99
40) bromochloromethane	3.79	130	106104	91.58	ug/L	93
41) tetrahydrofuran	3.78	71	13826	97.03	ug/L	93
42) chloroform	3.85	83	305834	92.94	ug/L	99
43) tert-Butyl Formate	3.86	59	113077	99.78	ug/L	98
44) isobutyl alcohol	4.26	41	234007	908.31	ug/L	98
46) methacrylonitrile	3.81	67	48935	94.70	ug/L	98
47) 1,1,1-trichloroethane	3.96	97	292832	93.91	ug/L	99
48) cyclohexane	3.94	84	288711	91.75	ug/L	98
49) 1,1-dichloropropene	4.11	110	93917	91.64	ug/L	99
50) tert-amyl alcohol	4.33	59	63140	513.37	ug/L #	76
51) carbon tetrachloride	4.07	119	244227	96.57	ug/L	100
54) 2,2,4-trimethylpentane	4.26	57	701208	94.36	ug/L	98
55) tert-amyl methyl ether	4.36	87	160088	96.30	ug/L	98
56) n-butyl alcohol	4.90	56	188967	4970.87	ug/L	97
57) benzene	4.28	78	679840	93.28	ug/L	99
58) heptane	4.45	57	152499	96.31	ug/L	98
59) isopropyl acetate	4.36	87	160088	96.30	ug/L	99
60) 1,2-dichloroethane	4.38	62	208245	95.19	ug/L	98
61) trichloroethene	4.90	95	188626	94.05	ug/L	99
62) ethyl acrylate	5.04	55	153289	95.22	ug/L	99
63) 2-nitropropane	5.76	41	48586	97.99	ug/L #	90
64) 2-chloroethyl vinyl ether	5.76	63	448344	469.54	ug/L	100
65) methyl methacrylate	5.27	100	40700	94.56	ug/L	98
66) 1,2-dichloropropane	5.17	63	163022	94.07	ug/L	99
67) methylcyclohexane	5.01	83	334901	94.01	ug/L	100
68) dibromomethane	5.29	93	91754	96.16	ug/L	96
69) bromodichloromethane	5.45	83	224669	98.09	ug/L	100
70) epichlorohydrin	5.85	57	56784	475.28	ug/L	99
71) cis-1,3-dichloropropene	5.89	75	275613	97.41	ug/L	97
72) 4-methyl-2-pentanone	6.04	85	92364	380.25	ug/L	98
76) toluene	6.15	92	460464	93.95	ug/L	98
77) trans-1,3-dichloropropene	6.44	75	232309	95.24	ug/L	99
78) ethyl methacrylate	6.47	69	181470	93.22	ug/L	99
79) 1,1,2-trichloroethane	6.60	83	112414	93.86	ug/L	96
80) 2-hexanone	6.81	58	174411	374.69	ug/L	93
81) tetrachloroethene	6.62	166	229117	94.07	ug/L	100
82) 1,3-dichloropropane	6.75	76	226603	92.00	ug/L	99
83) butyl acetate	6.89	56	83073	93.01	ug/L	93
84) dibromochloromethane	6.92	129	157399	100.49	ug/L	98
85) 1,2-dibromoethane	7.02	107	168054	92.29	ug/L	97
86) n-butyl ether	7.47	57	748347	93.47	ug/L	100
87) chlorobenzene	7.42	112	500412	93.95	ug/L	97
88) 1,1,1,2-tetrachloroethane	7.51	131	185121	96.64	ug/L	99
89) ethylbenzene	7.49	91	876490	93.24	ug/L	98
90) m,p-xylene	7.60	106	687722	185.77	ug/L	98
91) o-xylene	7.93	91	692331	93.17	ug/L	100
92) styrene	7.96	104	570486	92.90	ug/L	100

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V3C6743\
 Data File : 3C149633.D
 Acq On : 13 Feb 2019 10:25 pm
 Operator : juntaep
 Sample : IC6743-100
 Misc : MS32156,V3C6743,5.0,,,,,1
 ALS Vial : 13 Sample Multiplier: 1

Quant Time: Feb 14 12:16:50 2019
 Quant Method : C:\MSDCHEM\1\METHODS\M3C6743.M
 Quant Title : Method SW846 8260C, Rxi624 20m x 0.18mm x 1.0um
 QLast Update : Thu Feb 14 08:04:39 2019
 Response via : Initial Calibration

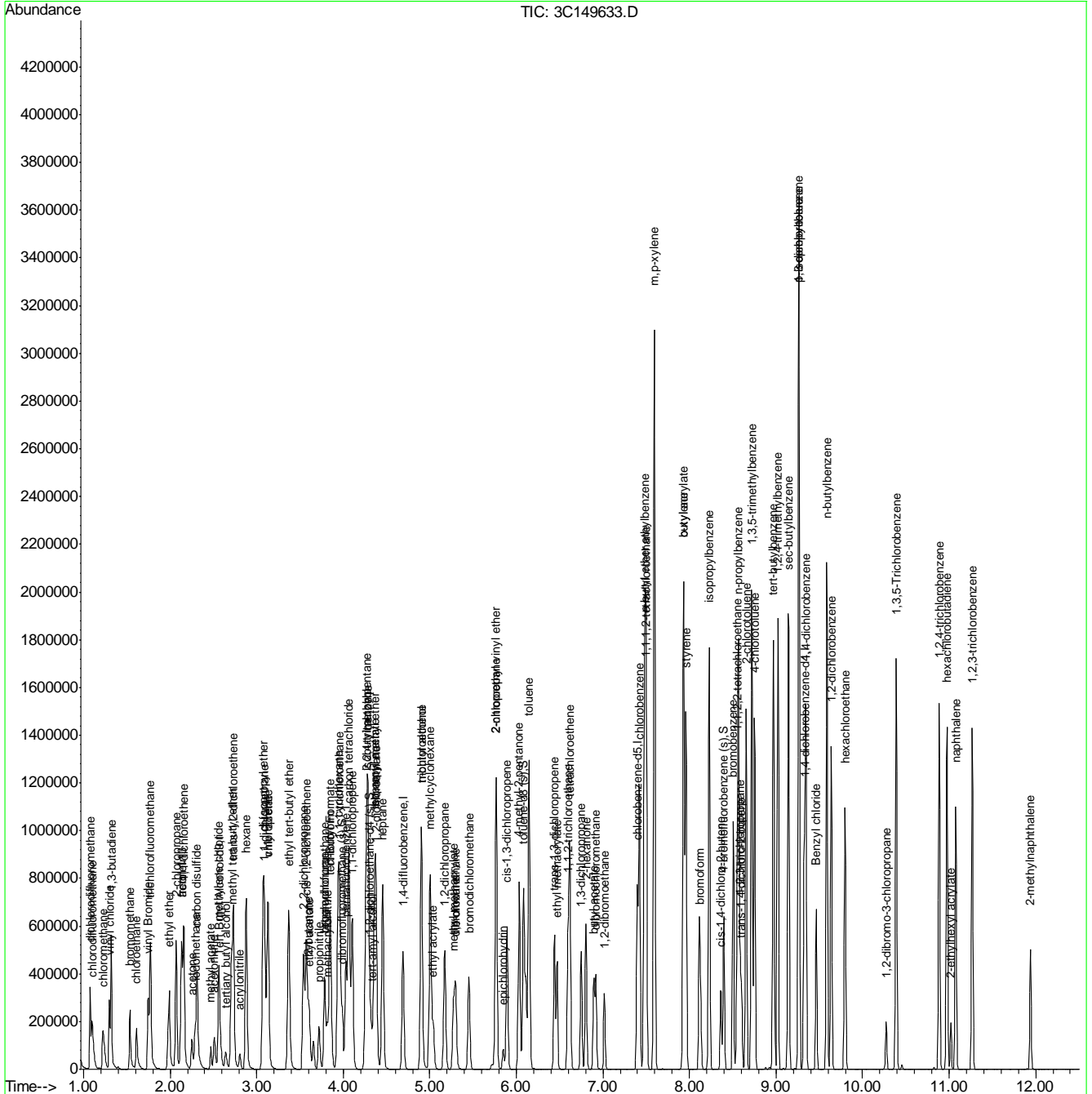
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
93) bromoform	8.13	173	99246	105.16	ug/L	98
94) butyl acrylate	7.92	55	258963	95.22	ug/L	99
95) isopropylbenzene	8.23	105	898248	92.72	ug/L	99
96) cis-1,4-dichloro-2-butene	8.36	53	53468	98.80	ug/L	98
99) bromobenzene	8.51	156	232152	92.74	ug/L	98
100) 1,1,2,2-tetrachloroethane	8.55	83	161319	94.25	ug/L	97
101) trans-1,4-dichloro-2-buten	8.60	88	23007	97.79	ug/L	90
102) 1,2,3-trichloropropane	8.59	110	52668	93.91	ug/L	99
103) n-propylbenzene	8.57	91	1044640	90.81	ug/L	99
104) 2-chlorotoluene	8.66	126	223179	93.02	ug/L	100
105) 4-chlorotoluene	8.75	126	224550	93.29	ug/L	99
106) 1,3,5-trimethylbenzene	8.72	105	796332	93.04	ug/L	99
107) tert-butylbenzene	8.97	119	710023	93.25	ug/L	99
108) 1,2,4-trimethylbenzene	9.02	105	799962	93.16	ug/L	100
109) sec-butylbenzene	9.14	105	1035303	92.87	ug/L	99
110) 1,3-dichlorobenzene	9.26	146	460037	93.23	ug/L	99
111) p-isopropyltoluene	9.26	119	923668	93.58	ug/L	98
112) 1,4-dichlorobenzene	9.34	146	458306	93.24	ug/L	98
113) 1,2-dichlorobenzene	9.64	146	430167	93.84	ug/L	99
114) n-butylbenzene	9.59	92	467313	94.70	ug/L	98
115) 1,2-dibromo-3-chloropropan	10.27	157	41888	100.51	ug/L	99
116) 1,3,5-Trichlorobenzene	10.39	180	429903	93.98	ug/L	99
117) 1,2,4-trichlorobenzene	10.89	180	370252	94.72	ug/L	99
118) hexachlorobutadiene	10.97	225	246707	96.55	ug/L	99
119) naphthalene	11.08	128	655118	94.78	ug/L	99
120) 1,2,3-trichlorobenzene	11.27	180	342394	93.52	ug/L	99
121) hexachloroethane	9.80	201	143610	105.39	ug/L	94
122) Benzyl chloride	9.46	91	330384	101.00	ug/L	99
123) 2-ethylhexyl acrylate	11.02	70	39094	20.44	ug/L	99
124) 2-methylnaphthalene	11.94	142	186242	43.90	ug/L	99

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

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V3C6743\
Data File : 3C149633.D
Acq On : 13 Feb 2019 10:25 pm
Operator : juntaep
Sample : IC6743-100
Misc : MS32156,V3C6743,5.0,,,,1
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Feb 14 12:16:50 2019
Quant Method : C:\MSDCHEM\1\METHODS\M3C6743.M
Quant Title : Method SW846 8260C, Rxi624 20m x 0.18mm x 1.0um
QLast Update : Thu Feb 14 08:04:39 2019
Response via : Initial Calibration



7.7.8
7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V3C6743\
 Data File : 3C149634.D
 Acq On : 13 Feb 2019 10:48 pm
 Operator : juntaep
 Sample : IC6743-200
 Misc : MS32156,V3C6743,5.0,,,,,1
 ALS Vial : 14 Sample Multiplier: 1

Quant Time: Feb 14 12:17:43 2019
 Quant Method : C:\MSDCHEM\1\METHODS\M3C6743.M
 Quant Title : Method SW846 8260C, Rxi624 20m x 0.18mm x 1.0um
 QLast Update : Thu Feb 14 08:04:39 2019
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	2.59	65	61507	500.00	ug/L	0.01
5) pentafluorobenzene	4.03	168	272070	50.00	ug/L	0.00
52) 1,4-difluorobenzene	4.69	114	368045	50.00	ug/L	0.00
74) chlorobenzene-d5	7.40	117	324670	50.00	ug/L	0.00
97) 1,4-dichlorobenzene-d4	9.33	152	189579	50.00	ug/L	0.00

System Monitoring Compounds

45) dibromofluoromethane (s)	3.99	113	98616	49.34	ug/L	0.00
Spiked Amount	50.000	Range	75 - 127	Recovery	=	98.68%
53) 1,2-dichloroethane-d4 (s)	4.31	65	98314	49.62	ug/L	0.00
Spiked Amount	50.000	Range	75 - 130	Recovery	=	99.24%
75) toluene-d8 (s)	6.09	98	400802	49.77	ug/L	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	=	99.54%
98) 4-bromofluorobenzene (s)	8.40	95	151536	49.03	ug/L	0.00
Spiked Amount	50.000	Range	79 - 127	Recovery	=	98.06%

Target Compounds

						Qvalue
3) tertiary butyl alcohol	2.65	59	131313	917.28	ug/L	98
4) 1,4-dioxane	5.29	88	82728	4731.74	ug/L	100
6) chlorodifluoromethane	1.10	51	288939	162.63	ug/L	97
7) dichlorodifluoromethane	1.08	85	421099	162.61	ug/L	98
8) chloromethane	1.22	50	345204	164.95	ug/L	100
9) 1,3-butadiene	1.32	54	221556	162.09	ug/L	99
10) vinyl chloride	1.30	62	361486	165.96	ug/L	99
11) bromomethane	1.54	94	183190	143.75	ug/L	98
12) chloroethane	1.61	64	227562	175.71	ug/L	98
13) vinyl Bromide	1.74	106	327399	173.67	ug/L	98
14) trichlorofluoromethane	1.77	101	560004	174.59	ug/L	100
15) ethyl ether	1.99	74	157908	176.82	ug/L	86
16) 2-chloropropane	2.07	63	122853	166.10	ug/L	96
17) acrolein	2.14	56	34469	177.09	ug/L	93
18) freon 113	2.13	151	277038	177.08	ug/L	98
19) 1,1-dichloroethene	2.16	96	295413	174.14	ug/L	96
20) acetone	2.25	58	65679	698.52	ug/L	99
21) acetonitrile	2.52	41	232982	1703.70	ug/L	100
22) iodomethane	2.29	142	338973	190.80	ug/L	98
23) carbon disulfide	2.31	76	774593	173.87	ug/L	99
24) methylene chloride	2.56	84	299861	174.15	ug/L	98
25) methyl acetate	2.47	43	153517	176.17	ug/L	98
26) methyl tert butyl ether	2.71	73	779161	175.47	ug/L	96
27) trans-1,2-dichloroethene	2.73	96	331180	174.72	ug/L	99
28) hexane	2.88	57	509325	171.79	ug/L	99
29) di-isopropyl ether	3.08	45	940037	172.70	ug/L	98
30) ethyl tert-butyl ether	3.37	59	952737	175.79	ug/L	99
31) 2-butanone	3.60	72	106886	712.40	ug/L	95
32) 1,1-dichloroethane	3.10	63	555516	174.93	ug/L	98
33) chloroprene	3.13	53	500300	177.10	ug/L	99
34) acrylonitrile	2.80	53	66331	176.12	ug/L	97
35) vinyl acetate	3.12	86	63996	185.69	ug/L #	86
36) ethyl acetate	3.61	45	34829	177.76	ug/L	97

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V3C6743\
 Data File : 3C149634.D
 Acq On : 13 Feb 2019 10:48 pm
 Operator : juntaep
 Sample : IC6743-200
 Misc : MS32156,V3C6743,5.0,,,,,1
 ALS Vial : 14 Sample Multiplier: 1

Quant Time: Feb 14 12:17:43 2019
 Quant Method : C:\MSDCHEM\1\METHODS\M3C6743.M
 Quant Title : Method SW846 8260C, Rxi624 20m x 0.18mm x 1.0um
 QLast Update : Thu Feb 14 08:04:39 2019
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
37) 2,2-dichloropropane	3.54	77	517381	177.98	ug/L	98
38) cis-1,2-dichloroethene	3.58	96	364957	176.13	ug/L	98
39) propionitrile	3.72	54	290956	1786.35	ug/L	94
40) bromochloromethane	3.79	130	198461	173.52	ug/L	94
41) tetrahydrofuran	3.78	71	26546	188.72	ug/L	94
42) chloroform	3.84	83	575776	177.24	ug/L	99
43) tert-Butyl Formate	3.86	59	228170	203.96	ug/L	95
44) isobutyl alcohol	4.27	41	443314	1743.11	ug/L	99
46) methacrylonitrile	3.81	67	93687	183.67	ug/L	82
47) 1,1,1-trichloroethane	3.96	97	552838	179.59	ug/L	99
48) cyclohexane	3.94	84	538034	173.20	ug/L	99
49) 1,1-dichloropropene	4.11	110	174620	172.59	ug/L	97
50) tert-amyl alcohol	4.34	59	122083	1005.51	ug/L #	31
51) carbon tetrachloride	4.07	119	463229	185.55	ug/L	99
54) 2,2,4-trimethylpentane	4.27	57	1307403	178.45	ug/L	99
55) tert-amyl methyl ether	4.37	87	303366	185.10	ug/L #	87
56) n-butyl alcohol	4.91	56	395003	10539.67	ug/L	99
57) benzene	4.28	78	1264411	175.98	ug/L	99
58) heptane	4.45	57	284998	182.56	ug/L	98
59) isopropyl acetate	4.37	87	303366	185.10	ug/L #	80
60) 1,2-dichloroethane	4.38	62	394029	182.69	ug/L	98
61) trichloroethene	4.90	95	354875	179.48	ug/L	99
62) ethyl acrylate	5.04	55	296511	186.82	ug/L	99
63) 2-nitropropane	5.75	41	95117	194.59	ug/L #	2
64) 2-chloroethyl vinyl ether	5.77	63	848884	901.77	ug/L	98
65) methyl methacrylate	5.27	100	77659	183.02	ug/L	98
66) 1,2-dichloropropane	5.17	63	304018	177.94	ug/L	99
67) methylcyclohexane	5.01	83	622295	177.19	ug/L	99
68) dibromomethane	5.30	93	175926	187.02	ug/L	94
69) bromodichloromethane	5.45	83	432949	191.73	ug/L	100
70) epichlorohydrin	5.85	57	111998	950.86	ug/L	98
71) cis-1,3-dichloropropene	5.89	75	523897	187.81	ug/L	99
72) 4-methyl-2-pentanone	6.04	85	177773	742.36	ug/L	98
76) toluene	6.15	92	864573	177.52	ug/L	98
77) trans-1,3-dichloropropene	6.44	75	450434	185.85	ug/L	100
78) ethyl methacrylate	6.47	69	349808	180.85	ug/L	99
79) 1,1,2-trichloroethane	6.60	83	213562	179.45	ug/L	95
80) 2-hexanone	6.81	58	340707	736.62	ug/L	94
81) tetrachloroethene	6.62	166	434146	179.38	ug/L	99
82) 1,3-dichloropropane	6.75	76	429951	175.68	ug/L	99
83) butyl acetate	6.89	56	164697	185.58	ug/L	97
84) dibromochloromethane	6.92	129	311472	200.13	ug/L	99
85) 1,2-dibromoethane	7.02	107	322412	178.19	ug/L	100
86) n-butyl ether	7.47	57	1437496	180.69	ug/L	99
87) chlorobenzene	7.42	112	952399	179.95	ug/L	98
88) 1,1,1,2-tetrachloroethane	7.51	131	366415	192.50	ug/L	99
89) ethylbenzene	7.49	91	1652855	176.95	ug/L	98
90) m,p-xylene	7.60	106	1297872	352.82	ug/L	91
91) o-xylene	7.94	91	1333094	180.55	ug/L	98
92) styrene	7.96	104	1107818	181.55	ug/L	98

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V3C6743\
 Data File : 3C149634.D
 Acq On : 13 Feb 2019 10:48 pm
 Operator : juntaep
 Sample : IC6743-200
 Misc : MS32156,V3C6743,5.0,,,,1
 ALS Vial : 14 Sample Multiplier: 1

Quant Time: Feb 14 12:17:43 2019
 Quant Method : C:\MSDCHEM\1\METHODS\M3C6743.M
 Quant Title : Method SW846 8260C, Rxi624 20m x 0.18mm x 1.0um
 QLast Update : Thu Feb 14 08:04:39 2019
 Response via : Initial Calibration

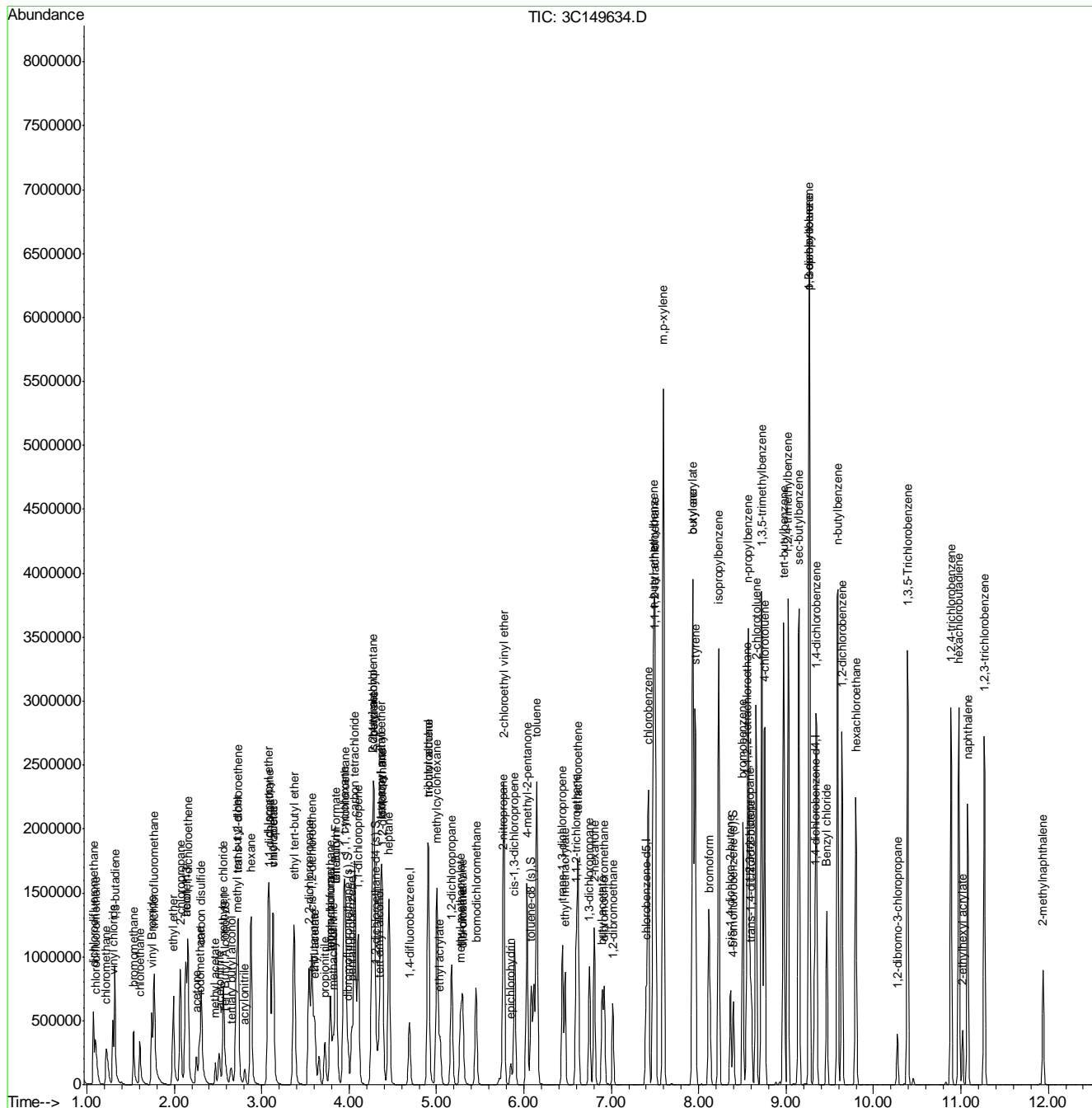
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
93) bromoform	8.13	173	208139	221.96	ug/L	99
94) butyl acrylate	7.92	55	531497	196.68	ug/L	100
95) isopropylbenzene	8.23	105	1718834	178.56	ug/L	97
96) cis-1,4-dichloro-2-butene	8.36	53	111998	208.28	ug/L #	88
99) bromobenzene	8.51	156	457771	175.99	ug/L	98
100) 1,1,2,2-tetrachloroethane	8.55	83	331561	186.43	ug/L	99
101) trans-1,4-dichloro-2-buten	8.60	88	49130	200.99	ug/L	98
102) 1,2,3-trichloropropane	8.59	110	106146	182.15	ug/L	94
103) n-propylbenzene	8.57	91	1988128	166.34	ug/L	97
104) 2-chlorotoluene	8.66	126	438036	175.71	ug/L	98
105) 4-chlorotoluene	8.76	126	443432	177.31	ug/L	93
106) 1,3,5-trimethylbenzene	8.72	105	1538067	172.95	ug/L	98
107) tert-butylbenzene	8.97	119	1379043	174.31	ug/L	99
108) 1,2,4-trimethylbenzene	9.02	105	1554944	174.28	ug/L	99
109) sec-butylbenzene	9.15	105	1984321	171.31	ug/L	96
110) 1,3-dichlorobenzene	9.26	146	894986	174.56	ug/L	97
111) p-isopropyltoluene	9.27	119	1773237	172.90	ug/L	96
112) 1,4-dichlorobenzene	9.35	146	907820	177.76	ug/L	98
113) 1,2-dichlorobenzene	9.64	146	852089	178.90	ug/L	98
114) n-butylbenzene	9.59	92	920139	179.46	ug/L	94
115) 1,2-dibromo-3-chloropropan	10.27	157	86960	200.83	ug/L	99
116) 1,3,5-Trichlorobenzene	10.39	180	834116	175.49	ug/L	99
117) 1,2,4-trichlorobenzene	10.88	180	707505	174.20	ug/L	99
118) hexachlorobutadiene	10.97	225	472064	177.79	ug/L	99
119) naphthalene	11.08	128	1252498	174.40	ug/L	98
120) 1,2,3-trichlorobenzene	11.27	180	653329	171.74	ug/L	99
121) hexachloroethane	9.80	201	305354	215.67	ug/L	91
122) Benzyl chloride	9.46	91	692352	203.70	ug/L	99
123) 2-ethylhexyl acrylate	11.02	70	80368	40.45	ug/L	96
124) 2-methylnaphthalene	11.94	142	338886	76.89	ug/L	98

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

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V3C6743\
 Data File : 3C149634.D
 Acq On : 13 Feb 2019 10:48 pm
 Operator : juntaep
 Sample : IC6743-200
 Misc : MS32156,V3C6743,5.0,,,,1
 ALS Vial : 14 Sample Multiplier: 1

Quant Time: Feb 14 12:17:43 2019
 Quant Method : C:\MSDCHEM\1\METHODS\M3C6743.M
 Quant Title : Method SW846 8260C, Rxi624 20m x 0.18mm x 1.0um
 QLast Update : Thu Feb 14 08:04:39 2019
 Response via : Initial Calibration



7.7.9
7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V3C6743\
 Data File : 3C149637.D
 Acq On : 13 Feb 2019 11:59 pm
 Operator : juntaep
 Sample : ICV6743-50
 Misc : MS32156,V3C6743,5.0,,,,,1
 ALS Vial : 17 Sample Multiplier: 1

Quant Time: Feb 15 11:12:59 2019
 Quant Method : C:\MSDCHEM\1\METHODS\M3C6743.M
 Quant Title : Method SW846 8260C, Rxi624 20m x 0.18mm x 1.0um
 QLast Update : Fri Feb 15 09:30:13 2019
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	2.58	65	59225	500.00	ug/L	0.00
5) pentafluorobenzene	4.03	168	264590	50.00	ug/L	0.00
52) 1,4-difluorobenzene	4.69	114	364061	50.00	ug/L	0.00
74) chlorobenzene-d5	7.40	117	312226	50.00	ug/L	0.00
97) 1,4-dichlorobenzene-d4	9.33	152	170861	50.00	ug/L	0.00

System Monitoring Compounds

45) dibromofluoromethane (s)	3.99	113	97026	50.75	ug/L	0.00
Spiked Amount	50.000	Range	75 - 127	Recovery	=	101.50%
53) 1,2-dichloroethane-d4 (s)	4.31	65	95952	48.51	ug/L	0.00
Spiked Amount	50.000	Range	75 - 130	Recovery	=	97.02%
75) toluene-d8 (s)	6.08	98	387876	50.19	ug/L	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	=	100.38%
98) 4-bromofluorobenzene (s)	8.40	95	139779	49.76	ug/L	0.00
Spiked Amount	50.000	Range	79 - 127	Recovery	=	99.52%

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
3) tertiary butyl alcohol	2.64	59	34863	267.03	ug/L	96
4) 1,4-dioxane	5.29	88	21247	1335.25	ug/L	98
6) chlorodifluoromethane	1.10	51	83708	52.23	ug/L	98
7) dichlorodifluoromethane	1.08	85	133606	58.46	ug/L	98
8) chloromethane	1.22	50	100413	53.22	ug/L	99
9) 1,3-butadiene	1.32	54	76172	62.01	ug/L	99
10) vinyl chloride	1.30	62	106341	56.02	ug/L	99
11) bromomethane	1.54	94	67507	59.45	ug/L	99
12) chloroethane	1.62	64	63284	56.10	ug/L	99
13) vinyl Bromide	1.75	106	72736	44.65	ug/L	97
14) trichlorofluoromethane	1.77	101	157278	55.98	ug/L	100
15) ethyl ether	1.99	74	41909	52.39	ug/L	97
16) 2-chloropropane	2.07	63	34552	54.10	ug/L	93
17) acrolein	2.14	56	8122	49.37	ug/L	98
18) freon 113	2.13	151	79342	59.08	ug/L	98
19) 1,1-dichloroethene	2.16	96	76045	50.79	ug/L	100
22) iodomethane	2.29	142	75591	61.57	ug/L	99
23) carbon disulfide	2.31	76	234398	55.88	ug/L	99
24) methylene chloride	2.56	84	80606	49.24	ug/L	98
25) methyl acetate	2.47	43	39438	49.95	ug/L	97
26) methyl tert butyl ether	2.71	73	426389	106.85	ug/L	93
27) trans-1,2-dichloroethene	2.73	96	89234	52.35	ug/L	99
28) hexane	2.88	57	138834	51.47	ug/L	99
29) di-isopropyl ether	3.08	45	246440	50.87	ug/L	98
30) ethyl tert-butyl ether	3.37	59	244434	51.04	ug/L	99
31) 2-butanone	3.60	72	28417	218.87	ug/L	100
32) 1,1-dichloroethane	3.10	63	151221	54.59	ug/L	95
33) chloroprene	3.13	53	141443	57.48	ug/L	100
34) acrylonitrile	2.80	53	18073	53.69	ug/L	97
35) vinyl acetate	3.12	86	16170	53.58	ug/L #	81
36) ethyl acetate	3.61	45	8627	50.55	ug/L	87
37) 2,2-dichloropropane	3.54	77	138647	54.40	ug/L	99
38) cis-1,2-dichloroethene	3.58	96	99859	54.20	ug/L	100

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V3C6743\
 Data File : 3C149637.D
 Acq On : 13 Feb 2019 11:59 pm
 Operator : juntaep
 Sample : ICV6743-50
 Misc : MS32156,V3C6743,5.0,,,,,1
 ALS Vial : 17 Sample Multiplier: 1

Quant Time: Feb 15 11:12:59 2019
 Quant Method : C:\MSDCHEM\1\METHODS\M3C6743.M
 Quant Title : Method SW846 8260C, Rxi624 20m x 0.18mm x 1.0um
 QLast Update : Fri Feb 15 09:30:13 2019
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
39) propionitrile	3.72	54	77047	515.74	ug/L	99
40) bromochloromethane	3.78	130	54040	52.32	ug/L	96
41) tetrahydrofuran	3.78	71	6871	53.21	ug/L	91
42) chloroform	3.85	83	154911	51.71	ug/L	99
43) tert-Butyl Formate	3.86	59	38008	40.09	ug/L	93
44) isobutyl alcohol	4.26	41	119163	512.54	ug/L	97
46) methacrylonitrile	3.81	67	24117	54.39	ug/L	93
47) 1,1,1-trichloroethane	3.96	97	145407	53.78	ug/L	99
48) cyclohexane	3.94	84	154750	55.97	ug/L	99
49) 1,1-dichloropropene	4.11	110	48626	54.73	ug/L	98
50) tert-amyl alcohol	4.33	59	28867	245.27	ug/L	96
51) carbon tetrachloride	4.07	119	119527	55.94	ug/L	99
54) 2,2,4-trimethylpentane	4.26	57	348777	51.65	ug/L	99
55) tert-amyl methyl ether	4.36	87	74393	49.30	ug/L	96
56) n-butyl alcohol	4.90	56	90009	2671.64	ug/L	98
57) benzene	4.28	78	349182	52.15	ug/L	100
58) heptane	4.45	57	84054	58.68	ug/L	98
59) isopropyl acetate	4.36	87	74393	48.14	ug/L	96
60) 1,2-dichloroethane	4.38	62	104821	49.30	ug/L	99
61) trichloroethene	4.90	95	97260	53.46	ug/L	98
62) ethyl acrylate	5.04	55	75051	50.48	ug/L	97
63) 2-nitropropane	5.75	41	24303	53.63	ug/L #	34
64) 2-chloroethyl vinyl ether	5.76	63	222659	252.84	ug/L	99
65) methyl methacrylate	5.27	100	20243	53.89	ug/L	98
66) 1,2-dichloropropane	5.17	63	81534	51.25	ug/L	98
67) methylcyclohexane	5.01	83	169230	49.82	ug/L	99
68) dibromomethane	5.30	93	46414	53.28	ug/L	95
69) bromodichloromethane	5.45	83	107576	53.18	ug/L	100
70) epichlorohydrin	5.85	57	28717	259.92	ug/L	96
71) cis-1,3-dichloropropene	5.89	75	136714	54.02	ug/L	96
72) 4-methyl-2-pentanone	6.04	85	45167	213.17	ug/L	93
76) toluene	6.15	92	233389	52.38	ug/L	99
77) trans-1,3-dichloropropene	6.44	75	107853	52.66	ug/L	99
78) ethyl methacrylate	6.47	69	85433	50.17	ug/L	98
79) 1,1,2-trichloroethane	6.60	83	56482	51.52	ug/L	96
80) 2-hexanone	6.80	58	85363	203.49	ug/L	96
82) 1,3-dichloropropane	6.75	76	116840	52.83	ug/L	99
83) butyl acetate	6.89	56	40887	51.84	ug/L	95
84) dibromochloromethane	6.92	129	76062	58.91	ug/L	99
85) 1,2-dibromoethane	7.02	107	80141	50.39	ug/L	97
86) n-butyl ether	7.47	57	366640	50.55	ug/L	99
87) chlorobenzene	7.42	112	251331	51.23	ug/L	99
88) 1,1,1,2-tetrachloroethane	7.51	131	90911	56.14	ug/L	99
89) ethylbenzene	7.49	91	450029	52.18	ug/L	100
90) m,p-xylene	7.60	106	359829	105.88	ug/L	99
91) o-xylene	7.93	91	356096	52.21	ug/L	98
92) styrene	7.96	104	288124	52.75	ug/L	99
93) bromoform	8.13	173	46903	49.96	ug/L	97
94) butyl acrylate	7.92	55	127127	53.67	ug/L	99
95) isopropylbenzene	8.23	105	466590	53.68	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V3C6743\
 Data File : 3C149637.D
 Acq On : 13 Feb 2019 11:59 pm
 Operator : juntaep
 Sample : ICV6743-50
 Misc : MS32156,V3C6743,5.0,,,,,1
 ALS Vial : 17 Sample Multiplier: 1

Quant Time: Feb 15 11:12:59 2019
 Quant Method : C:\MSDCHEM\1\METHODS\M3C6743.M
 Quant Title : Method SW846 8260C, Rxi624 20m x 0.18mm x 1.0um
 QLast Update : Fri Feb 15 09:30:13 2019
 Response via : Initial Calibration

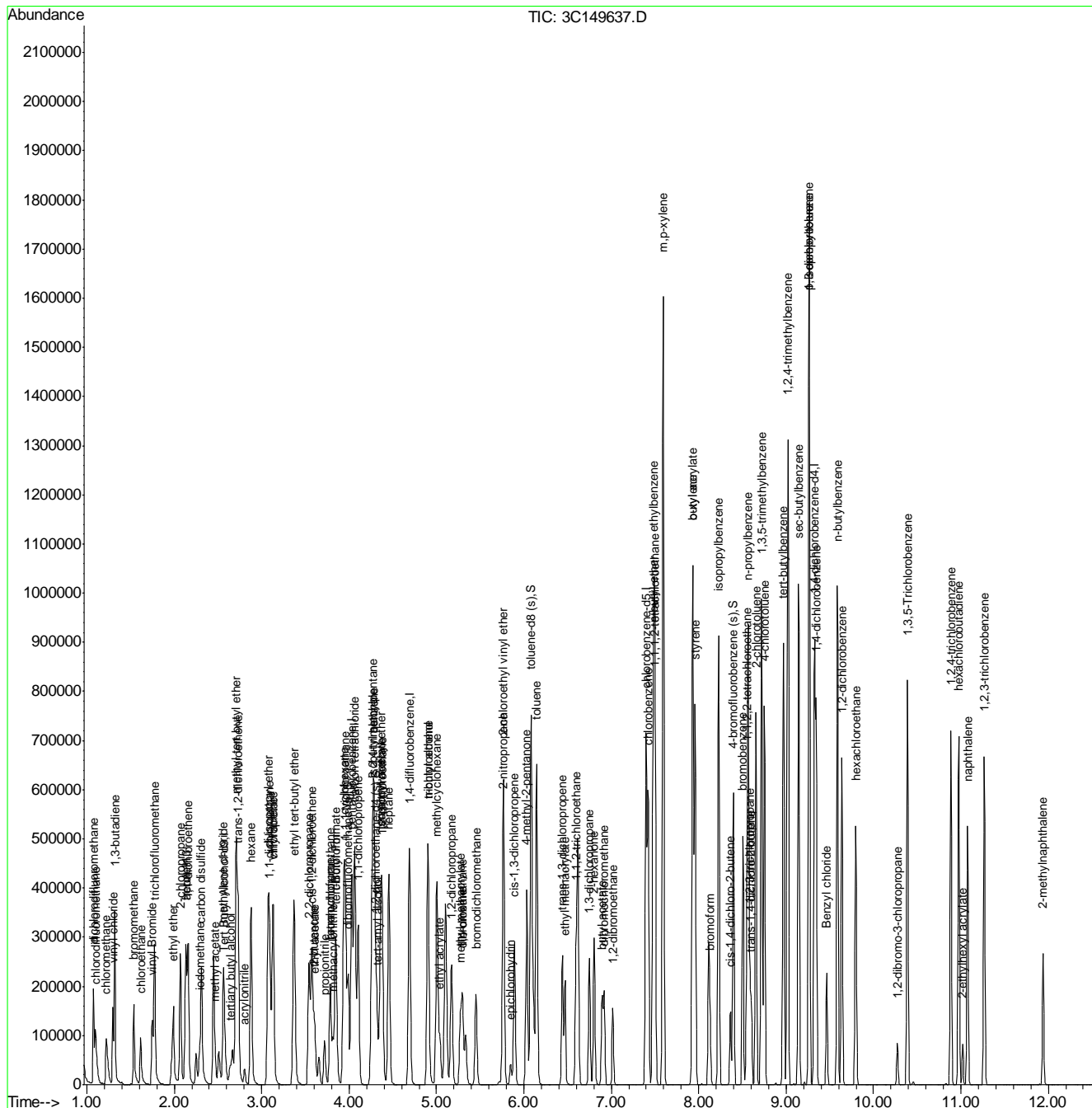
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
96) cis-1,4-dichloro-2-butene	8.36	53	23586	49.13	ug/L	96
99) bromobenzene	8.51	156	114948	50.75	ug/L	96
100) 1,1,2,2-tetrachloroethane	8.55	83	76224	49.49	ug/L	100
101) trans-1,4-dichloro-2-buten	8.60	88	11776	55.41	ug/L	96
102) 1,2,3-trichloropropane	8.59	110	25244	51.52	ug/L	97
103) n-propylbenzene	8.57	91	543133	52.27	ug/L	99
104) 2-chlorotoluene	8.66	126	111998	52.71	ug/L	97
105) 4-chlorotoluene	8.75	126	113989	53.76	ug/L	98
106) 1,3,5-trimethylbenzene	8.72	105	399917	52.90	ug/L	100
107) tert-butylbenzene	8.97	119	361421	53.73	ug/L	97
108) 1,2,4-trimethylbenzene	9.02	105	409388	53.20	ug/L	95
109) sec-butylbenzene	9.14	105	534561	54.67	ug/L	100
110) 1,3-dichlorobenzene	9.26	146	228047	51.24	ug/L	99
111) p-isopropyltoluene	9.26	119	471315	54.78	ug/L	100
112) 1,4-dichlorobenzene	9.34	146	223634	49.16	ug/L	98
113) 1,2-dichlorobenzene	9.64	146	208626	50.02	ug/L	100
114) n-butylbenzene	9.59	92	233180	54.84	ug/L	99
115) 1,2-dibromo-3-chloropropan	10.27	157	18948	49.55	ug/L	97
116) 1,3,5-Trichlorobenzene	10.39	180	204501	50.56	ug/L	99
117) 1,2,4-trichlorobenzene	10.89	180	173133	49.70	ug/L	99
118) hexachlorobutadiene	10.97	225	116416	53.66	ug/L	97
119) naphthalene	11.08	128	307761	50.45	ug/L	100
120) 1,2,3-trichlorobenzene	11.27	180	158478	49.06	ug/L	99
121) hexachloroethane	9.80	201	67761	51.69	ug/L	98
122) Benzyl chloride	9.46	91	115379	42.87	ug/L	99
123) 2-ethylhexyl acrylate	11.02	70	17195	9.96	ug/L	97
124) 2-methylnaphthalene	11.94	142	98995	27.09	ug/L	99

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

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V3C6743\
 Data File : 3C149637.D
 Acq On : 13 Feb 2019 11:59 pm
 Operator : juntaep
 Sample : ICV6743-50
 Misc : MS32156,V3C6743,5.0,,,,1
 ALS Vial : 17 Sample Multiplier: 1

Quant Time: Feb 15 11:12:59 2019
 Quant Method : C:\MSDCHEM\1\METHODS\M3C6743.M
 Quant Title : Method SW846 8260C, Rxi624 20m x 0.18mm x 1.0um
 QLast Update : Fri Feb 15 09:30:13 2019
 Response via : Initial Calibration



7.7.10
7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V3C6743\
 Data File : 3C149638.D
 Acq On : 14 Feb 2019 12:23 am
 Operator : juntaep
 Sample : ICV6743-50
 Misc : MS32156,V3C6743,5.0,,,,1
 ALS Vial : 18 Sample Multiplier: 1

Quant Time: Feb 14 14:11:52 2019
 Quant Method : C:\MSDCHEM\1\METHODS\M3C6743.M
 Quant Title : Method SW846 8260C, Rxi624 20m x 0.18mm x 1.0um
 QLast Update : Thu Feb 14 14:08:59 2019
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Tert Butyl Alcohol-d9	2.57	65	53978	500.00	ug/L	0.00
5) pentafluorobenzene	4.03	168	262426	50.00	ug/L	0.00
52) 1,4-difluorobenzene	4.69	114	357799	50.00	ug/L	0.00
74) chlorobenzene-d5	7.40	117	307813	50.00	ug/L	0.00
97) 1,4-dichlorobenzene-d4	9.33	152	169030	50.00	ug/L	0.00

System Monitoring Compounds						
45) dibromofluoromethane (s)	3.99	113	93987	49.56	ug/L	0.00
Spiked Amount	50.000	Range 75 - 127	Recovery	=	99.12%	
53) 1,2-dichloroethane-d4 (s)	4.31	65	94717	48.72	ug/L	0.00
Spiked Amount	50.000	Range 75 - 130	Recovery	=	97.44%	
75) toluene-d8 (s)	6.08	98	380588	49.95	ug/L	0.00
Spiked Amount	50.000	Range 80 - 120	Recovery	=	99.90%	
98) 4-bromofluorobenzene (s)	8.40	95	138116	49.70	ug/L	0.00
Spiked Amount	50.000	Range 79 - 127	Recovery	=	99.40%	

Target Compounds					Qvalue
20) acetone	2.25	58	15773	192.91	ug/L 93
21) acetonitrile	2.51	41	60428	478.92	ug/L 97
81) tetrachloroethene	6.62	166	120064	57.61	ug/L 99

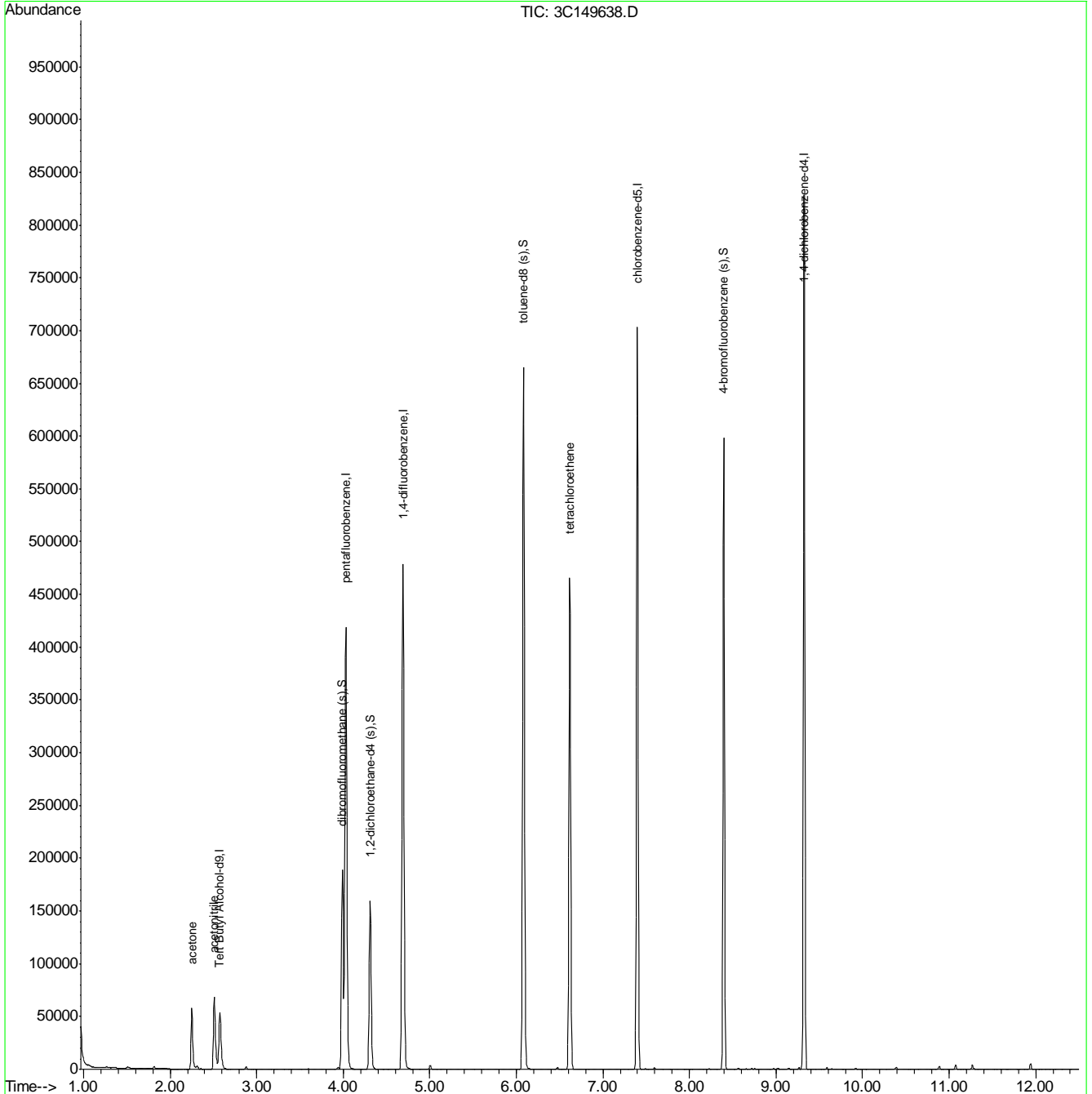
(#) = qualifier out of range (m) = manual integration (+) = signals summed

7.7.11
7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V3C6743\
 Data File : 3C149638.D
 Acq On : 14 Feb 2019 12:23 am
 Operator : juntaep
 Sample : ICV6743-50
 Misc : MS32156,V3C6743,5.0,,,,1
 ALS Vial : 18 Sample Multiplier: 1

Quant Time: Feb 14 14:11:52 2019
 Quant Method : C:\MSDCHEM\1\METHODS\M3C6743.M
 Quant Title : Method SW846 8260C, Rxi624 20m x 0.18mm x 1.0um
 QLast Update : Thu Feb 14 14:08:59 2019
 Response via : Initial Calibration



7.7.11
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\04-15-19\v3c6794\
 Data File : 3c151001.d
 Acq On : 12 Apr 2019 8:03 am
 Operator : Prashans
 Sample : CC6743-50 Inst : MS3C
 Misc : MS33737,V3C6794,5.0,,,1
 ALS Vial : 3 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M3C6743.M
 Quant Results File: M3C6743.RES
 Quant Time: Apr 15 07:50:39 2019
 Quant Title : Method SW846 8260C, Rxi624 20m x 0.18mm x 1.0um
 QLast Update : Fri Feb 15 09:30:13 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	2.579	65	53070	500.00	ug/L	0.00
5) pentafluorobenzene	4.033	168	241370	50.00	ug/L	0.00
52) 1,4-difluorobenzene	4.687	114	327725	50.00	ug/L	0.00
74) chlorobenzene-d5	7.396	117	285082	50.00	ug/L	0.00
97) 1,4-dichlorobenzene-d4	9.321	152	158142	50.00	ug/L	0.00
System Monitoring Compounds						
45) dibromofluoromethane (s)	3.986	113	88924	50.98	ug/L	0.00
Spiked Amount	50.000	Range	75 - 127	Recovery	=	101.96%
53) 1,2-dichloroethane-d4 (s)	4.311	65	89808	50.44	ug/L	0.00
Spiked Amount	50.000	Range	75 - 130	Recovery	=	100.88%
75) toluene-d8 (s)	6.084	98	358374	50.79	ug/L	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	=	101.58%
98) 4-bromofluorobenzene (s)	8.390	95	131666	50.64	ug/L	0.00
Spiked Amount	50.000	Range	79 - 127	Recovery	=	101.28%
Target Compounds						
3) tertiary butyl alcohol	2.642	59	29827	254.95	ug/L	96
4) 1,4-dioxane	5.294	88	20088	1408.83	ug/L	92
6) chlorodifluoromethane	1.104	51	76715	52.47	ug/L	98
7) dichlorodifluoromethane	1.078	85	98436	47.21	ug/L	97
8) chloromethane	1.230	50	89045	51.73	ug/L	97
9) 1,3-butadiene	1.319	54	61054	54.49	ug/L	98
10) vinyl chloride	1.298	62	88462	51.09	ug/L	99
11) bromomethane	1.539	94	42578	41.10	ug/L	99
12) chloroethane	1.617	64	53085	51.59	ug/L	100
13) vinyl Bromide	1.748	106	51267	34.50	ug/L	98
14) trichlorofluoromethane	1.774	101	117145	45.71	ug/L	99
15) ethyl ether	1.994	74	40083	54.93	ug/L	93
16) 2-chloropropane	2.072	63	28786	49.40	ug/L	95
17) acrolein	2.140	56	9840	65.57	ug/L	99
18) freon 113	2.135	151	62093	50.68	ug/L	99
19) 1,1-dichloroethene	2.161	96	69984	51.23	ug/L	98
20) acetone	2.250	58	17478	232.42	ug/L	99
21) acetonitrile	2.511	41	63883	550.47	ug/L	99
22) iodomethane	2.286	142	57027	50.92	ug/L	96
23) carbon disulfide	2.313	76	189101	49.42	ug/L	97
24) methylene chloride	2.564	84	72962	48.85	ug/L	99
25) methyl acetate	2.470	43	37728	52.38	ug/L	97
26) methyl tert butyl ether	2.710	73	184845	50.78	ug/L	98
27) trans-1,2-dichloroethene	2.731	96	77682	49.96	ug/L	99
28) hexane	2.877	57	122879	49.93	ug/L	100
29) di-isopropyl ether	3.076	45	222490	50.34	ug/L	97
30) ethyl tert-butyl ether	3.364	59	219709	50.29	ug/L	99
31) 2-butanone	3.599	72	27303	230.52	ug/L	94
32) 1,1-dichloroethane	3.092	63	128480	50.85	ug/L	99
33) chloroprene	3.134	53	113861	50.72	ug/L	98
34) acrylonitrile	2.804	53	17964	58.50	ug/L	99
35) vinyl acetate	3.123	86	15485	56.25	ug/L #	90
36) ethyl acetate	3.610	45	8631	55.26	ug/L	89
37) 2,2-dichloropropane	3.542	77	110854	47.68	ug/L	98
38) cis-1,2-dichloroethene	3.573	96	85357	50.79	ug/L	100
39) propionitrile	3.720	54	78335	574.80	ug/L	97
40) bromochloromethane	3.782	130	49595	52.64	ug/L	94
41) tetrahydrofuran	3.788	71	7229	61.37	ug/L #	78
42) chloroform	3.840	83	129629	47.44	ug/L	99

7.7.12
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Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\04-15-19\v3c6794\
 Data File : 3c151001.d
 Acq On : 12 Apr 2019 8:03 am
 Operator : Prashans
 Sample : CC6743-50 Inst : MS3C
 Misc : MS33737,V3C6794,5.0,,,1
 ALS Vial : 3 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M3C6743.M
 Quant Results File: M3C6743.RES
 Quant Time: Apr 15 07:50:39 2019
 Quant Title : Method SW846 8260C, Rxi624 20m x 0.18mm x 1.0um
 QLast Update : Fri Feb 15 09:30:13 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
43) tert-Butyl Formate	3.850	59	37778	43.68	ug/L	88
44) isobutyl alcohol	4.264	41	97359	459.04	ug/L	99
46) methacrylonitrile	3.808	67	23870	59.01	ug/L	94
47) 1,1,1-trichloroethane	3.960	97	117601	47.68	ug/L	98
48) cyclohexane	3.939	84	120203	47.65	ug/L	97
49) 1,1-dichloropropene	4.107	110	40185	49.58	ug/L	99
50) tert-amyl alcohol	4.326	59	24855	231.50	ug/L	78
51) carbon tetrachloride	4.070	119	98219	50.39	ug/L	99
54) 2,2,4-trimethylpentane	4.264	57	294867	48.51	ug/L	100
55) tert-amyl methyl ether	4.363	87	67561	49.74	ug/L	92
56) n-butyl alcohol	4.896	56	88535	2919.25	ug/L	96
57) benzene	4.284	78	301344	50.00	ug/L	99
58) heptane	4.452	57	65569	50.85	ug/L	98
59) isopropyl acetate	4.363	87	67561	48.57	ug/L	81
60) 1,2-dichloroethane	4.379	62	89298	46.66	ug/L	96
61) trichloroethene	4.902	95	81214	49.59	ug/L	98
62) ethyl acrylate	5.038	55	76589	57.23	ug/L	99
63) 2-nitropropane	5.749	41	21020	51.53	ug/L #	10
64) 2-chloroethyl vinyl ether	5.765	63	216006	272.48	ug/L	99
65) methyl methacrylate	5.273	100	18522	54.77	ug/L	96
66) 1,2-dichloropropane	5.168	63	71663	50.04	ug/L	96
67) methylcyclohexane	5.006	83	141068	46.14	ug/L	98
68) dibromomethane	5.294	93	40766	51.99	ug/L	95
69) bromodichloromethane	5.446	83	96405	52.94	ug/L	99
70) epichlorohydrin	5.843	57	30244	304.09	ug/L	97
71) cis-1,3-dichloropropene	5.890	75	121609	53.38	ug/L	95
72) 4-methyl-2-pentanone	6.031	85	44079	231.10	ug/L	90
76) toluene	6.146	92	198110	48.69	ug/L	99
77) trans-1,3-dichloropropene	6.434	75	101228	54.14	ug/L	98
78) ethyl methacrylate	6.465	69	82357	52.97	ug/L	99
79) 1,1,2-trichloroethane	6.596	83	51131	51.08	ug/L	96
80) 2-hexanone	6.800	58	86713	226.39	ug/L	93
81) tetrachloroethene	6.617	166	98921	51.25	ug/L	100
82) 1,3-dichloropropane	6.748	76	103512	51.26	ug/L	99
83) butyl acetate	6.889	56	39798	55.26	ug/L	91
84) dibromochloromethane	6.915	129	70030	59.40	ug/L	99
85) 1,2-dibromoethane	7.015	107	81204	55.91	ug/L	100
86) n-butyl ether	7.470	57	306271	46.25	ug/L	98
87) chlorobenzene	7.417	112	217607	48.58	ug/L	99
88) 1,1,1,2-tetrachloroethane	7.501	131	77266	52.25	ug/L	98
89) ethylbenzene	7.491	91	376047	47.75	ug/L	100
90) m,p-xylene	7.595	106	297190	95.78	ug/L	98
91) o-xylene	7.930	91	298605	47.95	ug/L	99
92) styrene	7.956	104	246273	49.38	ug/L	98
93) bromoform	8.129	173	46342	53.87	ug/L	98
94) butyl acrylate	7.925	55	119841	55.41	ug/L	100
95) isopropylbenzene	8.228	105	380422	47.93	ug/L	99
96) cis-1,4-dichloro-2-butene	8.359	53	24067	54.91	ug/L	93
99) bromobenzene	8.505	156	102186	48.74	ug/L	93
100) 1,1,2,2-tetrachloroethane	8.547	83	75445	52.92	ug/L	98
101) trans-1,4-dichloro-2-b...	8.605	88	10139	51.73	ug/L	93
102) 1,2,3-trichloropropane	8.584	110	23360	51.51	ug/L	96
103) n-propylbenzene	8.563	91	451095	46.91	ug/L	99
104) 2-chlorotoluene	8.652	126	96664	49.15	ug/L	98
105) 4-chlorotoluene	8.751	126	96942	49.40	ug/L	92
106) 1,3,5-trimethylbenzene	8.714	105	326961	46.73	ug/L	100
107) tert-butylbenzene	8.966	119	292259	46.94	ug/L	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\04-15-19\v3c6794\
 Data File : 3c151001.d
 Acq On : 12 Apr 2019 8:03 am
 Operator : Prashans
 Sample : CC6743-50 Inst : MS3C
 Misc : MS33737,V3C6794,5.0,,,,,1
 ALS Vial : 3 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M3C6743.M
 Quant Results File: M3C6743.RES
 Quant Time: Apr 15 07:50:39 2019
 Quant Title : Method SW846 8260C, Rxi624 20m x 0.18mm x 1.0um
 QLast Update : Fri Feb 15 09:30:13 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
108) 1,2,4-trimethylbenzene	9.018	105	329020	46.20	ug/L	99
109) sec-butylbenzene	9.143	105	431171	47.64	ug/L	99
110) 1,3-dichlorobenzene	9.264	146	198968	48.31	ug/L	98
111) p-isopropyltoluene	9.264	119	380451	47.78	ug/L	97
112) 1,4-dichlorobenzene	9.342	146	201464	47.85	ug/L	99
113) 1,2-dichlorobenzene	9.635	146	185377	48.02	ug/L	100
114) n-butylbenzene	9.588	92	193007	49.05	ug/L	99
115) 1,2-dibromo-3-chloropr...	10.273	157	20061	56.47	ug/L	94
116) 1,3,5-Trichlorobenzene	10.383	180	196335	52.44	ug/L	99
117) 1,2,4-trichlorobenzene	10.880	180	169531	52.58	ug/L	99
118) hexachlorobutadiene	10.969	225	106597	53.08	ug/L	98
119) naphthalene	11.073	128	303083	53.68	ug/L	100
120) 1,2,3-trichlorobenzene	11.267	180	156010	52.18	ug/L	99
121) hexachloroethane	9.797	201	61970	51.10	ug/L	91
122) Benzyl chloride	9.462	91	148969	59.80	ug/L	97
123) 2-ethylhexyl acrylate	11.016	70	15760	9.87	ug/L	96
124) 2-methylnaphthalene	11.936	142	105666	31.25	ug/L	98

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

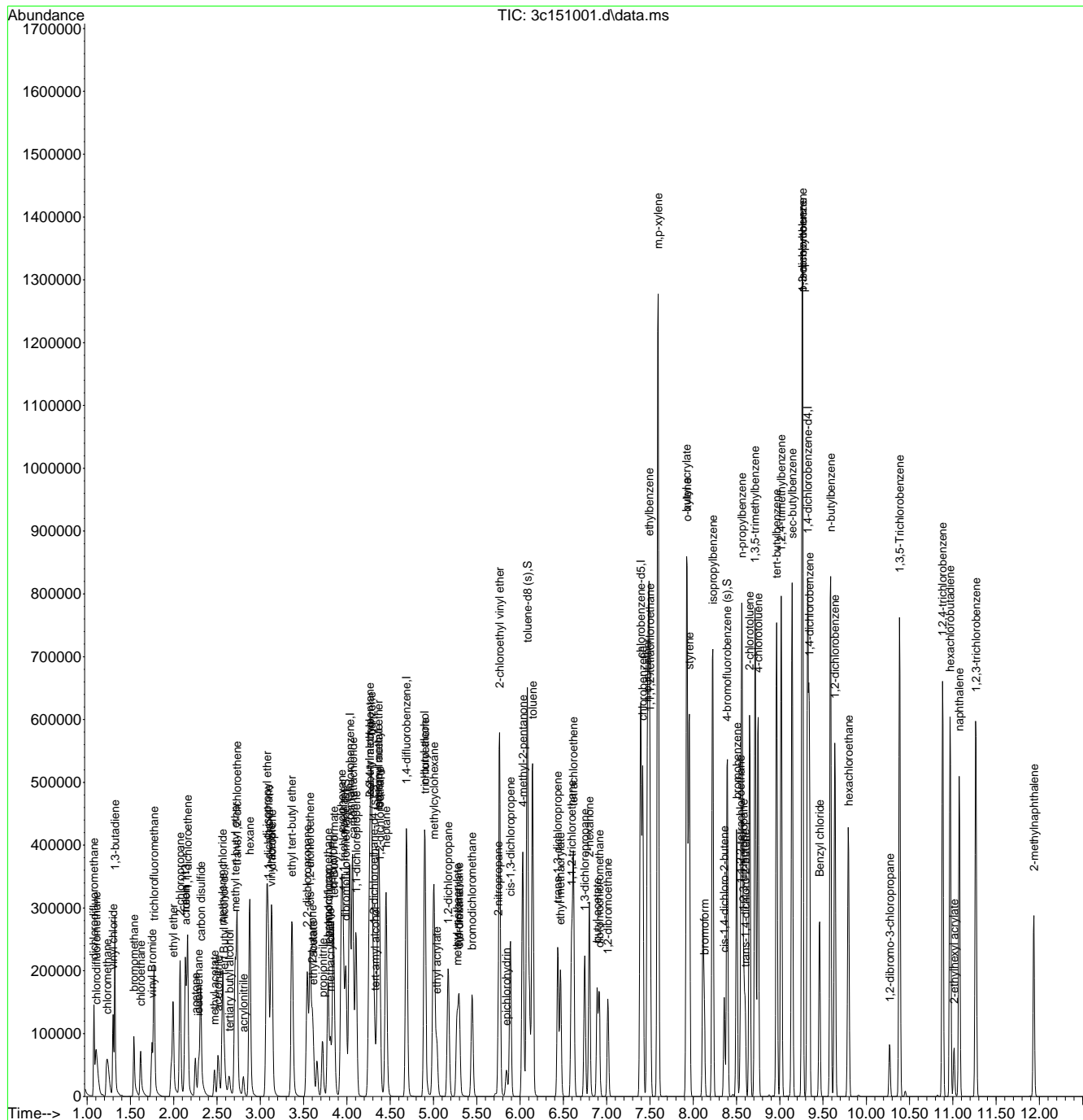
7.7.12

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Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janelac\04-15-19\v3c6794\
 Data File : 3c151001.d
 Acq On : 12 Apr 2019 8:03 am
 Operator : Prashans
 Sample : CC6743-50 Inst : MS3C
 Misc : MS33737,V3C6794,5.0,,,,,1
 ALS Vial : 3 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M3C6743.M
 Quant Results File: M3C6743.RES
 Quant Time: Apr 15 07:50:39 2019
 Quant Title : Method SW846 8260C, Rxi624 20m x 0.18mm x 1.0um
 QLast Update : Fri Feb 15 09:30:13 2019
 Response via : Initial Calibration



7.7.12
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VI8986\
 Data File : I223175.D
 Acq On : 27 Nov 2018 6:23 pm
 Operator : thienn
 Sample : IC8986-0.5
 Misc : MS30885,VI8986,5.0,,,,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 28 13:28:22 2018
 Quant Method : C:\MSDCHEM\1\METHODS\MI8986.M
 Quant Title : Method SW846 8260C, Rxi-624 60m x 0.25mm x 1.4um
 QLast Update : Wed Nov 28 12:53:10 2018
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.369	65	56717	500.00	ug/L	0.00
4) pentafluorobenzene	9.717	168	177083	50.00	ug/L	0.00
51) 1,4-difluorobenzene	10.653	114	226913	50.00	ug/L	0.00
73) chlorobenzene-d5	13.786	117	188157	50.00	ug/L	0.00
96) 1,4-dichlorobenzene-d4	16.129	152	109073	50.00	ug/L	0.00
System Monitoring Compounds						
47) dibromofluoromethane (s)	9.738	113	69022	49.60	ug/L	0.00
Spiked Amount	50.000	Range	75 - 127	Recovery	=	99.20%
52) 1,2-dichloroethane-d4 (s)	10.162	65	70764	49.98	ug/L	0.00
Spiked Amount	50.000	Range	75 - 130	Recovery	=	99.96%
74) toluene-d8 (s)	12.280	98	244147	50.62	ug/L	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	=	101.24%
97) 4-bromofluorobenzene (s)	14.947	95	84146	50.61	ug/L	0.00
Spiked Amount	50.000	Range	79 - 127	Recovery	=	101.22%
Target Compounds						
7) chloromethane	4.278	50	759	0.53	ug/L	# 49
8) vinyl chloride	4.529	62	520	0.43	ug/L	91
10) bromomethane	5.198	94	391	0.49	ug/L	72
13) trichlorofluoromethane	5.873	101	764	0.41	ug/L	83
28) hexane	8.242	57	909	0.48	ug/L	84
35) 2,2-dichloropropane	9.178	77	759	0.44	ug/L	# 48
54) 1,2-dichloroethane	10.256	62	631	0.42	ug/L	# 50
55) benzene	10.240	78	1799	0.41	ug/L	91
56) 2,2,4-trimethylpentane	10.345	57	1790	0.39	ug/L	90
70) cis-1,3-dichloropropene	11.966	75	684	0.39	ug/L	91
75) toluene	12.353	92	1045	0.40	ug/L	96
76) trans-1,3-dichloropropene	12.536	75	621	0.40	ug/L	# 69
79) 1,3-dichloropropane	12.928	76	554	0.40	ug/L	# 50
80) tetrachloroethene	12.918	166	505	0.39	ug/L	88
83) n-butyl ether	13.791	57	1859	0.43	ug/L	# 7
86) chlorobenzene	13.823	112	1084	0.39	ug/L	97
88) ethylbenzene	13.880	91	1965	0.40	ug/L	87
89) m,p-xylene	14.011	106	1536	0.81	ug/L	# 70
95) isopropylbenzene	14.754	105	1838	0.38	ug/L	97
101) bromobenzene	15.136	156	559	0.42	ug/L	91
102) n-propylbenzene	15.167	91	2280	0.41	ug/L	96
103) 2-chlorotoluene	15.298	126	454	0.39	ug/L	85
104) 4-chlorotoluene	15.413	91	1388	0.42	ug/L	88
105) 1,3,5-trimethylbenzene	15.329	105	1611	0.38	ug/L	96
107) 1,2,4-trimethylbenzene	15.721	105	1787	0.41	ug/L	100
109) p-isopropyltoluene	16.030	119	1974	0.42	ug/l	93
110) benzyl chloride	16.244	91	1167	0.44	ug/L	85
111) 1,3-dichlorobenzene	16.061	146	1009	0.39	ug/L	81
112) 1,4-dichlorobenzene	16.155	146	1058	0.40	ug/L	88
113) 1,2-dichlorobenzene	16.542	146	969	0.39	ug/L	82
114) n-butylbenzene	16.448	92	936	0.38	ug/L	93
118) 1,3,5-trichlorobenzene	17.547	180	1094	0.43	ug/L	90

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VI8986\
 Data File : I223175.D
 Acq On : 27 Nov 2018 6:23 pm
 Operator : thienn
 Sample : IC8986-0.5
 Misc : MS30885,VI8986,5.0,,,,,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 28 13:28:22 2018
 Quant Method : C:\MSDCHEM\1\METHODS\MI8986.M
 Quant Title : Method SW846 8260C, Rxi-624 60m x 0.25mm x 1.4um
 QLast Update : Wed Nov 28 12:53:10 2018
 Response via : Initial Calibration

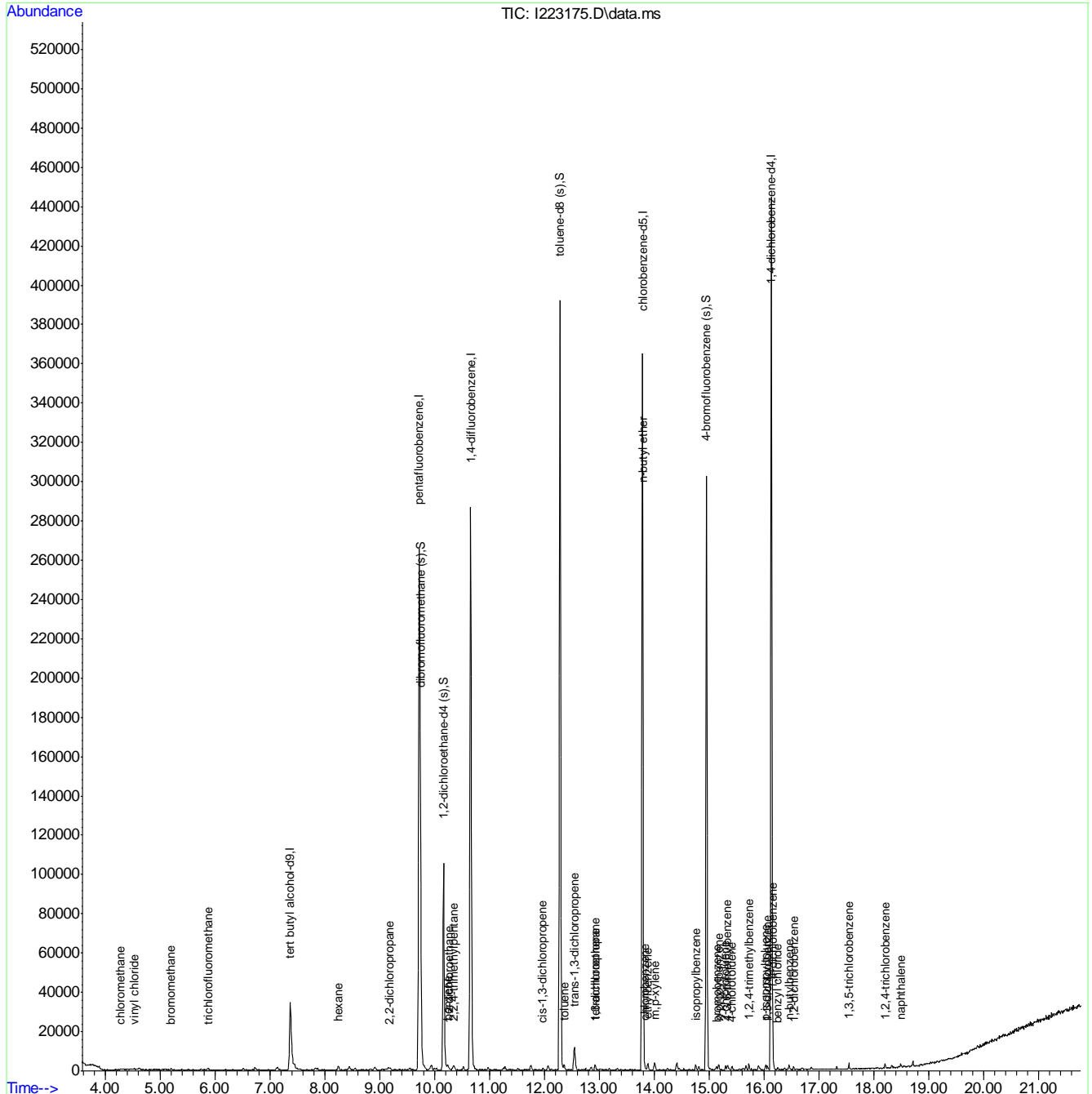
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
119) 1,2,4-trichlorobenzene	18.206	180	943	0.41	ug/L	79
122) naphthalene	18.488	128	1835	0.41	ug/L	82

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VI8986\
 Data File : I223175.D
 Acq On : 27 Nov 2018 6:23 pm
 Operator : thienn
 Sample : IC8986-0.5
 Misc : MS30885,VI8986,5.0,,,,,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 28 13:28:22 2018
 Quant Method : C:\MSDCHEM\1\METHODS\MI8986.M
 Quant Title : Method SW846 8260C, Rxi-624 60m x 0.25mm x 1.4um
 QLast Update : Wed Nov 28 12:53:10 2018
 Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VI8986\
 Data File : I223176.D
 Acq On : 27 Nov 2018 6:52 pm
 Operator : thienn
 Sample : IC8986-1
 Misc : MS30885,VI8986,5.0,,,,,1
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Nov 28 13:29:53 2018
 Quant Method : C:\MSDCHEM\1\METHODS\MI8986.M
 Quant Title : Method SW846 8260C, Rxi-624 60m x 0.25mm x 1.4um
 QLast Update : Wed Nov 28 12:53:10 2018
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.369	65	56032	500.00	ug/L	0.00
4) pentafluorobenzene	9.717	168	178959	50.00	ug/L	0.00
51) 1,4-difluorobenzene	10.653	114	224797	50.00	ug/L	0.00
73) chlorobenzene-d5	13.786	117	190466	50.00	ug/L	0.00
96) 1,4-dichlorobenzene-d4	16.129	152	109248	50.00	ug/L	0.00
System Monitoring Compounds						
47) dibromofluoromethane (s)	9.738	113	70424	50.08	ug/L	0.00
Spiked Amount	50.000	Range	75 - 127	Recovery	=	100.16%
52) 1,2-dichloroethane-d4 (s)	10.162	65	71945	51.29	ug/L	0.00
Spiked Amount	50.000	Range	75 - 130	Recovery	=	102.58%
74) toluene-d8 (s)	12.280	98	246014	50.39	ug/L	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	=	100.78%
97) 4-bromofluorobenzene (s)	14.947	95	85952	51.61	ug/L	0.00
Spiked Amount	50.000	Range	79 - 127	Recovery	=	103.22%
Target Compounds						
5) dichlorodifluoromethane	3.891	85	1456	0.95	ug/L	89
6) chlorodifluoromethane	3.922	51	1313	0.93	ug/L	65
7) chloromethane	4.278	50	1522	1.05	ug/L	89
8) vinyl chloride	4.534	62	1167	0.96	ug/L	80
9) 1,3-butadiene	4.618	54	766	0.95	ug/L	92
10) bromomethane	5.198	94	821	1.01	ug/L	94
11) chloroethane	5.397	64	609	0.86	ug/L #	44
12) vinyl bromide	5.747	106	766	0.87	ug/L	89
13) trichlorofluoromethane	5.873	101	1854	0.99	ug/L	89
17) freon 113	6.736	151	747	0.82	ug/L #	89
18) 1,1-dichloroethene	6.731	61	1436	0.90	ug/L	98
24) methylene chloride	7.447	84	1306	1.07	ug/L	76
26) methyl tert butyl ether	7.818	73	2605	0.93	ug/L	93
27) trans-1,2-dichloroethene	7.860	61	1356	0.89	ug/L	92
28) hexane	8.242	57	1988	1.04	ug/L	96
29) 1,1-dichloroethane	8.441	63	1866	0.96	ug/L	84
31) di-isopropyl ether	8.441	45	3129	0.90	ug/L	87
32) chloroprene	8.545	53	1384	0.84	ug/L	88
33) ethyl tert-butyl ether	8.912	59	3099	0.92	ug/L	86
35) 2,2-dichloropropane	9.189	77	1703	0.97	ug/L	90
37) cis-1,2-dichloroethene	9.152	96	1226	0.97	ug/L #	78
41) bromochloromethane	9.456	128	440	0.81	ug/L #	66
43) chloroform	9.544	83	1989	0.99	ug/L	90
44) carbon tetrachloride	10.020	117	1548	0.94	ug/L #	77
45) 1,1-dichloropropene	9.994	75	1424	0.95	ug/L	94
48) 1,1,1-trichloroethane	9.816	97	1746	0.97	ug/L	86
49) cyclohexane	9.942	84	1519	0.92	ug/L	89
54) 1,2-dichloroethane	10.256	62	1633	1.11	ug/L	92
55) benzene	10.240	78	4193	0.95	ug/L	98
56) 2,2,4-trimethylpentane	10.350	57	4640	1.03	ug/L	98
57) tert-amyl methyl ether	10.324	87	552	0.74	ug/L #	60
58) heptane	10.523	57	794	0.88	ug/L #	89

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VI8986\
 Data File : I223176.D
 Acq On : 27 Nov 2018 6:52 pm
 Operator : thienn
 Sample : IC8986-1
 Misc : MS30885,VI8986,5.0,,,,1
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Nov 28 13:29:53 2018
 Quant Method : C:\MSDCHEM\1\METHODS\MI8986.M
 Quant Title : Method SW846 8260C, Rxi-624 60m x 0.25mm x 1.4um
 QLast Update : Wed Nov 28 12:53:10 2018
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
60) trichloroethene	10.978	95	1039	0.92	ug/L	89
62) methylcyclohexane	11.281	83	1997	1.03	ug/L	94
63) 1,2-dichloropropane	11.250	63	1072	0.99	ug/L	87
65) dibromomethane	11.354	93	547	0.84	ug/L	92
66) bromodichloromethane	11.511	83	1425	0.95	ug/L	93
68) 2-chloroethyl vinyl ether	11.752	63	2773	4.39	ug/L	92
70) cis-1,3-dichloropropene	11.966	75	1687	0.96	ug/L	90
71) 4-methyl-2-pentanone	12.065	58	1182	3.57	ug/L	93
75) toluene	12.353	92	2505	0.95	ug/L	99
76) trans-1,3-dichloropropene	12.526	75	1695	1.07	ug/L	85
77) ethyl methacrylate	12.536	69	1080	0.95	ug/L	90
78) 1,1,2-trichloroethane	12.751	83	638	0.89	ug/L #	81
79) 1,3-dichloropropane	12.928	76	1301	0.92	ug/L	90
80) tetrachloroethene	12.913	166	1332	1.01	ug/L	82
81) 2-hexanone	12.913	58	1107	3.35	ug/L	94
83) n-butyl ether	13.786	57	4146	0.95	ug/L #	57
84) dibromochloromethane	13.174	129	1082	0.93	ug/L	93
85) 1,2-dibromoethane	13.336	107	894	0.87	ug/L	82
86) chlorobenzene	13.818	112	2734	0.97	ug/L	98
87) 1,1,1,2-tetrachloroethane	13.880	131	960	0.91	ug/L	95
88) ethylbenzene	13.886	91	4814	0.98	ug/L	98
89) m,p-xylene	14.006	106	3829	1.98	ug/L	93
90) o-xylene	14.403	106	1805	0.98	ug/L	95
91) styrene	14.414	104	2757	0.88	ug/L	95
92) butyl acrylate	14.231	55	1530	0.87	ug/L	96
93) cis-1,4-dichloro-2-butene	14.769	88	406	0.86	ug/L #	77
94) bromoform	14.639	173	692	0.86	ug/L	93
95) isopropylbenzene	14.754	105	4645	0.96	ug/L	95
98) 1,1,2,2-tetrachloroethane	15.015	83	992	0.90	ug/L	90
100) 1,2,3-trichloropropane	15.099	110	272	0.93	ug/L #	33
101) bromobenzene	15.130	156	1333	0.99	ug/L	91
102) n-propylbenzene	15.172	91	5703	1.02	ug/L	95
103) 2-chlorotoluene	15.303	126	1178	1.00	ug/L #	59
104) 4-chlorotoluene	15.408	91	3501	1.05	ug/L	97
105) 1,3,5-trimethylbenzene	15.329	105	4084	0.97	ug/L	97
106) tert-butylbenzene	15.669	134	750	0.98	ug/L #	70
107) 1,2,4-trimethylbenzene	15.721	105	4262	0.99	ug/L	96
108) sec-butylbenzene	15.889	105	5415	1.03	ug/L	94
109) p-isopropyltoluene	16.030	119	4595	0.97	ug/L	99
110) benzyl chloride	16.244	91	2575	0.97	ug/L	98
111) 1,3-dichlorobenzene	16.061	146	2661	1.03	ug/L	95
112) 1,4-dichlorobenzene	16.161	146	2663	1.01	ug/L	97
113) 1,2-dichlorobenzene	16.537	146	2492	0.99	ug/L	92
114) n-butylbenzene	16.448	92	2414	0.98	ug/L	96
115) hexachloroethane	16.856	201	834	0.93	ug/L #	84
118) 1,3,5-trichlorobenzene	17.547	180	2660	1.04	ug/L	92
119) 1,2,4-trichlorobenzene	18.201	180	2465	1.07	ug/L	93
121) hexachlorobutadiene	18.326	225	1623	1.11	ug/L #	68
122) naphthalene	18.488	128	4141	0.93	ug/L	98
123) 1,2,3-trichlorobenzene	18.708	180	2093	0.95	ug/L	94

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VI8986\
Data File : I223176.D
Acq On : 27 Nov 2018 6:52 pm
Operator : thienn
Sample : IC8986-1
Misc : MS30885,VI8986,5.0,,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Nov 28 13:29:53 2018
Quant Method : C:\MSDCHEM\1\METHODS\MI8986.M
Quant Title : Method SW846 8260C, Rxi-624 60m x 0.25mm x 1.4um
QLast Update : Wed Nov 28 12:53:10 2018
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

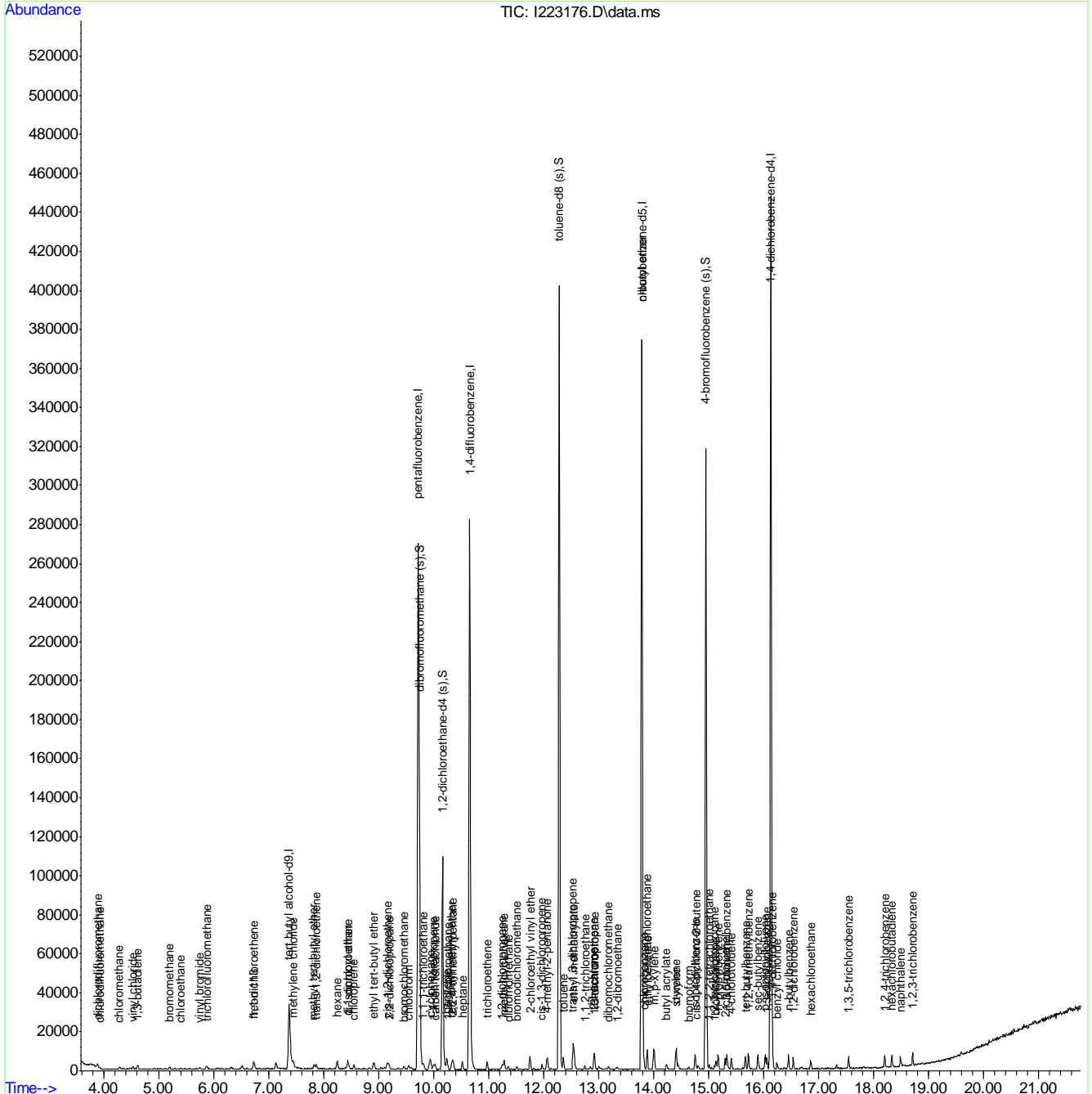
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Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VI8986\
 Data File : I223176.D
 Acq On : 27 Nov 2018 6:52 pm
 Operator : thienn
 Sample : IC8986-1
 Misc : MS30885,VI8986,5.0,,,,,1
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Nov 28 13:29:53 2018
 Quant Method : C:\MSDCHEM\1\METHODS\MI8986.M
 Quant Title : Method SW846 8260C, Rxi-624 60m x 0.25mm x 1.4um
 QLast Update : Wed Nov 28 12:53:10 2018
 Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VI8986\
 Data File : I223177.D
 Acq On : 27 Nov 2018 7:22 pm
 Operator : thienn
 Sample : IC8986-2
 Misc : MS30885,VI8986,5.0,,,,,1
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 28 13:30:47 2018
 Quant Method : C:\MSDCHEM\1\METHODS\MI8986.M
 Quant Title : Method SW846 8260C, Rxi-624 60m x 0.25mm x 1.4um
 QLast Update : Wed Nov 28 12:53:10 2018
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.374	65	56476	500.00	ug/L	0.00
4) pentafluorobenzene	9.717	168	176188	50.00	ug/L	0.00
51) 1,4-difluorobenzene	10.653	114	224153	50.00	ug/L	0.00
73) chlorobenzene-d5	13.786	117	187440	50.00	ug/L	0.00
96) 1,4-dichlorobenzene-d4	16.129	152	109015	50.00	ug/L	0.00
System Monitoring Compounds						
47) dibromofluoromethane (s)	9.738	113	69313	50.07	ug/L	0.00
Spiked Amount	50.000	Range	75 - 127	Recovery	=	100.14%
52) 1,2-dichloroethane-d4 (s)	10.162	65	71103	50.83	ug/L	0.00
Spiked Amount	50.000	Range	75 - 130	Recovery	=	101.66%
74) toluene-d8 (s)	12.280	98	241740	50.31	ug/L	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	=	100.62%
97) 4-bromofluorobenzene (s)	14.947	95	84776	51.01	ug/L	0.00
Spiked Amount	50.000	Range	79 - 127	Recovery	=	102.02%
Target Compounds						
2) tertiary butyl alcohol	7.505	59	1050	8.94	ug/L	76
5) dichlorodifluoromethane	3.891	85	2742	1.82	ug/L	89
6) chlorodifluoromethane	3.927	51	2757	1.98	ug/L	86
7) chloromethane	4.283	50	2832	1.99	ug/L	88
8) vinyl chloride	4.529	62	2087	1.74	ug/L	87
9) 1,3-butadiene	4.618	54	1510	1.91	ug/L	88
10) bromomethane	5.198	94	1470	1.84	ug/L	83
11) chloroethane	5.407	64	1344	1.94	ug/L	93
12) vinyl bromide	5.747	106	1633	1.88	ug/L	86
13) trichlorofluoromethane	5.878	101	3389	1.85	ug/L	98
14) ethyl ether	6.317	74	719	1.44	ug/L	93
15) 2-chloropropane	6.516	63	742	1.85	ug/L #	81
17) freon 113	6.731	151	1623	1.80	ug/L	95
18) 1,1-dichloroethene	6.731	61	3194	2.03	ug/L	95
19) acetone	6.731	43	2015	6.96	ug/L	94
21) carbon disulfide	7.133	76	7561	2.04	ug/L	98
22) acetonitrile	7.144	41	2525	17.06	ug/L	80
24) methylene chloride	7.447	84	2538	2.11	ug/L	98
26) methyl tert butyl ether	7.824	73	5390	1.95	ug/L	94
27) trans-1,2-dichloroethene	7.866	61	3045	2.04	ug/L	95
28) hexane	8.242	57	3614	1.92	ug/L	90
29) 1,1-dichloroethane	8.436	63	3877	2.02	ug/L	97
31) di-isopropyl ether	8.446	45	6524	1.90	ug/L	93
32) chloroprene	8.556	53	2952	1.83	ug/L	97
33) ethyl tert-butyl ether	8.912	59	6171	1.87	ug/L	97
34) 2-butanone	9.095	72	589	5.29	ug/L #	28
35) 2,2-dichloropropane	9.189	77	3470	2.01	ug/L	94
37) cis-1,2-dichloroethene	9.163	96	2503	2.01	ug/L	93
38) propionitrile	9.147	54	2576	15.79	ug/L	95
41) bromochloromethane	9.461	128	1091	2.03	ug/L	88
43) chloroform	9.550	83	3825	1.93	ug/L	94
44) carbon tetrachloride	10.026	117	3197	1.96	ug/L	97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VI8986\
 Data File : I223177.D
 Acq On : 27 Nov 2018 7:22 pm
 Operator : thienn
 Sample : IC8986-2
 Misc : MS30885,VI8986,5.0,,,,1
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 28 13:30:47 2018
 Quant Method : C:\MSDCHEM\1\METHODS\MI8986.M
 Quant Title : Method SW846 8260C, Rxi-624 60m x 0.25mm x 1.4um
 QLast Update : Wed Nov 28 12:53:10 2018
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
45) 1,1-dichloropropene	9.994	75	3019	2.04	ug/L	94
48) 1,1,1-trichloroethane	9.816	97	3293	1.85	ug/L	88
49) cyclohexane	9.937	84	3029	1.87	ug/L	88
54) 1,2-dichloroethane	10.256	62	3023	2.05	ug/L	94
55) benzene	10.240	78	8591	1.96	ug/L	99
56) 2,2,4-trimethylpentane	10.350	57	8690	1.94	ug/L	94
57) tert-amyl methyl ether	10.329	87	1372	1.84	ug/L	98
58) heptane	10.523	57	1835	2.05	ug/L #	88
59) n-butyl alcohol	10.695	56	3163	90.54	ug/L	84
60) trichloroethene	10.972	95	2311	2.06	ug/L	85
61) ethyl acrylate	10.962	55	2236	1.86	ug/L	77
62) methylcyclohexane	11.281	83	3672	1.91	ug/L	95
63) 1,2-dichloropropane	11.250	63	2198	2.04	ug/L	91
65) dibromomethane	11.354	93	1284	1.97	ug/L	94
66) bromodichloromethane	11.511	83	2980	1.99	ug/L	84
68) 2-chloroethyl vinyl ether	11.752	63	6041	9.60	ug/L	93
69) epichlorohydrin	11.830	57	1010	9.24	ug/L	91
70) cis-1,3-dichloropropene	11.966	75	3306	1.89	ug/L	95
71) 4-methyl-2-pentanone	12.060	58	2454	7.43	ug/L	98
72) 3-methyl-1-butanol	12.060	70	1046	35.95	ug/L	92
75) toluene	12.358	92	5141	1.98	ug/L	97
76) trans-1,3-dichloropropene	12.526	75	2889	1.85	ug/L	95
77) ethyl methacrylate	12.531	69	2090	1.87	ug/L	83
78) 1,1,2-trichloroethane	12.751	83	1373	1.96	ug/L	95
79) 1,3-dichloropropane	12.928	76	2659	1.92	ug/L	97
80) tetrachloroethene	12.913	166	2619	2.01	ug/L	95
81) 2-hexanone	12.913	58	2581	7.93	ug/L	97
82) butyl acetate	13.002	56	927	1.63	ug/L #	73
83) n-butyl ether	13.791	57	8237	1.92	ug/L	85
84) dibromochloromethane	13.174	129	2246	1.96	ug/L	99
85) 1,2-dibromoethane	13.331	107	1805	1.79	ug/L	97
86) chlorobenzene	13.818	112	5437	1.97	ug/L	96
87) 1,1,1,2-tetrachloroethane	13.880	131	2123	2.04	ug/L	97
88) ethylbenzene	13.880	91	9613	1.99	ug/L	95
89) m,p-xylene	14.001	106	7621	4.01	ug/L	98
90) o-xylene	14.403	106	3682	2.03	ug/L	89
91) styrene	14.414	104	6116	1.99	ug/L	95
92) butyl acrylate	14.231	55	3324	1.91	ug/L	94
93) cis-1,4-dichloro-2-butene	14.770	88	809	1.74	ug/L	93
94) bromoform	14.639	173	1591	2.00	ug/L	92
95) isopropylbenzene	14.754	105	9268	1.95	ug/L	97
98) 1,1,2,2-tetrachloroethane	15.015	83	2151	1.96	ug/L	97
100) 1,2,3-trichloropropane	15.099	110	499	1.72	ug/L	93
101) bromobenzene	15.130	156	2679	1.99	ug/L	94
102) n-propylbenzene	15.172	91	10946	1.96	ug/L	99
103) 2-chlorotoluene	15.298	126	2364	2.01	ug/L	89
104) 4-chlorotoluene	15.413	91	6491	1.94	ug/L	96
105) 1,3,5-trimethylbenzene	15.329	105	8685	2.07	ug/L	95
106) tert-butylbenzene	15.669	134	1254	1.65	ug/L #	56
107) 1,2,4-trimethylbenzene	15.721	105	9128	2.12	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VI8986\
 Data File : I223177.D
 Acq On : 27 Nov 2018 7:22 pm
 Operator : thienn
 Sample : IC8986-2
 Misc : MS30885,VI8986,5.0,,,,,1
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 28 13:30:47 2018
 Quant Method : C:\MSDCHEM\1\METHODS\MI8986.M
 Quant Title : Method SW846 8260C, Rxi-624 60m x 0.25mm x 1.4um
 QLast Update : Wed Nov 28 12:53:10 2018
 Response via : Initial Calibration

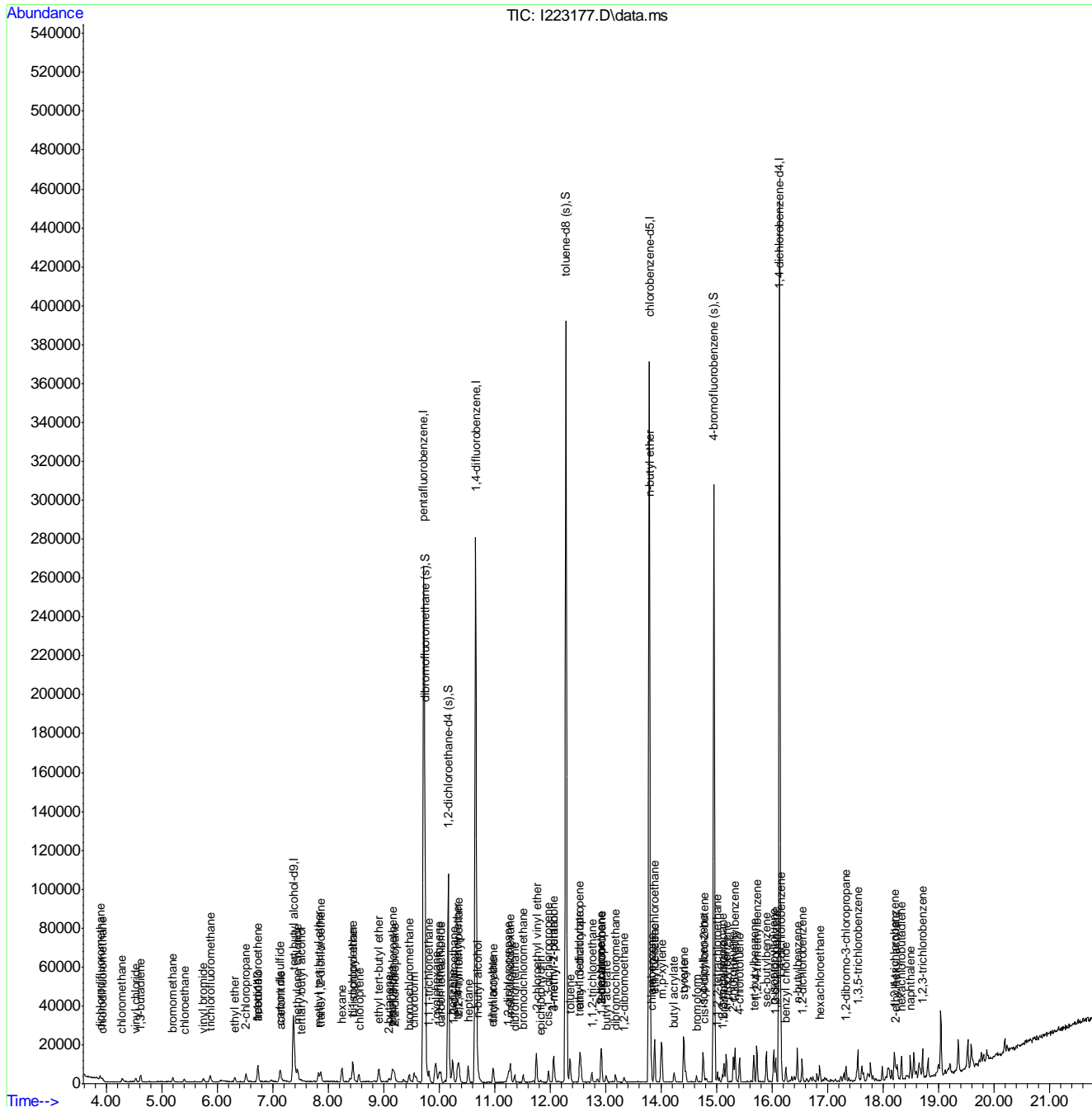
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
108) sec-butylbenzene	15.894	105	10453	2.00	ug/L	97
109) p-isopropyltoluene	16.030	119	9645	2.05	ug/l	97
110) benzyl chloride	16.244	91	5252	1.99	ug/L	97
111) 1,3-dichlorobenzene	16.056	146	5215	2.03	ug/L	90
112) 1,4-dichlorobenzene	16.156	146	5379	2.05	ug/L	96
113) 1,2-dichlorobenzene	16.537	146	4876	1.94	ug/L	97
114) n-butylbenzene	16.448	92	5110	2.09	ug/L	99
115) hexachloroethane	16.856	201	1719	1.92	ug/L	92
116) 1,2-dibromo-3-chloropr...	17.327	157	597	1.71	ug/L	80
118) 1,3,5-trichlorobenzene	17.542	180	5150	2.02	ug/L	97
119) 1,2,4-trichlorobenzene	18.201	180	4515	1.97	ug/L	94
120) 2-ethylhexyl acrylate	18.227	55	734	0.39	ug/L #	84
121) hexachlorobutadiene	18.326	225	2825	1.93	ug/L	97
122) naphthalene	18.488	128	9080	2.05	ug/L	95
123) 1,2,3-trichlorobenzene	18.708	180	4541	2.07	ug/L	96

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VI8986\
Data File : I223177.D
Acq On : 27 Nov 2018 7:22 pm
Operator : thienn
Sample : IC8986-2
Misc : MS30885,VI8986,5.0,,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 28 13:30:47 2018
Quant Method : C:\MSDCHEM\1\METHODS\MI8986.M
Quant Title : Method SW846 8260C, Rxi-624 60m x 0.25mm x 1.4um
QLast Update : Wed Nov 28 12:53:10 2018
Response via : Initial Calibration



7.7.15
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VI8986\
 Data File : I223178.D
 Acq On : 27 Nov 2018 7:51 pm
 Operator : thienn
 Sample : IC8986-4
 Misc : MS30885,VI8986,5.0,,,,,1
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 28 13:31:17 2018
 Quant Method : C:\MSDCHEM\1\METHODS\MI8986.M
 Quant Title : Method SW846 8260C, Rxi-624 60m x 0.25mm x 1.4um
 QLast Update : Wed Nov 28 12:53:10 2018
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.374	65	56246	500.00	ug/L	0.00
4) pentafluorobenzene	9.717	168	176556	50.00	ug/L	0.00
51) 1,4-difluorobenzene	10.653	114	225937	50.00	ug/L	0.00
73) chlorobenzene-d5	13.781	117	190137	50.00	ug/L	0.00
96) 1,4-dichlorobenzene-d4	16.129	152	111558	50.00	ug/L	0.00
System Monitoring Compounds						
47) dibromofluoromethane (s)	9.738	113	69434	50.05	ug/L	0.00
Spiked Amount	50.000	Range	75 - 127	Recovery	=	100.10%
52) 1,2-dichloroethane-d4 (s)	10.162	65	71923	51.01	ug/L	0.00
Spiked Amount	50.000	Range	75 - 130	Recovery	=	102.02%
74) toluene-d8 (s)	12.280	98	244882	50.24	ug/L	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	=	100.48%
97) 4-bromofluorobenzene (s)	14.947	95	85555	50.31	ug/L	0.00
Spiked Amount	50.000	Range	79 - 127	Recovery	=	100.62%
Target Compounds						
2) tertiary butyl alcohol	7.500	59	2079	17.77	ug/L	93
3) 1,4-dioxane	11.307	88	1177	89.79	ug/L	91
5) dichlorodifluoromethane	3.891	85	6572	4.35	ug/L	98
6) chlorodifluoromethane	3.917	51	5802	4.15	ug/L	95
7) chloromethane	4.283	50	5907	4.14	ug/L	94
8) vinyl chloride	4.529	62	5065	4.21	ug/L	92
9) 1,3-butadiene	4.618	54	3121	3.94	ug/L	97
10) bromomethane	5.193	94	3291	4.11	ug/L	85
11) chloroethane	5.402	64	2881	4.14	ug/L	89
12) vinyl bromide	5.742	106	3983	4.57	ug/L	91
13) trichlorofluoromethane	5.868	101	7415	4.03	ug/L	94
14) ethyl ether	6.317	74	1856	3.72	ug/L	84
15) 2-chloropropane	6.516	63	1728	4.30	ug/L	94
17) freon 113	6.731	151	3568	3.96	ug/L	93
18) 1,1-dichloroethene	6.725	61	6304	4.00	ug/L	96
19) acetone	6.725	43	4188	14.43	ug/L	89
20) iodomethane	6.976	142	2576	2.19	ug/L	97
21) carbon disulfide	7.128	76	14445	3.88	ug/L	99
22) acetonitrile	7.123	41	5289	35.65	ug/L	96
23) methyl acetate	7.217	74	297	4.73	ug/L #	32
24) methylene chloride	7.447	84	4671	3.87	ug/L	88
26) methyl tert butyl ether	7.824	73	10938	3.95	ug/L	97
27) trans-1,2-dichloroethene	7.860	61	6302	4.21	ug/L	96
28) hexane	8.242	57	7243	3.84	ug/L	94
29) 1,1-dichloroethane	8.436	63	7996	4.16	ug/L	97
31) di-isopropyl ether	8.446	45	13729	4.00	ug/L	95
32) chloroprene	8.551	53	6628	4.10	ug/L	98
33) ethyl tert-butyl ether	8.912	59	12990	3.92	ug/L	96
34) 2-butanone	9.090	72	1455	13.05	ug/L #	69
35) 2,2-dichloropropane	9.189	77	7138	4.12	ug/L	94
36) ethyl acetate	9.131	45	349	2.44	ug/L #	34
37) cis-1,2-dichloroethene	9.163	96	5131	4.12	ug/L	86

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VI8986\
 Data File : I223178.D
 Acq On : 27 Nov 2018 7:51 pm
 Operator : thienn
 Sample : IC8986-4
 Misc : MS30885,VI8986,5.0,,,,,1
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 28 13:31:17 2018
 Quant Method : C:\MSDCHEM\1\METHODS\MI8986.M
 Quant Title : Method SW846 8260C, Rxi-624 60m x 0.25mm x 1.4um
 QLast Update : Wed Nov 28 12:53:10 2018
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
38) propionitrile	9.142	54	5988	36.63	ug/L	89
39) methyl acrylate	9.215	85	334	2.30	ug/L #	61
40) methacrylonitrile	9.351	67	1288	3.31	ug/L	87
41) bromochloromethane	9.461	128	2348	4.37	ug/L	92
42) tetrahydrofuran	9.492	71	385	3.00	ug/L	80
43) chloroform	9.550	83	8299	4.17	ug/L	93
44) carbon tetrachloride	10.026	117	6868	4.21	ug/L	89
45) 1,1-dichloropropene	9.994	75	6056	4.09	ug/L	95
48) 1,1,1-trichloroethane	9.811	97	7418	4.17	ug/L	96
49) cyclohexane	9.942	84	6917	4.25	ug/L	87
50) tert-amyl alcohol	10.104	55	446	10.75	ug/L #	61
53) isopropyl acetate	10.156	87	543	2.65	ug/L #	34
54) 1,2-dichloroethane	10.256	62	6182	4.16	ug/L	96
55) benzene	10.240	78	17835	4.04	ug/L	99
56) 2,2,4-trimethylpentane	10.350	57	18780	4.16	ug/L	96
57) tert-amyl methyl ether	10.324	87	2943	3.91	ug/L #	87
58) heptane	10.523	57	3749	4.15	ug/L	95
59) n-butyl alcohol	10.695	56	6210	176.35	ug/L	85
60) trichloroethene	10.967	95	4719	4.17	ug/L #	80
61) ethyl acrylate	10.957	55	4276	3.53	ug/L	98
62) methylcyclohexane	11.281	83	7925	4.09	ug/L	98
63) 1,2-dichloropropane	11.250	63	4432	4.08	ug/L	93
64) methyl methacrylate	11.223	100	861	3.38	ug/L #	83
65) dibromomethane	11.354	93	2569	3.90	ug/L	92
66) bromodichloromethane	11.506	83	6102	4.05	ug/L	98
67) 2-nitropropane	11.684	41	1087	4.18	ug/L	89
68) 2-chloroethyl vinyl ether	11.746	63	12802	20.17	ug/L	99
69) epichlorohydrin	11.825	57	2136	19.38	ug/L	88
70) cis-1,3-dichloropropene	11.966	75	7213	4.08	ug/L	93
71) 4-methyl-2-pentanone	12.060	58	5298	15.91	ug/L	96
72) 3-methyl-1-butanol	12.060	70	2062	70.31	ug/L	95
75) toluene	12.358	92	11007	4.18	ug/L	99
76) trans-1,3-dichloropropene	12.531	75	6206	3.92	ug/L	95
77) ethyl methacrylate	12.531	69	4545	4.00	ug/L	99
78) 1,1,2-trichloroethane	12.751	83	3155	4.43	ug/L #	84
79) 1,3-dichloropropane	12.929	76	5622	4.00	ug/L	93
80) tetrachloroethene	12.913	166	5461	4.13	ug/L	92
81) 2-hexanone	12.908	58	5119	15.51	ug/L	93
82) butyl acetate	13.002	56	2274	3.95	ug/L	86
83) n-butyl ether	13.791	57	17588	4.05	ug/L	91
84) dibromochloromethane	13.180	129	4648	4.00	ug/L	91
85) 1,2-dibromoethane	13.331	107	4108	4.02	ug/L	91
86) chlorobenzene	13.818	112	11335	4.04	ug/L	97
87) 1,1,1,2-tetrachloroethane	13.880	131	4380	4.15	ug/L	98
88) ethylbenzene	13.880	91	20145	4.11	ug/L	97
89) m,p-xylene	14.006	106	15542	8.06	ug/L	96
90) o-xylene	14.403	106	7506	4.07	ug/L	98
91) styrene	14.414	104	12462	3.99	ug/L	98
92) butyl acrylate	14.231	55	7007	3.97	ug/L	93
93) cis-1,4-dichloro-2-butene	14.775	88	1826	3.86	ug/L	87

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VI8986\
 Data File : I223178.D
 Acq On : 27 Nov 2018 7:51 pm
 Operator : thienn
 Sample : IC8986-4
 Misc : MS30885,VI8986,5.0,,,,,1
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 28 13:31:17 2018
 Quant Method : C:\MSDCHEM\1\METHODS\MI8986.M
 Quant Title : Method SW846 8260C, Rxi-624 60m x 0.25mm x 1.4um
 QLast Update : Wed Nov 28 12:53:10 2018
 Response via : Initial Calibration

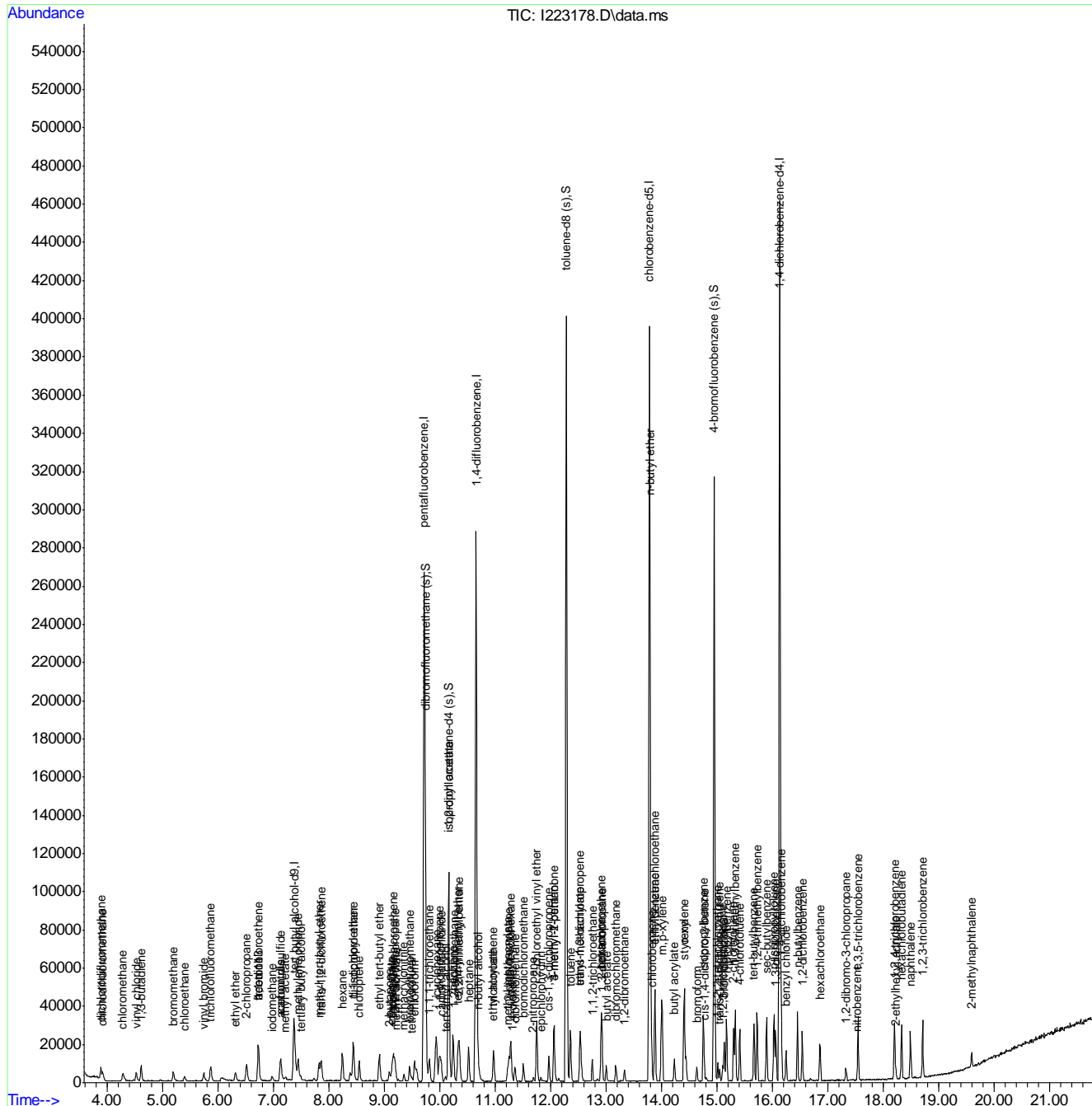
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
94) bromoform	14.634	173	3228	4.00	ug/L	99
95) isopropylbenzene	14.754	105	19237	3.98	ug/L	98
98) 1,1,2,2-tetrachloroethane	15.015	83	4469	3.98	ug/L	97
99) trans-1,4-dichloro-2-b...	15.047	53	1081	3.85	ug/L	97
100) 1,2,3-trichloropropane	15.099	110	1108	3.73	ug/L	90
101) bromobenzene	15.130	156	5691	4.13	ug/L	93
102) n-propylbenzene	15.167	91	23225	4.06	ug/L	99
103) 2-chlorotoluene	15.298	126	5120	4.26	ug/L	88
104) 4-chlorotoluene	15.408	91	13909	4.07	ug/L	96
105) 1,3,5-trimethylbenzene	15.329	105	17906	4.16	ug/L	99
106) tert-butylbenzene	15.664	134	3131	4.02	ug/L #	91
107) 1,2,4-trimethylbenzene	15.721	105	17951	4.07	ug/L	97
108) sec-butylbenzene	15.889	105	21516	4.02	ug/L	97
109) p-isopropyltoluene	16.030	119	18768	3.90	ug/l	98
110) benzyl chloride	16.244	91	10717	3.97	ug/L	95
111) 1,3-dichlorobenzene	16.061	146	10674	4.06	ug/L	99
112) 1,4-dichlorobenzene	16.156	146	11005	4.10	ug/L	96
113) 1,2-dichlorobenzene	16.537	146	10429	4.05	ug/L	97
114) n-butylbenzene	16.448	92	9980	3.99	ug/L	99
115) hexachloroethane	16.856	201	3672	4.01	ug/L	95
116) 1,2-dibromo-3-chloropr...	17.322	157	1323	3.70	ug/L	94
117) nitrobenzene	17.521	77	403	3.28	ug/L #	49
118) 1,3,5-trichlorobenzene	17.542	180	10294	3.94	ug/L	93
119) 1,2,4-trichlorobenzene	18.201	180	9335	3.97	ug/L	98
120) 2-ethylhexyl acrylate	18.227	55	1548	0.81	ug/L	94
121) hexachlorobutadiene	18.326	225	6284	4.20	ug/L	96
122) naphthalene	18.488	128	18133	3.99	ug/L	97
123) 1,2,3-trichlorobenzene	18.708	180	9247	4.12	ug/L	94
124) 2-methylnaphthalene	19.587	142	3360	1.86	ug/L	97

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VI8986\
Data File : I223178.D
Acq On : 27 Nov 2018 7:51 pm
Operator : thienn
Sample : IC8986-4
Misc : MS30885,VI8986,5.0,,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 28 13:31:17 2018
Quant Method : C:\MSDCHEM\1\METHODS\MI8986.M
Quant Title : Method SW846 8260C, Rxi-624 60m x 0.25mm x 1.4um
QLast Update : Wed Nov 28 12:53:10 2018
Response via : Initial Calibration



7.7.16
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VI8986\
 Data File : I223179.D
 Acq On : 27 Nov 2018 8:21 pm
 Operator : thienn
 Sample : IC8986-8
 Misc : MS30885,VI8986,5.0,,,,,1
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 28 12:54:22 2018
 Quant Method : C:\MSDCHEM\1\METHODS\MI8986.M
 Quant Title : Method SW846 8260C, Rxi-624 60m x 0.25mm x 1.4um
 QLast Update : Wed Nov 28 12:53:10 2018
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
Internal Standards							
1) tert butyl alcohol-d9	7.374	65	57167	500.00	ug/L	0.00	
4) pentafluorobenzene	9.717	168	177523	50.00	ug/L	0.00	
51) 1,4-difluorobenzene	10.653	114	226737	50.00	ug/L	0.00	
73) chlorobenzene-d5	13.786	117	188963	50.00	ug/L	0.00	
96) 1,4-dichlorobenzene-d4	16.129	152	109400	50.00	ug/L	0.00	
System Monitoring Compounds							
47) dibromofluoromethane (s)	9.738	113	70072	50.23	ug/L	0.00	
Spiked Amount	50.000	Range	75 - 127	Recovery	=	100.46%	
52) 1,2-dichloroethane-d4 (s)	10.162	65	72263	51.08	ug/L	0.00	
Spiked Amount	50.000	Range	75 - 130	Recovery	=	102.16%	
74) toluene-d8 (s)	12.280	98	241205	49.79	ug/L	0.00	
Spiked Amount	50.000	Range	80 - 120	Recovery	=	99.58%	
97) 4-bromofluorobenzene (s)	14.947	95	84595	50.72	ug/L	0.00	
Spiked Amount	50.000	Range	79 - 127	Recovery	=	101.44%	
Target Compounds							
							Qvalue
2) tertiary butyl alcohol	7.494	59	4938	41.52	ug/L		95
3) 1,4-dioxane	11.307	88	2896	217.37	ug/L		93
5) dichlorodifluoromethane	3.891	85	12278	8.09	ug/L		98
6) chlorodifluoromethane	3.922	51	11960	8.51	ug/L		97
7) chloromethane	4.283	50	10548	7.35	ug/L		97
8) vinyl chloride	4.529	62	9571	7.92	ug/L		95
9) 1,3-butadiene	4.618	54	6813	8.55	ug/L		94
10) bromomethane	5.198	94	6613	8.22	ug/L		91
11) chloroethane	5.402	64	5935	8.48	ug/L		97
12) vinyl bromide	5.747	106	7369	8.41	ug/L		95
13) trichlorofluoromethane	5.873	101	14953	8.08	ug/L		97
14) ethyl ether	6.317	74	4326	8.62	ug/L		98
15) 2-chloropropane	6.511	63	3588	8.88	ug/L	#	82
16) acrolein	6.532	56	1017	6.45	ug/L		86
17) freon 113	6.731	151	7945	8.76	ug/L		93
18) 1,1-dichloroethene	6.725	61	13985	8.83	ug/L		92
19) acetone	6.720	43	9957	34.12	ug/L		99
20) iodomethane	6.976	142	6495	5.43	ug/L		99
21) carbon disulfide	7.133	76	29142	7.79	ug/L		98
22) acetonitrile	7.118	41	12419	83.26	ug/L		97
23) methyl acetate	7.222	74	1138	9.23	ug/L	#	45
24) methylene chloride	7.447	84	9752	8.04	ug/L		95
25) acrylonitrile	7.730	53	2519	7.61	ug/L		91
26) methyl tert butyl ether	7.824	73	23303	8.36	ug/L		98
27) trans-1,2-dichloroethene	7.860	61	13077	8.69	ug/L		96
28) hexane	8.247	57	15412	8.12	ug/L		96
29) 1,1-dichloroethane	8.436	63	17089	8.84	ug/L		96
30) vinyl acetate	8.389	86	1298	7.24	ug/L	#	22
31) di-isopropyl ether	8.446	45	29622	8.58	ug/L		95
32) chloroprene	8.551	53	14599	8.97	ug/L		97
33) ethyl tert-butyl ether	8.912	59	28041	8.41	ug/L		98
34) 2-butanone	9.089	72	3576	31.90	ug/L		94

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VI8986\
 Data File : I223179.D
 Acq On : 27 Nov 2018 8:21 pm
 Operator : thienn
 Sample : IC8986-8
 Misc : MS30885,VI8986,5.0,,,,1
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 28 12:54:22 2018
 Quant Method : C:\MSDCHEM\1\METHODS\MI8986.M
 Quant Title : Method SW846 8260C, Rxi-624 60m x 0.25mm x 1.4um
 QLast Update : Wed Nov 28 12:53:10 2018
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
35) 2,2-dichloropropane	9.189	77	14913	8.55	ug/L	98
36) ethyl acetate	9.121	45	953	6.63	ug/L #	77
37) cis-1,2-dichloroethene	9.157	96	10944	8.74	ug/L	97
38) propionitrile	9.142	54	13778	83.83	ug/L	93
39) methyl acrylate	9.205	85	994	6.79	ug/L #	75
40) methacrylonitrile	9.351	67	3176	8.13	ug/L	97
41) bromochloromethane	9.456	128	4948	9.16	ug/L	94
42) tetrahydrofuran	9.497	71	1059	8.20	ug/L	86
43) chloroform	9.550	83	17415	8.70	ug/L	96
44) carbon tetrachloride	10.026	117	14463	8.82	ug/L	98
45) 1,1-dichloropropene	9.994	75	12924	8.67	ug/L	97
48) 1,1,1-trichloroethane	9.811	97	16146	9.02	ug/L	96
49) cyclohexane	9.942	84	13156	8.05	ug/L	96
50) tert-amyl alcohol	10.094	55	1692	40.55	ug/L	84
53) isopropyl acetate	10.156	87	1638	7.97	ug/L #	58
54) 1,2-dichloroethane	10.256	62	12400	8.32	ug/L	91
55) benzene	10.240	78	38197	8.62	ug/L	99
56) 2,2,4-trimethylpentane	10.350	57	39687	8.75	ug/L	97
57) tert-amyl methyl ether	10.324	87	6544	8.66	ug/L #	83
58) heptane	10.523	57	8295	9.15	ug/L	96
59) n-butyl alcohol	10.690	56	14176	401.15	ug/L	98
60) trichloroethene	10.972	95	10146	8.94	ug/L	90
61) ethyl acrylate	10.957	55	10143	8.34	ug/L	97
62) methylcyclohexane	11.281	83	16451	8.45	ug/L	94
63) 1,2-dichloropropane	11.250	63	9387	8.61	ug/L	92
64) methyl methacrylate	11.218	100	2002	7.83	ug/L	95
65) dibromomethane	11.354	93	5573	8.44	ug/L	98
66) bromodichloromethane	11.511	83	13342	8.83	ug/L	96
67) 2-nitropropane	11.689	41	2054	7.87	ug/L	92
68) 2-chloroethyl vinyl ether	11.746	63	27553	43.26	ug/L	97
69) epichlorohydrin	11.820	57	4510	40.78	ug/L	91
70) cis-1,3-dichloropropene	11.966	75	15109	8.52	ug/L	95
71) 4-methyl-2-pentanone	12.060	58	12035	36.00	ug/L	95
72) 3-methyl-1-butanol	12.060	70	4973	168.96	ug/L	97
75) toluene	12.358	92	22761	8.70	ug/L	95
76) trans-1,3-dichloropropene	12.531	75	13646	8.67	ug/L	98
77) ethyl methacrylate	12.526	69	10126	8.97	ug/L	92
78) 1,1,2-trichloroethane	12.745	83	6458	9.13	ug/L	98
79) 1,3-dichloropropane	12.928	76	12230	8.76	ug/L	96
80) tetrachloroethene	12.918	166	11344	8.64	ug/L	96
81) 2-hexanone	12.913	58	11762	35.85	ug/L	89
82) butyl acetate	13.002	56	4930	8.62	ug/L	99
83) n-butyl ether	13.791	57	36936	8.55	ug/L	97
84) dibromochloromethane	13.180	129	9932	8.59	ug/L	96
85) 1,2-dibromoethane	13.331	107	8785	8.65	ug/L	100
86) chlorobenzene	13.818	112	24105	8.65	ug/L	98
87) 1,1,1,2-tetrachloroethane	13.880	131	9408	8.98	ug/L	92
88) ethylbenzene	13.880	91	41922	8.60	ug/L	100
89) m,p-xylene	14.001	106	32874	17.16	ug/L	98
90) o-xylene	14.403	106	15947	8.71	ug/L	97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VI8986\
 Data File : I223179.D
 Acq On : 27 Nov 2018 8:21 pm
 Operator : thienn
 Sample : IC8986-8
 Misc : MS30885,VI8986,5.0,,,,,1
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 28 12:54:22 2018
 Quant Method : C:\MSDCHEM\1\METHODS\MI8986.M
 Quant Title : Method SW846 8260C, Rxi-624 60m x 0.25mm x 1.4um
 QLast Update : Wed Nov 28 12:53:10 2018
 Response via : Initial Calibration

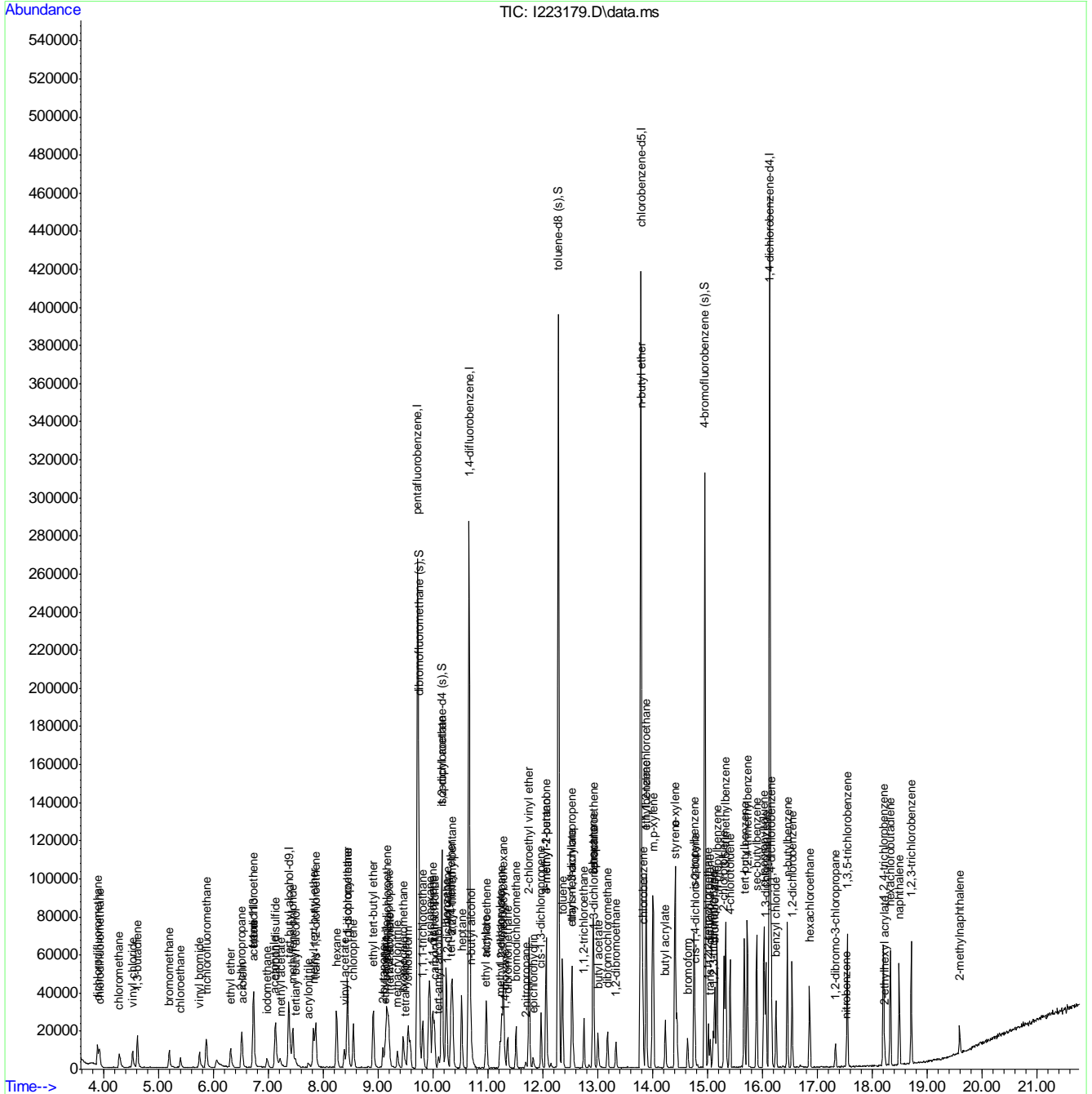
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
91) styrene	14.414	104	27074	8.72	ug/L	99
92) butyl acrylate	14.231	55	14603	8.33	ug/L	99
93) cis-1,4-dichloro-2-butene	14.770	88	3954	8.42	ug/L	94
94) bromoform	14.634	173	6780	8.45	ug/L	98
95) isopropylbenzene	14.754	105	41159	8.57	ug/L	99
98) 1,1,2,2-tetrachloroethane	15.015	83	9707	8.82	ug/L	97
99) trans-1,4-dichloro-2-b...	15.047	53	2565	9.31	ug/L	91
100) 1,2,3-trichloropropane	15.099	110	2584	8.87	ug/L	91
101) bromobenzene	15.130	156	11885	8.80	ug/L	96
102) n-propylbenzene	15.167	91	49243	8.78	ug/L	98
103) 2-chlorotoluene	15.298	126	10390	8.82	ug/L	95
104) 4-chlorotoluene	15.408	91	28928	8.63	ug/L	97
105) 1,3,5-trimethylbenzene	15.329	105	37155	8.81	ug/L	96
106) tert-butylbenzene	15.669	134	6855	8.98	ug/L	95
107) 1,2,4-trimethylbenzene	15.721	105	36736	8.50	ug/L	99
108) sec-butylbenzene	15.894	105	45123	8.60	ug/L	98
109) p-isopropyltoluene	16.030	119	39972	8.47	ug/l	98
110) benzyl chloride	16.244	91	22222	8.39	ug/L	95
111) 1,3-dichlorobenzene	16.061	146	21514	8.35	ug/L	95
112) 1,4-dichlorobenzene	16.156	146	22113	8.40	ug/L	96
113) 1,2-dichlorobenzene	16.537	146	21629	8.57	ug/L	99
114) n-butylbenzene	16.448	92	21121	8.60	ug/L	96
115) hexachloroethane	16.856	201	7837	8.73	ug/L	97
116) 1,2-dibromo-3-chloropr...	17.327	157	2959	8.43	ug/L	85
117) nitrobenzene	17.515	77	890	7.38	ug/L	98
118) 1,3,5-trichlorobenzene	17.542	180	21999	8.59	ug/L	98
119) 1,2,4-trichlorobenzene	18.201	180	19496	8.46	ug/L	99
120) 2-ethylhexyl acrylate	18.227	55	3118	1.66	ug/L	98
121) hexachlorobutadiene	18.326	225	12855	8.76	ug/L	97
122) naphthalene	18.488	128	37654	8.45	ug/L	98
123) 1,2,3-trichlorobenzene	18.708	180	19464	8.84	ug/L	99
124) 2-methylnaphthalene	19.587	142	6525	3.69	ug/L	94

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VI8986\
Data File : I223179.D
Acq On : 27 Nov 2018 8:21 pm
Operator : thienn
Sample : IC8986-8
Misc : MS30885,VI8986,5.0,,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 28 12:54:22 2018
Quant Method : C:\MSDCHEM\1\METHODS\MI8986.M
Quant Title : Method SW846 8260C, Rxi-624 60m x 0.25mm x 1.4um
QLast Update : Wed Nov 28 12:53:10 2018
Response via : Initial Calibration



7.7.11
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VI8986\
 Data File : I223180.D
 Acq On : 27 Nov 2018 8:51 pm
 Operator : thienn
 Sample : IC8986-20
 Misc : MS30885,VI8986,5.0,,,,1
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Nov 28 12:53:22 2018
 Quant Method : C:\MSDCHEM\1\METHODS\MI8986.M
 Quant Title : Method SW846 8260C, Rxi-624 60m x 0.25mm x 1.4um
 QLast Update : Wed Nov 28 12:53:10 2018
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.374	65	60757	500.00	ug/L	0.00
4) pentafluorobenzene	9.717	168	178537	50.00	ug/L	0.00
51) 1,4-difluorobenzene	10.653	114	231620	50.00	ug/L	0.00
73) chlorobenzene-d5	13.781	117	192374	50.00	ug/L	0.00
96) 1,4-dichlorobenzene-d4	16.129	152	115697	50.00	ug/L	0.00
System Monitoring Compounds						
47) dibromofluoromethane (s)	9.738	113	70783	50.45	ug/L	0.00
Spiked Amount	50.000	Range	75 - 127	Recovery	=	100.90%
52) 1,2-dichloroethane-d4 (s)	10.162	65	73197	50.64	ug/L	0.00
Spiked Amount	50.000	Range	75 - 130	Recovery	=	101.28%
74) toluene-d8 (s)	12.280	98	249239	50.54	ug/L	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	=	101.08%
97) 4-bromofluorobenzene (s)	14.947	95	87552	49.64	ug/L	0.00
Spiked Amount	50.000	Range	79 - 127	Recovery	=	99.28%
Target Compounds						
2) tertiary butyl alcohol	7.494	59	12593	99.62	ug/L	94
3) 1,4-dioxane	11.302	88	7334	517.94	ug/L	94
5) dichlorodifluoromethane	3.890	85	32106	21.03	ug/L	99
6) chlorodifluoromethane	3.922	51	29986	21.21	ug/L	99
7) chloromethane	4.283	50	26635	18.44	ug/L	99
8) vinyl chloride	4.529	62	24948	20.52	ug/L	95
9) 1,3-butadiene	4.617	54	17316	21.61	ug/L	95
10) bromomethane	5.193	94	15986	19.75	ug/L	95
11) chloroethane	5.397	64	15576	22.14	ug/L	99
12) vinyl bromide	5.747	106	19632	22.29	ug/L	98
13) trichlorofluoromethane	5.873	101	38133	20.49	ug/L	96
14) ethyl ether	6.312	74	11049	21.88	ug/L	94
15) 2-chloropropane	6.516	63	9402	23.13	ug/L	98
16) acrolein	6.516	56	3141	19.80	ug/L	94
17) freon 113	6.730	151	19068	20.91	ug/L	97
18) 1,1-dichloroethene	6.730	61	34307	21.54	ug/L	97
19) acetone	6.715	43	24864	84.71	ug/L	98
20) iodomethane	6.976	142	21998	18.17	ug/L	94
21) carbon disulfide	7.128	76	69460	18.46	ug/L	99
22) acetonitrile	7.123	41	31184	207.87	ug/L	91
23) methyl acetate	7.212	74	3028	19.27	ug/L	94
24) methylene chloride	7.447	84	23654	19.38	ug/L	96
25) acrylonitrile	7.719	53	6886	20.68	ug/L	95
26) methyl tert butyl ether	7.824	73	60125	21.45	ug/L	99
27) trans-1,2-dichloroethene	7.860	61	32787	21.66	ug/L	97
28) hexane	8.242	57	39016	20.44	ug/L	98
29) 1,1-dichloroethane	8.436	63	41243	21.21	ug/L	98
30) vinyl acetate	8.383	86	3660	20.30	ug/L #	95
31) di-isopropyl ether	8.446	45	73396	21.14	ug/L	96
32) chloroprene	8.551	53	36442	22.27	ug/L	99
33) ethyl tert-butyl ether	8.911	59	70796	21.12	ug/L	99
34) 2-butanone	9.084	72	9429	83.62	ug/L #	80

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VI8986\
 Data File : I223180.D
 Acq On : 27 Nov 2018 8:51 pm
 Operator : thienn
 Sample : IC8986-20
 Misc : MS30885,VI8986,5.0,,,,1
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Nov 28 12:53:22 2018
 Quant Method : C:\MSDCHEM\1\METHODS\MI8986.M
 Quant Title : Method SW846 8260C, Rxi-624 60m x 0.25mm x 1.4um
 QLast Update : Wed Nov 28 12:53:10 2018
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
35) 2,2-dichloropropane	9.189	77	36440	20.78	ug/L	96
36) ethyl acetate	9.115	45	3029	20.94	ug/L #	85
37) cis-1,2-dichloroethene	9.157	96	26335	20.90	ug/L	96
38) propionitrile	9.142	54	34122	206.43	ug/L	97
39) methyl acrylate	9.204	85	2951	20.05	ug/L	95
40) methacrylonitrile	9.351	67	8240	20.97	ug/L #	84
41) bromochloromethane	9.455	128	12346	22.72	ug/L	90
42) tetrahydrofuran	9.487	71	2571	19.79	ug/L	95
43) chloroform	9.544	83	43044	21.38	ug/L	99
44) carbon tetrachloride	10.026	117	35816	21.72	ug/L	98
45) 1,1-dichloropropene	9.994	75	31941	21.31	ug/L	96
48) 1,1,1-trichloroethane	9.816	97	38625	21.46	ug/L	98
49) cyclohexane	9.942	84	33831	20.57	ug/L	97
50) tert-amyl alcohol	10.099	55	4282	102.05	ug/L	92
53) isopropyl acetate	10.151	87	4201	20.02	ug/L #	91
54) 1,2-dichloroethane	10.250	62	30514	20.05	ug/L	95
55) benzene	10.235	78	94269	20.83	ug/L	99
56) 2,2,4-trimethylpentane	10.355	57	97151	20.97	ug/L	99
57) tert-amyl methyl ether	10.329	87	16375	21.20	ug/L	97
58) heptane	10.522	57	20464	22.10	ug/L	97
59) n-butyl alcohol	10.685	56	40458	1120.74	ug/L	93
60) trichloroethene	10.972	95	24857	21.43	ug/L	97
61) ethyl acrylate	10.951	55	25658	20.66	ug/L	99
62) methylcyclohexane	11.281	83	42109	21.18	ug/L	98
63) 1,2-dichloropropane	11.249	63	23215	20.85	ug/L	97
64) methyl methacrylate	11.218	100	5362	20.54	ug/L	95
65) dibromomethane	11.354	93	13934	20.65	ug/L	95
66) bromodichloromethane	11.506	83	32780	21.23	ug/L	95
67) 2-nitropropane	11.689	41	5485	20.58	ug/L	99
68) 2-chloroethyl vinyl ether	11.746	63	70174	107.87	ug/L	100
69) epichlorohydrin	11.820	57	11247	99.55	ug/L	98
70) cis-1,3-dichloropropene	11.966	75	38343	21.16	ug/L	93
71) 4-methyl-2-pentanone	12.060	58	29969	87.76	ug/L	97
72) 3-methyl-1-butanol	12.055	70	12205	405.93	ug/L	93
75) toluene	12.353	92	55539	20.86	ug/L	97
76) trans-1,3-dichloropropene	12.531	75	33741	21.06	ug/L	99
77) ethyl methacrylate	12.531	69	25725	22.38	ug/L	99
78) 1,1,2-trichloroethane	12.745	83	16074	22.32	ug/L	97
79) 1,3-dichloropropane	12.928	76	30585	21.51	ug/L	98
80) tetrachloroethene	12.918	166	28015	20.95	ug/L	95
81) 2-hexanone	12.907	58	28960	86.71	ug/L	99
82) butyl acetate	13.002	56	12738	21.88	ug/L	96
83) n-butyl ether	13.791	57	89919	20.45	ug/L	99
84) dibromochloromethane	13.174	129	25290	21.48	ug/L	99
85) 1,2-dibromoethane	13.331	107	22074	21.36	ug/L	98
86) chlorobenzene	13.817	112	59344	20.92	ug/L	99
87) 1,1,1,2-tetrachloroethane	13.880	131	22847	21.42	ug/L	96
88) ethylbenzene	13.880	91	102489	20.66	ug/L	98
89) m,p-xylene	14.006	106	81162	41.60	ug/L	95
90) o-xylene	14.403	106	38989	20.91	ug/L	94

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VI8986\
 Data File : I223180.D
 Acq On : 27 Nov 2018 8:51 pm
 Operator : thienn
 Sample : IC8986-20
 Misc : MS30885,VI8986,5.0,,,,,1
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Nov 28 12:53:22 2018
 Quant Method : C:\MSDCHEM\1\METHODS\MI8986.M
 Quant Title : Method SW846 8260C, Rxi-624 60m x 0.25mm x 1.4um
 QLast Update : Wed Nov 28 12:53:10 2018
 Response via : Initial Calibration

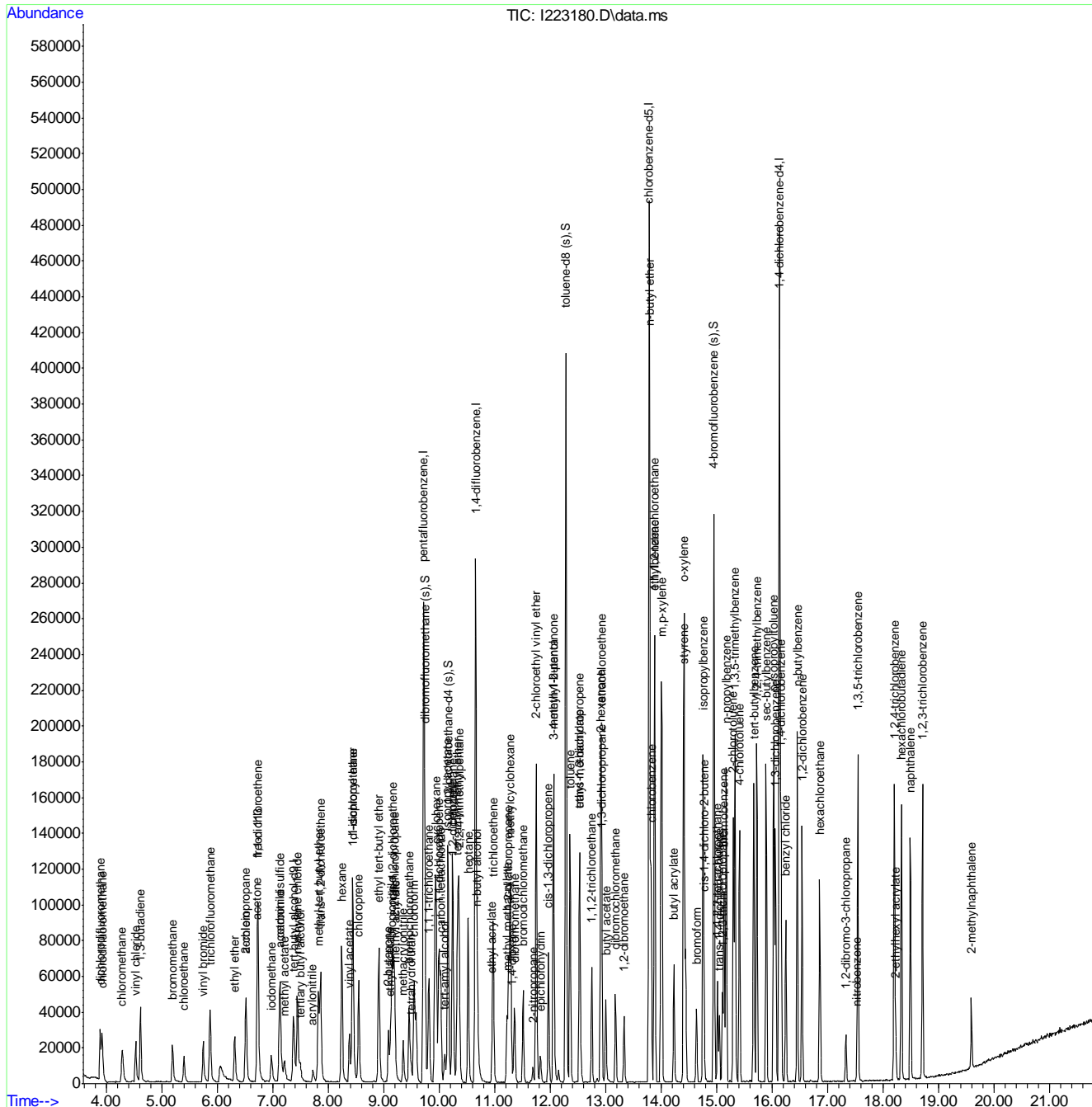
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
91) styrene	14.414	104	66528	21.04	ug/L	98
92) butyl acrylate	14.231	55	38824	21.75	ug/L	99
93) cis-1,4-dichloro-2-butene	14.769	88	10054	21.03	ug/L	97
94) bromoform	14.633	173	17668	21.64	ug/L	98
95) isopropylbenzene	14.754	105	103238	21.12	ug/L	99
98) 1,1,2,2-tetrachloroethane	15.015	83	24199	20.80	ug/L	100
99) trans-1,4-dichloro-2-b...	15.047	53	6126	21.03	ug/L	94
100) 1,2,3-trichloropropane	15.099	110	6423	20.84	ug/L	95
101) bromobenzene	15.130	156	29145	20.40	ug/L	94
102) n-propylbenzene	15.167	91	121831	20.55	ug/L	99
103) 2-chlorotoluene	15.298	126	25087	20.14	ug/L	99
104) 4-chlorotoluene	15.407	91	73277	20.67	ug/L	99
105) 1,3,5-trimethylbenzene	15.329	105	93027	20.85	ug/L	99
106) tert-butylbenzene	15.669	134	17215	21.32	ug/L	91
107) 1,2,4-trimethylbenzene	15.721	105	93166	20.38	ug/L	99
108) sec-butylbenzene	15.894	105	116356	20.97	ug/L	98
109) p-isopropyltoluene	16.025	119	103616	20.76	ug/l	98
110) benzyl chloride	16.244	91	57589	20.57	ug/L	100
111) 1,3-dichlorobenzene	16.061	146	56399	20.69	ug/L	99
112) 1,4-dichlorobenzene	16.155	146	57261	20.57	ug/L	100
113) 1,2-dichlorobenzene	16.537	146	55735	20.89	ug/L	98
114) n-butylbenzene	16.448	92	53936	20.77	ug/L	98
115) hexachloroethane	16.856	201	20274	21.36	ug/L	98
116) 1,2-dibromo-3-chloropr...	17.327	157	7256	19.55	ug/L	95
117) nitrobenzene	17.520	77	2497	19.58	ug/L	100
118) 1,3,5-trichlorobenzene	17.541	180	56685	20.92	ug/L	99
119) 1,2,4-trichlorobenzene	18.200	180	52254	21.44	ug/L	98
120) 2-ethylhexyl acrylate	18.221	55	8371	4.22	ug/L	96
121) hexachlorobutadiene	18.326	225	32109	20.70	ug/L	98
122) naphthalene	18.488	128	96578	20.50	ug/L	98
123) 1,2,3-trichlorobenzene	18.708	180	49571	21.28	ug/L	97
124) 2-methylnaphthalene	19.586	142	16725	8.94	ug/L	97

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VI8986\
Data File : I223180.D
Acq On : 27 Nov 2018 8:51 pm
Operator : thienn
Sample : IC8986-20
Misc : MS30885,VI8986,5.0,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Nov 28 12:53:22 2018
Quant Method : C:\MSDCHEM\1\METHODS\MI8986.M
Quant Title : Method SW846 8260C, Rxi-624 60m x 0.25mm x 1.4um
QLast Update : Wed Nov 28 12:53:10 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VI8986\
 Data File : I223181.D
 Acq On : 27 Nov 2018 9:20 pm
 Operator : thienn
 Sample : ICC8986-50
 Misc : MS30885,VI8986,5.0,,,,,1
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Nov 28 12:50:39 2018
 Quant Method : C:\MSDCHEM\1\METHODS\MI8986.M
 Quant Title : Method SW846 8260C, Rxi-624 60m x 0.25mm x 1.4um
 QLast Update : Wed Nov 28 12:50:11 2018
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
Internal Standards							
1) tert butyl alcohol-d9	7.374	65	65148	500.00	ug/L	0.00	
4) pentafluorobenzene	9.717	168	183720	50.00	ug/L	0.00	
51) 1,4-difluorobenzene	10.653	114	241012	50.00	ug/L	0.00	
73) chlorobenzene-d5	13.786	117	199224	50.00	ug/L	0.00	
96) 1,4-dichlorobenzene-d4	16.129	152	122046	50.00	ug/L	0.00	
System Monitoring Compounds							
47) dibromofluoromethane (s)	9.738	113	72211	50.02	ug/L	0.00	
Spiked Amount	50.000	Range	75 - 127	Recovery	=	100.04%	
52) 1,2-dichloroethane-d4 (s)	10.162	65	75307	50.07	ug/L	0.00	
Spiked Amount	50.000	Range	75 - 130	Recovery	=	100.14%	
74) toluene-d8 (s)	12.280	98	255884	50.10	ug/L	0.00	
Spiked Amount	50.000	Range	80 - 120	Recovery	=	100.20%	
97) 4-bromofluorobenzene (s)	14.947	95	92076	49.49	ug/L	0.00	
Spiked Amount	50.000	Range	79 - 127	Recovery	=	98.98%	
Target Compounds							
							Qvalue
2) tertiary butyl alcohol	7.494	59	34280	252.91	ug/L	98	
3) 1,4-dioxane	11.302	88	18969	1249.34	ug/L	100	
5) dichlorodifluoromethane	3.890	85	82853	52.75	ug/L	100	
6) chlorodifluoromethane	3.922	51	77914	53.54	ug/L	100	
7) chloromethane	4.283	50	69250	46.60	ug/L	100	
8) vinyl chloride	4.529	62	64684	51.69	ug/L	100	
9) 1,3-butadiene	4.617	54	45024	54.60	ug/L	100	
10) bromomethane	5.193	94	40805	48.98	ug/L	100	
11) chloroethane	5.397	64	38247	52.83	ug/L	100	
12) vinyl bromide	5.747	106	50347	55.54	ug/L	100	
13) trichlorofluoromethane	5.868	101	100710	52.58	ug/L	100	
14) ethyl ether	6.312	74	28730	55.30	ug/L	100	
15) 2-chloropropane	6.516	63	23431	56.01	ug/L	100	
16) acrolein	6.516	56	8859	54.27	ug/L	100	
17) freon 113	6.731	151	49395	52.64	ug/L	100	
18) 1,1-dichloroethene	6.725	61	86853	52.99	ug/L	100	
19) acetone	6.715	43	63698	210.89	ug/L	100	
20) iodomethane	6.976	142	66995	53.67	ug/L	100	
21) carbon disulfide	7.128	76	176684	45.64	ug/L	100	
22) acetonitrile	7.118	41	79332	513.90	ug/L	100	
23) methyl acetate	7.206	74	8566	47.49	ug/L	100	
24) methylene chloride	7.442	84	60413	48.11	ug/L	100	
25) acrylonitrile	7.724	53	18124	52.90	ug/L	100	
26) methyl tert butyl ether	7.824	73	155389	53.88	ug/L	100	
27) trans-1,2-dichloroethene	7.860	61	83571	53.66	ug/L	100	
28) hexane	8.242	57	98027	49.90	ug/L	100	
29) 1,1-dichloroethane	8.436	63	102884	51.42	ug/L	100	
30) vinyl acetate	8.383	86	9922	53.47	ug/L	100	
31) di-isopropyl ether	8.446	45	190053	53.20	ug/L	100	
32) chloroprene	8.545	53	92917	55.18	ug/L	100	
33) ethyl tert-butyl ether	8.912	59	184714	53.54	ug/L	100	
34) 2-butanone	9.079	72	25416	219.05	ug/L	100	

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VI8986\
 Data File : I223181.D
 Acq On : 27 Nov 2018 9:20 pm
 Operator : thienn
 Sample : ICC8986-50
 Misc : MS30885,VI8986,5.0,,,,1
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Nov 28 12:50:39 2018
 Quant Method : C:\MSDCHEM\1\METHODS\MI8986.M
 Quant Title : Method SW846 8260C, Rxi-624 60m x 0.25mm x 1.4um
 QLast Update : Wed Nov 28 12:50:11 2018
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
35) 2,2-dichloropropane	9.189	77	90897	50.37	ug/L	100
36) ethyl acetate	9.121	45	8039	54.01	ug/L	100
37) cis-1,2-dichloroethene	9.157	96	67177	51.81	ug/L	100
38) propionitrile	9.136	54	87315	513.33	ug/L	100
39) methyl acrylate	9.199	85	8450	55.80	ug/L	100
40) methacrylonitrile	9.351	67	22466	55.56	ug/L	100
41) bromochloromethane	9.455	128	30983	55.40	ug/L	100
42) tetrahydrofuran	9.492	71	6656	49.78	ug/L	100
43) chloroform	9.544	83	109285	52.76	ug/L	100
44) carbon tetrachloride	10.026	117	90565	53.38	ug/L	100
45) 1,1-dichloropropene	9.994	75	84007	54.47	ug/L	100
48) 1,1,1-trichloroethane	9.816	97	97406	52.58	ug/L	100
49) cyclohexane	9.942	84	84523	49.94	ug/L	100
50) tert-amyl alcohol	10.099	55	11866	274.81	ug/L	100
53) isopropyl acetate	10.151	87	11857	54.30	ug/L	100
54) 1,2-dichloroethane	10.250	62	78466	49.56	ug/L	100
55) benzene	10.240	78	241521	51.30	ug/L	100
56) 2,2,4-trimethylpentane	10.355	57	243178	50.45	ug/L	100
57) tert-amyl methyl ether	10.329	87	42313	52.65	ug/L	100
58) heptane	10.522	57	50398	52.30	ug/L	100
59) n-butyl alcohol	10.685	56	102871	2738.62	ug/L	100
60) trichloroethene	10.972	95	63521	52.64	ug/L	100
61) ethyl acrylate	10.951	55	69289	53.60	ug/L	100
62) methylcyclohexane	11.281	83	107265	51.85	ug/L	100
63) 1,2-dichloropropane	11.249	63	60142	51.91	ug/L	100
64) methyl methacrylate	11.218	100	14863	54.72	ug/L	100
65) dibromomethane	11.354	93	35998	51.26	ug/L	100
66) bromodichloromethane	11.511	83	84631	52.67	ug/L	100
67) 2-nitropropane	11.689	41	14807	53.40	ug/L	100
68) 2-chloroethyl vinyl ether	11.746	63	183023	270.36	ug/L	100
69) epichlorohydrin	11.820	57	29222	248.58	ug/L	100
70) cis-1,3-dichloropropene	11.966	75	97561	51.75	ug/L	100
71) 4-methyl-2-pentanone	12.060	58	76900	216.43	ug/L	100
72) 3-methyl-1-butanol	12.055	70	33344	1065.77	ug/L	100
75) toluene	12.358	92	140631	51.00	ug/L	100
76) trans-1,3-dichloropropene	12.531	75	86461	52.10	ug/L	100
77) ethyl methacrylate	12.531	69	64346	54.06	ug/L	100
78) 1,1,2-trichloroethane	12.751	83	42156	56.53	ug/L	100
79) 1,3-dichloropropane	12.928	76	76864	52.20	ug/L	100
80) tetrachloroethene	12.918	166	71605	51.72	ug/L	100
81) 2-hexanone	12.907	58	75911	219.48	ug/L	100
82) butyl acetate	13.002	56	32690	54.22	ug/L	100
83) n-butyl ether	13.791	57	228731	50.23	ug/L	100
84) dibromochloromethane	13.179	129	65396	53.65	ug/L	100
85) 1,2-dibromoethane	13.331	107	58082	54.27	ug/L	100
86) chlorobenzene	13.817	112	150447	51.21	ug/L	100
87) 1,1,1,2-tetrachloroethane	13.880	131	59902	54.22	ug/L	100
88) ethylbenzene	13.880	91	260298	50.67	ug/L	100
89) m,p-xylene	14.006	106	205051	101.50	ug/L	100
90) o-xylene	14.403	106	101602	52.63	ug/L	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VI8986\
 Data File : I223181.D
 Acq On : 27 Nov 2018 9:20 pm
 Operator : thienn
 Sample : ICC8986-50
 Misc : MS30885,VI8986,5.0,,,,,1
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Nov 28 12:50:39 2018
 Quant Method : C:\MSDCHEM\1\METHODS\MI8986.M
 Quant Title : Method SW846 8260C, Rxi-624 60m x 0.25mm x 1.4um
 QLast Update : Wed Nov 28 12:50:11 2018
 Response via : Initial Calibration

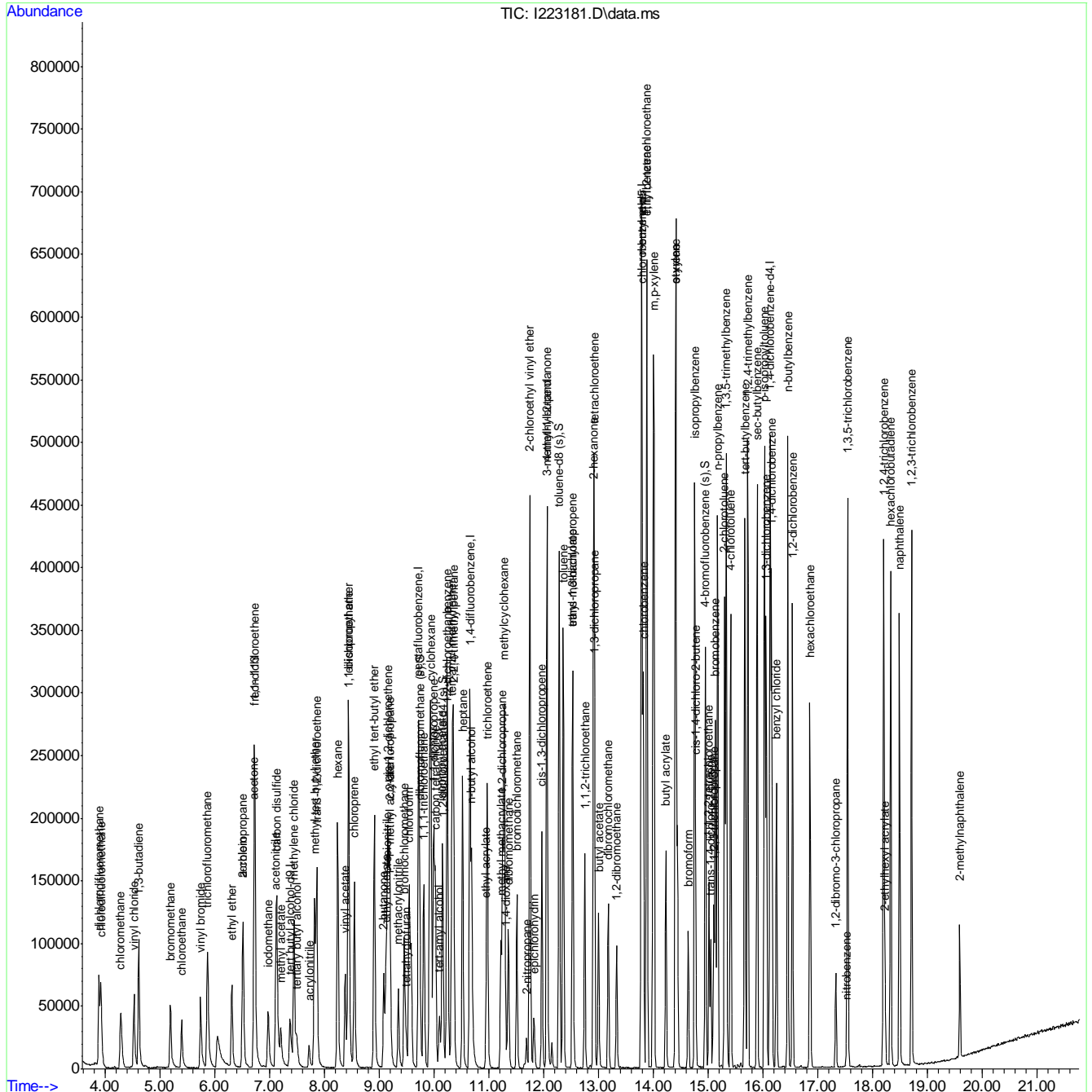
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
91) styrene	14.408	104	172884	52.80	ug/L	100
92) butyl acrylate	14.231	55	100199	54.20	ug/L	100
93) cis-1,4-dichloro-2-butene	14.769	88	25823	52.16	ug/L	100
94) bromoform	14.633	173	47214	55.83	ug/L	100
95) isopropylbenzene	14.754	105	263065	51.96	ug/L	100
98) 1,1,2,2-tetrachloroethane	15.015	83	64444	52.51	ug/L	100
99) trans-1,4-dichloro-2-b...	15.047	53	16492	53.68	ug/L	100
100) 1,2,3-trichloropropane	15.099	110	16683	51.31	ug/L	100
101) bromobenzene	15.130	156	75742	50.27	ug/L	100
102) n-propylbenzene	15.167	91	315832	50.49	ug/L	100
103) 2-chlorotoluene	15.298	126	65757	50.04	ug/L	100
104) 4-chlorotoluene	15.407	91	184609	49.37	ug/L	100
105) 1,3,5-trimethylbenzene	15.329	105	236332	50.21	ug/L	100
106) tert-butylbenzene	15.669	134	44702	52.48	ug/L	100
107) 1,2,4-trimethylbenzene	15.721	105	241376	50.05	ug/L	100
108) sec-butylbenzene	15.894	105	300121	51.27	ug/L	100
109) p-isopropyltoluene	16.030	119	268049	50.91	ug/l	100
110) benzyl chloride	16.244	91	147385	49.90	ug/L	100
111) 1,3-dichlorobenzene	16.061	146	144176	50.15	ug/L	100
112) 1,4-dichlorobenzene	16.155	146	144866	49.33	ug/L	100
113) 1,2-dichlorobenzene	16.537	146	143303	50.92	ug/L	100
114) n-butylbenzene	16.448	92	141015	51.49	ug/L	100
115) hexachloroethane	16.856	201	54930	54.85	ug/L	100
116) 1,2-dibromo-3-chloropr...	17.327	157	20444	52.23	ug/L	100
117) nitrobenzene	17.515	77	7001	52.05	ug/L	100
118) 1,3,5-trichlorobenzene	17.541	180	143456	50.19	ug/L	100
119) 1,2,4-trichlorobenzene	18.200	180	129710	50.46	ug/L	100
120) 2-ethylhexyl acrylate	18.221	55	21424	10.23	ug/L	100
121) hexachlorobutadiene	18.326	225	84700	51.76	ug/L	100
122) naphthalene	18.488	128	258072	51.93	ug/L	100
123) 1,2,3-trichlorobenzene	18.708	180	127357	51.83	ug/L	100
124) 2-methylnaphthalene	19.586	142	43391	21.98	ug/L	100

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VI8986\
Data File : I223181.D
Acq On : 27 Nov 2018 9:20 pm
Operator : thienn
Sample : ICC8986-50
Misc : MS30885,VI8986,5.0,,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Nov 28 12:50:39 2018
Quant Method : C:\MSDCHEM\1\METHODS\MI8986.M
Quant Title : Method SW846 8260C, Rxi-624 60m x 0.25mm x 1.4um
QLast Update : Wed Nov 28 12:50:11 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VI8986\
 Data File : I223182.D
 Acq On : 27 Nov 2018 9:50 pm
 Operator : thienn
 Sample : IC8986-100
 Misc : MS30885,VI8986,5.0,,,,,1
 ALS Vial : 9 Sample Multiplier: 1

Quant Time: Nov 28 12:50:51 2018
 Quant Method : C:\MSDCHEM\1\METHODS\MI8986.M
 Quant Title : Method SW846 8260C, Rxi-624 60m x 0.25mm x 1.4um
 QLast Update : Wed Nov 28 12:50:11 2018
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
Internal Standards							
1) tert butyl alcohol-d9	7.379	65	69203	500.00	ug/L	0.00	
4) pentafluorobenzene	9.717	168	189280	50.00	ug/L	0.00	
51) 1,4-difluorobenzene	10.653	114	248700	50.00	ug/L	0.00	
73) chlorobenzene-d5	13.781	117	212816	50.00	ug/L	0.00	
96) 1,4-dichlorobenzene-d4	16.129	152	134038	50.00	ug/L	0.00	
System Monitoring Compounds							
47) dibromofluoromethane (s)	9.738	113	74258	49.93	ug/L	0.00	
Spiked Amount	50.000	Range	75 - 127	Recovery	=	99.86%	
52) 1,2-dichloroethane-d4 (s)	10.162	65	74937	48.29	ug/L	0.00	
Spiked Amount	50.000	Range	75 - 130	Recovery	=	96.58%	
74) toluene-d8 (s)	12.280	98	268266	49.17	ug/L	0.00	
Spiked Amount	50.000	Range	80 - 120	Recovery	=	98.34%	
97) 4-bromofluorobenzene (s)	14.947	95	97420	47.68	ug/L	0.00	
Spiked Amount	50.000	Range	79 - 127	Recovery	=	95.36%	
Target Compounds							
							Qvalue
2) tertiary butyl alcohol	7.499	59	78146	542.75	ug/L		98
3) 1,4-dioxane	11.302	88	40972	2540.39	ug/L		99
5) dichlorodifluoromethane	3.891	85	176184	108.87	ug/L		99
6) chlorodifluoromethane	3.922	51	166700	111.19	ug/L		98
7) chloromethane	4.283	50	157470	102.84	ug/L		100
8) vinyl chloride	4.529	62	142534	110.56	ug/L		98
9) 1,3-butadiene	4.618	54	100081	117.81	ug/L		97
10) bromomethane	5.188	94	90734	105.72	ug/L		97
11) chloroethane	5.397	64	85541	114.68	ug/L		97
12) vinyl bromide	5.742	106	108860	116.56	ug/L		99
13) trichlorofluoromethane	5.868	101	217016	109.97	ug/L		99
14) ethyl ether	6.312	74	63564	118.75	ug/L		95
15) 2-chloropropane	6.516	63	45556	105.69	ug/L		94
16) acrolein	6.511	56	20678	122.94	ug/L		96
17) freon 113	6.731	151	103178	106.72	ug/L		99
18) 1,1-dichloroethene	6.725	61	186233	110.28	ug/L		99
19) acetone	6.715	43	142067	456.53	ug/L		99
20) iodomethane	6.976	142	141775	110.20	ug/L		99
21) carbon disulfide	7.128	76	374173	93.82	ug/L		99
22) acetonitrile	7.112	41	174769	1098.87	ug/L		97
23) methyl acetate	7.201	74	19528	101.29	ug/L	#	91
24) methylene chloride	7.442	84	132291	102.26	ug/L		98
25) acrylonitrile	7.719	53	39765	112.65	ug/L		96
26) methyl tert butyl ether	7.824	73	334574	112.61	ug/L		99
27) trans-1,2-dichloroethene	7.860	61	176412	109.95	ug/L		97
28) hexane	8.242	57	208329	102.93	ug/L		98
29) 1,1-dichloroethane	8.436	63	222186	107.77	ug/L		98
30) vinyl acetate	8.378	86	22276	116.53	ug/L	#	91
31) di-isopropyl ether	8.446	45	410783	111.61	ug/L		99
32) chloroprene	8.545	53	197074	113.59	ug/L		99
33) ethyl tert-butyl ether	8.912	59	402408	113.22	ug/L		99
34) 2-butanone	9.079	72	57321	479.51	ug/L		91

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VI8986\
 Data File : I223182.D
 Acq On : 27 Nov 2018 9:50 pm
 Operator : thienn
 Sample : IC8986-100
 Misc : MS30885,VI8986,5.0,,,,1
 ALS Vial : 9 Sample Multiplier: 1

Quant Time: Nov 28 12:50:51 2018
 Quant Method : C:\MSDCHEM\1\METHODS\MI8986.M
 Quant Title : Method SW846 8260C, Rxi-624 60m x 0.25mm x 1.4um
 QLast Update : Wed Nov 28 12:50:11 2018
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
35) 2,2-dichloropropane	9.189	77	191102	102.79	ug/L	98
36) ethyl acetate	9.121	45	18847	122.89	ug/L	96
37) cis-1,2-dichloroethene	9.157	96	140883	105.47	ug/L	98
38) propionitrile	9.136	54	193755	1105.64	ug/L	99
39) methyl acrylate	9.199	85	19285	123.61	ug/L #	82
40) methacrylonitrile	9.351	67	49677	119.26	ug/L	91
41) bromochloromethane	9.455	128	68281	118.50	ug/L	99
42) tetrahydrofuran	9.487	71	15584	113.14	ug/L	94
43) chloroform	9.544	83	230111	107.82	ug/L	100
44) carbon tetrachloride	10.020	117	184881	105.77	ug/L	99
45) 1,1-dichloropropene	9.994	75	175553	110.49	ug/L	97
48) 1,1,1-trichloroethane	9.816	97	207824	108.89	ug/L	98
49) cyclohexane	9.942	84	180226	103.37	ug/L	99
50) tert-amyl alcohol	10.099	55	26521	596.18	ug/L	95
53) isopropyl acetate	10.146	87	25575	113.49	ug/L #	95
54) 1,2-dichloroethane	10.250	62	163545	100.10	ug/L	98
55) benzene	10.240	78	518978	106.82	ug/L	100
56) 2,2,4-trimethylpentane	10.355	57	501686	100.86	ug/L	100
57) tert-amyl methyl ether	10.324	87	91588	110.44	ug/L	96
58) heptane	10.517	57	105555	106.15	ug/L	98
59) n-butyl alcohol	10.690	56	231177	5964.13	ug/L	98
60) trichloroethene	10.972	95	136990	110.01	ug/L	99
61) ethyl acrylate	10.951	55	153061	114.75	ug/L	98
62) methylcyclohexane	11.281	83	225785	105.77	ug/L	99
63) 1,2-dichloropropane	11.249	63	130133	108.85	ug/L	100
64) methyl methacrylate	11.218	100	32974	117.65	ug/L	95
65) dibromomethane	11.354	93	77688	107.21	ug/L	98
66) bromodichloromethane	11.511	83	182382	110.00	ug/L	97
67) 2-nitropropane	11.684	41	31530	110.18	ug/L	94
68) 2-chloroethyl vinyl ether	11.746	63	400889	573.89	ug/L	99
69) epichlorohydrin	11.820	57	65278	538.13	ug/L	97
70) cis-1,3-dichloropropene	11.966	75	214687	110.35	ug/L	96
71) 4-methyl-2-pentanone	12.060	58	174503	475.93	ug/L	98
72) 3-methyl-1-butanol	12.055	70	77975	2415.27	ug/L	99
75) toluene	12.353	92	309889	105.20	ug/L	99
76) trans-1,3-dichloropropene	12.526	75	186378	105.15	ug/L	98
77) ethyl methacrylate	12.526	69	141493	111.29	ug/L	99
78) 1,1,2-trichloroethane	12.745	83	94005	118.01	ug/L	99
79) 1,3-dichloropropane	12.928	76	168130	106.89	ug/L	100
80) tetrachloroethene	12.918	166	153746	103.95	ug/L	98
81) 2-hexanone	12.907	58	171225	463.43	ug/L	97
82) butyl acetate	12.996	56	73400	113.97	ug/L	93
83) n-butyl ether	13.786	57	516377	106.15	ug/L	99
84) dibromochloromethane	13.174	129	144764	111.17	ug/L	99
85) 1,2-dibromoethane	13.331	107	130212	113.89	ug/L	98
86) chlorobenzene	13.818	112	332404	105.92	ug/L	98
87) 1,1,1,2-tetrachloroethane	13.880	131	131149	111.13	ug/L	98
88) ethylbenzene	13.880	91	572276	104.28	ug/L	100
89) m,p-xylene	14.006	106	450170	208.60	ug/L	100
90) o-xylene	14.403	106	221612	107.46	ug/L	95

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VI8986\
 Data File : I223182.D
 Acq On : 27 Nov 2018 9:50 pm
 Operator : thienn
 Sample : IC8986-100
 Misc : MS30885,VI8986,5.0,,,,,1
 ALS Vial : 9 Sample Multiplier: 1

Quant Time: Nov 28 12:50:51 2018
 Quant Method : C:\MSDCHEM\1\METHODS\MI8986.M
 Quant Title : Method SW846 8260C, Rxi-624 60m x 0.25mm x 1.4um
 QLast Update : Wed Nov 28 12:50:11 2018
 Response via : Initial Calibration

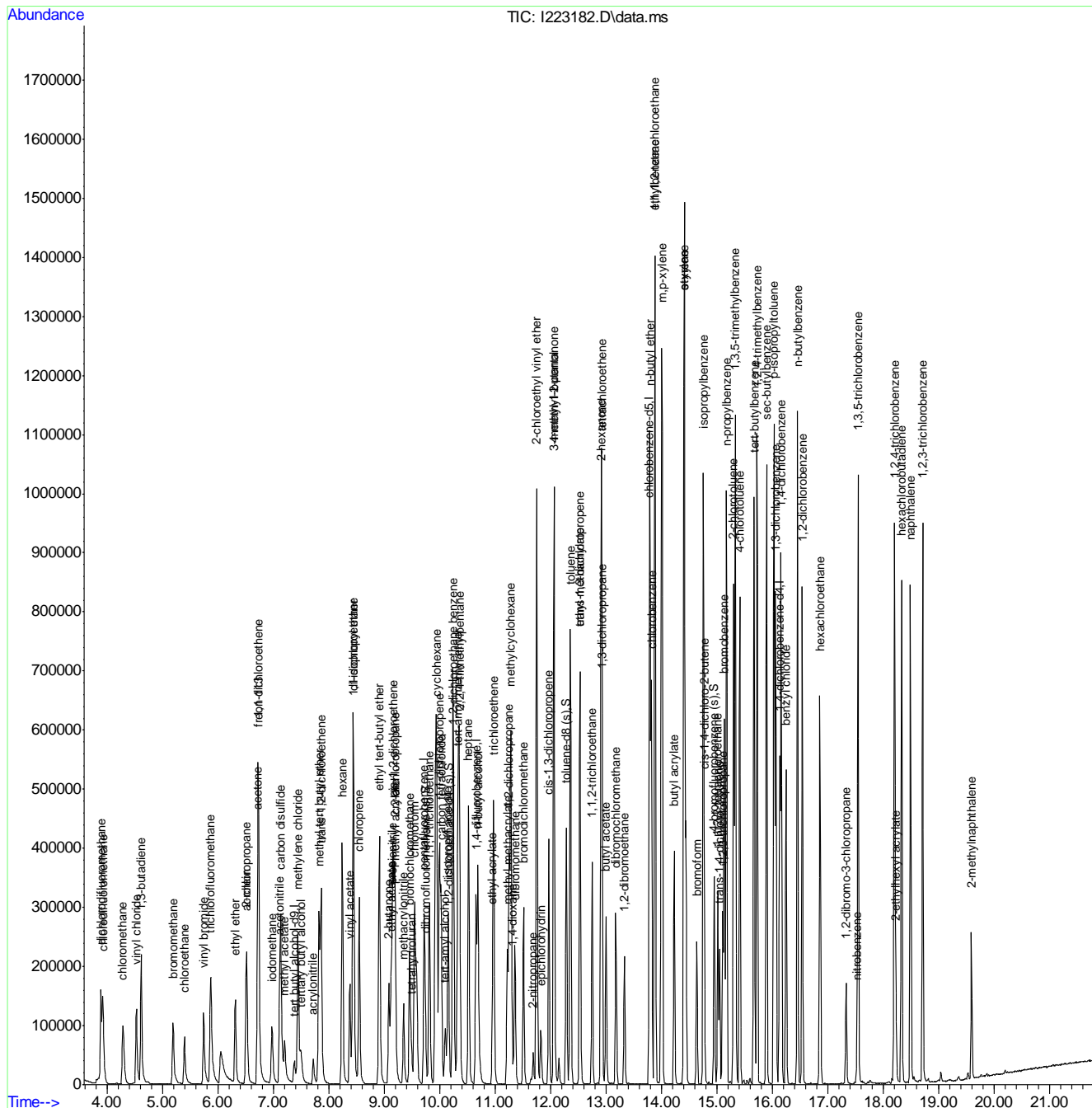
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
91) styrene	14.409	104	382352	109.31	ug/L	98
92) butyl acrylate	14.231	55	226172	114.54	ug/L	98
93) cis-1,4-dichloro-2-butene	14.769	88	57787	109.27	ug/L	96
94) bromoform	14.633	173	103444	114.50	ug/L	99
95) isopropylbenzene	14.754	105	578201	106.92	ug/L	100
98) 1,1,2,2-tetrachloroethane	15.015	83	144881	107.48	ug/L	99
99) trans-1,4-dichloro-2-b...	15.047	53	37249	110.39	ug/L	92
100) 1,2,3-trichloropropane	15.099	110	38087	106.67	ug/L	94
101) bromobenzene	15.130	156	169161	102.22	ug/L	95
102) n-propylbenzene	15.167	91	705177	102.65	ug/L	100
103) 2-chlorotoluene	15.298	126	147983	102.55	ug/L	100
104) 4-chlorotoluene	15.408	91	420336	102.35	ug/L	99
105) 1,3,5-trimethylbenzene	15.329	105	532314	102.97	ug/L	99
106) tert-butylbenzene	15.669	134	100081	106.99	ug/L	98
107) 1,2,4-trimethylbenzene	15.721	105	545454	102.98	ug/L	99
108) sec-butylbenzene	15.894	105	679243	105.66	ug/L	99
109) p-isopropyltoluene	16.030	119	612311	105.89	ug/l	100
110) benzyl chloride	16.244	91	344761	106.28	ug/L	100
111) 1,3-dichlorobenzene	16.061	146	330619	104.71	ug/L	99
112) 1,4-dichlorobenzene	16.155	146	337570	104.67	ug/L	99
113) 1,2-dichlorobenzene	16.537	146	331695	107.33	ug/L	99
114) n-butylbenzene	16.448	92	317398	105.52	ug/L	98
115) hexachloroethane	16.856	201	123211	112.03	ug/L	98
116) 1,2-dibromo-3-chloropr...	17.327	157	47518	110.53	ug/L	98
117) nitrobenzene	17.521	77	17131	115.98	ug/L	88
118) 1,3,5-trichlorobenzene	17.541	180	323287	102.99	ug/L	99
119) 1,2,4-trichlorobenzene	18.200	180	292442	103.59	ug/L	99
120) 2-ethylhexyl acrylate	18.221	55	46071	20.04	ug/L	95
121) hexachlorobutadiene	18.326	225	185278	103.10	ug/L	100
122) naphthalene	18.488	128	603754	110.62	ug/L	99
123) 1,2,3-trichlorobenzene	18.708	180	284115	105.29	ug/L	99
124) 2-methylnaphthalene	19.586	142	102398	47.22	ug/L	99

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VI8986\
Data File : I223182.D
Acq On : 27 Nov 2018 9:50 pm
Operator : thienn
Sample : IC8986-100
Misc : MS30885,VI8986,5.0,,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Nov 28 12:50:51 2018
Quant Method : C:\MSDCHEM\1\METHODS\MI8986.M
Quant Title : Method SW846 8260C, Rxi-624 60m x 0.25mm x 1.4um
QLast Update : Wed Nov 28 12:50:11 2018
Response via : Initial Calibration



7.7.20
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VI8986\
 Data File : I223183.D
 Acq On : 27 Nov 2018 10:20 pm
 Operator : thienn
 Sample : IC8986-200
 Misc : MS30885,VI8986,5.0,,,,,1
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Nov 28 12:51:35 2018
 Quant Method : C:\MSDCHEM\1\METHODS\MI8986.M
 Quant Title : Method SW846 8260C, Rxi-624 60m x 0.25mm x 1.4um
 QLast Update : Wed Nov 28 12:50:11 2018
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.379	65	80301	500.00	ug/L	0.00
4) pentafluorobenzene	9.717	168	215517	50.00	ug/L	0.00
51) 1,4-difluorobenzene	10.653	114	290620	50.00	ug/L	0.00
73) chlorobenzene-d5	13.786	117	249804	50.00	ug/L	0.00
96) 1,4-dichlorobenzene-d4	16.129	152	157477	50.00	ug/L	0.00
System Monitoring Compounds						
47) dibromofluoromethane (s)	9.738	113	83941	49.57	ug/L	0.00
Spiked Amount	50.000	Range	75 - 127	Recovery	=	99.14%
52) 1,2-dichloroethane-d4 (s)	10.162	65	85112	46.93	ug/L	0.00
Spiked Amount	50.000	Range	75 - 130	Recovery	=	93.86%
74) toluene-d8 (s)	12.280	98	312894	48.86	ug/L	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	=	97.72%
97) 4-bromofluorobenzene (s)	14.953	95	117844	49.09	ug/L	0.00
Spiked Amount	50.000	Range	79 - 127	Recovery	=	98.18%
Target Compounds						
						Qvalue
2) tertiary butyl alcohol	7.505	59	175497	1050.43	ug/L	98
3) 1,4-dioxane	11.302	88	87551	4678.20	ug/L	95
5) dichlorodifluoromethane	3.891	85	375056	203.55	ug/L	98
6) chlorodifluoromethane	3.922	51	366508	214.71	ug/L	97
7) chloromethane	4.288	50	369957	212.20	ug/L	99
8) vinyl chloride	4.529	62	324334	220.94	ug/L	99
9) 1,3-butadiene	4.618	54	226188	233.83	ug/L	97
10) bromomethane	5.183	94	200309	204.97	ug/L	99
11) chloroethane	5.397	64	191609	225.61	ug/L	97
12) vinyl bromide	5.742	106	243673	229.14	ug/L	98
13) trichlorofluoromethane	5.868	101	477873	212.68	ug/L	100
14) ethyl ether	6.312	74	145655	238.98	ug/L	94
15) 2-chloropropane	6.516	63	94139	191.82	ug/L	99
16) acrolein	6.511	56	49971	260.93	ug/L	99
17) freon 113	6.731	151	227090	206.29	ug/L	99
18) 1,1-dichloroethene	6.726	61	417694	217.24	ug/L	99
19) acetone	6.715	43	306680	865.54	ug/L	98
20) iodomethane	6.977	142	284760	194.36	ug/L	99
21) carbon disulfide	7.128	76	837937	184.52	ug/L	99
22) acetonitrile	7.113	41	383515	2117.82	ug/L	95
23) methyl acetate	7.207	74	44590	199.99	ug/L #	89
24) methylene chloride	7.442	84	300410	203.94	ug/L	97
25) acrylonitrile	7.719	53	91967	228.81	ug/L	97
26) methyl tert butyl ether	7.824	73	754631	223.07	ug/L	99
27) trans-1,2-dichloroethene	7.860	61	389402	213.15	ug/L	100
28) hexane	8.242	57	472229	204.91	ug/L	99
29) 1,1-dichloroethane	8.436	63	489620	208.58	ug/L	98
30) vinyl acetate	8.378	86	51592	237.02	ug/L #	81
31) di-isopropyl ether	8.446	45	922197	220.05	ug/L	99
32) chloroprene	8.546	53	429184	217.25	ug/L	99
33) ethyl tert-butyl ether	8.912	59	900394	222.49	ug/L	99
34) 2-butanone	9.084	72	129219	949.37	ug/L #	88

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VI8986\
 Data File : I223183.D
 Acq On : 27 Nov 2018 10:20 pm
 Operator : thienn
 Sample : IC8986-200
 Misc : MS30885,VI8986,5.0,,,,,1
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Nov 28 12:51:35 2018
 Quant Method : C:\MSDCHEM\1\METHODS\MI8986.M
 Quant Title : Method SW846 8260C, Rxi-624 60m x 0.25mm x 1.4um
 QLast Update : Wed Nov 28 12:50:11 2018
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
35) 2,2-dichloropropane	9.189	77	416394	196.70	ug/L	99
36) ethyl acetate	9.121	45	42114	241.18	ug/L #	86
37) cis-1,2-dichloroethene	9.158	96	315912	207.71	ug/L	98
38) propionitrile	9.142	54	433186	2170.99	ug/L	99
39) methyl acrylate	9.199	85	43433	244.49	ug/L #	76
40) methacrylonitrile	9.351	67	111682	235.47	ug/L	93
41) bromochloromethane	9.456	128	148944	227.02	ug/L	95
42) tetrahydrofuran	9.487	71	34806	221.93	ug/L	92
43) chloroform	9.550	83	503070	207.03	ug/L	99
44) carbon tetrachloride	10.026	117	400619	201.30	ug/L	99
45) 1,1-dichloropropene	9.994	75	388889	214.97	ug/L	97
48) 1,1,1-trichloroethane	9.817	97	444595	204.59	ug/L	97
49) cyclohexane	9.942	84	403176	203.08	ug/L	94
50) tert-amyl alcohol	10.104	55	57571	1136.62	ug/L	96
53) isopropyl acetate	10.146	87	58906	223.70	ug/L	99
54) 1,2-dichloroethane	10.251	62	360721	188.93	ug/L	98
55) benzene	10.240	78	1169633	206.01	ug/L	99
56) 2,2,4-trimethylpentane	10.355	57	1175124	202.17	ug/L	100
57) tert-amyl methyl ether	10.329	87	207313	213.93	ug/L	97
58) heptane	10.523	57	244771	210.65	ug/L	98
59) n-butyl alcohol	10.690	56	512441	11313.49	ug/L	98
60) trichloroethene	10.972	95	298082	204.84	ug/L	99
61) ethyl acrylate	10.952	55	346987	222.62	ug/L	98
62) methylcyclohexane	11.281	83	518630	207.91	ug/L	98
63) 1,2-dichloropropane	11.250	63	292151	209.12	ug/L	98
64) methyl methacrylate	11.218	100	74866	228.59	ug/L	97
65) dibromomethane	11.354	93	173143	204.47	ug/L	98
66) bromodichloromethane	11.511	83	401396	207.18	ug/L	97
67) 2-nitropropane	11.689	41	68700	205.45	ug/L	96
68) 2-chloroethyl vinyl ether	11.747	63	896818	1098.66	ug/L	99
69) epichlorohydrin	11.820	57	146825	1035.78	ug/L	98
70) cis-1,3-dichloropropene	11.966	75	475587	209.19	ug/L	96
71) 4-methyl-2-pentanone	12.060	58	389352	908.73	ug/L	99
72) 3-methyl-1-butanol	12.060	70	176133	4668.76	ug/L	98
75) toluene	12.358	92	697159	201.63	ug/L	100
76) trans-1,3-dichloropropene	12.526	75	417558	200.69	ug/L	99
77) ethyl methacrylate	12.531	69	325102	217.84	ug/L	98
78) 1,1,2-trichloroethane	12.751	83	211103	225.77	ug/L	99
79) 1,3-dichloropropane	12.929	76	382489	207.16	ug/L	100
80) tetrachloroethene	12.918	166	340610	196.20	ug/L	99
81) 2-hexanone	12.908	58	382826	882.73	ug/L	96
82) butyl acetate	12.997	56	166560	220.32	ug/L	94
83) n-butyl ether	13.792	57	1202068	210.51	ug/L	99
84) dibromochloromethane	13.180	129	323192	211.44	ug/L	100
85) 1,2-dibromoethane	13.331	107	289004	215.35	ug/L	97
86) chlorobenzene	13.818	112	766299	208.02	ug/L	99
87) 1,1,1,2-tetrachloroethane	13.880	131	301494	217.64	ug/L	99
88) ethylbenzene	13.880	91	1318470	204.67	ug/L	99
89) m,p-xylene	14.006	106	1036588	409.20	ug/L	100
90) o-xylene	14.403	106	514832	212.68	ug/L	97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VI8986\
 Data File : I223183.D
 Acq On : 27 Nov 2018 10:20 pm
 Operator : thienn
 Sample : IC8986-200
 Misc : MS30885,VI8986,5.0,,,,,1
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Nov 28 12:51:35 2018
 Quant Method : C:\MSDCHEM\1\METHODS\MI8986.M
 Quant Title : Method SW846 8260C, Rxi-624 60m x 0.25mm x 1.4um
 QLast Update : Wed Nov 28 12:50:11 2018
 Response via : Initial Calibration

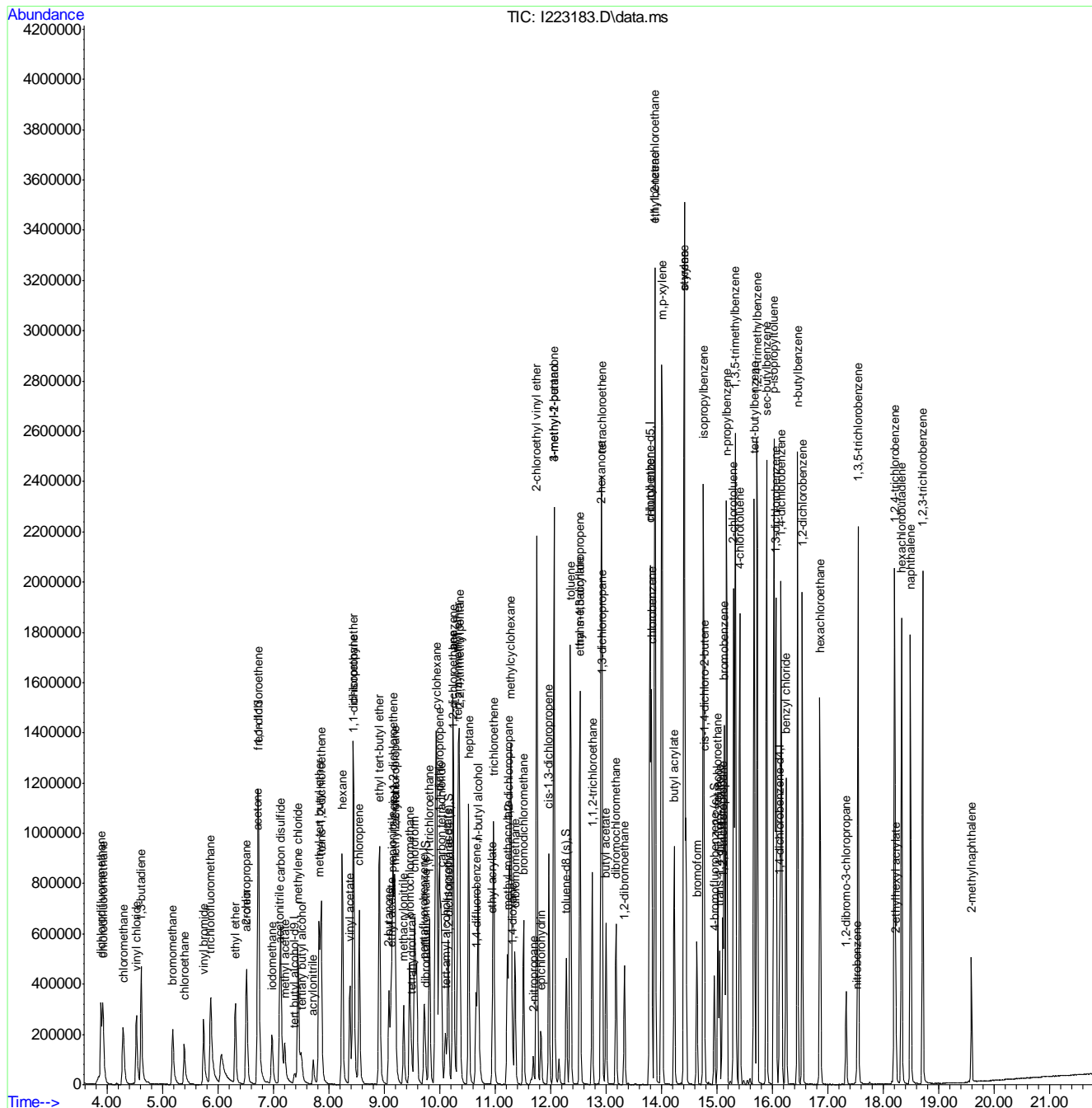
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
91) styrene	14.414	104	895966	218.22	ug/L	99
92) butyl acrylate	14.231	55	540635	233.25	ug/L	98
93) cis-1,4-dichloro-2-butene	14.770	88	132493	213.44	ug/L	95
94) bromoform	14.634	173	242477	228.66	ug/L	100
95) isopropylbenzene	14.754	105	1355411	213.53	ug/L	99
98) 1,1,2,2-tetrachloroethane	15.015	83	341793	215.83	ug/L	100
99) trans-1,4-dichloro-2-b...	15.047	53	84689	213.63	ug/L	90
100) 1,2,3-trichloropropane	15.104	110	86501	206.20	ug/L	98
101) bromobenzene	15.130	156	391000	201.11	ug/L	95
102) n-propylbenzene	15.172	91	1628828	201.82	ug/L	98
103) 2-chlorotoluene	15.298	126	344609	203.26	ug/L	97
104) 4-chlorotoluene	15.413	91	976268	202.33	ug/L	98
105) 1,3,5-trimethylbenzene	15.329	105	1232897	202.98	ug/L	100
106) tert-butylbenzene	15.669	134	235167	213.97	ug/L	98
107) 1,2,4-trimethylbenzene	15.722	105	1236957	198.78	ug/L	99
108) sec-butylbenzene	15.894	105	1582482	209.52	ug/L	99
109) p-isopropyltoluene	16.030	119	1375296	202.45	ug/l	99
110) benzyl chloride	16.245	91	774742	203.28	ug/L	99
111) 1,3-dichlorobenzene	16.061	146	758085	204.35	ug/L	100
112) 1,4-dichlorobenzene	16.156	146	771469	203.61	ug/L	98
113) 1,2-dichlorobenzene	16.537	146	761290	209.67	ug/L	98
114) n-butylbenzene	16.448	92	714096	202.07	ug/L	99
115) hexachloroethane	16.856	201	288682	223.41	ug/L	99
116) 1,2-dibromo-3-chloropr...	17.327	157	105085	208.05	ug/L	98
117) nitrobenzene	17.521	77	37402	215.52	ug/L	87
118) 1,3,5-trichlorobenzene	17.542	180	706301	191.51	ug/L	99
119) 1,2,4-trichlorobenzene	18.201	180	636181	191.81	ug/L	98
120) 2-ethylhexyl acrylate	18.222	55	96958	35.90	ug/L	99
121) hexachlorobutadiene	18.326	225	402594	190.69	ug/L	100
122) naphthalene	18.488	128	1280487	199.69	ug/L	100
123) 1,2,3-trichlorobenzene	18.708	180	610534	192.58	ug/L	99
124) 2-methylnaphthalene	19.587	142	208098	81.68	ug/L	96

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VI8986\
 Data File : I223183.D
 Acq On : 27 Nov 2018 10:20 pm
 Operator : thienn
 Sample : IC8986-200
 Misc : MS30885,VI8986,5.0,,,,,1
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Nov 28 12:51:35 2018
 Quant Method : C:\MSDCHEM\1\METHODS\MI8986.M
 Quant Title : Method SW846 8260C, Rxi-624 60m x 0.25mm x 1.4um
 QLast Update : Wed Nov 28 12:50:11 2018
 Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VI8986\
 Data File : I223186.D
 Acq On : 27 Nov 2018 11:48 pm
 Operator : thienn
 Sample : ICV8986-50
 Misc : MS30885,VI8986,5.0,,,,1
 ALS Vial : 13 Sample Multiplier: 1

Quant Time: Nov 28 14:07:05 2018
 Quant Method : C:\MSDCHEM\1\METHODS\MI8986.M
 Quant Title : Method SW846 8260C, Rxi-624 60m x 0.25mm x 1.4um
 QLast Update : Wed Nov 28 13:32:54 2018
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.374	65	69539	500.00	ug/L	0.00
4) pentafluorobenzene	9.717	168	194929	50.00	ug/L	0.00
51) 1,4-difluorobenzene	10.653	114	259550	50.00	ug/L	0.00
73) chlorobenzene-d5	13.786	117	212734	50.00	ug/L	0.00
96) 1,4-dichlorobenzene-d4	16.129	152	127433	50.00	ug/L	0.00
System Monitoring Compounds						
47) dibromofluoromethane (s)	9.738	113	77737	50.75	ug/L	0.00
Spiked Amount	50.000	Range	75 - 127	Recovery	=	101.50%
52) 1,2-dichloroethane-d4 (s)	10.162	65	78844	48.67	ug/L	0.00
Spiked Amount	50.000	Range	75 - 130	Recovery	=	97.34%
74) toluene-d8 (s)	12.280	98	274637	50.36	ug/L	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	=	100.72%
97) 4-bromofluorobenzene (s)	14.947	95	97906	50.38	ug/L	0.00
Spiked Amount	50.000	Range	79 - 127	Recovery	=	100.76%
Target Compounds						
2) tertiary butyl alcohol	7.494	59	37883	263.21	ug/L	98
3) 1,4-dioxane	11.302	88	20696	1283.03	ug/L	87
5) dichlorodifluoromethane	3.891	85	93875	55.13	ug/L	97
6) chlorodifluoromethane	3.922	51	84039	52.27	ug/L	97
7) chloromethane	4.283	50	81186	51.49	ug/L	99
8) vinyl chloride	4.529	62	69070	52.01	ug/L	99
9) 1,3-butadiene	4.618	54	55309	59.63	ug/L	98
10) bromomethane	5.193	94	48097	54.36	ug/L	100
11) chloroethane	5.397	64	38659	48.13	ug/L	97
12) vinyl bromide	5.747	106	56399	54.95	ug/L	99
13) trichlorofluoromethane	5.873	101	102637	50.50	ug/L	98
14) ethyl ether	6.312	74	30681	53.29	ug/L	97
15) 2-chloropropane	6.516	63	23652	50.40	ug/L	96
16) acrolein	6.516	56	9584	51.09	ug/L	95
17) freon 113	6.731	151	53795	54.03	ug/L	99
18) 1,1-dichloroethene	6.725	61	84257	46.44	ug/L	98
19) acetone	6.715	43	68872	209.69	ug/L	100
20) iodomethane	6.976	142	73015	54.76	ug/L	98
21) carbon disulfide	7.128	76	199616	51.08	ug/L	99
22) acetonitrile	7.112	41	79045	481.93	ug/L	97
23) methyl acetate	7.212	74	8906	46.41	ug/L	97
24) methylene chloride	7.442	84	64208	47.79	ug/L	96
25) acrylonitrile	7.724	53	19514	50.51	ug/L	98
26) methyl tert butyl ether	7.824	73	335934	105.50	ug/L	100
27) trans-1,2-dichloroethene	7.860	61	85478	49.42	ug/L	99
28) hexane	8.242	57	84532	40.53	ug/L	99
29) 1,1-dichloroethane	8.436	63	109615	49.64	ug/L	99
30) vinyl acetate	8.378	86	10093	48.01	ug/L #	86
31) di-isopropyl ether	8.446	45	195607	49.97	ug/L	100
32) chloroprene	8.545	53	98669	52.96	ug/L	97
33) ethyl tert-butyl ether	8.912	59	190299	50.37	ug/L	99
34) 2-butanone	9.084	72	27686	224.89	ug/L #	87

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VI8986\
 Data File : I223186.D
 Acq On : 27 Nov 2018 11:48 pm
 Operator : thienn
 Sample : ICV8986-50
 Misc : MS30885,VI8986,5.0,,,,,1
 ALS Vial : 13 Sample Multiplier: 1

Quant Time: Nov 28 14:07:05 2018
 Quant Method : C:\MSDCHEM\1\METHODS\MI8986.M
 Quant Title : Method SW846 8260C, Rxi-624 60m x 0.25mm x 1.4um
 QLast Update : Wed Nov 28 13:32:54 2018
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
35) 2,2-dichloropropane	9.189	77	95310	49.78	ug/L	99
36) ethyl acetate	9.121	45	8820	48.20	ug/L #	83
37) cis-1,2-dichloroethene	9.157	96	72033	50.63	ug/L	99
38) propionitrile	9.136	54	96951	536.96	ug/L	99
39) methyl acrylate	9.204	85	9259	49.18	ug/L	99
40) methacrylonitrile	9.351	67	24916	54.67	ug/L	97
41) bromochloromethane	9.455	128	33565	52.46	ug/L	99
42) tetrahydrofuran	9.487	71	7502	52.89	ug/L	98
43) chloroform	9.550	83	115864	50.71	ug/L	99
44) carbon tetrachloride	10.026	117	91482	49.02	ug/L	100
45) 1,1-dichloropropene	9.994	75	87483	50.86	ug/L	98
48) 1,1,1-trichloroethane	9.816	97	100405	49.24	ug/L	98
49) cyclohexane	9.942	84	94392	52.57	ug/L	97
50) tert-amyl alcohol	10.099	55	12716	246.82	ug/L	97
53) isopropyl acetate	10.146	87	12067	51.31	ug/L	95
54) 1,2-dichloroethane	10.250	62	81716	47.92	ug/L	98
55) benzene	10.235	78	257840	50.84	ug/L	99
56) 2,2,4-trimethylpentane	10.355	57	254360	49.00	ug/L	100
57) tert-amyl methyl ether	10.329	87	42548	49.16	ug/L	98
58) heptane	10.522	57	60458	55.79	ug/L	98
59) n-butyl alcohol	10.685	56	114896	2712.27	ug/L	99
60) trichloroethene	10.972	95	67426	49.64	ug/L	98
61) ethyl acrylate	10.951	55	76668	53.40	ug/L	99
62) methylcyclohexane	11.281	83	110450	48.01	ug/L	99
63) 1,2-dichloropropane	11.249	63	63075	48.59	ug/L	99
64) methyl methacrylate	11.218	100	16067	52.60	ug/L #	68
65) dibromomethane	11.354	93	39380	52.07	ug/L	97
66) bromodichloromethane	11.511	83	88835	49.40	ug/L	95
67) 2-nitropropane	11.684	41	16633	53.42	ug/L	97
68) 2-chloroethyl vinyl ether	11.746	63	204380	269.09	ug/L	99
69) epichlorohydrin	11.820	57	31827	250.89	ug/L	97
70) cis-1,3-dichloropropene	11.966	75	105534	51.98	ug/L	96
71) 4-methyl-2-pentanone	12.060	58	85135	210.79	ug/L	98
72) 3-methyl-1-butanol	12.055	70	37725	1075.30	ug/L	96
75) toluene	12.358	92	152787	51.89	ug/L	100
76) trans-1,3-dichloropropene	12.526	75	87220	49.23	ug/L	99
77) ethyl methacrylate	12.531	69	66038	49.45	ug/L	97
78) 1,1,2-trichloroethane	12.751	83	44888	51.96	ug/L	98
79) 1,3-dichloropropane	12.928	76	83889	53.36	ug/L	99
80) tetrachloroethene	12.918	166	84530	57.18	ug/L	98
81) 2-hexanone	12.907	58	82193	212.93	ug/L	96
82) butyl acetate	12.996	56	35044	52.18	ug/L	93
83) n-butyl ether	13.791	57	242651	49.90	ug/L	99
84) dibromochloromethane	13.174	129	71293	52.81	ug/L	98
85) 1,2-dibromoethane	13.331	107	63243	53.82	ug/L	97
86) chlorobenzene	13.818	112	162297	51.74	ug/L	99
87) 1,1,1,2-tetrachloroethane	13.880	131	64797	52.03	ug/L	99
88) ethylbenzene	13.880	91	281004	51.23	ug/L	98
89) m,p-xylene	14.006	106	221638	102.75	ug/L	99
90) o-xylene	14.403	106	109006	50.75	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VI8986\
 Data File : I223186.D
 Acq On : 27 Nov 2018 11:48 pm
 Operator : thienn
 Sample : ICV8986-50
 Misc : MS30885,VI8986,5.0,,,,,1
 ALS Vial : 13 Sample Multiplier: 1

Quant Time: Nov 28 14:07:05 2018
 Quant Method : C:\MSDCHEM\1\METHODS\MI8986.M
 Quant Title : Method SW846 8260C, Rxi-624 60m x 0.25mm x 1.4um
 QLast Update : Wed Nov 28 13:32:54 2018
 Response via : Initial Calibration

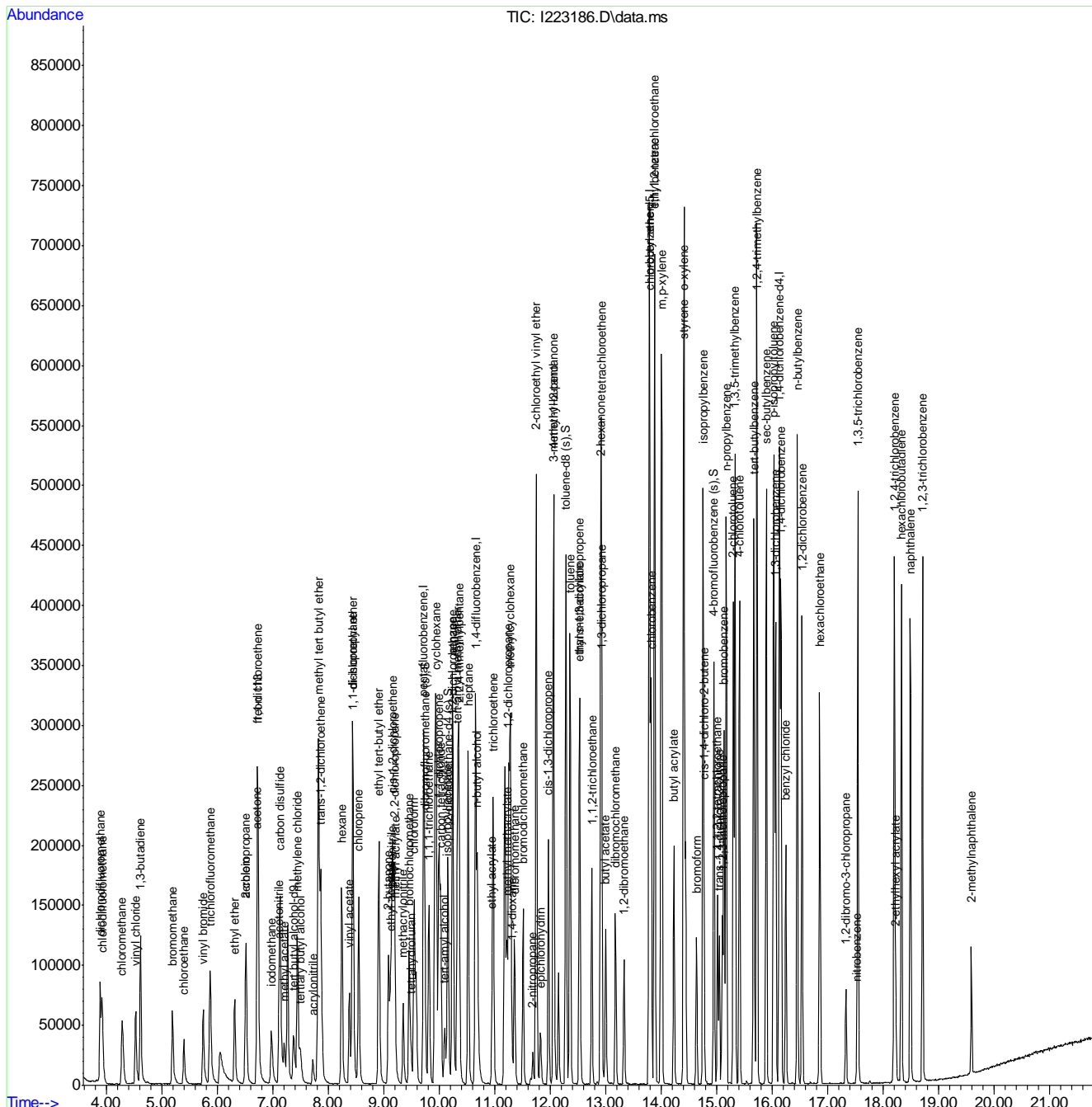
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
91) styrene	14.414	104	186774	51.79	ug/L	99
92) butyl acrylate	14.231	55	110983	53.94	ug/L	99
93) cis-1,4-dichloro-2-butene	14.769	88	25935	49.06	ug/L	96
94) bromoform	14.633	173	51862	54.70	ug/L	99
95) isopropylbenzene	14.754	105	282968	52.34	ug/L	100
98) 1,1,2,2-tetrachloroethane	15.015	83	67367	51.12	ug/L	99
99) trans-1,4-dichloro-2-b...	15.047	53	20205	58.83	ug/L	94
100) 1,2,3-trichloropropane	15.099	110	17970	52.93	ug/L	97
101) bromobenzene	15.130	156	80721	51.31	ug/L	98
102) n-propylbenzene	15.167	91	334318	51.19	ug/L	100
103) 2-chlorotoluene	15.298	126	70108	51.10	ug/L	96
104) 4-chlorotoluene	15.408	91	202836	51.95	ug/L	100
105) 1,3,5-trimethylbenzene	15.329	105	249455	50.75	ug/L	100
106) tert-butylbenzene	15.669	134	47992	52.71	ug/L	94
107) 1,2,4-trimethylbenzene	15.721	105	260796	51.79	ug/L	95
108) sec-butylbenzene	15.894	105	325587	51.40	ug/L	99
109) p-isopropyltoluene	16.030	119	287328	52.26	ug/l	99
110) benzyl chloride	16.244	91	129132	41.87	ug/L	99
111) 1,3-dichlorobenzene	16.061	146	153761	51.22	ug/L	100
112) 1,4-dichlorobenzene	16.155	146	155923	50.85	ug/L	98
113) 1,2-dichlorobenzene	16.537	146	152569	51.93	ug/L	99
114) n-butylbenzene	16.448	92	148138	51.80	ug/L	97
115) hexachloroethane	16.856	201	60144	54.86	ug/L	95
116) 1,2-dibromo-3-chloropr...	17.327	157	21224	51.93	ug/L	96
117) nitrobenzene	17.521	77	7476	53.24	ug/L	95
118) 1,3,5-trichlorobenzene	17.541	180	154455	51.75	ug/L	99
119) 1,2,4-trichlorobenzene	18.200	180	134228	50.00	ug/L	99
120) 2-ethylhexyl acrylate	18.221	55	23923	10.93	ug/L	98
121) hexachlorobutadiene	18.326	225	88466	50.06	ug/L	100
122) naphthalene	18.488	128	274425	52.87	ug/L	99
123) 1,2,3-trichlorobenzene	18.708	180	131768	49.89	ug/L	99
124) 2-methylnaphthalene	19.586	142	44610	24.10	ug/L	96

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VI8986\
 Data File : I223186.D
 Acq On : 27 Nov 2018 11:48 pm
 Operator : thienn
 Sample : ICV8986-50
 Misc : MS30885,VI8986,5.0,,,,,1
 ALS Vial : 13 Sample Multiplier: 1

Quant Time: Nov 28 14:07:05 2018
 Quant Method : C:\MSDCHEM\1\METHODS\MI8986.M
 Quant Title : Method SW846 8260C, Rxi-624 60m x 0.25mm x 1.4um
 QLast Update : Wed Nov 28 13:32:54 2018
 Response via : Initial Calibration



7.7.22
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VI8986\
 Data File : I223187.D
 Acq On : 28 Nov 2018 12:18 am
 Operator : thienn
 Sample : ICV8986-50
 Misc : MS30885,VI8986,5.0,,,,,1
 ALS Vial : 14 Sample Multiplier: 1

Quant Time: Nov 28 14:08:42 2018
 Quant Method : C:\MSDCHEM\1\METHODS\MI8986.M
 Quant Title : Method SW846 8260C, Rxi-624 60m x 0.25mm x 1.4um
 QLast Update : Wed Nov 28 13:32:54 2018
 Response via : Initial Calibration

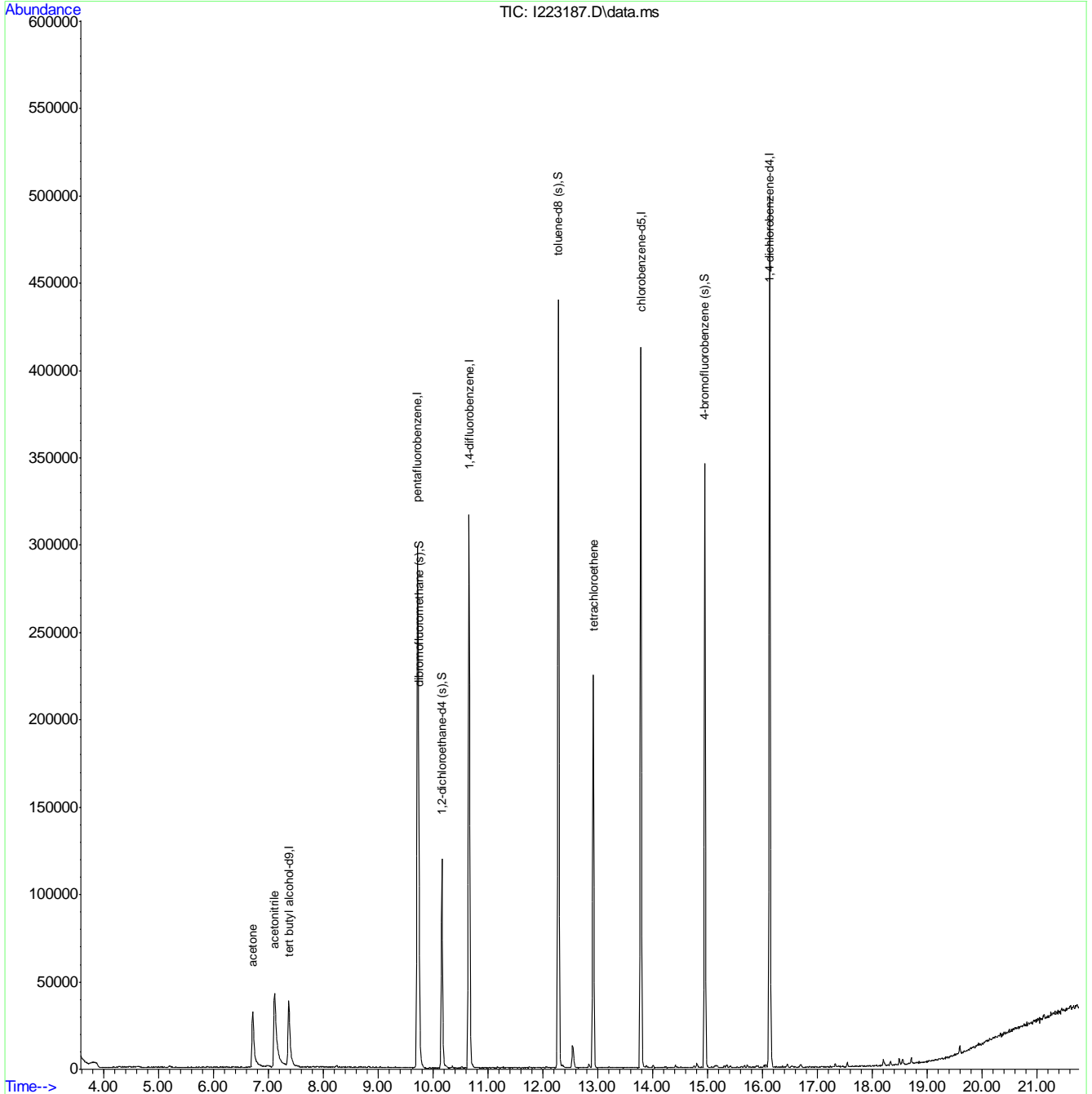
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.374	65	65690	500.00	ug/L	0.00
4) pentafluorobenzene	9.717	168	199145	50.00	ug/L	0.00
51) 1,4-difluorobenzene	10.653	114	255513	50.00	ug/L	0.00
73) chlorobenzene-d5	13.786	117	213159	50.00	ug/L	0.00
96) 1,4-dichlorobenzene-d4	16.129	152	119395	50.00	ug/L	0.00
System Monitoring Compounds						
47) dibromofluoromethane (s)	9.738	113	78482	50.15	ug/L	0.00
Spiked Amount	50.000	Range	75 - 127	Recovery	=	100.30%
52) 1,2-dichloroethane-d4 (s)	10.162	65	78642	49.31	ug/L	0.00
Spiked Amount	50.000	Range	75 - 130	Recovery	=	98.62%
74) toluene-d8 (s)	12.280	98	275367	50.39	ug/L	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	=	100.78%
97) 4-bromofluorobenzene (s)	14.947	95	94502	51.90	ug/L	0.00
Spiked Amount	50.000	Range	79 - 127	Recovery	=	103.80%
Target Compounds						
19) acetone	6.715	43	63003	187.76	ug/L	99
22) acetonitrile	7.118	41	86699	517.40	ug/L	97
80) tetrachloroethene	12.918	166	66283	44.75	ug/L	99

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VI8986\
 Data File : I223187.D
 Acq On : 28 Nov 2018 12:18 am
 Operator : thienn
 Sample : ICV8986-50
 Misc : MS30885,VI8986,5.0,,,,,1
 ALS Vial : 14 Sample Multiplier: 1

Quant Time: Nov 28 14:08:42 2018
 Quant Method : C:\MSDCHEM\1\METHODS\MI8986.M
 Quant Title : Method SW846 8260C, Rxi-624 60m x 0.25mm x 1.4um
 QLast Update : Wed Nov 28 13:32:54 2018
 Response via : Initial Calibration



7.7.23
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA\Apr-2019\4-12\vi9080 rush\
 Data File : i225308.d
 Acq On : 11 Apr 2019 7:52 am
 Operator : thienn
 Sample : CC8986-20 Inst : GCMSI
 Misc : MS31989,VI9080,5,,100,5,1
 ALS Vial : 3 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MI8986.M
 Quant Results File: MI8986.RES
 Quant Time: Apr 11 11:57:28 2019
 Quant Title : Method SW846 8260C, Rxi-624 60m x 0.25mm x 1.4um
 QLast Update : Fri Jan 25 14:07:54 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.353	65	81693	500.00	ug/L	-0.03
4) pentafluorobenzene	9.696	168	214161	50.00	ug/L	-0.02
51) 1,4-difluorobenzene	10.632	114	291794	50.00	ug/L	-0.02
73) chlorobenzene-d5	13.765	117	240955	50.00	ug/L	-0.02
96) 1,4-dichlorobenzene-d4	16.114	152	137668	50.00	ug/L	-0.02
System Monitoring Compounds						
47) dibromofluoromethane (s)	9.717	113	88069	52.33	ug/L	-0.02
Spiked Amount	50.000	Range	75 - 127	Recovery	=	104.66%
52) 1,2-dichloroethane-d4 (s)	10.141	65	101238	55.58	ug/L	-0.02
Spiked Amount	50.000	Range	75 - 130	Recovery	=	111.16%
74) toluene-d8 (s)	12.264	98	310031	50.19	ug/L	-0.02
Spiked Amount	50.000	Range	80 - 120	Recovery	=	100.38%
97) 4-bromofluorobenzene (s)	14.932	95	110906	52.83	ug/L	-0.02
Spiked Amount	50.000	Range	79 - 127	Recovery	=	105.66%
Target Compounds						
2) tertiary butyl alcohol	7.473	59	16322	96.53	ug/L	92
3) 1,4-dioxane	11.281	88	8682	458.16	ug/L	98
5) dichlorodifluoromethane	3.885	85	46775	25.00	ug/L	96
6) chlorodifluoromethane	3.917	51	36138	20.46	ug/L	97
7) chloromethane	4.283	50	39565	22.84	ug/L	99
8) vinyl chloride	4.523	62	34670	23.76	ug/L	99
9) 1,3-butadiene	4.607	54	20822	20.43	ug/L	98
10) bromomethane	5.188	94	19929	20.50	ug/L	95
11) chloroethane	5.386	64	19571	22.18	ug/L	97
12) vinyl bromide	5.732	106	19723	17.49	ug/L	95
13) trichlorofluoromethane	5.857	101	47778	21.40	ug/L	98
14) ethyl ether	6.296	74	12300	19.45	ug/L	91
15) 2-chloropropane	6.495	63	9909	19.22	ug/L #	81
16) acrolein	6.500	56	3545	17.20	ug/L	98
17) freon 113	6.715	151	20749	18.97	ug/L	97
18) 1,1-dichloroethene	6.710	61	39254	19.69	ug/L	96
19) acetone	6.699	43	29154	80.79	ug/L	94
20) iodomethane	6.961	142	21644	14.37	ug/L	96
21) carbon disulfide	7.118	76	76417	17.80	ug/L	100
22) acetonitrile	7.097	41	35794	198.63	ug/L	91
23) methyl acetate	7.191	74	3389	17.67	ug/L	96
24) methylene chloride	7.426	84	27374	18.54	ug/L	97
25) acrylonitrile	7.709	53	7988	18.82	ug/L	97
26) methyl tert butyl ether	7.808	73	70687	20.20	ug/L	98
27) trans-1,2-dichloroethene	7.839	61	37940	19.97	ug/L	90
28) hexane	8.226	57	38274	16.70	ug/L	97
29) 1,1-dichloroethane	8.415	63	47366	19.52	ug/L	98
30) vinyl acetate	8.362	86	4083	17.68	ug/L	98
31) di-isopropyl ether	8.430	45	77972	18.13	ug/L	99
32) chloroprene	8.530	53	41259	20.16	ug/L	96
33) ethyl tert-butyl ether	8.891	59	80441	19.38	ug/L	96
34) 2-butanone	9.063	72	10978	81.17	ug/L #	86
35) 2,2-dichloropropane	9.168	77	45526	21.64	ug/L	96
36) ethyl acetate	9.100	45	3408	18.46	ug/L	94
37) cis-1,2-dichloroethene	9.136	96	29463	18.85	ug/L	98
38) propionitrile	9.110	54	40760	205.48	ug/L	98
39) methyl acrylate	9.189	85	3597	18.99	ug/L #	86
40) methacrylonitrile	9.330	67	9499	18.97	ug/L	84
41) bromochloromethane	9.435	128	13526	19.24	ug/L	94

7.7.24
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA\Apr-2019\4-12\vi9080 rush\
 Data File : i225308.d
 Acq On : 11 Apr 2019 7:52 am
 Operator : thienn
 Sample : CC8986-20 Inst : GCMSI
 Misc : MS31989,VI9080,5,,100,5,1
 ALS Vial : 3 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MI8986.M
 Quant Results File: MI8986.RES
 Quant Time: Apr 11 11:57:28 2019
 Quant Title : Method SW846 8260C, Rxi-624 60m x 0.25mm x 1.4um
 QLast Update : Fri Jan 25 14:07:54 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
42) tetrahydrofuran	9.471	71	3609	23.16	ug/L	95
43) chloroform	9.524	83	50491	20.12	ug/L	98
44) carbon tetrachloride	10.005	117	41628	20.30	ug/L	96
45) 1,1-dichloropropene	9.973	75	37105	19.64	ug/L	98
48) 1,1,1-trichloroethane	9.796	97	45922	20.50	ug/L	99
49) cyclohexane	9.926	84	37264	18.89	ug/L	95
50) tert-amyl alcohol	10.073	55	5865	107.40	ug/L #	80
53) isopropyl acetate	10.130	87	4857	18.37	ug/L #	85
54) 1,2-dichloroethane	10.230	62	38624	20.15	ug/L	97
55) benzene	10.219	78	106107	18.61	ug/L	98
56) 2,2,4-trimethylpentane	10.334	57	96239	16.49	ug/L	95
57) tert-amyl methyl ether	10.308	87	18549	19.06	ug/L #	88
58) heptane	10.502	57	20186	16.57	ug/L	97
59) n-butyl alcohol	10.664	56	49667	1042.89	ug/L	94
60) trichloroethene	10.957	95	28675	18.78	ug/L	96
61) ethyl acrylate	10.936	55	28972	17.95	ug/L	99
62) methylcyclohexane	11.265	83	43648	16.88	ug/L	97
63) 1,2-dichloropropane	11.229	63	25237	17.29	ug/L	95
64) methyl methacrylate	11.197	100	5651	16.46	ug/L #	82
65) dibromomethane	11.333	93	15990	18.81	ug/L	99
66) bromodichloromethane	11.490	83	38738	19.16	ug/L	95
67) 2-nitropropane	11.663	41	7455	21.30	ug/L	87
68) 2-chloroethyl vinyl ether	11.725	63	78886	92.39	ug/L	99
69) epichlorohydrin	11.799	57	14351	100.63	ug/L	100
70) cis-1,3-dichloropropene	11.945	75	43162	18.91	ug/L	97
71) 4-methyl-2-pentanone	12.039	58	34494	75.97	ug/L	98
72) 3-methyl-1-butanol	12.039	70	14254	361.39	ug/L	91
75) toluene	12.337	92	62762	18.82	ug/L	98
76) trans-1,3-dichloropropene	12.510	75	39926	19.89	ug/L	98
77) ethyl methacrylate	12.510	69	27649	18.28	ug/L	95
78) 1,1,2-trichloroethane	12.730	83	17755	18.15	ug/L	96
79) 1,3-dichloropropane	12.908	76	34285	19.25	ug/L	98
80) tetrachloroethene	12.902	166	31228	18.65	ug/L	98
81) 2-hexanone	12.887	58	33712	77.11	ug/L	96
82) butyl acetate	12.981	56	13779	18.11	ug/L	93
83) n-butyl ether	13.776	57	87092	15.81	ug/L	92
84) dibromochloromethane	13.159	129	28044	18.34	ug/L	93
85) 1,2-dibromoethane	13.310	107	29148	21.90	ug/L	99
86) chlorobenzene	13.797	112	66777	18.79	ug/L	94
87) 1,1,1,2-tetrachloroethane	13.859	131	26311	18.65	ug/L	97
88) ethylbenzene	13.865	91	118625	19.09	ug/L	98
89) m,p-xylene	13.985	106	91910	37.62	ug/L	100
90) o-xylene	14.382	106	42803	17.59	ug/L	94
91) styrene	14.393	104	73983	18.11	ug/L	98
92) butyl acrylate	14.210	55	40897	17.55	ug/L	99
93) cis-1,4-dichloro-2-butene	14.754	88	12672	21.16	ug/L	85
94) bromoform	14.618	173	19916	18.55	ug/L	97
95) isopropylbenzene	14.738	105	112474	18.37	ug/L	98
98) 1,1,2,2-tetrachloroethane	14.994	83	27411	19.25	ug/L	99
99) trans-1,4-dichloro-2-b...	15.026	53	7691	20.73	ug/L	93
100) 1,2,3-trichloropropane	15.083	110	7862	21.44	ug/L	90
101) bromobenzene	15.115	156	31957	18.80	ug/L	94
102) n-propylbenzene	15.151	91	135319	19.18	ug/L	100
103) 2-chlorotoluene	15.282	126	28363	19.14	ug/L	99
104) 4-chlorotoluene	15.392	91	84626	20.06	ug/L	100
105) 1,3,5-trimethylbenzene	15.313	105	99268	18.70	ug/L	100
106) tert-butylbenzene	15.653	134	17461	17.75	ug/L	93

7.7.24
7



Quantitation Report (QT Reviewed)

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 Acq On : 11 Apr 2019 7:52 am
 Operator : thienn
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 ALS Vial : 3 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MI8986.M
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 Quant Time: Apr 11 11:57:28 2019
 Quant Title : Method SW846 8260C, Rxi-624 60m x 0.25mm x 1.4um
 QLast Update : Fri Jan 25 14:07:54 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
107) 1,2,4-trimethylbenzene	15.700	105	100607	18.49	ug/L	95
108) sec-butylbenzene	15.873	105	123315	18.02	ug/L	98
109) p-isopropyltoluene	16.009	119	110944	18.68	ug/l	98
110) benzyl chloride	16.223	91	67842	20.36	ug/L	98
111) 1,3-dichlorobenzene	16.040	146	63708	19.64	ug/L	96
112) 1,4-dichlorobenzene	16.140	146	64715	19.54	ug/L	99
113) 1,2-dichlorobenzene	16.516	146	60739	19.13	ug/L	99
114) n-butylbenzene	16.433	92	58517	18.94	ug/L	97
115) hexachloroethane	16.841	201	22242	18.78	ug/L	97
116) 1,2-dibromo-3-chloropr...	17.306	157	8403	19.03	ug/L	94
117) nitrobenzene	17.500	77	3498	23.06	ug/L	94
118) 1,3,5-trichlorobenzene	17.526	180	61641	19.12	ug/L	99
119) 1,2,4-trichlorobenzene	18.180	180	54445	18.77	ug/L	98
120) 2-ethylhexyl acrylate	18.206	55	8280	3.50	ug/L	96
121) hexachlorobutadiene	18.310	225	34936	18.30	ug/L	97
122) naphthalene	18.467	128	113818	20.30	ug/L	99
123) 1,2,3-trichlorobenzene	18.687	180	51914	18.19	ug/L	98
124) 2-methylnaphthalene	19.571	142	26581	13.29	ug/L	94

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

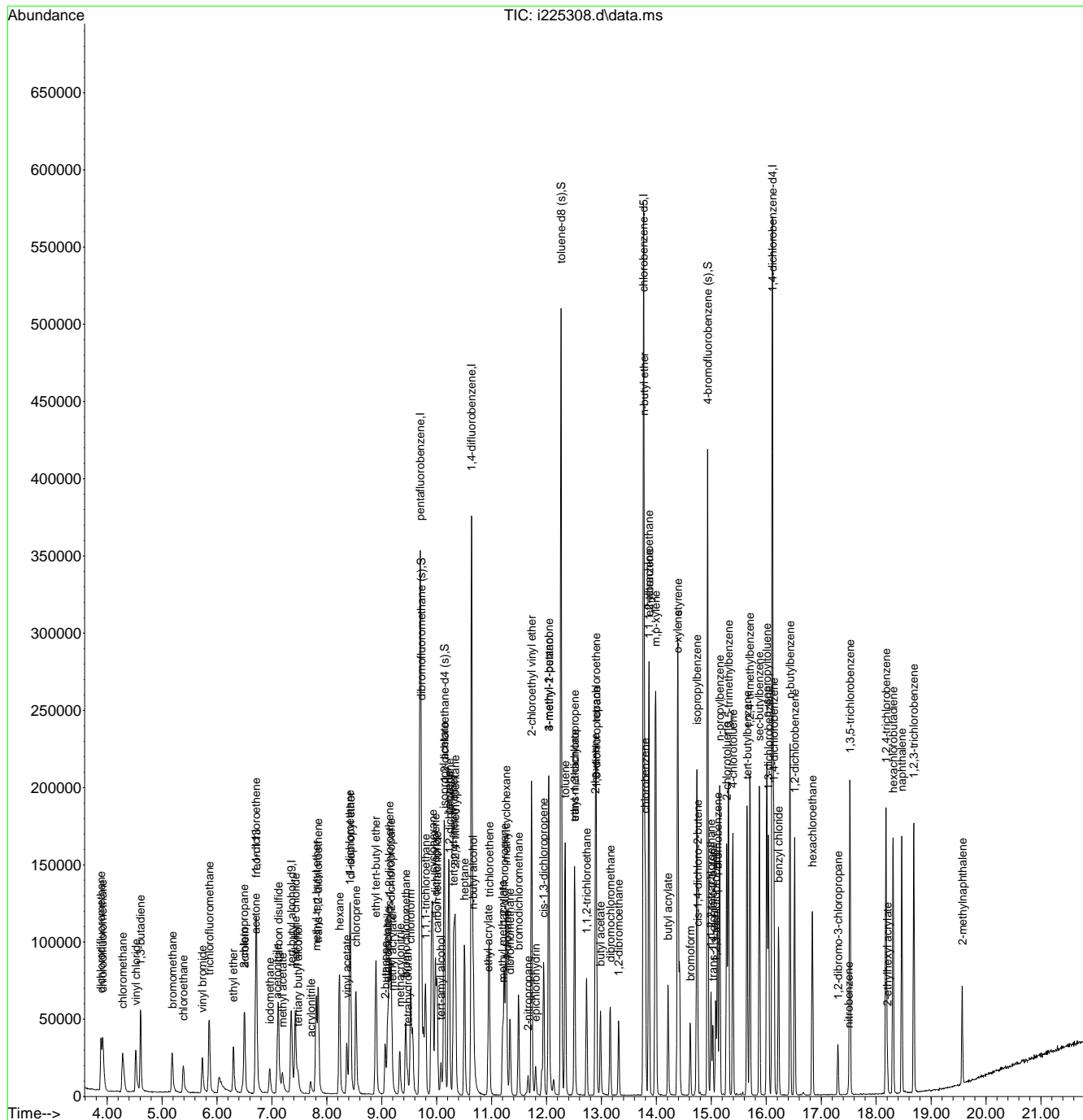
7.7.24

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Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA\Apr-2019\4-12\vi9080 rush\
 Data File : i225308.d
 Acq On : 11 Apr 2019 7:52 am
 Operator : thienn
 Sample : CC8986-20 Inst : GCMSI
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 Quant Time: Apr 11 11:57:28 2019
 Quant Title : Method SW846 8260C, Rxi-624 60m x 0.25mm x 1.4um
 QLast Update : Fri Jan 25 14:07:54 2019
 Response via : Initial Calibration



GCMS Volatile Run Log

Standard / Reagents		Lot #	
Standards	ABK: V018-2645-111.36	EC: V018-2645-129.11	Acetone 3sd source:V018-2645-120.3
Standard Concentrations	100-10,000ppm	100ppm	100ppm
Internal Surrogate	V018-2645-126		
I/S Concentration	50/500ppm		
Ext Standard	Ext ABK: V018-2645-109.5	Ext EC: V018-2645-123.3	Ext PA: V018-2645-130.3
Standard Concentrations	100-10,000ppm	100ppm	100/1000ppm
Initial Calibration Method	M3C6743		

Standard / Reagents			
GCMS3C	Instrument ID:	Sequence loaded by	
Analysis Date	2/13/2019	Data processed by	Austin Park
Column	Rxi-624(20mx0.18mmx1.0um)	Batch ID	Robert Szot
Method	V8260C	Matrix	V3C6743
Init Calib Date	2/13/2019	Approved By:	SO
Init Calib Quant Method	M3C6743	Approved Date:	KANYAV
DI Purge Volume	5		2/15/2019 1:47:07 AM

Data File	Sample ID	Bot #	Dil	Workgroup #	Test	Smpl Amt (g)	MeOH/ DI FV (ml)	Purge (uL)	ALS #	Status	Comments
3C 149621	BFB		NA		V8260 SO Init. Cal.		5		1	ok	5:27 pm
3C 149622	IC6743-0.2		NA		V8260 SO Init. Cal.		5		2	ok	0.2ul ABK,EC,Acrolein/100ml
3C 149623	IC6743-0.5		NA		V8260 SO Init. Cal.		5		3	ok	0.5ul ABK,EC,Acrolein/100ml
3C 149624	IC6743-1		NA		V8260 SO Init. Cal.		5		4	ok	1ul ABK,EC,Acrolein/100ml
3C 149625	IC6743-0.2		NA		V8260 SO Init. Cal.		5		2	NG	Purged wrong position by accident
3C 149626	IC6743-0.5		NA		V8260 SO Init. Cal.		5		3	NG	Purged wrong position by accident



Data File	Sample ID	Bot #	Dil	Workgroup #	Test	Smpl Amt (g)	MeOH/ DI FV (ml)	MeOH/ Purge (uL)	ALS #	Status	Comments
3C 149627	IC6743-1		NA		V8260 SO Init. Cal.		5		4	NG	Purged wrong position by accident
3C 149628	IC6743-2		NA		V8260 SO Init. Cal.		5		5	ok	2ul ABK,EC,Acrolein/100ml
3C 149629	IC6743-4		NA		V8260 SO Init. Cal.		5		6	ok	4ul ABK,EC,Acrolein/100ml
3C 149630	IC6743-8		NA		V8260 SO Init. Cal.		5		7	ok	8ul ABK,EC,Acrolein/100ml
3C 149631	IC6743-20		NA		V8260 SO Init. Cal.		5		8	ok	20ul ABK,EC,Acrolein/100ml
3C 149632	ICC6743-50		NA		V8260 SO Init. Cal.		5		9	ok	50ul ABK,EC,Acrolein/100ml
3C 149633	IC6743-100		NA		V8260 SO Init. Cal.		5		10	ok	100ul ABK,EC,Acrolein/100ml
3C 149634	IC6743-200		NA		V8260 SO Init. Cal.		5		11	ok	200ul ABK,EC,Acrolein/100ml
3C 149635	IB		NA		V8260 SO Init. Cal.		5		12	ok	
3C 149636	IB		NA		V8260 SO Init. Cal.		5		13	ok	
3C 149637	ICV6743-50		NA		V8260 SO Init. Cal.		5		14	ok	50ul Ext. ABK,EC,Acrolein/100ml
3C 149638	ICV6743-50		NA		V8260 SO Init. Cal.		5		15	ok	50ul Acetone 3rd. Ext. PA/100ml

GCMS Volatile Run Log

Standard / Reagents		Lot #	
Standard	ABK: V019-2648-40.59	EC: V019-2648-62.7	Acrolein: V019-2648-54.25
Standard Concentrations	100-10,000 PPM	100 PPM	100 PPM
Internal Surrogate	V019-2648-64		
I/S Concentration	50/500 PPM		
Rough reviewed by	Prashant B. Shukla		

Standard / Reagents			
GCMS3C	Instrument ID:	Sequence loaded by	
Analysis Date	4/12/2019	Data processed by	THIENN
Column	Rxi-624(20mx0.18mmx1.0um)	Batch ID	janellec V3C6794
Method	V8260C	Matrix	SO
		Approved By:	KANYAV
Init Calib Quant Method	M3C6743	Approved Date:	4/16/2019 1:51:22 AM
DI Purge Volume	5		

Data File	Sample ID	Bot #	Dil	Workgroup #	Test	Smpl Amt (g)	MeOH/ DI FV (ml)	MeOH/ Purge (uL)	ALS #	Status	Comments
3C 150999	IB		NA			5	5		1	OK	
3C 151000	IB		NA			5	5		2	OK	
3C 151001	BFB/CC6743-50		NA			5	5		3	OK/OK	5 BFB Scans (Average of 8,380 to 8,401 min.); ABK,EC,ACROLEIN, 25UL/50ML DI WATER, 12 Apr 2019
3C 151002	BS		NA			5	5		4	OK	ABK,EC,ACROLEIN, 25UL/50ML DI WATER,
3C 151003	IB		NA			5	5		5	OK	
3C 151004	MB/JC80307D-12A		NA	MS31988	V8260SL	5	5		6	OK	DAILY BLANK

Data File	Sample ID	Bot #	Dil	Workgroup #	Test	Smpl Amt (g)	MeOH/ DI FV (ml)	MeOH/ Purge (uL)	ALS #	Status	Comments
3C 151005	JC86104-1	7	NA	MS33900	V8260TCL20	6.07	5		7	OK	
3C 151006	JC86132-1DUP	5	NA	MS33900	V8260TCL20+,TBA	5.6	5		8	OK	
3C 151007	JC86132-2	6	NA	MS33900	V8260TCL20+,TBA	5.4	5		9	OK	
3C 151008	JC86104-1MS	6	NA	MS33900	V8260TCL20	5.28	5		10	OK	ABK,EC,ACROLEIN, 2.5UL/SAMPLE
3C 151009	IB		NA			5	5		11	OK	
3C 151010	JC86132-1	6	NA	MS33900	V8260TCL20+	5.8	5		12	OK/DL	SME
3C 151011	JC86152-6	3	NA	MS33900	V8260TCL20	5	5		13	OK	SSFB
3C 151012	JC86152-7	4	NA	MS33900	V8260TCL20	6.82	5		14	OK	
3C 151013	JC86152-8	3	NA	MS33900	V8260TCL20	7.13	5		15	OK	
3C 151014	JC86048-1	5	NA	MS33859	V8260TCL20+	4.9	5		16	OK	
3C 151015	JC86048-2	5	NA	MS33859	V8260TCL20+	6.5	5		17	RR	Broken vial ran, RR LL
3C 151016	JC86048-3	5	NA	MS33859	V8260TCL20+	6	5		18	OK	
3C 151017	JC86048-4	5	NA	MS33859	V8260TCL20+	5.3	5		19	OK	
3C 151018	JC86150-5	5	NA	MS33900	V8260TCL20+,TBA	5.8	5		20	OK	
3C 151019	JC86043-1	4	NA	MS33845	V8260TCL20	4.71	5		21	OK	
3C 151020	JC86043-2	4	NA	MS33845	V8260TCL20	3.97	5		22	OK	
3C 151021	JC86043-4	4	NA	MS33845	V8260TCL20	5.45	5		23	OK	
3C 151022	JC86043-3	4	NA	MS33845	V8260TCL20	4.92	5		24	OK	5:13 PM
3C 151023	IB		NA			5	5		25	OK	
3C 151024	IB		NA			5	5		26	OK	

Data File	Sample ID	Bot #	Dil	Workgroup #	Test	Smpl Amt (g)	MeOH/ DI FV (ml)	MeOH/ Purge (uL)	ALS #	Status	Comments
3C 151025	IB		NA			5	5		27	OK	
3C 151026	IB		NA			5	5		28	OK	
3C 151027	IB		NA			5	5		29	OK	4/13/19
3C 151028	IB		NA			5	5		30	OK	

GCMS Volatile Run Log

Standard / Reagents		Lot #									
Standard	ABK: V018-2629-137.36	EC: V018-2645-01.8	Acrolein: V018-2629-145.9								
Concentration	100-10000 PPM	100 PPM	100 PPM								
Ext. Standard	Ext.ABK: V018-2645-05.3	Ext.EC: V018-2629-142.7	Ext.Acrolein: V018-2629-136.3								
Concentration	100-10000 PPM	100 PPM	100 PPM								
Ext. Standard	3rd Source Acetone: V018-2629-128.2										
Concentration	400 PPM										
Internal/Surr	V018-2629-130										
Concentration	50/500 PPM										
Method	V8260C										
Init Calib Quant Method	MI8986										
Standard / Reagents											
GCMSI	Instrument ID:	Sequence loaded by	Prashant B. Shukla								
Analysis Date	11/27/2018	Data processed by	Dongmei								
Column	RX1624(60mx0.25mmx1.4um)	Batch ID	VI8986								
Method	V8260C	Matrix	SO								
Init Calib Date	11/27/2018	Approved By:	KANYAV								
Init Calib Quant Method	MI8986	Approved Date:	12/3/2018 1:18:01 PM								
DI Purge Volume	5										
Data File	Sample ID	Bot #	Dil	Workgroup #	Test	Smpl Amt (g)	MeOH/ DI FV (ml)	Purge (uL)	ALS #	Status	Comments
I 223174	BFB		NA		Tune	5.0	5	5	1	OK	5:41 PM
I 223175	IC8986-0.5		NA		IC8260	5.0	5	5	2	OK	1uL Std.A/B/K,EC,Acrolein in 200mL DI H2O
I 223176	IC8986-1		NA		IC8260	5.0	5	5	3	OK	1uL Std.A/B/K,EC,Acrolein in 100mL DI H2O
I 223177	IC8986-2		NA		IC8260	5.0	5	5	4	OK	2uL Std.A/B/K,EC,Acrolein in 100mL DI H2O
I 223178	IC8986-4		NA		IC8260	5.0	5	5	5	OK	2uL Std.A/B/K,EC,Acrolein in 50mL DI H2O
I 223179	IC8986-8		NA		IC8260	5.0	5	5	6	OK	4uL Std.A/B/K,EC,Acrolein in 50mL DI H2O

Data File	Sample ID	Bot #	Dil	Workgroup #	Test	Smpl Amt (g)	MeOH/ DI FV (ml)	MeOH/ Purge (uL)	ALS #	Status	Comments
I 223180	IC8986-20		NA		IC8260	5.0	5		7	OK	10uL Std.A/B/K,EC,Acrolein in 50mL DI H2O
I 223181	IC8986-50		NA		IC8260	5.0	5		8	OK	25uL Std.A/B/K,EC,Acrolein in 50mL DI H2O
I 223182	IC8986-100		NA		IC8260	5.0	5		9	OK	50uL Std.A/B/K,EC,Acrolein in 50mL DI H2O
I 223183	IC8986-200		NA		IC8260	5.0	5		10	OK	100uL Std.A/B/K,EC,Acrolein in 50mL DI H2O
I 223184	IB		NA			5.0	5		11	OK	
I 223185	IB		NA			5.0	5		12	OK	
I 223186	ICV8986-50		NA		ICV8260	5.0	5		13	OK	25uL Ext.A/B/K,EC,Acrolein in 50mL DI H2O
I 223187	ICV8986-50		NA		ICV8260	5.0	5		14	OK	25uL Ext.PA,Acetone 3rd source in 50mL DI H2O, 12:18 AM
I 223188	IB		NA			5.0	5		15	OK	

GCMS Volatile Run Log

Standard / Reagents		Lot #	
Standards	ABK: V019-2645-40.48	EC: V019-2648-62.7	MeOH LOT# 187026, Fisher Chemical
Standard Concentration	100-10,000ppm	100ppm	
Internal Surrogate	V019-2648-64		
I/S Concentration	50/500 ppm		
Method	v8260c		
Init Calib Quant Method	V18986		

Standard / Reagents	
GCMSI	Sequence loaded by THIENN
Analysis Date	4/11/2019
Column	Data processed by Lotusa/eunicem
	Batch ID V19080
	Matrix SO
	Approved By: ROBERTS
	Approved Date: 4/15/2019 2:32:03 PM
DI Purge Volume	5

Data File	Sample ID	Bot #	Dil	Workgroup #	Test	Smpl Amt (g)	MeOH/		ALS #	Status	Comments
							DI (ml)	Purge (uL)			
I 225306	IB		NA			5	5	1	ok		
I 225307	IB		NA			5	5	2	ok		
I 225308	IBFB/CC8986-20		NA			5	5	3	OK/O K	7:52AM, 4/11/2019., ABK, EC, ACROLEIN, 10ul/50ml DI water	
I 225309	BS		NA			5	5	4	OK	ABK, EC, ACROLEIN, 25ul/50ml DI water	
I 225310	BSD		NA			5	5	5	OK	ABK, EC, ACROLEIN, 25ul/50ml DI water	
I 225311	IB		NA			5	5	6	ok		

Data File	Sample ID	Bot #	Dil	Workgroup #	Test	Smpl Amt (g)	MeOH/ DI FV (ml)	Purge (uL)	ALS #	Status	Comments
I 225312	MB/JC80308D-11B		NA	MS31989	V8260SL	5	5	100	7	OK	Daily blank disp #54 MeOH lot # 178026, Fisher Chemical
I 225313	JC85911-1	4	NA	MS33784	V8260MASTD	7.16	10	100	8	OK	For confirmation only, combine with C core
I 225314	JC85942-1	4	NA	MS33826	V8260TCL20+	4.7	5	100	9	OK	+1C, not match, double checked sample ID and vail ID, RR SME by intact soil
I 225315	JC85673-2CFS	5	NA	MS33726	V8260MDVO	6.8	5	20	10	OK	+C+
I 225316	JC85942-1	1	NA	MS33826	V8260TCL20+	5	5	100	11	OK	Sample prep by intact soil.
I 225317	JC85995-1	2	NA	MS33845	V8260TCL20	6.12	10	100	12	OK/rr	+I, surr out
I 225318	JC85995-3	2	NA	MS33845	V8260TCL20	5.74	10	100	13	OK/R	+I, surr out
I 225319	JC85995-5	2	NA	MS33845	V8260TCL20	6.07	10	100	14	OK/rr	+I, surr out
I 225320	JC85995-9	2	NA	MS33845	V8260TCL20	6.61	10	100	15	OK/rr	+I, surr out
I 225321	JC86041-4	3	NA	MS33845	V8260BENZ. ETHBNZ	4.3	5	100	16	NG	C/O, RR1X
I 225322	JC86043-5	3	NA	MS33845	V8260TCL20	4.49	10	100	17	OK	
I 225323	JC86050-2	4	NA	MS33859	V8260TCL20+	6.6	5	100	18	OK/d/	f/d
I 225324	JC86050-6	4	NA	MS33859	V8260TCL20+	6	5	100	19	OK	
I 225325	IB		NA				5		20	ok	
I 225326	JC85995-1MS	2	NA	MS33845	V8260TCL20	6.12	10	100	21	OK	ABK, EC, ACROLEIN, 25ul/50ml sample
I 225327	JC85995-1MSD	2	NA	MS33845	V8260TCL20	6.12	10	100	22	OK	ABK, EC, ACROLEIN, 25ul/50ml sample
I 225328	IB		NA				5		23	ok	
I 225329	JC85995-1CFS	2	NA	MS33845	V8260TCL20	6.12	10	20	24	OK	+I
I 225330	JC85995-3	2	NA	MS33845	V8260TCL20	5.74	5	100	25	OK	+I
I 225331	JC85995-5	2	NA	MS33845	V8260TCL20	6.07	5	100	26	OK	+I, 7:27pm
I 225332	JC85995-9	2	NA	MS33845	V8260TCL20	6.61	10	100	27	rr	+I, 7:56pm, out of bfb

Data File	Sample ID	Bot #	Dil	Workgroup #	Test	Smpl Amt (g)	MeOH/ DI FV (ml)	MeOH Purge (uL)	ALS #	Status	Comments
I 225333	IB		NA				5		28	OK	
I 225334	IB		NA				5		29	OK	
I 225335	IB		NA				5		30	OK	
I 225336	IB		NA				5		31	OK	
I 225337	IB		NA				5		32	OK	
I 225338	IB		NA				5		33	OK	

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

Method Blank Summary

Job Number: JC86043
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP19673-MB1	P128929.D	1	04/11/19	CS	04/10/19	OP19673	EP5835

The QC reported here applies to the following samples:

Method: SW846 8270D

JC86043-3, JC86043-4, JC86043-5

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	67	16	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	170	20	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	170	28	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	170	59	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	170	130	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	170	36	ug/kg	
95-48-7	2-Methylphenol	ND	67	21	ug/kg	
	3&4-Methylphenol	ND	67	27	ug/kg	
88-75-5	2-Nitrophenol	ND	170	22	ug/kg	
100-02-7	4-Nitrophenol	ND	330	89	ug/kg	
87-86-5	Pentachlorophenol	ND	130	31	ug/kg	
108-95-2	Phenol	ND	67	17	ug/kg	
58-90-2	2,3,4,6-Tetrachlorophenol	ND	170	22	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	170	25	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	170	20	ug/kg	
83-32-9	Acenaphthene	ND	33	11	ug/kg	
208-96-8	Acenaphthylene	ND	33	17	ug/kg	
98-86-2	Acetophenone	ND	170	7.2	ug/kg	
120-12-7	Anthracene	ND	33	20	ug/kg	
1912-24-9	Atrazine	ND	67	14	ug/kg	
56-55-3	Benzo(a)anthracene	ND	33	9.4	ug/kg	
50-32-8	Benzo(a)pyrene	ND	33	15	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	33	15	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	33	17	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	33	16	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	67	13	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	67	8.1	ug/kg	
92-52-4	1,1'-Biphenyl	ND	67	4.6	ug/kg	
100-52-7	Benzaldehyde	ND	170	8.3	ug/kg	
91-58-7	2-Chloronaphthalene	ND	67	7.9	ug/kg	
106-47-8	4-Chloroaniline	ND	170	12	ug/kg	
86-74-8	Carbazole	ND	67	4.8	ug/kg	
105-60-2	Caprolactam	ND	67	13	ug/kg	
218-01-9	Chrysene	ND	33	10	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	67	7.1	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	67	14	ug/kg	

Method Blank Summary

Job Number: JC86043
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP19673-MB1	P128929.D	1	04/11/19	CS	04/10/19	OP19673	EP5835

The QC reported here applies to the following samples:

Method: SW846 8270D

JC86043-3, JC86043-4, JC86043-5

CAS No.	Compound	Result	RL	MDL	Units	Q
108-60-1	2,2'-Oxybis(1-chloropropane)	ND	67	12	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	67	11	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	33	10	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	33	17	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	67	28	ug/kg	
123-91-1	1,4-Dioxane	ND	33	22	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	33	15	ug/kg	
132-64-9	Dibenzofuran	ND	67	14	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	67	5.4	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	67	8.3	ug/kg	
84-66-2	Diethyl phthalate	ND	67	7.1	ug/kg	
131-11-3	Dimethyl phthalate	ND	67	5.9	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	67	7.8	ug/kg	
206-44-0	Fluoranthene	ND	33	15	ug/kg	
86-73-7	Fluorene	ND	33	15	ug/kg	
118-74-1	Hexachlorobenzene	ND	67	8.4	ug/kg	
87-68-3	Hexachlorobutadiene	ND	33	13	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	330	13	ug/kg	
67-72-1	Hexachloroethane	ND	170	16	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	33	16	ug/kg	
78-59-1	Isophorone	ND	67	7.1	ug/kg	
91-57-6	2-Methylnaphthalene	ND	33	7.5	ug/kg	
88-74-4	2-Nitroaniline	ND	170	7.9	ug/kg	
99-09-2	3-Nitroaniline	ND	170	8.3	ug/kg	
100-01-6	4-Nitroaniline	ND	170	8.6	ug/kg	
91-20-3	Naphthalene	ND	33	9.4	ug/kg	
98-95-3	Nitrobenzene	ND	67	13	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	67	9.6	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	170	12	ug/kg	
85-01-8	Phenanthrene	ND	33	11	ug/kg	
129-00-0	Pyrene	ND	33	11	ug/kg	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	170	8.5	ug/kg	

Method Blank Summary

Job Number: JC86043
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP19673-MB1	P128929.D	1	04/11/19	CS	04/10/19	OP19673	EP5835

The QC reported here applies to the following samples:

Method: SW846 8270D

JC86043-3, JC86043-4, JC86043-5

CAS No.	Surrogate Recoveries	Limits
367-12-4	2-Fluorophenol	69% 23-115%
4165-62-2	Phenol-d5	73% 27-114%
118-79-6	2,4,6-Tribromophenol	72% 19-152%
4165-60-0	Nitrobenzene-d5	90% 26-134%
321-60-8	2-Fluorobiphenyl	85% 39-124%
1718-51-0	Terphenyl-d14	91% 36-134%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	system artifact	2.58	1000	ug/kg	J
	Total TIC, Semi-Volatile		1000	ug/kg	J

8.1.1

8

Method Blank Summary

Job Number: JC86043
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP19672-MB1	2P86455.D	1	04/11/19	CS	04/10/19	OP19672	E2P3822

The QC reported here applies to the following samples:

Method: SW846 8270D

JC86043-1, JC86043-2

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	67	16	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	170	20	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	170	28	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	170	59	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	170	130	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	170	36	ug/kg	
95-48-7	2-Methylphenol	ND	67	21	ug/kg	
	3&4-Methylphenol	ND	67	27	ug/kg	
88-75-5	2-Nitrophenol	ND	170	22	ug/kg	
100-02-7	4-Nitrophenol	ND	330	89	ug/kg	
87-86-5	Pentachlorophenol	ND	130	31	ug/kg	
108-95-2	Phenol	ND	67	17	ug/kg	
58-90-2	2,3,4,6-Tetrachlorophenol	ND	170	22	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	170	25	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	170	20	ug/kg	
83-32-9	Acenaphthene	ND	33	11	ug/kg	
208-96-8	Acenaphthylene	ND	33	17	ug/kg	
98-86-2	Acetophenone	ND	170	7.2	ug/kg	
120-12-7	Anthracene	ND	33	20	ug/kg	
1912-24-9	Atrazine	ND	67	14	ug/kg	
56-55-3	Benzo(a)anthracene	ND	33	9.4	ug/kg	
50-32-8	Benzo(a)pyrene	ND	33	15	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	33	15	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	33	17	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	33	16	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	67	13	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	67	8.1	ug/kg	
92-52-4	1,1'-Biphenyl	ND	67	4.6	ug/kg	
100-52-7	Benzaldehyde	ND	170	8.3	ug/kg	
91-58-7	2-Chloronaphthalene	ND	67	7.9	ug/kg	
106-47-8	4-Chloroaniline	ND	170	12	ug/kg	
86-74-8	Carbazole	ND	67	4.8	ug/kg	
105-60-2	Caprolactam	ND	67	13	ug/kg	
218-01-9	Chrysene	ND	33	10	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	67	7.1	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	67	14	ug/kg	

Method Blank Summary

Job Number: JC86043
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP19672-MB1	2P86455.D	1	04/11/19	CS	04/10/19	OP19672	E2P3822

The QC reported here applies to the following samples:

Method: SW846 8270D

JC86043-1, JC86043-2

CAS No.	Compound	Result	RL	MDL	Units	Q
108-60-1	2,2'-Oxybis(1-chloropropane)	ND	67	12	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	67	11	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	33	10	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	33	17	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	67	28	ug/kg	
123-91-1	1,4-Dioxane	ND	33	22	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	33	15	ug/kg	
132-64-9	Dibenzofuran	ND	67	14	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	67	5.4	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	67	8.3	ug/kg	
84-66-2	Diethyl phthalate	ND	67	7.1	ug/kg	
131-11-3	Dimethyl phthalate	ND	67	5.9	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	67	7.8	ug/kg	
206-44-0	Fluoranthene	ND	33	15	ug/kg	
86-73-7	Fluorene	ND	33	15	ug/kg	
118-74-1	Hexachlorobenzene	ND	67	8.4	ug/kg	
87-68-3	Hexachlorobutadiene	ND	33	13	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	330	13	ug/kg	
67-72-1	Hexachloroethane	ND	170	16	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	33	16	ug/kg	
78-59-1	Isophorone	ND	67	7.1	ug/kg	
91-57-6	2-Methylnaphthalene	ND	33	7.5	ug/kg	
88-74-4	2-Nitroaniline	ND	170	7.9	ug/kg	
99-09-2	3-Nitroaniline	ND	170	8.3	ug/kg	
100-01-6	4-Nitroaniline	ND	170	8.6	ug/kg	
91-20-3	Naphthalene	ND	33	9.4	ug/kg	
98-95-3	Nitrobenzene	ND	67	13	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	67	9.6	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	170	12	ug/kg	
85-01-8	Phenanthrene	ND	33	11	ug/kg	
129-00-0	Pyrene	ND	33	11	ug/kg	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	170	8.5	ug/kg	

Method Blank Summary

Job Number: JC86043
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP19672-MB1	2P86455.D	1	04/11/19	CS	04/10/19	OP19672	E2P3822

The QC reported here applies to the following samples:

Method: SW846 8270D

JC86043-1, JC86043-2

CAS No.	Surrogate Recoveries	Limits
367-12-4	2-Fluorophenol	69% 23-115%
4165-62-2	Phenol-d5	79% 27-114%
118-79-6	2,4,6-Tribromophenol	71% 19-152%
4165-60-0	Nitrobenzene-d5	90% 26-134%
321-60-8	2-Fluorobiphenyl	96% 39-124%
1718-51-0	Terphenyl-d14	100% 36-134%

Blank Spike Summary

Job Number: JC86043
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP19672-BS1	2P86456.D	1	04/11/19	CS	04/10/19	OP19672	E2P3822

The QC reported here applies to the following samples:

Method: SW846 8270D

JC86043-1, JC86043-2

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
95-57-8	2-Chlorophenol	1670	1320	79	44-122
59-50-7	4-Chloro-3-methyl phenol	1670	1470	88	50-123
120-83-2	2,4-Dichlorophenol	1670	1370	82	48-122
105-67-9	2,4-Dimethylphenol	1670	1670	100	48-124
51-28-5	2,4-Dinitrophenol	3330	2850	86	34-146
534-52-1	4,6-Dinitro-o-cresol	1670	1550	93	49-140
95-48-7	2-Methylphenol	1670	1430	86	40-126
	3&4-Methylphenol	1670	1480	89	40-127
88-75-5	2-Nitrophenol	1670	1330	80	44-133
100-02-7	4-Nitrophenol	1670	1480	89	35-153
87-86-5	Pentachlorophenol	1670	1480	89	15-149
108-95-2	Phenol	1670	1320	79	50-109
58-90-2	2,3,4,6-Tetrachlorophenol	1670	1250	75	44-132
95-95-4	2,4,5-Trichlorophenol	1670	1360	82	45-124
88-06-2	2,4,6-Trichlorophenol	1670	1390	83	57-122
83-32-9	Acenaphthene	1670	1370	82	53-119
208-96-8	Acenaphthylene	1670	1260	76	41-125
98-86-2	Acetophenone	1670	1340	80	52-112
120-12-7	Anthracene	1670	1480	89	51-120
1912-24-9	Atrazine	1670	1560	94	49-139
56-55-3	Benzo(a)anthracene	1670	1400	84	54-118
50-32-8	Benzo(a)pyrene	1670	1430	86	55-121
205-99-2	Benzo(b)fluoranthene	1670	1460	88	57-116
191-24-2	Benzo(g,h,i)perylene	1670	1390	83	40-124
207-08-9	Benzo(k)fluoranthene	1670	1440	86	59-116
101-55-3	4-Bromophenyl phenyl ether	1670	1430	86	60-122
85-68-7	Butyl benzyl phthalate	1670	1450	87	51-134
92-52-4	1,1'-Biphenyl	1670	1260	76	46-122
100-52-7	Benzaldehyde	1670	1130	68	14-139
91-58-7	2-Chloronaphthalene	1670	1210	73	49-120
106-47-8	4-Chloroaniline	1670	626	38	10-115
86-74-8	Carbazole	1670	1450	87	52-124
105-60-2	Caprolactam	1670	1350	81	16-139
218-01-9	Chrysene	1670	1360	82	51-115
111-91-1	bis(2-Chloroethoxy)methane	1670	1370	82	36-131
111-44-4	bis(2-Chloroethyl)ether	1670	1300	78	41-131

* = Outside of Control Limits.

Blank Spike Summary

Job Number: JC86043
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP19672-BS1	2P86456.D	1	04/11/19	CS	04/10/19	OP19672	E2P3822

The QC reported here applies to the following samples:

Method: SW846 8270D

JC86043-1, JC86043-2

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
108-60-1	2,2'-Oxybis(1-chloropropane)	1670	1540	92	22-134
7005-72-3	4-Chlorophenyl phenyl ether	1670	1460	88	56-118
121-14-2	2,4-Dinitrotoluene	1670	1420	85	57-131
606-20-2	2,6-Dinitrotoluene	1670	1320	79	57-132
91-94-1	3,3'-Dichlorobenzidine	3330	1680	50	10-129
123-91-1	1,4-Dioxane	1670	789	47	10-110
53-70-3	Dibenzo(a,h)anthracene	1670	1420	85	48-121
132-64-9	Dibenzofuran	1670	1350	81	51-119
84-74-2	Di-n-butyl phthalate	1670	1620	97	59-125
117-84-0	Di-n-octyl phthalate	1670	1580	95	47-147
84-66-2	Diethyl phthalate	1670	1380	83	57-116
131-11-3	Dimethyl phthalate	1670	1280	77	56-116
117-81-7	bis(2-Ethylhexyl)phthalate	1670	1500	90	53-133
206-44-0	Fluoranthene	1670	1530	92	58-117
86-73-7	Fluorene	1670	1480	89	56-114
118-74-1	Hexachlorobenzene	1670	1400	84	50-128
87-68-3	Hexachlorobutadiene	1670	1310	79	43-129
77-47-4	Hexachlorocyclopentadiene	3330	2680	80	15-140
67-72-1	Hexachloroethane	1670	1210	73	43-123
193-39-5	Indeno(1,2,3-cd)pyrene	1670	1420	85	49-124
78-59-1	Isophorone	1670	1360	82	38-128
91-57-6	2-Methylnaphthalene	1670	1300	78	37-124
88-74-4	2-Nitroaniline	1670	1360	82	45-144
99-09-2	3-Nitroaniline	1670	788	47	10-134
100-01-6	4-Nitroaniline	1670	1350	81	41-130
91-20-3	Naphthalene	1670	1380	83	44-116
98-95-3	Nitrobenzene	1670	1270	76	36-132
621-64-7	N-Nitroso-di-n-propylamine	1670	1430	86	38-125
86-30-6	N-Nitrosodiphenylamine	1670	1420	85	51-122
85-01-8	Phenanthrene	1670	1500	90	53-119
129-00-0	Pyrene	1670	1360	82	54-124
95-94-3	1,2,4,5-Tetrachlorobenzene	1670	1300	78	45-128

* = Outside of Control Limits.

Blank Spike Summary

Job Number: JC86043
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP19672-BS1	2P86456.D	1	04/11/19	CS	04/10/19	OP19672	E2P3822

The QC reported here applies to the following samples:

Method: SW846 8270D

JC86043-1, JC86043-2

CAS No.	Surrogate Recoveries	BSP	Limits
367-12-4	2-Fluorophenol	78%	23-115%
4165-62-2	Phenol-d5	80%	27-114%
118-79-6	2,4,6-Tribromophenol	78%	19-152%
4165-60-0	Nitrobenzene-d5	85%	26-134%
321-60-8	2-Fluorobiphenyl	82%	39-124%
1718-51-0	Terphenyl-d14	89%	36-134%

8.2.1

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* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Page 1 of 3

Job Number: JC86043
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP19673-BS1	P128930.D	1	04/11/19	CS	04/10/19	OP19673	EP5835
OP19673-BSD	P128931.D	1	04/11/19	CS	04/10/19	OP19673	EP5835

The QC reported here applies to the following samples:

Method: SW846 8270D

JC86043-3, JC86043-4, JC86043-5

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	BSD ug/kg	BSD %	RPD	Limits Rec/RPD
95-57-8	2-Chlorophenol	1670	1240	74	1240	74	0	44-122/30
59-50-7	4-Chloro-3-methyl phenol	1670	1290	77	1290	77	0	50-123/30
120-83-2	2,4-Dichlorophenol	1670	1210	73	1220	73	1	48-122/30
105-67-9	2,4-Dimethylphenol	1670	1490	89	1460	88	2	48-124/30
51-28-5	2,4-Dinitrophenol	3330	2200	66	2190	66	0	34-146/30
534-52-1	4,6-Dinitro-o-cresol	1670	1270	76	1240	74	2	49-140/30
95-48-7	2-Methylphenol	1670	1220	73	1240	74	2	40-126/30
	3&4-Methylphenol	1670	1230	74	1240	74	1	40-127/30
88-75-5	2-Nitrophenol	1670	1200	72	1200	72	0	44-133/30
100-02-7	4-Nitrophenol	1670	1410	85	1380	83	2	35-153/30
87-86-5	Pentachlorophenol	1670	1400	84	1380	83	1	15-149/30
108-95-2	Phenol	1670	1220	73	1230	74	1	50-109/30
58-90-2	2,3,4,6-Tetrachlorophenol	1670	1160	70	1200	72	3	44-132/30
95-95-4	2,4,5-Trichlorophenol	1670	1190	71	1230	74	3	45-124/30
88-06-2	2,4,6-Trichlorophenol	1670	1240	74	1250	75	1	57-122/30
83-32-9	Acenaphthene	1670	1240	74	1250	75	1	53-119/30
208-96-8	Acenaphthylene	1670	1220	73	1210	73	1	41-125/30
98-86-2	Acetophenone	1670	1210	73	1220	73	1	52-112/30
120-12-7	Anthracene	1670	1290	77	1270	76	2	51-120/30
1912-24-9	Atrazine	1670	1410	85	1360	82	4	49-139/30
56-55-3	Benzo(a)anthracene	1670	1290	77	1280	77	1	54-118/30
50-32-8	Benzo(a)pyrene	1670	1290	77	1290	77	0	55-121/30
205-99-2	Benzo(b)fluoranthene	1670	1200	72	1200	72	0	57-116/30
191-24-2	Benzo(g,h,i)perylene	1670	1370	82	1380	83	1	40-124/30
207-08-9	Benzo(k)fluoranthene	1670	1290	77	1260	76	2	59-116/30
101-55-3	4-Bromophenyl phenyl ether	1670	1310	79	1290	77	2	60-122/30
85-68-7	Butyl benzyl phthalate	1670	1330	80	1320	79	1	51-134/30
92-52-4	1,1'-Biphenyl	1670	1210	73	1220	73	1	46-122/30
100-52-7	Benzaldehyde	1670	1110	67	1120	67	1	14-139/30
91-58-7	2-Chloronaphthalene	1670	1170	70	1200	72	3	49-120/30
106-47-8	4-Chloroaniline	1670	554	33	362	22	42* a	10-115/30
86-74-8	Carbazole	1670	1320	79	1270	76	4	52-124/30
105-60-2	Caprolactam	1670	1220	73	1220	73	0	16-139/30
218-01-9	Chrysene	1670	1290	77	1290	77	0	51-115/30
111-91-1	bis(2-Chloroethoxy)methane	1670	1340	80	1310	79	2	36-131/30
111-44-4	bis(2-Chloroethyl)ether	1670	1190	71	1190	71	0	41-131/30

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: JC86043
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP19673-BS1	P128930.D	1	04/11/19	CS	04/10/19	OP19673	EP5835
OP19673-BSD	P128931.D	1	04/11/19	CS	04/10/19	OP19673	EP5835

The QC reported here applies to the following samples:

Method: SW846 8270D

JC86043-3, JC86043-4, JC86043-5

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	BSD ug/kg	BSD %	RPD	Limits Rec/RPD
108-60-1	2,2'-Oxybis(1-chloropropane)	1670	1380	83	1400	84	1	22-134/30
7005-72-3	4-Chlorophenyl phenyl ether	1670	1220	73	1230	74	1	56-118/30
121-14-2	2,4-Dinitrotoluene	1670	1140	68	1140	68	0	57-131/30
606-20-2	2,6-Dinitrotoluene	1670	1190	71	1200	72	1	57-132/30
91-94-1	3,3'-Dichlorobenzidine	3330	1940	58	1400	42	32* a	10-129/30
123-91-1	1,4-Dioxane	1670	855	51	845	51	1	10-110/30
53-70-3	Dibenzo(a,h)anthracene	1670	1260	76	1230	74	2	48-121/30
132-64-9	Dibenzofuran	1670	1170	70	1150	69	2	51-119/30
84-74-2	Di-n-butyl phthalate	1670	1280	77	1270	76	1	59-125/30
117-84-0	Di-n-octyl phthalate	1670	1230	74	1230	74	0	47-147/30
84-66-2	Diethyl phthalate	1670	1200	72	1230	74	2	57-116/30
131-11-3	Dimethyl phthalate	1670	1190	71	1200	72	1	56-116/30
117-81-7	bis(2-Ethylhexyl)phthalate	1670	1290	77	1310	79	2	53-133/30
206-44-0	Fluoranthene	1670	1320	79	1310	79	1	58-117/30
86-73-7	Fluorene	1670	1260	76	1270	76	1	56-114/30
118-74-1	Hexachlorobenzene	1670	1250	75	1220	73	2	50-128/30
87-68-3	Hexachlorobutadiene	1670	1310	79	1290	77	2	43-129/30
77-47-4	Hexachlorocyclopentadiene	3330	2650	80	2650	80	0	15-140/30
67-72-1	Hexachloroethane	1670	1200	72	1170	70	3	43-123/30
193-39-5	Indeno(1,2,3-cd)pyrene	1670	1340	80	1340	80	0	49-124/30
78-59-1	Isophorone	1670	1370	82	1360	82	1	38-128/30
91-57-6	2-Methylnaphthalene	1670	1240	74	1210	73	2	37-124/30
88-74-4	2-Nitroaniline	1670	1390	83	1340	80	4	45-144/30
99-09-2	3-Nitroaniline	1670	710	43	440	26	47* a	10-134/30
100-01-6	4-Nitroaniline	1670	1190	71	1160	70	3	41-130/30
91-20-3	Naphthalene	1670	1300	78	1280	77	2	44-116/30
98-95-3	Nitrobenzene	1670	1340	80	1310	79	2	36-132/30
621-64-7	N-Nitroso-di-n-propylamine	1670	1270	76	1280	77	1	38-125/30
86-30-6	N-Nitrosodiphenylamine	1670	1320	79	1290	77	2	51-122/30
85-01-8	Phenanthrene	1670	1310	79	1300	78	1	53-119/30
129-00-0	Pyrene	1670	1340	80	1320	79	2	54-124/30
95-94-3	1,2,4,5-Tetrachlorobenzene	1670	1340	80	1330	80	1	45-128/30

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: JC86043
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP19673-BS1	P128930.D	1	04/11/19	CS	04/10/19	OP19673	EP5835
OP19673-BSD	P128931.D	1	04/11/19	CS	04/10/19	OP19673	EP5835

The QC reported here applies to the following samples:

Method: SW846 8270D

JC86043-3, JC86043-4, JC86043-5

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
367-12-4	2-Fluorophenol	78%	77%	23-115%
4165-62-2	Phenol-d5	74%	76%	27-114%
118-79-6	2,4,6-Tribromophenol	74%	73%	19-152%
4165-60-0	Nitrobenzene-d5	89%	87%	26-134%
321-60-8	2-Fluorobiphenyl	79%	78%	39-124%
1718-51-0	Terphenyl-d14	84%	82%	36-134%

(a) Analytical precision exceeds in-house control limits.

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JC86043
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP19673-MS	P128943.D	5	04/11/19	CS	04/10/19	OP19673	EP5835
OP19673-MSD	P128944.D	5	04/11/19	CS	04/10/19	OP19673	EP5835
JC86043-3	P129017.D	1	04/15/19	CB	04/10/19	OP19673	EP5838

The QC reported here applies to the following samples:

Method: SW846 8270D

JC86043-3, JC86043-4, JC86043-5

CAS No.	Compound	JC86043-3 ug/kg	Spike ug/kg	MS ug/kg	MS %	Spike ug/kg	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
95-57-8	2-Chlorophenol	ND	1880	1500	80	1880	1440	77	4	10-137/34
59-50-7	4-Chloro-3-methyl phenol	ND	1880	1480	79	1880	1450	77	2	11-147/35
120-83-2	2,4-Dichlorophenol	ND	1880	1410	75	1880	1360	72	4	15-140/34
105-67-9	2,4-Dimethylphenol	ND	1880	1740	93	1880	1680	89	4	10-151/34
51-28-5	2,4-Dinitrophenol	ND	3760	1350	36	3760	1330	35	1	10-148/49
534-52-1	4,6-Dinitro-o-cresol	ND	1880	480	26	1880	416	22	14	10-150/48
95-48-7	2-Methylphenol	ND	1880	1510	80	1880	1490	79	1	10-138/33
	3&4-Methylphenol	ND	1880	1500	80	1880	1530	81	2	10-143/33
88-75-5	2-Nitrophenol	ND	1880	1240	66	1880	1270	68	2	10-150/39
100-02-7	4-Nitrophenol	ND	1880	1160	62	1880	1240	66	7	10-163/38
87-86-5	Pentachlorophenol	ND	1880	1460	78	1880	1440	77	1	10-148/39
108-95-2	Phenol	ND	1880	1510	80	1880	1450	77	4	24-114/32
58-90-2	2,3,4,6-Tetrachlorophenol	ND	1880	1060	56	1880	1200	64	12	14-140/38
95-95-4	2,4,5-Trichlorophenol	ND	1880	1410	75	1880	1440	77	2	10-146/36
88-06-2	2,4,6-Trichlorophenol	ND	1880	1330	71	1880	1380	73	4	16-148/36
83-32-9	Acenaphthene	111	1880	1620	80	1880	1650	82	2	21-136/34
208-96-8	Acenaphthylene	110	1880	1640	82	1880	1640	82	0	10-143/36
98-86-2	Acetophenone	ND	1880	1440	77	1880	1380	73	4	24-127/31
120-12-7	Anthracene	364	1880	1950	85	1880	2060	91	5	10-147/39
1912-24-9	Atrazine	ND	1880	1670	89	1880	1660	88	1	10-161/38
56-55-3	Benzo(a)anthracene	1640	1880	2910	66	1880	3280	86	12	10-151/41
50-32-8	Benzo(a)pyrene	1430	1880	2810	72	1880	3070	86	9	10-149/40
205-99-2	Benzo(b)fluoranthene	1670	1880	2780	55	1880	3230	79	15	10-147/42
191-24-2	Benzo(g,h,i)perylene	908	1880	2640	94	1880	2790	102	6	10-150/41
207-08-9	Benzo(k)fluoranthene	721	1880	2230	78	1880	2330	84	4	12-142/41
101-55-3	4-Bromophenyl phenyl ether	ND	1880	1490	79	1880	1450	77	3	26-138/37
85-68-7	Butyl benzyl phthalate	ND	1880	1660	88	1880	1660	88	0	24-143/36
92-52-4	1,1'-Biphenyl	13.8	J 1880	1520	81	1880	1460	78	4	18-138/32
100-52-7	Benzaldehyde	ND	1880	1380	73	1880	4240	226* a	102* a	10-149/37
91-58-7	2-Chloronaphthalene	ND	1880	1510	80	1880	1460	78	3	24-130/31
106-47-8	4-Chloroaniline	ND	1880	860	46	1880	824	44	4	10-111/52
86-74-8	Carbazole	159	1880	1790	87	1880	1890	92	5	12-146/39
105-60-2	Caprolactam	ND	1880	1430	76	1880	1420	76	1	10-147/40
218-01-9	Chrysene	1720	1880	2960	68	1880	3300	86	11	10-151/41
111-91-1	bis(2-Chloroethoxy)methane	ND	1880	1620	86	1880	1520	81	6	10-144/35
111-44-4	bis(2-Chloroethyl)ether	ND	1880	1560	83	1880	1400	74	11	12-142/35

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JC86043
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP19673-MS	P128943.D	5	04/11/19	CS	04/10/19	OP19673	EP5835
OP19673-MSD	P128944.D	5	04/11/19	CS	04/10/19	OP19673	EP5835
JC86043-3	P129017.D	1	04/15/19	CB	04/10/19	OP19673	EP5838

The QC reported here applies to the following samples:

Method: SW846 8270D

JC86043-3, JC86043-4, JC86043-5

CAS No.	Compound	JC86043-3 ug/kg	Spike ug/kg	MS ug/kg	MS %	Spike ug/kg	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
108-60-1	2,2'-Oxybis(1-chloropropane)	ND	1880	1680	89	1880	1580	84	6	10-137/33
7005-72-3	4-Chlorophenyl phenyl ether	ND	1880	1380	73	1880	1330	71	4	21-136/35
121-14-2	2,4-Dinitrotoluene	ND	1880	2180	116	1880	1390	74	44* a	14-148/41
606-20-2	2,6-Dinitrotoluene	ND	1880	1520	81	1880	1500	80	1	14-152/40
91-94-1	3,3'-Dichlorobenzidine	ND	3760	2450	65	3760	2600	69	6	10-137/47
123-91-1	1,4-Dioxane	ND	1880	930	49	1880	891	47	4	10-110/40
53-70-3	Dibenzo(a,h)anthracene	247	1880	1730	80	1880	1730	80	0	10-152/38
132-64-9	Dibenzofuran	65.1	J 1880	1570	84	1880	1620	86	3	17-141/36
84-74-2	Di-n-butyl phthalate	ND	1880	1550	82	1880	1480	79	5	26-137/35
117-84-0	Di-n-octyl phthalate	ND	1880	1430	76	1880	1510	80	5	23-145/36
84-66-2	Diethyl phthalate	ND	1880	1540	82	1880	1490	79	3	25-133/35
131-11-3	Dimethyl phthalate	ND	1880	1510	80	1880	1460	78	3	21-134/36
117-81-7	bis(2-Ethylhexyl)phthalate	142	1880	1630	79	1880	2990	151* a	59* a	26-144/39
206-44-0	Fluoranthene	2600	1880	3920	68	1880	4630	106	17	10-151/44
86-73-7	Fluorene	110	1880	1640	82	1880	1730	87	5	19-133/36
118-74-1	Hexachlorobenzene	ND	1880	1470	78	1880	1380	73	6	18-142/37
87-68-3	Hexachlorobutadiene	ND	1880	1360	72	1880	1350	72	1	16-137/32
77-47-4	Hexachlorocyclopentadiene	ND	3760	2540	68	3760	2270	60	11	10-150/50
67-72-1	Hexachloroethane	ND	1880	1400	74	1880	1260	67	11	10-131/38
193-39-5	Indeno(1,2,3-cd)pyrene	912	1880	2500	88	1880	2770	102	10	10-148/41
78-59-1	Isophorone	ND	1880	1610	86	1880	1540	82	4	11-142/33
91-57-6	2-Methylnaphthalene	41.7	1880	1570	84	1880	1590	85	1	10-141/35
88-74-4	2-Nitroaniline	ND	1880	1710	91	1880	1720	92	1	14-156/38
99-09-2	3-Nitroaniline	ND	1880	1340	71	1880	1250	66	7	10-144/45
100-01-6	4-Nitroaniline	ND	1880	1530	81	1880	1510	80	1	10-156/44
91-20-3	Naphthalene	70.7	1880	1590	81	1880	1720	88	8	10-136/36
98-95-3	Nitrobenzene	ND	1880	1630	87	1880	1570	84	4	10-142/34
621-64-7	N-Nitroso-di-n-propylamine	ND	1880	1560	83	1880	1510	80	3	10-142/31
86-30-6	N-Nitrosodiphenylamine	ND	1880	1710	91	1880	1650	88	4	10-156/37
85-01-8	Phenanthrene	1360	1880	3040	88	1880	3960	137	26	11-145/45
129-00-0	Pyrene	2540	1880	3840	69	1880	4630	111	19	11-155/44
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	1880	1530	81	1880	1470	78	4	23-136/32

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JC86043
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP19673-MS	P128943.D	5	04/11/19	CS	04/10/19	OP19673	EP5835
OP19673-MSD	P128944.D	5	04/11/19	CS	04/10/19	OP19673	EP5835
JC86043-3	P129017.D	1	04/15/19	CB	04/10/19	OP19673	EP5838

The QC reported here applies to the following samples:

Method: SW846 8270D

JC86043-3, JC86043-4, JC86043-5

CAS No.	Surrogate Recoveries	MS	MSD	JC86043-3	Limits
367-12-4	2-Fluorophenol	73%	68%	73%	23-115%
4165-62-2	Phenol-d5	78%	76%	79%	27-114%
118-79-6	2,4,6-Tribromophenol	73%	72%	59%	19-152%
4165-60-0	Nitrobenzene-d5	95%	89%	90%	26-134%
321-60-8	2-Fluorobiphenyl	86%	84%	87%	39-124%
1718-51-0	Terphenyl-d14	90%	91%	94%	36-134%

(a) Outside of in house control limits.

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JC86043
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP19672-MS	2P86467.D	1	04/11/19	CS	04/10/19	OP19672	E2P3822
OP19672-MSD	2P86468.D	1	04/11/19	CS	04/10/19	OP19672	E2P3822
JC86070-15	2P86469.D	1	04/11/19	CS	04/10/19	OP19672	E2P3822
JC86070-15	2P86482.D	2	04/11/19	CS	04/10/19	OP19672	E2P3822

The QC reported here applies to the following samples:

Method: SW846 8270D

JC86043-1, JC86043-2

CAS No.	Compound	JC86070-15 ug/kg	Spike Q	ug/kg	MS ug/kg	MS %	Spike ug/kg	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
95-57-8	2-Chlorophenol	ND		2290	1680	73	2290	1640	72	2	10-137/34
59-50-7	4-Chloro-3-methyl phenol	ND		2290	1790	78	2290	1800	79	1	11-147/35
120-83-2	2,4-Dichlorophenol	ND		2290	1780	78	2290	1790	78	1	15-140/34
105-67-9	2,4-Dimethylphenol	ND		2290	2090	91	2290	2140	93	2	10-151/34
51-28-5	2,4-Dinitrophenol	ND		4590	526	11	4590	598	13	13	10-148/49
534-52-1	4,6-Dinitro-o-cresol	ND		2290	892	39	2290	659	29	30	10-150/48
95-48-7	2-Methylphenol	ND		2290	1830	80	2290	1780	78	3	10-138/33
	3&4-Methylphenol	ND		2290	1870	82	2290	1850	81	1	10-143/33
88-75-5	2-Nitrophenol	ND		2290	1620	71	2290	1610	70	1	10-150/39
100-02-7	4-Nitrophenol	ND		2290	1720	75	2290	1770	77	3	10-163/38
87-86-5	Pentachlorophenol	ND		2290	1730	75	2290	1650	72	5	10-148/39
108-95-2	Phenol	ND		2290	1590	69	2290	1610	70	1	24-114/32
58-90-2	2,3,4,6-Tetrachlorophenol	ND		2290	1530	67	2290	1540	67	1	14-140/38
95-95-4	2,4,5-Trichlorophenol	ND		2290	1740	76	2290	1760	77	1	10-146/36
88-06-2	2,4,6-Trichlorophenol	ND		2290	1800	79	2290	1820	79	1	16-148/36
83-32-9	Acenaphthene	472		2290	2370	83	2290	2730	98	14	21-136/34
208-96-8	Acenaphthylene	88.2		2290	1620	67	2290	1630	67	1	10-143/36
98-86-2	Acetophenone	ND		2290	1710	75	2290	1670	73	2	24-127/31
120-12-7	Anthracene	1070		2290	3100	89	2290	3960	126	24	10-147/39
1912-24-9	Atrazine	ND		2290	1790	78	2290	1730	75	3	10-161/38
56-55-3	Benzo(a)anthracene	1670		2290	3180	66	2290	4090	106	25	10-151/41
50-32-8	Benzo(a)pyrene	1630		2290	3250	71	2290	4300	116	28	10-149/40
205-99-2	Benzo(b)fluoranthene	1830		2290	3530	74	2290	4780	129	30	10-147/42
191-24-2	Benzo(g,h,i)perylene	1060		2290	2880	79	2290	3560	109	21	10-150/41
207-08-9	Benzo(k)fluoranthene	709		2290	2310	70	2290	2530	79	9	12-142/41
101-55-3	4-Bromophenyl phenyl ether	ND		2290	1890	82	2290	1880	82	1	26-138/37
85-68-7	Butyl benzyl phthalate	ND		2290	1650	72	2290	1610	70	2	24-143/36
92-52-4	1,1'-Biphenyl	ND		2290	1690	74	2290	1750	76	3	18-138/32
100-52-7	Benzaldehyde	ND		2290	1440	63	2290	1410	62	2	10-149/37
91-58-7	2-Chloronaphthalene	ND		2290	1570	68	2290	1590	69	1	24-130/31
106-47-8	4-Chloroaniline	ND		2290	562	25	2290	725	32	25	10-111/52
86-74-8	Carbazole	ND		2290	2370	103	2290	2640	115	11	12-146/39
105-60-2	Caprolactam	ND		2290	1430	62	2290	1470	64	3	10-147/40
218-01-9	Chrysene	1560		2290	3110	68	2290	4040	108	26	10-151/41
111-91-1	bis(2-Chloroethoxy)methane	ND		2290	1700	74	2290	1720	75	1	10-144/35
111-44-4	bis(2-Chloroethyl)ether	ND		2290	1640	72	2290	1630	71	1	12-142/35

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JC86043
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP19672-MS	2P86467.D	1	04/11/19	CS	04/10/19	OP19672	E2P3822
OP19672-MSD	2P86468.D	1	04/11/19	CS	04/10/19	OP19672	E2P3822
JC86070-15	2P86469.D	1	04/11/19	CS	04/10/19	OP19672	E2P3822
JC86070-15	2P86482.D	2	04/11/19	CS	04/10/19	OP19672	E2P3822

The QC reported here applies to the following samples:

Method: SW846 8270D

JC86043-1, JC86043-2

CAS No.	Compound	JC86070-15 ug/kg	Spike Q	MS ug/kg	MS %	Spike ug/kg	MSD ug/kg	MSD %	RPD	Limits Rec/RPD	
108-60-1	2,2'-Oxybis(1-chloropropane)	ND		2290	2000	87	2290	1950	85	3	10-137/33
7005-72-3	4-Chlorophenyl phenyl ether	ND		2290	1920	84	2290	1950	85	2	21-136/35
121-14-2	2,4-Dinitrotoluene	ND		2290	1810	79	2290	1810	79	0	14-148/41
606-20-2	2,6-Dinitrotoluene	ND		2290	1610	70	2290	1630	71	1	14-152/40
91-94-1	3,3'-Dichlorobenzidine	ND		4590	2240	49	4590	2740	60	20	10-137/47
123-91-1	1,4-Dioxane	ND		2290	969	42	2290	940	41	3	10-110/40
53-70-3	Dibenzo(a,h)anthracene	206		2290	2060	81	2290	2460	98	18	10-152/38
132-64-9	Dibenzofuran	ND		2290	2240	98	2290	2480	108	10	17-141/36
84-74-2	Di-n-butyl phthalate	ND		2290	1640	72	2290	1590	69	3	26-137/35
117-84-0	Di-n-octyl phthalate	ND		2290	1790	78	2290	1780	78	1	23-145/36
84-66-2	Diethyl phthalate	ND		2290	1650	72	2290	1640	72	1	25-133/35
131-11-3	Dimethyl phthalate	ND		2290	1590	69	2290	1630	71	2	21-134/36
117-81-7	bis(2-Ethylhexyl)phthalate	ND		2290	1960	85	2290	2380	104	19	26-144/39
206-44-0	Fluoranthene	3780		2290	4930	50	2290	6770	130	31	10-151/44
86-73-7	Fluorene	598		2290	2570	86	2290	2980	104	15	19-133/36
118-74-1	Hexachlorobenzene	ND		2290	1890	82	2290	1870	82	1	18-142/37
87-68-3	Hexachlorobutadiene	ND		2290	1790	78	2290	1780	78	1	16-137/32
77-47-4	Hexachlorocyclopentadiene	ND		4590	2660	58	4590	2180	48	20	10-150/50
67-72-1	Hexachloroethane	ND		2290	1640	72	2290	1580	69	4	10-131/38
193-39-5	Indeno(1,2,3-cd)pyrene	878		2290	2720	80	2290	3380	109	22	10-148/41
78-59-1	Isophorone	ND		2290	1670	73	2290	1710	75	2	11-142/33
91-57-6	2-Methylnaphthalene	86.1		2290	1820	76	2290	1920	80	5	10-141/35
88-74-4	2-Nitroaniline	ND		2290	1600	70	2290	1640	72	2	14-156/38
99-09-2	3-Nitroaniline	ND		2290	790	34	2290	946	41	18	10-144/45
100-01-6	4-Nitroaniline	ND		2290	1290	56	2290	1260	55	2	10-156/44
91-20-3	Naphthalene	143		2290	2080	84	2290	2220	91	7	10-136/36
98-95-3	Nitrobenzene	ND		2290	1540	67	2290	1580	69	3	10-142/34
621-64-7	N-Nitroso-di-n-propylamine	ND		2290	1800	79	2290	1770	77	2	10-142/31
86-30-6	N-Nitrosodiphenylamine	ND		2290	1900	83	2290	1920	84	1	10-156/37
85-01-8	Phenanthrene	5130 ^b		2290	7290	86	2290	10200	213* ^a	33	11-145/45
129-00-0	Pyrene	3680		2290	4580	39	2290	6300	114	32	11-155/44
95-94-3	1,2,4,5-Tetrachlorobenzene	ND		2290	1720	75	2290	1740	76	1	23-136/32

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JC86043
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP19672-MS	2P86467.D	1	04/11/19	CS	04/10/19	OP19672	E2P3822
OP19672-MSD	2P86468.D	1	04/11/19	CS	04/10/19	OP19672	E2P3822
JC86070-15	2P86469.D	1	04/11/19	CS	04/10/19	OP19672	E2P3822
JC86070-15	2P86482.D	2	04/11/19	CS	04/10/19	OP19672	E2P3822

The QC reported here applies to the following samples:

Method: SW846 8270D

JC86043-1, JC86043-2

CAS No.	Surrogate Recoveries	MS	MSD	JC86070-15	JC86070-15	Limits
367-12-4	2-Fluorophenol	67%	67%			23-115%
4165-62-2	Phenol-d5	73%	73%			27-114%
118-79-6	2,4,6-Tribromophenol	80%	83%			19-152%
4165-60-0	Nitrobenzene-d5	74%	76%	79%	84%	26-134%
321-60-8	2-Fluorobiphenyl	79%	80%	90%	89%	39-124%
1718-51-0	Terphenyl-d14	79%	78%	82%	78%	36-134%

(a) Outside control limits due to high level in sample relative to spike amount.

(b) Result is from Run #2.

* = Outside of Control Limits.

Instrument Performance Check (DFTPP)

Job Number: JC86043
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample:	E2P3783-DFTPP	Injection Date:	03/08/19
Lab File ID:	2P85593.D	Injection Time:	02:56
Instrument ID:	GCMS2P		

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
51	30.0 - 60.0% of mass 198	74894	38.0	Pass
68	Less than 2.0% of mass 69	2003	1.02 (1.71) ^a	Pass
69	Mass 69 relative abundance	117104	59.4	Pass
70	Less than 2.0% of mass 69	533	0.27 (0.46) ^a	Pass
127	40.0 - 60.0% of mass 198	115552	58.6	Pass
197	Less than 1.0% of mass 198	606	0.31	Pass
198	Base peak, 100% relative abundance	197099	100.0	Pass
199	5.0 - 9.0% of mass 198	13778	6.99	Pass
275	10.0 - 30.0% of mass 198	50693	25.7	Pass
365	1.0 - 100.0% of mass 198	7602	3.86	Pass
441	Present, but less than mass 443	18867	9.57 (79.8) ^b	Pass
442	40.0 - 100.0% of mass 198	116992	59.4	Pass
443	17.0 - 23.0% of mass 442	23640	12.0 (20.2) ^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
E2P3783-IC3783	2P85594.D	03/08/19	03:24	00:28	Initial cal 100
E2P3783-IC3783	2P85595.D	03/08/19	03:48	00:52	Initial cal 80
E2P3783-ICC3783	2P85596.D	03/08/19	04:11	01:15	Initial cal 50
E2P3783-IC3783	2P85597.D	03/08/19	04:34	01:38	Initial cal 25
E2P3783-IC3783	2P85598.D	03/08/19	04:58	02:02	Initial cal 10
E2P3783-IC3783	2P85599.D	03/08/19	05:21	02:25	Initial cal 5
E2P3783-IC3783	2P85600.D	03/08/19	05:45	02:49	Initial cal 2
E2P3783-IC3783	2P85601.D	03/08/19	06:08	03:12	Initial cal 1
E2P3783-ICV3783	2P85602.D	03/08/19	06:31	03:35	Initial cal verification 50
E2P3783-ICV3783	2P85603.D	03/08/19	06:54	03:58	Initial cal verification 50

Instrument Performance Check (DFTPP)

Job Number: JC86043
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample:	E2P3816-DFTPP	Injection Date:	04/05/19
Lab File ID:	2P86289.D	Injection Time:	06:10
Instrument ID:	GCMS2P		

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
51	30.0 - 60.0% of mass 198	121770	32.2	Pass
68	Less than 2.0% of mass 69	662	0.18 (0.31) ^a	Pass
69	Mass 69 relative abundance	212325	56.1	Pass
70	Less than 2.0% of mass 69	1258	0.33 (0.59) ^a	Pass
127	40.0 - 60.0% of mass 198	216651	57.3	Pass
197	Less than 1.0% of mass 198	0	0.00	Pass
198	Base peak, 100% relative abundance	378176	100.0	Pass
199	5.0 - 9.0% of mass 198	26421	6.99	Pass
275	10.0 - 30.0% of mass 198	99683	26.4	Pass
365	1.0 - 100.0% of mass 198	14403	3.81	Pass
441	Present, but less than mass 443	50053	13.2 (84.1) ^b	Pass
442	40.0 - 100.0% of mass 198	304725	80.6	Pass
443	17.0 - 23.0% of mass 442	59507	15.7 (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
E2P3816-IC3816	2P86290.D	04/05/19	06:54	00:44	Initial cal 100
E2P3816-IC3816	2P86291.D	04/05/19	07:17	01:07	Initial cal 80
E2P3816-ICC3816	2P86292.D	04/05/19	07:40	01:30	Initial cal 50
E2P3816-IC3816	2P86293.D	04/05/19	08:03	01:53	Initial cal 25
E2P3816-IC3816	2P86294.D	04/05/19	08:26	02:16	Initial cal 10
E2P3816-IC3816	2P86295.D	04/05/19	08:50	02:40	Initial cal 5
E2P3816-IC3816	2P86296.D	04/05/19	09:13	03:03	Initial cal 2
E2P3816-IC3816	2P86297.D	04/05/19	09:36	03:26	Initial cal 1
E2P3816-ICV3816	2P86298.D	04/05/19	09:59	03:49	Initial cal verification 50
E2P3816-ICV3816	2P86299.D	04/05/19	10:22	04:12	Initial cal verification 50
E2P3816-ICV3816	2P86301.D	04/05/19	11:09	04:59	Initial cal verification 50
E2P3816-ICV3816	2P86302.D	04/05/19	11:32	05:22	Initial cal verification 50
E2P3816-ICV3816	2P86303.D	04/05/19	11:55	05:45	Initial cal verification 50

Instrument Performance Check (DFTPP)

Job Number: JC86043
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: E2P3817-DFTPP	Injection Date: 04/05/19
Lab File ID: 2P86304.D	Injection Time: 15:23
Instrument ID: GCMS2P	

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
51	30.0 - 60.0% of mass 198	117587	34.5	Pass
68	Less than 2.0% of mass 69	24	0.01 (0.01) ^a	Pass
69	Mass 69 relative abundance	191835	56.3	Pass
70	Less than 2.0% of mass 69	604	0.18 (0.31) ^a	Pass
127	40.0 - 60.0% of mass 198	196167	57.5	Pass
197	Less than 1.0% of mass 198	0	0.00	Pass
198	Base peak, 100% relative abundance	341035	100.0	Pass
199	5.0 - 9.0% of mass 198	21917	6.43	Pass
275	10.0 - 30.0% of mass 198	87024	25.5	Pass
365	1.0 - 100.0% of mass 198	12310	3.61	Pass
441	Present, but less than mass 443	41056	12.0 (82.6) ^b	Pass
442	40.0 - 100.0% of mass 198	259669	76.1	Pass
443	17.0 - 23.0% of mass 442	49717	14.6 (19.1) ^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
E2P3817-ICV3816	2P86307.D	04/05/19	16:36	01:13	Initial cal verification 50

Instrument Performance Check (DFTPP)

Job Number: JC86043
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample:	E2P3822-DFTPP	Injection Date:	04/11/19
Lab File ID:	2P86450.D	Injection Time:	03:04
Instrument ID:	GCMS2P		

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
51	30.0 - 60.0% of mass 198	97931	36.7	Pass
68	Less than 2.0% of mass 69	1478	0.55 (0.91) ^a	Pass
69	Mass 69 relative abundance	161545	60.5	Pass
70	Less than 2.0% of mass 69	709	0.27 (0.44) ^a	Pass
127	40.0 - 60.0% of mass 198	154662	58.0	Pass
197	Less than 1.0% of mass 198	0	0.00	Pass
198	Base peak, 100% relative abundance	266851	100.0	Pass
199	5.0 - 9.0% of mass 198	17651	6.61	Pass
275	10.0 - 30.0% of mass 198	66757	25.0	Pass
365	1.0 - 100.0% of mass 198	8415	3.15	Pass
441	Present, but less than mass 443	27190	10.2 (78.5) ^b	Pass
442	40.0 - 100.0% of mass 198	177704	66.6	Pass
443	17.0 - 23.0% of mass 442	34649	13.0 (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
E2P3822-CC3816	2P86451.D	04/11/19	03:15	00:11	Continuing cal 50
E2P3822-CC3783	2P86452.D	04/11/19	03:36	00:32	Continuing cal 50
OP19687-MB1	2P86453.D	04/11/19	04:15	01:11	Method Blank
OP19687-BS1	2P86454.D	04/11/19	04:36	01:32	Blank Spike
OP19672-MB1	2P86455.D	04/11/19	05:05	02:01	Method Blank
OP19672-BS1	2P86456.D	04/11/19	05:26	02:22	Blank Spike
ZZZZZZ	2P86457.D	04/11/19	05:47	02:43	(unrelated sample)
ZZZZZZ	2P86458.D	04/11/19	06:08	03:04	(unrelated sample)
ZZZZZZ	2P86459.D	04/11/19	06:29	03:25	(unrelated sample)
ZZZZZZ	2P86460.D	04/11/19	06:50	03:46	(unrelated sample)
ZZZZZZ	2P86461.D	04/11/19	07:11	04:07	(unrelated sample)
ZZZZZZ	2P86462.D	04/11/19	07:32	04:28	(unrelated sample)
ZZZZZZ	2P86463.D	04/11/19	07:53	04:49	(unrelated sample)
OP19687-MS	2P86464.D	04/11/19	08:14	05:10	Matrix Spike
OP19687-MSD	2P86465.D	04/11/19	08:35	05:31	Matrix Spike Duplicate
JC86096-1	2P86466.D	04/11/19	08:56	05:52	(used for QC only; not part of job JC86043)
OP19672-MS	2P86467.D	04/11/19	09:16	06:12	Matrix Spike
OP19672-MSD	2P86468.D	04/11/19	09:38	06:34	Matrix Spike Duplicate
JC86070-15	2P86469.D	04/11/19	09:58	06:54	(used for QC only; not part of job JC86043)

Instrument Performance Check (DFTPP)

Job Number: JC86043
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA

Sample:	E2P3822-DFTPP	Injection Date:	04/11/19
Lab File ID:	2P86450.D	Injection Time:	03:04
Instrument ID:	GCMS2P		

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
ZZZZZZ	2P86470.D	04/11/19	10:19	07:15	(unrelated sample)
ZZZZZZ	2P86471.D	04/11/19	10:41	07:37	(unrelated sample)
ZZZZZZ	2P86472.D	04/11/19	11:02	07:58	(unrelated sample)
JC86070-15	2P86482.D	04/11/19	11:23	08:19	(used for QC only; not part of job JC86043)
ZZZZZZ	2P86473.D	04/11/19	11:44	08:40	(unrelated sample)
ZZZZZZ	2P86474.D	04/11/19	12:05	09:01	(unrelated sample)

8.5.4
8

Instrument Performance Check (DFTPP)

Job Number: JC86043
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample:	E2P3823-DFTPP	Injection Date:	04/12/19
Lab File ID:	2P86486.D	Injection Time:	09:11
Instrument ID:	GCMS2P		

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
51	30.0 - 60.0% of mass 198	123146	34.3	Pass
68	Less than 2.0% of mass 69	446	0.12 (0.22) ^a	Pass
69	Mass 69 relative abundance	207214	57.7	Pass
70	Less than 2.0% of mass 69	845	0.24 (0.41) ^a	Pass
127	40.0 - 60.0% of mass 198	200114	55.7	Pass
197	Less than 1.0% of mass 198	0	0.00	Pass
198	Base peak, 100% relative abundance	359424	100.0	Pass
199	5.0 - 9.0% of mass 198	24297	6.76	Pass
275	10.0 - 30.0% of mass 198	93434	26.0	Pass
365	1.0 - 100.0% of mass 198	12903	3.59	Pass
441	Present, but less than mass 443	42333	11.8 (80.0) ^b	Pass
442	40.0 - 100.0% of mass 198	275115	76.5	Pass
443	17.0 - 23.0% of mass 442	52917	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
E2P3823-CC3816	2P86487.D	04/12/19	09:21	00:10	Continuing cal 25
E2P3823-CC3783	2P86488.D	04/12/19	09:42	00:31	Continuing cal 25
OP19637-MB1	2P86491.D	04/12/19	10:46	01:35	Method Blank
ZZZZZZ	2P86492.D	04/12/19	11:08	01:57	(unrelated sample)
ZZZZZZ	2P86493.D	04/12/19	11:29	02:18	(unrelated sample)
ZZZZZZ	2P86494.D	04/12/19	11:51	02:40	(unrelated sample)
OP19679-MB1	2P86495.D	04/12/19	12:12	03:01	Method Blank
OP19679-BS1	2P86496.D	04/12/19	12:34	03:23	Blank Spike
OP19679-BSD	2P86497.D	04/12/19	12:56	03:45	Blank Spike Duplicate
ZZZZZZ	2P86498.D	04/12/19	13:17	04:06	(unrelated sample)
ZZZZZZ	2P86499.D	04/12/19	13:39	04:28	(unrelated sample)
OP19679-MS	2P86500.D	04/12/19	14:01	04:50	Matrix Spike
OP19679-MSD	2P86501.D	04/12/19	14:23	05:12	Matrix Spike Duplicate
ZZZZZZ	2P86503.D	04/12/19	15:07	05:56	(unrelated sample)
ZZZZZZ	2P86504.D	04/12/19	15:29	06:18	(unrelated sample)
ZZZZZZ	2P86505.D	04/12/19	16:13	07:02	(unrelated sample)
JC86022-3	2P86519.D	04/12/19	16:35	07:24	(used for QC only; not part of job JC86043)
ZZZZZZ	2P86506.D	04/12/19	16:57	07:46	(unrelated sample)
ZZZZZZ	2P86507.D	04/12/19	17:19	08:08	(unrelated sample)

Instrument Performance Check (DFTPP)

Job Number: JC86043
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA

Sample:	E2P3823-DFTPP	Injection Date:	04/12/19
Lab File ID:	2P86486.D	Injection Time:	09:11
Instrument ID:	GCMS2P		

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
ZZZZZZ	2P86508.D	04/12/19	17:41	08:30	(unrelated sample)
ZZZZZZ	2P86510.D	04/12/19	18:03	08:52	(unrelated sample)
ZZZZZZ	2P86511.D	04/12/19	18:24	09:13	(unrelated sample)
ZZZZZZ	2P86512.D	04/12/19	18:46	09:35	(unrelated sample)
ZZZZZZ	2P86513.D	04/12/19	19:08	09:57	(unrelated sample)
ZZZZZZ	2P86514.D	04/12/19	19:30	10:19	(unrelated sample)
JC86043-1	2P86515.D	04/12/19	19:51	10:40	PCTP-08R (10-12)
JC86043-2	2P86516.D	04/12/19	20:13	11:02	PCTP-10R (7-9)
E2P3823-ECC3816	2P86517.D	04/12/19	20:35	11:24	Ending cal 25
E2P3823-ECC3783	2P86518.D	04/12/19	20:56	11:45	Ending cal 25

8.5.5
8

Instrument Performance Check (DFTPP)

Job Number: JC86043
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample:	EP5819-DFTPP	Injection Date:	03/25/19
Lab File ID:	P128675.D	Injection Time:	09:46
Instrument ID:	GCMSP		

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
51	30.0 - 60.0% of mass 198	17177	35.5	Pass
68	Less than 2.0% of mass 69	0	0.00 (0.00) ^a	Pass
69	Mass 69 relative abundance	21850	45.2	Pass
70	Less than 2.0% of mass 69	297	0.61 (1.36) ^a	Pass
127	40.0 - 60.0% of mass 198	23356	48.3	Pass
197	Less than 1.0% of mass 198	244	0.50	Pass
198	Base peak, 100% relative abundance	48338	100.0	Pass
199	5.0 - 9.0% of mass 198	3559	7.36	Pass
275	10.0 - 30.0% of mass 198	10614	22.0	Pass
365	1.0 - 100.0% of mass 198	1383	2.86	Pass
441	Present, but less than mass 443	3804	7.87 (68.9) ^b	Pass
442	40.0 - 100.0% of mass 198	27494	56.9	Pass
443	17.0 - 23.0% of mass 442	5523	11.4 (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
EP5819-IC5819	P128676.D	03/25/19	10:18	00:32	Initial cal 100
EP5819-IC5819	P128677.D	03/25/19	10:45	00:59	Initial cal 80
EP5819-ICC5819	P128678.D	03/25/19	11:12	01:26	Initial cal 50
EP5819-IC5819	P128679.D	03/25/19	11:39	01:53	Initial cal 25
EP5819-IC5819	P128680.D	03/25/19	12:06	02:20	Initial cal 10
EP5819-IC5819	P128681.D	03/25/19	12:33	02:47	Initial cal 5
EP5819-IC5819	P128682.D	03/25/19	13:00	03:14	Initial cal 2
EP5819-IC5819	P128683.D	03/25/19	13:27	03:41	Initial cal 1
EP5819-ICV5819	P128684.D	03/25/19	13:54	04:08	Initial cal verification 50
EP5819-ICV5819	P128685.D	03/25/19	14:21	04:35	Initial cal verification 50
EP5819-ICV5819	P128686.D	03/25/19	14:48	05:02	Initial cal verification 50
EP5819-ICV5819	P128687.D	03/25/19	15:15	05:29	Initial cal verification 50
EP5819-ICV5819	P128688.D	03/25/19	15:42	05:56	Initial cal verification 50
EP5819-ICV5819	P128689.D	03/25/19	16:09	06:23	Initial cal verification 50

Instrument Performance Check (DFTPP)

Job Number: JC86043
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample:	EP5821-DFTPP	Injection Date:	03/26/19
Lab File ID:	P128702.D	Injection Time:	15:16
Instrument ID:	GCMSP		

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
51	30.0 - 60.0% of mass 198	20856	30.9	Pass
68	Less than 2.0% of mass 69	0	0.00 (0.00) ^a	Pass
69	Mass 69 relative abundance	26144	38.7	Pass
70	Less than 2.0% of mass 69	281	0.42 (1.07) ^a	Pass
127	40.0 - 60.0% of mass 198	30640	45.4	Pass
197	Less than 1.0% of mass 198	0	0.00	Pass
198	Base peak, 100% relative abundance	67501	100.0	Pass
199	5.0 - 9.0% of mass 198	4503	6.67	Pass
275	10.0 - 30.0% of mass 198	16360	24.2	Pass
365	1.0 - 100.0% of mass 198	2627	3.89	Pass
441	Present, but less than mass 443	7547	11.2 (75.4) ^b	Pass
442	40.0 - 100.0% of mass 198	49224	72.9	Pass
443	17.0 - 23.0% of mass 442	10013	14.8 (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
EP5821-IC5821	P128703B.D	03/26/19	17:16	02:00	Initial cal 100
EP5821-IC5821	P128704B.D	03/26/19	17:43	02:27	Initial cal 80
EP5821-ICC5821	P128705B.D	03/26/19	18:10	02:54	Initial cal 50
EP5821-IC5821	P128706.D	03/26/19	18:37	03:21	Initial cal 25
EP5821-IC5821	P128707.D	03/26/19	19:03	03:47	Initial cal 10
EP5821-IC5821	P128708.D	03/26/19	19:30	04:14	Initial cal 5
EP5821-IC5821	P128709.D	03/26/19	19:57	04:41	Initial cal 2
EP5821-IC5821	P128710.D	03/26/19	20:23	05:07	Initial cal 1
EP5821-ICV5821	P128711.D	03/26/19	20:50	05:34	Initial cal verification 50
EP5821-ICV5821	P128712.D	03/26/19	21:17	06:01	Initial cal verification 50

Instrument Performance Check (DFTPP)

Job Number: JC86043
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample:	EP5822-DFTPP	Injection Date:	03/26/19
Lab File ID:	P128713.D	Injection Time:	21:40
Instrument ID:	GCMSP		

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
51	30.0 - 60.0% of mass 198	15729	33.6	Pass
68	Less than 2.0% of mass 69	0	0.00 (0.00) ^a	Pass
69	Mass 69 relative abundance	20075	42.9	Pass
70	Less than 2.0% of mass 69	55	0.12 (0.27) ^a	Pass
127	40.0 - 60.0% of mass 198	23177	49.5	Pass
197	Less than 1.0% of mass 198	72	0.15	Pass
198	Base peak, 100% relative abundance	46794	100.0	Pass
199	5.0 - 9.0% of mass 198	3130	6.69	Pass
275	10.0 - 30.0% of mass 198	11580	24.7	Pass
365	1.0 - 100.0% of mass 198	1648	3.52	Pass
441	Present, but less than mass 443	4989	10.7 (82.6) ^b	Pass
442	40.0 - 100.0% of mass 198	31712	67.8	Pass
443	17.0 - 23.0% of mass 442	6043	12.9 (19.1) ^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
EP5822-IC5822	P128714A.D	03/26/19	22:46	01:06	Initial cal 100
EP5822-IC5822	P128715A.D	03/26/19	23:13	01:33	Initial cal 80
EP5822-ICC5822	P128716A.D	03/26/19	23:40	02:00	Initial cal 50
EP5822-IC5822	P128717.D	03/27/19	00:06	02:26	Initial cal 25
EP5822-IC5822	P128718.D	03/27/19	00:33	02:53	Initial cal 10
EP5822-IC5822	P128719.D	03/27/19	00:59	03:19	Initial cal 5
EP5822-IC5822	P128720.D	03/27/19	01:26	03:46	Initial cal 2
EP5822-ICV5822	P128722.D	03/27/19	02:20	04:40	Initial cal verification 50

Instrument Performance Check (DFTPP)

Job Number: JC86043
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample:	EP5823-DFTPP	Injection Date:	03/27/19
Lab File ID:	P128723.D	Injection Time:	14:25
Instrument ID:	GCMSP		

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
51	30.0 - 60.0% of mass 198	17092	35.1	Pass
68	Less than 2.0% of mass 69	0	0.00 (0.00) ^a	Pass
69	Mass 69 relative abundance	22330	45.9	Pass
70	Less than 2.0% of mass 69	303	0.62 (1.36) ^a	Pass
127	40.0 - 60.0% of mass 198	23525	48.3	Pass
197	Less than 1.0% of mass 198	224	0.46	Pass
198	Base peak, 100% relative abundance	48682	100.0	Pass
199	5.0 - 9.0% of mass 198	3447	7.08	Pass
275	10.0 - 30.0% of mass 198	11097	22.8	Pass
365	1.0 - 100.0% of mass 198	1430	2.94	Pass
441	Present, but less than mass 443	3846	7.90 (64.6) ^b	Pass
442	40.0 - 100.0% of mass 198	29188	60.0	Pass
443	17.0 - 23.0% of mass 442	5955	12.2 (20.4) ^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
EP5823-ICV5819	P128724.D	03/27/19	15:31	01:06	Initial cal verification 50

Instrument Performance Check (DFTPP)

Job Number: JC86043
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample:	EP5835-DFTPP	Injection Date:	04/11/19
Lab File ID:	P128925.D	Injection Time:	00:56
Instrument ID:	GCMSP		

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
51	30.0 - 60.0% of mass 198	23379	34.8	Pass
68	Less than 2.0% of mass 69	230	0.34 (0.78) ^a	Pass
69	Mass 69 relative abundance	29371	43.7	Pass
70	Less than 2.0% of mass 69	322	0.48 (1.10) ^a	Pass
127	40.0 - 60.0% of mass 198	32661	48.6	Pass
197	Less than 1.0% of mass 198	0	0.00	Pass
198	Base peak, 100% relative abundance	67269	100.0	Pass
199	5.0 - 9.0% of mass 198	4146	6.16	Pass
275	10.0 - 30.0% of mass 198	15778	23.5	Pass
365	1.0 - 100.0% of mass 198	1925	2.86	Pass
441	Present, but less than mass 443	6090	9.05 (77.0) ^b	Pass
442	40.0 - 100.0% of mass 198	41370	61.5	Pass
443	17.0 - 23.0% of mass 442	7905	11.8 (19.1) ^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
EP5835-CC5819	P128926.D	04/11/19	01:08	00:12	Continuing cal 25
EP5835-CC5821	P128927.D	04/11/19	01:35	00:39	Continuing cal 25
EP5835-CC5822	P128928.D	04/11/19	02:02	01:06	Continuing cal 25
OP19673-MB1	P128929.D	04/11/19	02:30	01:34	Method Blank
OP19673-BS1	P128930.D	04/11/19	02:56	02:00	Blank Spike
OP19673-BSD	P128931.D	04/11/19	03:23	02:27	Blank Spike Duplicate
ZZZZZZ	P128932.D	04/11/19	03:49	02:53	(unrelated sample)
ZZZZZZ	P128933.D	04/11/19	04:16	03:20	(unrelated sample)
ZZZZZZ	P128934.D	04/11/19	04:43	03:47	(unrelated sample)
ZZZZZZ	P128935.D	04/11/19	05:09	04:13	(unrelated sample)
ZZZZZZ	P128936.D	04/11/19	05:36	04:40	(unrelated sample)
ZZZZZZ	P128937.D	04/11/19	06:02	05:06	(unrelated sample)
ZZZZZZ	P128938.D	04/11/19	06:29	05:33	(unrelated sample)
ZZZZZZ	P128939.D	04/11/19	06:55	05:59	(unrelated sample)
ZZZZZZ	P128940.D	04/11/19	07:22	06:26	(unrelated sample)
ZZZZZZ	P128941.D	04/11/19	07:48	06:52	(unrelated sample)
ZZZZZZ	P128942.D	04/11/19	08:15	07:19	(unrelated sample)
OP19673-MS	P128943.D	04/11/19	08:41	07:45	Matrix Spike
OP19673-MSD	P128944.D	04/11/19	09:08	08:12	Matrix Spike Duplicate

Instrument Performance Check (DFTPP)

Job Number: JC86043
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA

Sample:	EP5835-DFTPP	Injection Date:	04/11/19
Lab File ID:	P128925.D	Injection Time:	00:56
Instrument ID:	GCMSP		

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
JC86043-5	P128947.D	04/11/19	10:27	09:31	S-122 (10-12)
<u>ZZZZZZ</u>	P128948.D	04/11/19	10:54	09:58	(unrelated sample)
<u>ZZZZZZ</u>	P128949.D	04/11/19	11:20	10:24	(unrelated sample)

Instrument Performance Check (DFTPP)

Job Number: JC86043
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample:	EP5836-DFTPP	Injection Date:	04/11/19
Lab File ID:	P128950.D	Injection Time:	13:05
Instrument ID:	GCMSP		

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
51	30.0 - 60.0% of mass 198	20399	33.7	Pass
68	Less than 2.0% of mass 69	366	0.60 (1.43) ^a	Pass
69	Mass 69 relative abundance	25590	42.2	Pass
70	Less than 2.0% of mass 69	68	0.11 (0.27) ^a	Pass
127	40.0 - 60.0% of mass 198	29719	49.1	Pass
197	Less than 1.0% of mass 198	153	0.25	Pass
198	Base peak, 100% relative abundance	60589	100.0	Pass
199	5.0 - 9.0% of mass 198	4029	6.65	Pass
275	10.0 - 30.0% of mass 198	13747	22.7	Pass
365	1.0 - 100.0% of mass 198	1959	3.23	Pass
441	Present, but less than mass 443	5424	8.95 (70.9) ^b	Pass
442	40.0 - 100.0% of mass 198	38544	63.6	Pass
443	17.0 - 23.0% of mass 442	7648	12.6 (19.8) ^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
EP5836-CC5819	P128951.D	04/11/19	13:16	00:11	Continuing cal 50
EP5836-CC5821	P128952.D	04/11/19	13:43	00:38	Continuing cal 50
ZZZZZZ	P128953A.D	04/11/19	14:48	01:43	(unrelated sample)
ZZZZZZ	P128954.D	04/11/19	15:15	02:10	(unrelated sample)
ZZZZZZ	P128955.D	04/11/19	15:42	02:37	(unrelated sample)
ZZZZZZ	P128956.D	04/11/19	16:08	03:03	(unrelated sample)
OP19262-MB1	P128968.D	04/11/19	16:35	03:30	Method Blank
OP19262-MS	P128969.D	04/11/19	17:02	03:57	Matrix Spike
OP19262-LS14	P128969.D	04/11/19	17:02	03:57	Leachate Spike
OP19262-MSD	P128970.D	04/11/19	17:29	04:24	Matrix Spike Duplicate
ZZZZZZ	P128957.D	04/11/19	18:23	05:18	(unrelated sample)
ZZZZZZ	P128958.D	04/11/19	18:49	05:44	(unrelated sample)
ZZZZZZ	P128959.D	04/11/19	19:16	06:11	(unrelated sample)
ZZZZZZ	P128960.D	04/11/19	19:43	06:38	(unrelated sample)
ZZZZZZ	P128961.D	04/11/19	20:09	07:04	(unrelated sample)
ZZZZZZ	P128962.D	04/11/19	20:36	07:31	(unrelated sample)
ZZZZZZ	P128963.D	04/11/19	21:03	07:58	(unrelated sample)
ZZZZZZ	P128964.D	04/11/19	21:29	08:24	(unrelated sample)
JC86043-5	P128965.D	04/11/19	21:56	08:51	S-122 (10-12)

Instrument Performance Check (DFTPP)

Job Number: JC86043
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA

Sample: EP5836-DFTPP	Injection Date: 04/11/19
Lab File ID: P128950.D	Injection Time: 13:05
Instrument ID: GCMSP	

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
EP5836-ECC5819	P128966.D	04/11/19	22:22	09:17	Ending cal 50
EP5836-ECC5821	P128967.D	04/11/19	22:49	09:44	Ending cal 50

Instrument Performance Check (DFTPP)

Job Number: JC86043
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample:	EP5838-DFTPP	Injection Date:	04/14/19
Lab File ID:	P128992.D	Injection Time:	13:07
Instrument ID:	GCMSP		

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
51	30.0 - 60.0% of mass 198	21267	33.0	Pass
68	Less than 2.0% of mass 69	43	0.07 (0.16) ^a	Pass
69	Mass 69 relative abundance	26294	40.8	Pass
70	Less than 2.0% of mass 69	257	0.40 (0.98) ^a	Pass
127	40.0 - 60.0% of mass 198	30627	47.5	Pass
197	Less than 1.0% of mass 198	377	0.58	Pass
198	Base peak, 100% relative abundance	64483	100.0	Pass
199	5.0 - 9.0% of mass 198	4458	6.91	Pass
275	10.0 - 30.0% of mass 198	16545	25.7	Pass
365	1.0 - 100.0% of mass 198	2298	3.56	Pass
441	Present, but less than mass 443	6591	10.2 (79.7) ^b	Pass
442	40.0 - 100.0% of mass 198	45523	70.6	Pass
443	17.0 - 23.0% of mass 442	8268	12.8 (18.2) ^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
EP5838-CC5819	P128993.D	04/14/19	13:19	00:12	Continuing cal 50
EP5838-CC5821	P128994.D	04/14/19	13:47	00:40	Continuing cal 50
OP19722-MB1	P128995.D	04/14/19	14:42	01:35	Method Blank
OP19722-BS1	P128996.D	04/14/19	15:25	02:18	Blank Spike
JC86190-1	P128997.D	04/14/19	15:53	02:46	(used for QC only; not part of job JC86043)
OP19722-MS	P128998.D	04/14/19	16:20	03:13	Matrix Spike
OP19722-MSD	P128999.D	04/14/19	16:47	03:40	Matrix Spike Duplicate
ZZZZZZ	P129000.D	04/14/19	17:15	04:08	(unrelated sample)
ZZZZZZ	P129003.D	04/14/19	18:37	05:30	(unrelated sample)
ZZZZZZ	P129004.D	04/14/19	19:05	05:58	(unrelated sample)
ZZZZZZ	P129005.D	04/14/19	19:32	06:25	(unrelated sample)
ZZZZZZ	P129006.D	04/14/19	20:00	06:53	(unrelated sample)
ZZZZZZ	P129007.D	04/14/19	20:27	07:20	(unrelated sample)
ZZZZZZ	P129008.D	04/14/19	20:55	07:48	(unrelated sample)
ZZZZZZ	P129009.D	04/14/19	21:22	08:15	(unrelated sample)
ZZZZZZ	P129010.D	04/14/19	21:49	08:42	(unrelated sample)
ZZZZZZ	P129011.D	04/14/19	22:17	09:10	(unrelated sample)
ZZZZZZ	P129012.D	04/14/19	22:44	09:37	(unrelated sample)
ZZZZZZ	P129013.D	04/14/19	23:12	10:05	(unrelated sample)

8.5.12
8

Instrument Performance Check (DFTPP)

Job Number: JC86043
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA

Sample:	EP5838-DFTPP	Injection Date:	04/14/19
Lab File ID:	P128992.D	Injection Time:	13:07
Instrument ID:	GCMSP		

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
<u>ZZZZZZ</u>	P129014.D	04/14/19	23:39	10:32	(unrelated sample)
<u>ZZZZZZ</u>	P129015.D	04/15/19	00:07	11:00	(unrelated sample)
<u>ZZZZZZ</u>	P129016.D	04/15/19	00:34	11:27	(unrelated sample)
JC86043-3	P129017.D	04/15/19	01:01	11:54	PCTP-47R (5-7)

8.5.12

8

Instrument Performance Check (DFTPP)

Job Number: JC86043
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: EP5839-DFTPP Injection Date: 04/15/19
 Lab File ID: P129021.D Injection Time: 10:21
 Instrument ID: GCMSP

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
51	30.0 - 60.0% of mass 198	20772	32.2	Pass
68	Less than 2.0% of mass 69	175	0.27 (0.64) ^a	Pass
69	Mass 69 relative abundance	27307	42.3	Pass
70	Less than 2.0% of mass 69	0	0.00 (0.00) ^a	Pass
127	40.0 - 60.0% of mass 198	31165	48.3	Pass
197	Less than 1.0% of mass 198	0	0.00	Pass
198	Base peak, 100% relative abundance	64483	100.0	Pass
199	5.0 - 9.0% of mass 198	4355	6.75	Pass
275	10.0 - 30.0% of mass 198	15359	23.8	Pass
365	1.0 - 100.0% of mass 198	2050	3.18	Pass
441	Present, but less than mass 443	5971	9.26 (70.0) ^b	Pass
442	40.0 - 100.0% of mass 198	41782	64.8	Pass
443	17.0 - 23.0% of mass 442	8524	13.2 (20.4) ^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
EP5839-CC5819	P129022.D	04/15/19	10:33	00:12	Continuing cal 25
EP5839-CC5821	P129023.D	04/15/19	11:00	00:39	Continuing cal 25
OP19702-MB1	P129024.D	04/15/19	11:27	01:06	Method Blank
OP19702-BS1	P129025.D	04/15/19	11:54	01:33	Blank Spike
OP19702-BSD	P129026.D	04/15/19	12:21	02:00	Blank Spike Duplicate
ZZZZZZ	P129027.D	04/15/19	12:48	02:27	(unrelated sample)
ZZZZZZ	P129028.D	04/15/19	13:15	02:54	(unrelated sample)
ZZZZZZ	P129029.D	04/15/19	13:42	03:21	(unrelated sample)
ZZZZZZ	P129030.D	04/15/19	14:09	03:48	(unrelated sample)
ZZZZZZ	P129031.D	04/15/19	14:36	04:15	(unrelated sample)
ZZZZZZ	P129032.D	04/15/19	15:03	04:42	(unrelated sample)
ZZZZZZ	P129033.D	04/15/19	15:30	05:09	(unrelated sample)
ZZZZZZ	P129034.D	04/15/19	15:57	05:36	(unrelated sample)
ZZZZZZ	P129035.D	04/15/19	16:24	06:03	(unrelated sample)
ZZZZZZ	P129036.D	04/15/19	16:51	06:30	(unrelated sample)
ZZZZZZ	P129037.D	04/15/19	17:18	06:57	(unrelated sample)
ZZZZZZ	P129038.D	04/15/19	17:45	07:24	(unrelated sample)
ZZZZZZ	P129040.D	04/15/19	18:38	08:17	(unrelated sample)
ZZZZZZ	P129041.D	04/15/19	19:05	08:44	(unrelated sample)

Instrument Performance Check (DFTPP)

Job Number: JC86043
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA

Sample:	EP5839-DFTPP	Injection Date:	04/15/19
Lab File ID:	P129021.D	Injection Time:	10:21
Instrument ID:	GCMSP		

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
ZZZZZZ	P129042.D	04/15/19	19:32	09:11	(unrelated sample)
ZZZZZZ	P129043.D	04/15/19	19:59	09:38	(unrelated sample)
JC86043-4	P129046.D	04/15/19	21:19	10:58	PCTP-32R (6-8)
ZZZZZZ	P129047.D	04/15/19	21:46	11:25	(unrelated sample)
ZZZZZZ	P129048.D	04/15/19	22:13	11:52	(unrelated sample)

8.5.13

8

Internal Standard Area Summary

Job Number: JC86043
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Check Std:	E2P3822-CC3816	Injection Date:	04/11/19
Lab File ID:	2P86451.D	Injection Time:	03:15
Instrument ID:	GCMS2P	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	402208	4.74	1346792	5.77	747756	7.20	1267594	8.48	1217500	11.72	1225134	13.71
Upper Limit ^a	804416	5.24	2693584	6.27	1495512	7.70	2535188	8.98	2435000	12.22	2450268	14.21
Lower Limit ^b	201104	4.24	673396	5.27	373878	6.70	633797	7.98	608750	11.22	612567	13.21

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
OP19687-MB1	684213	4.73	2279489	5.77	1166417	7.21	1857907	8.48	1439921	11.71	1411914	13.70
OP19687-BS1	695598	4.73	2371144	5.77	1292236	7.20	2082668	8.48	1777909	11.71	1700135	13.70
OP19672-MB1	629264	4.73	2287196	5.77	1148033	7.21	1917396	8.48	1503339	11.71	1514445	13.70
OP19672-BS1	417966	4.74	1422705	5.77	764613	7.21	1258621	8.48	1209595	11.72	1145831	13.70
ZZZZZZ	625776	4.73	2294834	5.77	1160552	7.21	1854154	8.48	1417928	11.71	1312385	13.70
ZZZZZZ	624969	4.73	2259347	5.77	1170650	7.20	1879649	8.47	1476985	11.71	1365414	13.70
ZZZZZZ	676521	4.73	2319263	5.77	1191772	7.20	1950428	8.47	1534477	11.71	1500173	13.70
ZZZZZZ	591440	4.73	2136984	5.77	1060011	7.20	1708379	8.47	1350775	11.71	1257238	13.70
ZZZZZZ	604976	4.73	2203138	5.77	1072611	7.20	1677076	8.47	1319117	11.71	1378945	13.70
ZZZZZZ	529626	4.73	1779115	5.77	977206	7.20	1527161	8.47	1187252	11.71	1233753	13.70
ZZZZZZ	568089	4.73	2055351	5.77	1084257	7.21	1537761	8.48	1239289	11.71	1341879	13.70
OP19687-MS	474360	4.73	1456383	5.77	517554	7.22	459148*	8.53	884410	11.77	1004264	13.72
OP19687-MSD	510297	4.73	1580358	5.77	572237	7.22	440513*	8.53	933198	11.77	1046519	13.72
JC86096-1	582765	4.73	1667423	5.77	558170	7.22	380337*	8.53	986599	11.77	1086979	13.72
OP19672-MS	450381	4.73	1562625	5.77	832987	7.21	1274826	8.48	1125075	11.72	1077121	13.71
OP19672-MSD	466882	4.74	1570540	5.77	835245	7.21	1259429	8.48	1097218	11.73	1033087	13.71
JC86070-15	622291	4.73	2247946	5.77	1102839	7.21	1552090	8.48	1104700	11.72	1089802	13.70
ZZZZZZ	626152	4.73	2290250	5.77	1145863	7.21	1918956	8.47	1329855	11.71	1321512	13.70
ZZZZZZ	644661	4.73	2347493	5.77	1090589	7.21	1940218	8.47	1360581	11.71	1389238	13.70
ZZZZZZ	669228	4.73	2410183	5.77	1197869	7.21	1972809	8.47	1353991	11.71	1312439	13.70
JC86070-15	620069	4.73	2187345	5.77	1083428	7.21	1596743	8.48	1144998	11.71	1149340	13.70
ZZZZZZ	646252	4.73	2268278	5.77	1150693	7.21	1814336	8.47	1255078	11.71	1156895	13.70
ZZZZZZ	616195	4.73	2204210	5.77	1119391	7.21	1781762	8.47	1247354	11.71	1199132	13.70

- 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.

8.6.1
8

Internal Standard Area Summary

Job Number: JC86043
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Check Std:	E2P3823-CC3816	Injection Date:	04/12/19
Lab File ID:	2P86487.D	Injection Time:	09:21
Instrument ID:	GCMS2P	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	520082	4.73	1746662	5.77	918595	7.20	1586908	8.47	1462010	11.71	1407561	13.70
Upper Limit ^a	1040164	5.23	3493324	6.27	1837190	7.70	3173816	8.97	2924020	12.21	2815122	14.20
Lower Limit ^b	260041	4.23	873331	5.27	459298	6.70	793454	7.97	731005	11.21	703781	13.20

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
OP19637-MB1	923777	4.73	3123433	5.77	1592682	7.20	2621315	8.47	2163048	11.71	2185986	13.70
ZZZZZZ	775817	4.73	2648957	5.77	1343134	7.20	2232725	8.47	1878001	11.71	1886431	13.70
ZZZZZZ	974121	4.73	3335194	5.77	1718553	7.21	2778431	8.47	2326061	11.71	2323952	13.70
ZZZZZZ	741174	4.73	2598713	5.77	1309688	7.20	2166279	8.47	1747228	11.71	1738841	13.70
OP19679-MB1	858636	4.73	2931514	5.77	1509997	7.21	2596004	8.47	2194123	11.71	2237367	13.70
OP19679-BS1	643194	4.74	2145402	5.77	1142629	7.21	1934641	8.48	1809517	11.72	1922964	13.71
OP19679-BSD	601128	4.74	2014399	5.77	1066255	7.20	1760909	8.48	1663559	11.72	1738375	13.71
ZZZZZZ	901907	4.73	3164781	5.77	1514489	7.21	2348682	8.48	1688031	11.72	1789062	13.71
ZZZZZZ	800637	4.73	2174173	5.77	955353	7.21	1571461	8.48	1599453	11.72	1724652	13.71
OP19679-MS	582308	4.74	1935916	5.77	1029209	7.21	1724763	8.48	1615169	11.72	1676610	13.71
OP19679-MSD	554194	4.74	1808980	5.77	987947	7.20	1636022	8.48	1547530	11.72	1617929	13.71
ZZZZZZ	900946	4.73	3080921	5.77	1545025	7.20	2601649	8.48	2211201	11.71	2305858	13.70
ZZZZZZ	979491	4.73	3379504	5.77	1722330	7.20	2913668	8.48	2484391	11.71	2515688	13.71
ZZZZZZ	745161	4.73	2666565	5.77	1373214	7.21	2308715	8.48	1949396	11.71	2037227	13.70
JC86022-3	860155	4.73	2914208	5.77	1465265	7.20	2432990	8.48	2084686	11.71	2180329	13.70
ZZZZZZ	858286	4.73	2833584	5.77	1451717	7.21	2394880	8.48	2086574	11.71	2122373	13.70
ZZZZZZ	863616	4.73	2835115	5.77	1436164	7.21	2409385	8.48	2067279	11.71	2060276	13.71
ZZZZZZ	974939	4.73	3261106	5.77	1609940	7.20	2719957	8.48	2274117	11.71	2400138	13.71
ZZZZZZ	762411	4.73	2616924	5.77	1147655	7.21	1787631	8.48	1504976	11.71	1611411	13.71
ZZZZZZ	798953	4.74	2715181	5.77	1158431	7.20	1793392	8.48	1447446	11.72	1557137	13.71
ZZZZZZ	809468	4.74	2853779	5.77	1467638	7.20	2250739	8.48	1402129	11.72	1555566	13.72
ZZZZZZ	826947	4.74	3028097	5.77	1495723	7.20	2367352	8.48	1470070	11.72	1481228	13.71
ZZZZZZ	892201	4.74	3173786	5.77	1436930	7.21	2121272	8.48	1657291	11.73	1758613	13.73
JC86043-1	830920	4.74	2896316	5.77	1440313	7.21	2132022	8.48	1390204	11.73	1465287	13.73
JC86043-2	829453	4.74	3024745	5.77	1423969	7.21	1961980	8.48	1461961	11.74	1556780	13.75
E2P3823-ECC381630143	4.74	2103504	5.78	1105214	7.22	1850260	8.49	1289511	11.74	1335875	13.73	
E2P3823-ECC378344685	4.74	3065203	5.77	1567048	7.21	2286128	8.49	1356777	11.73	1249637	13.72	

- 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

8.6.2
8

Internal Standard Area Summary

Job Number: JC86043
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA

Check Std:	E2P3823-CC3816	Injection Date:	04/12/19
Lab File ID:	2P86487.D	Injection Time:	09:21
Instrument ID:	GCMS2P	Method:	SW846 8270D

Lab	IS 1		IS 2		IS 3		IS 4		IS 5		IS 6	
Sample ID	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT

- (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.

8.6.2
8

Internal Standard Area Summary

Job Number: JC86043
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Check Std:	EP5835-CC5819	Injection Date:	04/11/19
Lab File ID:	P128926.D	Injection Time:	01:08
Instrument ID:	GCMSP	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	152276	4.28	588649	5.22	347741	6.54	620560	8.24	555716	13.31	609631	16.34
Upper Limit ^a	304552	4.78	1177298	5.72	695482	7.04	1241120	8.74	1111432	13.81	1219262	16.84
Lower Limit ^b	76138	3.78	294325	4.72	173871	6.04	310280	7.74	277858	12.81	304816	15.84

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
OP19673-MB1	184222	4.28	713763	5.21	409968	6.54	692688	8.24	560249	13.31	600376	16.33
OP19673-BS1	156860	4.28	577430	5.22	346953	6.54	568259	8.24	499410	13.32	534698	16.33
OP19673-BSD	167399	4.28	630923	5.22	381544	6.54	642084	8.24	567478	13.32	606442	16.34
ZZZZZZ	180591	4.28	698817	5.21	402054	6.54	677031	8.24	570982	13.31	601352	16.33
ZZZZZZ	174391	4.28	680067	5.21	386050	6.54	640924	8.24	516898	13.30	558905	16.33
ZZZZZZ	172517	4.28	668120	5.21	390556	6.54	656863	8.24	548882	13.30	587040	16.33
ZZZZZZ	169555	4.28	656684	5.21	385261	6.54	673576	8.24	589046	13.31	646487	16.33
ZZZZZZ	173490	4.28	668742	5.21	377179	6.54	622989	8.24	518429	13.30	546277	16.33
ZZZZZZ	165087	4.28	653150	5.21	383500	6.54	643720	8.24	554501	13.30	596943	16.33
ZZZZZZ	161475	4.28	534049	5.22	349578	6.55	563332	8.25	551758	13.30	600144	16.33
ZZZZZZ	182946	4.28	699608	5.21	405184	6.54	666892	8.24	542784	13.30	580710	16.32
ZZZZZZ	163946	4.27	645608	5.22	442613	6.55	697579	8.26	707135	13.31	815958	16.33
ZZZZZZ	181957	4.28	617710	5.21	345881	6.54	657910	8.24	554231	13.30	585065	16.33
ZZZZZZ	172499	4.27	659307	5.21	360960	6.54	588144	8.24	478534	13.30	518631	16.32
OP19673-MS	175683	4.27	666850	5.21	385274	6.54	644023	8.24	546510	13.31	610669	16.33
OP19673-MSD	178156	4.27	673266	5.21	389036	6.54	658326	8.24	539845	13.31	565791	16.33
JC86043-5 ^c	181831	4.27	660853	5.21	384067	6.54	651329	8.25	538210	13.33	594927	16.35
ZZZZZZ	198586	4.27	715294	5.21	441360	6.55	750057	8.26	664438	13.34	694616	16.35
ZZZZZZ	205420	4.27	803780	5.21	463459	6.54	778970	8.24	605780	13.31	647628	16.34

- 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) Dilution required due to viscosity of the extract matrix.

Internal Standard Area Summary

Job Number: JC86043
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Check Std:	EP5836-CC5819	Injection Date:	04/11/19
Lab File ID:	P128951.D	Injection Time:	13:16
Instrument ID:	GCMSP	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	160066	4.27	596760	5.21	356988	6.53	618963	8.23	555288	13.31	602921	16.33
Upper Limit ^a	320132	4.77	1193520	5.71	713976	7.03	1237926	8.73	1110576	13.81	1205842	16.83
Lower Limit ^b	80033	3.77	298380	4.71	178494	6.03	309482	7.73	277644	12.81	301461	15.83

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
ZZZZZZ	202826	4.27	777536	5.20	461702	6.53	783890	8.23	640775	13.29	678168	16.32
ZZZZZZ	189928	4.27	747995	5.20	438932	6.53	745201	8.23	618211	13.29	649438	16.32
ZZZZZZ	197131	4.27	779725	5.21	445501	6.53	759271	8.23	632983	13.29	661887	16.32
ZZZZZZ	162296	4.27	630521	5.20	363677	6.53	627769	8.22	512159	13.29	549254	16.31
OP19262-MB1	164685	4.27	654677	5.20	379359	6.53	650880	8.23	537774	13.29	579844	16.31
OP19262-LS14	144398	4.27	556028	5.21	326717	6.53	565655	8.23	501426	13.30	535384	16.32
OP19262-MS	144398	4.27	556028	5.21	326717	6.53	565655	8.23	501426	13.30	535384	16.32
OP19262-MSD	146682	4.27	555546	5.21	328115	6.53	556544	8.23	486675	13.30	522777	16.31
ZZZZZZ	159259	4.27	615059	5.20	358969	6.53	605387	8.22	506024	13.29	545480	16.31
ZZZZZZ	169254	4.26	653211	5.20	377785	6.53	649735	8.22	537379	13.29	578136	16.31
ZZZZZZ	183816	4.27	708508	5.20	405357	6.53	688984	8.22	574988	13.29	622513	16.31
ZZZZZZ	156286	4.26	589538	5.20	338485	6.53	571732	8.22	472839	13.28	503516	16.31
ZZZZZZ	148867	4.26	565665	5.20	322308	6.53	560558	8.22	465192	13.28	504682	16.30
ZZZZZZ	145313	4.26	558706	5.20	324098	6.53	540654	8.22	454303	13.28	492681	16.30
ZZZZZZ	143512	4.26	550993	5.20	322264	6.53	548404	8.22	456848	13.28	498853	16.30
ZZZZZZ	126167	4.26	470718	5.20	273194	6.53	455219	8.22	393499	13.28	434298	16.30
JC86043-5	156271	4.26	589108	5.20	324692	6.53	548230	8.22	465453	13.28	522930	16.31
EP5836-ECC5819	139613	4.27	527422	5.21	311207	6.53	538750	8.23	488495	13.30	539921	16.31
EP5836-ECC5821	159306	4.26	613803	5.20	347788	6.53	562347	8.22	491290	13.29	544328	16.31

- 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.

8.6.4
8

Internal Standard Area Summary

Job Number: JC86043
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Check Std:	EP5838-CC5819	Injection Date:	04/14/19
Lab File ID:	P128993.D	Injection Time:	13:19
Instrument ID:	GCMSP	Method:	SW846 8270D

	IS 1	IS 2	IS 3	IS 4	IS 5	IS 6
	AREA	RT	AREA	RT	AREA	RT
Check Std	216754	4.26	866659	5.20	551044	6.53
Upper Limit ^a	433508	4.76	1733318	5.70	1102088	7.03
Lower Limit ^b	108377	3.76	433330	4.70	275522	6.03

Lab Sample ID	IS 1	IS 2	IS 3	IS 4	IS 5	IS 6
	AREA	RT	AREA	RT	AREA	RT
OP19722-MB1	164933	4.26	662517	5.20	435714	6.52
OP19722-BS1	184374	4.26	705095	5.20	426680	6.53
JC86190-1	195504	4.26	793143	5.20	501306	6.53
OP19722-MS	189307	4.27	742593	5.20	448446	6.53
OP19722-MSD	172984	4.27	688441	5.20	428157	6.53
ZZZZZZ	194594	4.26	773617	5.20	488963	6.53
ZZZZZZ	220647	4.27	843470	5.20	492040	6.53
ZZZZZZ	230165	4.27	886767	5.20	497122	6.53
ZZZZZZ	204187	4.27	813228	5.20	491038	6.53
ZZZZZZ	201917	4.27	804766	5.20	479399	6.53
ZZZZZZ	221382	4.27	866093	5.20	506951	6.53
ZZZZZZ	222468	4.27	868488	5.20	517993	6.53
ZZZZZZ	227285	4.27	873257	5.20	500275	6.53
ZZZZZZ	218903	4.27	862742	5.20	510865	6.53
ZZZZZZ	219066	4.27	854465	5.21	491597	6.53
ZZZZZZ	220792	4.27	889757	5.21	515038	6.53
ZZZZZZ	217590	4.27	863039	5.21	511955	6.53
ZZZZZZ	215923	4.27	869809	5.21	502388	6.53
ZZZZZZ	213977	4.27	846255	5.21	434425	6.53
ZZZZZZ	199989	4.27	805205	5.21	420218	6.53
JC86043-3	197218	4.27	806918	5.21	477491	6.53

- 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.

8.6.5
8

Internal Standard Area Summary

Job Number: JC86043
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Check Std:	EP5839-CC5819	Injection Date:	04/15/19
Lab File ID:	P129022.D	Injection Time:	10:33
Instrument ID:	GCMSP	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	207096	4.27	778627	5.21	472549	6.53	820943	8.23	732198	13.29	769062	16.31
Upper Limit ^a	414192	4.77	1557254	5.71	945098	7.03	1641886	8.73	1464396	13.79	1538124	16.81
Lower Limit ^b	103548	3.77	389314	4.71	236275	6.03	410472	7.73	366099	12.79	384531	15.81

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
OP19702-MB1	203860	4.27	784561	5.20	456258	6.53	795227	8.22	668045	13.28	711098	16.30
OP19702-BS1	188657	4.27	690631	5.21	407847	6.53	694151	8.23	602415	13.29	666965	16.31
OP19702-BSD	185001	4.27	689463	5.21	411690	6.53	693063	8.23	602603	13.29	658715	16.31
ZZZZZZ	199666	4.27	758688	5.20	433543	6.53	719727	8.22	628444	13.28	693358	16.30
ZZZZZZ	192591	4.27	731817	5.20	435756	6.53	706336	8.22	596917	13.28	645948	16.30
ZZZZZZ	210761	4.26	809832	5.20	458599	6.53	760912	8.22	652262	13.28	721047	16.30
ZZZZZZ	178505	4.26	679753	5.20	387107	6.53	656780	8.22	581525	13.28	641904	16.30
ZZZZZZ	191301	4.26	768031	5.20	428722	6.53	764457	8.22	649922	13.28	301964*	16.30
ZZZZZZ	189960	4.26	745140	5.20	426582	6.53	712430	8.22	604039	13.28	649581	16.30
ZZZZZZ	172092	4.26	659295	5.20	385512	6.52	660215	8.22	607199	13.28	665914	16.30
ZZZZZZ	175169	4.26	670955	5.20	396992	6.52	687995	8.22	613464	13.28	683103	16.30
ZZZZZZ	164382	4.26	641378	5.20	380535	6.52	657322	8.21	592171	13.27	649826	16.30
ZZZZZZ	171064	4.26	650794	5.20	372048	6.52	628371	8.21	564626	13.27	642692	16.30
ZZZZZZ	168159	4.26	628001	5.20	378880	6.52	644280	8.21	586609	13.27	652632	16.30
ZZZZZZ	148882	4.26	573053	5.20	378644	6.52	664315	8.21	603207	13.27	666960	16.29
ZZZZZZ	176332	4.26	692354	5.20	421175	6.52	728327	8.21	625603	13.27	633587	16.29
ZZZZZZ	161349	4.26	630185	5.20	354916	6.52	589895	8.21	531246	13.26	600765	16.29
ZZZZZZ	165809	4.26	637651	5.20	359072	6.52	608324	8.21	506873	13.26	544524	16.29
ZZZZZZ	151019	4.26	580070	5.20	327640	6.52	557927	8.21	511525	13.26	576434	16.29
JC86043-4 ^c	169080	4.26	654364	5.20	368354	6.52	571309	8.21	494050	13.26	563575	16.29
ZZZZZZ	168877	4.26	632418	5.19	300368	6.52	611011	8.21	485183	13.26	196388*	16.28
ZZZZZZ	164935	4.26	625743	5.19	297109	6.52	619068	8.21	513212	13.26	102626*	16.28

- 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) Dilution required due to viscosity of the extract matrix.

8.6.6
8

Surrogate Recovery Summary

Job Number: JC86043
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Method: SW846 8270D	Matrix: SO
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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
JC86043-1	2P86515.D	54	65	78	78	87	87
JC86043-2	2P86516.D	47	57	63	66	76	68
JC86043-3	P129017.D	73	79	59	90	87	94
JC86043-4	P129046.D	74	76	76	94	83	81
JC86043-5	P128947.D	62	65	74	82	81	91
JC86043-5	P128965.D	49	49	60	82	90	92
OP19672-BS1	2P86456.D	78	80	78	85	82	89
OP19672-MB1	2P86455.D	69	79	71	90	96	100
OP19672-MS	2P86467.D	67	73	80	74	79	79
OP19672-MSD	2P86468.D	67	73	83	76	80	78
OP19673-BS1	P128930.D	78	74	74	89	79	84
OP19673-BSD	P128931.D	77	76	73	87	78	82
OP19673-MB1	P128929.D	69	73	72	90	85	91
OP19673-MS	P128943.D	73	78	73	95	86	90
OP19673-MSD	P128944.D	68	76	72	89	84	91

Surrogate Compounds	Recovery Limits
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S1 = 2-Fluorophenol	23-115%
S2 = Phenol-d5	27-114%
S3 = 2,4,6-Tribromophenol	19-152%
S4 = Nitrobenzene-d5	26-134%
S5 = 2-Fluorobiphenyl	39-124%
S6 = Terphenyl-d14	36-134%

8.7.1
8

Initial Calibration Summary

Job Number: JC86043
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: E2P3783-ICC3783
 Lab FileID: 2P85596.D

Response Factor Report MS2P

Method : C:\MSDCHEM\1\METHODS\M2P3783.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Fri Mar 08 17:42:45 2019
 Response via : Initial Calibration

Calibration Files

2 =2p85600.D 5 =2p85599.D 25 =2p85597.D 80 =2p85595.D
 100 =2p85594.D 50 =2p85596.D 1 =2p85601.D 10 =2p85598.D

Compound	2	5	25	80	100	50	1	10	Avg %RSD
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101) I	1,4-Dichlorobenzene-d											
102)	Benzaldehyde	1.449	1.489	1.521	1.331	1.302	1.445	1.494	1.538	1.446	5.99	
103) I	Naphthalene-d8a											
104)	Hydroquinone			0.300	0.338	0.331	0.314		0.226	0.302	14.90	
105) I	Acenaphthene-d10a											
106)	Atrazine	0.083	0.114	0.170	0.170	0.168	0.172		0.144	0.146	23.91	
		----- Quadratic regression -----										Coefficient = 0.9999
		Response Ratio = -0.00774 + 0.18529 *A + -0.00578 *A^2										
107)	1,2,4,5-Tetr	0.596	0.618	0.613	0.566	0.545	0.602	0.622	0.628	0.599	4.87	
110) I	Phenanthrene-d10a											
111)	1-Chloroocta	0.262	0.313	0.361	0.299	0.276	0.330	0.207	0.359	0.301	17.29	
112)	o-terphenyl	0.496	0.529	0.568	0.558	0.530	0.575	0.488	0.557	0.538	6.09	
113)	Pentachloron		0.026	0.042	0.047	0.045	0.044		0.035	0.040#	20.16	
		----- Quadratic regression -----										Coefficient = 0.9991
		Response Ratio = -0.00349 + 0.04931 *A + -0.00083 *A^2										

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

M2P3781.M Fri Mar 08 17:47:27 2019 RPT1

Initial Calibration Verification

Job Number: JC86043
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: E2P3783-ICV3783
 Lab FileID: 2P85602.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\2P3783\2p85602.D Vial: 10
 Acq On : 8 Mar 2019 6:31 am Operator: chriss2
 Sample : icv3783-50 Inst : MS2P
 Misc : op13652,e2p3783,1000,,,1,1 Multiplr: 1.00
 MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M2P3781.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Fri Mar 08 17:42:45 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.
----- AvgRF CCRF % Dev -----						
101 I 1,4-Dichlorobenzene-d4a	1.000	1.000	0.0	117	0.00	5.06
102 Benzaldehyde	1.446	1.457	-0.8	118	0.00	4.70
105 I Acenaphthene-d10a	1.000	1.000	0.0	104	0.00	7.54
----- True Calc. % Drift -----						
106 Atrazine	50.000	57.561	-15.1	119	0.01	8.60
----- AvgRF CCRF % Dev -----						
107 1,2,4,5-Tetrachlorobenzen	0.599	0.669	-11.7	115	0.00	6.82
----- True Calc. % Drift -----						
113 Pentachloronitrobenzene	50.000	47.694	4.6	118	0.00	8.70

(#) = Out of Range SPCC's out = 0 CCC's out = 0
 2p85596a.D M2P3781.M Fri Mar 08 17:47:43 2019 RPT1

8.82
 8

Initial Calibration Verification

Job Number: JC86043
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: E2P3783-ICV3783
 Lab FileID: 2P85603.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\2P3783\2p85603.D Vial: 11
 Acq On : 8 Mar 2019 6:54 am Operator: chriss2
 Sample : icv3783-50 Inst : MS2P
 Misc : op13652,e2p3783,1000,,,1,1 Multiplr: 1.00
 MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M2P3781.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Fri Mar 08 17:42:45 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.
103 I Naphthalene-d8a	1.000	1.000	0.0	109	0.00	6.09
104 Hydroquinone	0.302	0.320	-6.0	111	0.00	6.43

(#) = Out of Range SPCC's out = 0 CCC's out = 0
 2p85596a.D M2P3781.M Fri Mar 08 17:47:45 2019 RPT1



Initial Calibration Summary

Job Number: JC86043
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: E2P3816-ICC3816
 Lab FileID: 2P86292.D

Response Factor Report MS2P

Method : C:\MSDCHEM\1\METHODS\M2P3816.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Fri Apr 05 14:31:57 2019
 Response via : Initial Calibration

Calibration Files

2 =2p86296.D 5 =2p86295.D 25 =2p86293.D 80 =2p86291.D
 100 =2p86290.D 50 =2p86292.D 1 =2p86297.D 10 =2p86294.D

Compound	2	5	25	80	100	50	1	10	Avg %RSD
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1) I 1,4-Dichlorobenzene-d	-----ISTD-----									
2) 1,4-Dioxane	0.959	0.996	1.290	1.569	2.040	1.510	0.877	1.057	1.287	30.94
	----- Quadratic regression -----								Coefficient =	0.9925
	Response Ratio = 0.03945 + 0.76758 *A + 0.47508 *A^2									
3) Pyridine	1.990	2.212	2.918	3.030	3.423	3.090		2.585	2.750	18.61
4) N-Nitrosodim	1.303	1.368	1.771	1.892	2.258	1.902		1.559	1.722	19.53
5) 2-Fluorophen	1.496	1.718	2.057	2.189	2.477	2.269		1.884	2.013	16.79
6) Indene	2.026	2.148	2.201	2.196	2.157	2.232	2.140	2.106	2.151	2.99
7) Cumene	4.626	4.947	5.255	5.195	5.182	5.503	4.722	5.221	5.081	5.78
8) Phenol-d5	2.040	2.216	2.346	2.264	2.215	2.370	1.904	2.295	2.206	7.20
9) Phenol	2.227	2.401	2.398	2.205	2.170	2.357	2.224	2.436	2.302	4.60
10) Aniline	2.595	2.681	2.517	2.439	2.428	2.520	2.615	2.664	2.557	3.78
11) bis(2-Chloro	1.690	1.712	1.641	1.509	1.479	1.604	1.825	1.701	1.645	6.89
12) 2-Chlorophen	1.421	1.547	1.516	1.460	1.465	1.498	1.390	1.529	1.478	3.68
13) Decane	1.526	1.516	1.392	1.213	1.205	1.303	1.591	1.457	1.400	10.51
14) 1,3-Dichloro	1.619	1.670	1.619	1.626	1.602	1.636	1.663	1.615	1.631	1.46
15) 1,4-Dichloro	1.348	1.372	1.464	1.533	1.533	1.535	1.472	1.407	1.458	5.14
16) Benzyl alcohol	0.664	0.776	0.883	0.882	0.859	0.902	0.698	0.802	0.808	11.10
17) 1,2-Dichloro	1.295	1.320	1.402	1.506	1.504	1.474	1.380	1.332	1.402	6.01
18) Acetophenone	2.015	1.988	2.034	2.015	1.990	2.063	2.031	1.996	2.017	1.26
19) 2-Methylphen	1.147	1.206	1.209	1.146	1.124	1.177	1.176	1.211	1.174	2.82
20) 2,2'-oxybis(	0.346	0.334	0.339	0.335	0.336	0.341	0.362	0.325	0.340	3.18
21) 3&4-Methylph	1.155	1.189	1.234	1.210	1.184	1.239	1.102	1.208	1.190	3.77
22) n-Nitroso-di	1.160	1.120	1.065	0.955	0.933	1.026	1.143	1.107	1.064	8.01
23) Hexachloroet	0.475	0.473	0.488	0.535	0.520	0.520	0.466	0.471	0.493	5.49
24) I Naphthalene-d8	-----ISTD-----									
25) Nitrobenzene	0.568	0.561	0.526	0.491	0.483	0.519	0.591	0.563	0.538	7.21
26) Nitrobenzene	0.566	0.568	0.517	0.459	0.439	0.496	0.606	0.562	0.527	11.14
27) Quinoline	0.669	0.658	0.723	0.756	0.759	0.766	0.628	0.700	0.707	7.34
28) Isophorone	0.912	0.926	0.940	0.894	0.879	0.933	0.953	0.962	0.925	3.09
29) 2-Nitropheno	0.194	0.207	0.224	0.236	0.227	0.238	0.176	0.219	0.215	10.05
30) 2,4-Dimethyl	0.322	0.361	0.398	0.397	0.399	0.410	0.318	0.380	0.373	9.67
31) Benzoic acid			0.329	0.360	0.364	0.368		0.256	0.335	13.96
32) bis(2-Chloro	0.534	0.530	0.512	0.482	0.465	0.506	0.548	0.543	0.515	5.77
33) 2,4-Dichloro	0.269	0.293	0.307	0.332	0.332	0.325	0.246	0.301	0.301	10.25
34) 2,6-Dichloro	0.238	0.257	0.275	0.298	0.300	0.292	0.235	0.263	0.270	9.60
35) 1,3,5-Trichl	0.340	0.354	0.366	0.385	0.378	0.387	0.349	0.355	0.364	4.79
36) 1,2,4-Trichl	0.319	0.327	0.332	0.346	0.336	0.348	0.335	0.336	0.335	2.76
37) 1,2,3-Trichl	0.297	0.279	0.294	0.307	0.307	0.306	0.278	0.288	0.295	4.08
38) Naphthalene	0.913	0.933	0.962	0.973	0.980	0.999	0.949	0.946	0.957	2.87
39) 4-Chloroanil	0.364	0.381	0.407	0.410	0.405	0.413	0.356	0.406	0.393	5.75
40) 2,3-Dichloro	0.367	0.351	0.381	0.404	0.405	0.404	0.336	0.374	0.378	6.86
41) Caprolactam	0.108	0.111	0.127	0.147	0.149	0.133	0.096	0.116	0.123	15.49
42) Hexachlorobu	0.173	0.174	0.192	0.219	0.213	0.210	0.172	0.183	0.192	10.23

8.8.4

8

Initial Calibration Summary

Job Number: JC86043
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: E2P3816-ICC3816
 Lab FileID: 2P86292.D

43)	4-Chloro-3-m	0.361	0.369	0.413	0.407	0.404	0.427	0.336	0.398	0.389	7.94
44)	2-Methylnaph	0.591	0.569	0.627	0.630	0.622	0.651	0.568	0.610	0.609	4.87
45)	1-Methylnaph	0.678	0.648	0.667	0.668	0.656	0.696	0.644	0.677	0.667	2.57
46)	Dimethylnaph	0.625	0.593	0.601	0.633	0.612	0.642	0.611	0.603	0.615	2.77
47)	I Acenaphthene-d10	-----ISTD-----									
48)	Hexachlorocy	0.179	0.241	0.348	0.417	0.414	0.399	0.123	0.287	0.301	37.29
	----- Quadratic regression -----										Coefficient = 0.9993
	Response Ratio =	-0.03462 + 0.39306 *A + 0.00624 *A^2									
49)	2,4,6-Trichl	0.335	0.359	0.389	0.406	0.404	0.404	0.319	0.379	0.374	8.95
50)	2,4,5-Trichl	0.343	0.371	0.395	0.425	0.432	0.416	0.340	0.396	0.390	9.03
51)	2-Fluorobiph	1.457	1.403	1.337	1.330	1.343	1.358	1.476	1.373	1.385	4.03
52)	2-Chloronaph	1.220	1.166	1.103	1.095	1.093	1.104	1.255	1.138	1.147	5.40
53)	Biphenyl	1.627	1.586	1.564	1.632	1.572	1.635	1.624	1.585	1.603	1.82
54)	2-Nitroanili	0.498	0.513	0.503	0.459	0.457	0.485	0.495	0.530	0.492	5.08
55)	Dimethylphth	1.387	1.347	1.402	1.464	1.450	1.481	1.436	1.389	1.420	3.20
56)	Acenaphthyle	1.990	1.925	1.928	1.948	1.904	1.980	2.021	1.957	1.957	1.97
57)	2,6-Dinitrot	0.292	0.304	0.313	0.327	0.335	0.334	0.275	0.312	0.311	6.69
58)	3-Nitroanili	0.306	0.338	0.368	0.378	0.376	0.379	0.299	0.366	0.351	9.32
59)	Acenaphthene	1.059	1.077	1.143	1.253	1.222	1.244	1.088	1.101	1.148	6.93
60)	2,4-Dinitrop	0.040	0.079	0.149	0.186	0.194	0.176		0.113	0.134	43.74
	----- Quadratic regression -----										Coefficient = 0.9997
	Response Ratio =	-0.02082 + 0.16333 *A + 0.00707 *A^2									
61)	4-Nitropheno	0.166	0.216	0.277	0.295	0.298	0.301		0.258	0.259	19.62
62)	Dibenzofuran	1.475	1.504	1.596	1.691	1.673	1.703	1.492	1.537	1.584	5.98
63)	2,4-Dinitrot	0.339	0.377	0.429	0.445	0.433	0.453	0.321	0.406	0.400	12.43
64)	2,3,4,6-Tetr		0.269	0.340	0.422	0.436	0.396		0.310	0.362	18.37
65)	Diethylphtha	1.398	1.429	1.517	1.503	1.500	1.568	1.414	1.471	1.475	3.92
66)	Fluorene	1.278	1.302	1.421	1.417	1.373	1.485	1.234	1.357	1.358	6.13
67)	4-Chlorophen	0.554	0.571	0.673	0.765	0.733	0.752	0.548	0.625	0.653	13.88
68)	4-Nitroanili	0.264	0.326	0.310	0.316	0.321	0.321	0.248	0.316	0.303	9.74
69)	I Phenanthrene-d10	-----ISTD-----									
70)	4,6-Dinitro-	0.076	0.105	0.124	0.140	0.140	0.135		0.116	0.119	19.31
71)	n-Nitrosodip	0.528	0.543	0.527	0.551	0.550	0.553	0.537	0.532	0.540	1.93
72)	1,2-Diphenyl	1.254	1.203	1.023	0.836	0.798	0.926	1.269	1.115	1.053	17.67
73)	2,4,6-Tribr			0.124	0.161	0.167	0.145		0.106	0.140	18.14
74)	4-Bromopheny	0.205	0.208	0.233	0.289	0.292	0.272	0.197	0.218	0.239	16.35
75)	Hexachlorobe	0.227	0.232	0.264	0.315	0.316	0.296	0.226	0.241	0.265	14.78
76)	Pentachlorop	0.096	0.120	0.171	0.222	0.226	0.205	0.082	0.142	0.158	35.70
	----- Quadratic regression -----										Coefficient = 0.9994
	Response Ratio =	-0.01534 + 0.18562 *A + 0.00907 *A^2									
77)	Phenanthrene	0.918	0.940	0.993	1.086	1.085	1.075	0.933	0.941	0.996	7.45
78)	Anthracene	0.955	0.990	1.013	1.085	1.077	1.073	0.932	0.980	1.013	5.84
79)	Carbazole	0.943	1.010	1.075	1.141	1.131	1.142	0.920	1.019	1.048	8.45
80)	Di-n-butylph	1.424	1.456	1.714	1.746	1.694	1.681	1.359	1.643	1.590	9.53
81)	Fluoranthene	1.207	1.216	1.539	1.639	1.632	1.514	1.181	1.400	1.416	13.62
82)	Octadecane	0.380	0.378	0.326	0.262	0.249	0.292	0.393	0.356	0.329	17.06
83)	I Chrysene-d12	-----ISTD-----									
84)	Pyrene	1.448	1.405	1.570	1.638	1.645	1.671	1.542	1.532	1.556	6.11
85)	Terphenyl-d1	0.893	0.822	0.995	1.134	1.154	1.116	0.916	0.935	0.995	12.56
86)	Butylbenzylp	0.818	0.788	0.907	0.922	0.923	0.992	0.793	0.839	0.873	8.47
87)	Benzo[a]anth	1.367	1.361	1.511	1.682	1.638	1.672	1.410	1.378	1.502	9.48
88)	3,3'-Dichlor	0.362	0.426	0.544	0.635	0.618	0.634		0.469	0.527	20.82
	----- Quadratic regression -----										Coefficient = 0.9989
	Response Ratio =	-0.03537 + 0.66249 *A + -0.00999 *A^2									

8.8.4
8

Initial Calibration Summary

Job Number: JC86043
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA

Sample: E2P3816-ICC3816
Lab FileID: 2P86292.D

89) Chrysene	0.980	0.990	1.064	1.156	1.141	1.150	1.016	1.030	1.066	6.90
90) bis(2-Ethylh	0.809	0.888	0.955	0.961	0.925	0.997	0.726	0.924	0.898	9.95
91) I Perylene-d12										
92) Di-n-octylph	1.364	1.713	2.071	1.968	2.163	2.177		1.926	1.912	15.12
93) Benzo[b]fluo	1.083	1.171	1.424	1.423	1.523	1.506	1.060	1.296	1.311	14.22
94) Benzo[k]fluo	1.132	1.154	1.056	0.982	0.995	1.083	1.048	1.124	1.072	5.89
95) Benzo[a]pyre	0.940	1.033	1.121	1.257	1.277	1.219	0.894	1.071	1.102	13.01
96) Indeno[1,2,3	0.985	1.129	1.339	1.488	1.501	1.471	0.919	1.212	1.255	18.37
97) Dibenz(a,h)a		0.790	1.074	1.261	1.283	1.205		0.915	1.088	18.42
98) Dibenz[a,h]a	0.805	0.913	1.029	1.140	1.178	1.127	0.684	0.948	0.978	17.83
99) 7,12-Dimethy		0.419	0.598	0.662	0.700	0.693		0.506	0.596	18.96
100) Benzo[g,h,i]	0.829	0.900	1.063	1.150	1.146	1.147	0.755	0.960	0.994	15.68

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

M2P3816.M Mon Apr 08 13:16:10 2019 RPT1

Initial Calibration Verification

Job Number: JC86043
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: E2P3816-ICV3816
 Lab FileID: 2P86298.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\2P3816\2p86298.D Vial: 10
 Acq On : 5 Apr 2019 9:59 am Operator: chriss2
 Sample : icv3816-50 Inst : MS2P
 Misc : op13652,e2p3816,1000,,,1,1 Multiplr: 1.00
 MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M2P3816.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Fri Apr 05 14:31:57 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.
1 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	110	0.00	4.84
4 t	N-Nitrosodimethylamine	1.722	1.090	36.7#	63	0.05	2.54
11 t	bis(2-Chloroethyl)ether	1.645	1.960	-19.1	134	0.00	4.63
14 t	1,3-Dichlorobenzene	1.631	1.796	-10.1	121	0.00	4.79
15 t	1,4-Dichlorobenzene	1.458	1.491	-2.3	107	0.00	4.85
17 t	1,2-Dichlorobenzene	1.402	1.348	3.9	101	0.00	4.97
20 t	2,2'-oxybis(1-Chloropropa	0.340	0.394	-15.9	127	0.00	5.07
22 t	n-Nitroso-di-n-propylamin	1.064	1.121	-5.4	120	-0.01	5.17
23 t	Hexachloroethane	0.493	0.504	-2.2	107	0.00	5.25
24 I	Naphthalene-d8	1.000	1.000	0.0	102	0.00	5.87
26 t	Nitrobenzene	0.527	0.517	1.9	106	0.00	5.31
28 t	Isophorone	0.925	0.909	1.7	99	-0.01	5.50
32 t	bis(2-Chloroethoxy)methan	0.515	0.556	-8.0	112	0.00	5.68
36 t	1,2,4-Trichlorobenzene	0.335	0.363	-8.4	106	0.00	5.83
38 t	Naphthalene	0.957	1.007	-5.2	103	0.00	5.89
42 t	Hexachlorobutadiene	0.192	0.212	-10.4	103	0.00	6.00
47 I	Acenaphthene-d10	1.000	1.000	0.0	97	0.00	7.31
	----- True Calc. % Drift -----						
48 t	Hexachlorocyclopentadiene	50.000	51.808	-3.6	88	0.00	6.60
	----- AvgRF CCRF % Dev -----						
52 t	2-Chloronaphthalene	1.147	1.382	-20.5	121	0.00	6.86
55 t	Dimethylphthalate	1.420	1.560	-9.9	102	0.00	7.10
56 t	Acenaphthylene	1.957	1.931	1.3	95	0.00	7.19
57 t	2,6-Dinitrotoluene	0.311	0.320	-2.9	93	0.00	7.15
59 t	Acenaphthene	1.148	1.175	-2.4	91	0.00	7.34
63 t	2,4-Dinitrotoluene	0.400	0.398	0.5	85	0.00	7.48
65 t	Diethylphthalate	1.475	1.587	-7.6	98	0.00	7.68
66 t	Fluorene	1.358	1.469	-8.2	96	0.00	7.77
67 t	4-Chlorophenyl-phenylethe	0.653	0.735	-12.6	95	0.00	7.77
69 I	Phenanthrene-d10	1.000	1.000	0.0	102	0.00	8.61
71 t	n-Nitrosodiphenylamine	0.540	0.478	11.5	88	0.00	7.87
72 t	1,2-Diphenylhydrazine	1.053	0.890	15.5	98	0.00	7.90
74 t	4-Bromophenyl-phenylether	0.239	0.228	4.6	86	0.00	8.19
75 t	Hexachlorobenzene	0.265	0.239	9.8	83	0.00	8.25
77 t	Phenanthrene	0.996	1.007	-1.1	96	0.00	8.63
78 t	Anthracene	1.013	0.950	6.2	90	0.00	8.68
80 t	Di-n-butylphthalate	1.590	1.569	1.3	95	0.00	9.24

Initial Calibration Verification

Job Number: JC86043
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA

Sample: E2P3816-ICV3816
Lab FileID: 2P86298.D

81 t	Fluoranthene	1.416	1.362	3.8	92	0.00	9.95
83 I	Chrysene-d12	1.000	1.000	0.0	88	0.00	11.90
84 t	Pyrene	1.556	1.580	-1.5	83	0.00	10.23
86 t	Butylbenzylphthalate	0.873	1.039	-19.0	92	0.00	11.16
87 t	Benzo[a]anthracene	1.502	1.649	-9.8	86	0.00	11.87
89 t	Chrysene	1.066	1.126	-5.6	86	0.00	11.93
90 t	bis(2-Ethylhexyl)phthalat	0.898	1.019	-13.5	90	0.00	12.03
91 I	Perylene-d12	1.000	1.000	0.0	83	0.00	13.89
92 t	Di-n-octylphthalate	1.912	2.191	-14.6	84	0.00	12.97
93 t	Benzo[b]fluoranthene	1.311	1.409	-7.5	78	-0.02	13.39
94 t	Benzo[k]fluoranthene	1.072	1.214	-13.2	93	-0.01	13.43
95 t	Benzo[a]pyrene	1.102	1.245	-13.0	85	0.00	13.82
96 t	Indeno[1,2,3-cd]pyrene	1.255	1.561	-24.4	88	0.00	15.29
98 t	Dibenz[a,h]anthracene	0.978	1.131	-15.6	83	-0.01	15.32
100 t	Benzo[g,h,i]perylene	0.994	1.176	-18.3	85	0.00	15.68

(#) = Out of Range
2p86292a.D M2P3816.M

SPCC's out = 0 CCC's out = 0
Mon Apr 08 13:14:52 2019 RPT1

8.8.5
8

Initial Calibration Verification

Job Number: JC86043
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: E2P3816-ICV3816
 Lab FileID: 2P86299.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\2P3816\2p86299.D Vial: 11
 Acq On : 5 Apr 2019 10:22 am Operator: chriss2
 Sample : icv3816-50 Inst : MS2P
 Misc : op13652,e2p3816,1000,,,1,1 Multiplr: 1.00
 MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M2P3816.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Fri Apr 05 14:31:57 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.
1 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	125	0.00	4.84
	----- True	Calc.	% Drift	-----			
2 t	1,4-Dioxane	50.000	38.007	24.0	79	0.05	2.20
	----- AvgRF	CCRF	% Dev	-----			
6 t	Indene	2.151	2.353	-9.4	132	0.00	5.04
7 t	Cumene	5.081	4.585	9.8	104	0.01	4.19
13 t	Decane	1.400	1.277	8.8	123	0.00	4.72
18 t	Acetophenone	2.017	1.870	7.3	113	0.00	5.17
24 I	Naphthalene-d8	1.000	1.000	0.0	145	0.00	5.87
27 t	Quinoline	0.707	0.597	15.6	113	-0.02	6.16
40 t	2,3-Dichloroaniline	0.378	0.244	35.4#	88	0.00	6.69
41 t	Caprolactam	0.123	0.088	28.5	95	-0.05	6.23
45 t	1-Methylnaphthalene	0.667	0.509	23.7	106	0.00	6.54
46 t	Dimethylnaphthalene	0.615	0.469	23.7	106	0.00	6.97
47 I	Acenaphthene-d10	1.000	1.000	0.0	124	0.00	7.31
53 t	Biphenyl	1.603	1.384	13.7	105	0.00	6.84
69 I	Phenanthrene-d10	1.000	1.000	0.0	113	0.00	8.61
82 t	Octadecane	0.329	0.321	2.4	124	0.00	8.52
91 I	Perylene-d12	1.000	1.000	0.0	127	-0.01	13.89
99 t	7,12-Dimethylbenz(a)anthr	0.596	0.582	2.3	106	-0.02	13.38

(#) = Out of Range
 2p86292a.D M2P3816.M

SPCC's out = 0 CCC's out = 0
 Mon Apr 08 13:14:54 2019 RPT1

Initial Calibration Verification

Job Number: JC86043
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: E2P3816-ICV3816
 Lab FileID: 2P86301.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\2P3816\2p86301.D Vial: 13
 Acq On : 5 Apr 2019 11:09 am Operator: chriss2
 Sample : icv3816-50 Inst : MS2P
 Misc : op13652,e2p3816,1000,,,1,1 Multiplr: 1.00
 MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M2P3816.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Fri Apr 05 14:31:57 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.
1 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	126	0.00	4.84
9 t	Phenol	2.302	2.561	-11.3	137	0.00	4.59
12 t	2-Chlorophenol	1.478	1.600	-8.3	135	0.00	4.68
19 t	2-Methylphenol	1.174	1.381	-17.6	148	0.00	5.07
21 t	3&4-Methylphenol	1.190	1.341	-12.7	136	0.00	5.19
24 I	Naphthalene-d8	1.000	1.000	0.0	109	0.00	5.87
29 t	2-Nitrophenol	0.215	0.252	-17.2	115	0.00	5.56
30 t	2,4-Dimethylphenol	0.381	0.495	-29.9	132	0.00	5.62
31 t	Benzoic acid	0.335	0.319	4.8	95	-0.01	5.76
33 t	2,4-Dichlorophenol	0.301	0.309	-2.7	104	0.00	5.77
34 t	2,6-Dichlorophenol	0.270	0.302	-11.9	113	0.00	5.95
43 t	4-Chloro-3-methylphenol	0.389	0.432	-11.1	111	-0.02	6.35
47 I	Acenaphthene-d10	1.000	1.000	0.0	134	0.00	7.31
49 t	2,4,6-Trichlorophenol	0.374	0.381	-1.9	126	-0.01	6.70
50 t	2,4,5-Trichlorophenol	0.390	0.350	10.3	113	-0.02	6.73
	----- True Calc. % Drift -----						
60 t	2,4-Dinitrophenol	50.000	43.309	13.4	96	-0.01	7.37
	----- AvgRF CCRF % Dev -----						
61 t	4-Nitrophenol	0.259	0.241	6.9	107	-0.01	7.45
64	2,3,4,6-Tetrachlorophenol	0.362	0.297	18.0	100	0.00	7.59
69 I	Phenanthrene-d10	1.000	1.000	0.0	115	0.00	8.61
70 t	4,6-Dinitro-2-methylpheno	0.119	0.141	-18.5	121	-0.01	7.81
	----- True Calc. % Drift -----						
76 t	Pentachlorophenol	50.000	51.933	-3.9	107	-0.01	8.44

(#) = Out of Range SPCC's out = 0 CCC's out = 0
 2p86292a.D M2P3816.M Mon Apr 08 13:24:25 2019 RPT1

Initial Calibration Verification

Job Number: JC86043
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: E2P3816-ICV3816
 Lab FileID: 2P86302.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\2P3816\2p86302.D Vial: 14
 Acq On : 5 Apr 2019 11:32 am Operator: chriss2
 Sample : icv3816-50 Inst : MS2P
 Misc : op13652,e2p3816,1000,,,1,1 Multiplr: 1.00
 MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M2P3816.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Fri Apr 05 14:31:57 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.
1 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	152	0.00	4.84
5 S	2-Fluorophenol	2.013	1.549	23.1	104	0.01	3.80
8 S	Phenol-d5	2.206	1.957	11.3	125	0.00	4.58
24 I	Naphthalene-d8	1.000	1.000	0.0	160	0.00	5.87
25 S	Nitrobenzene-d5	0.538	0.503	6.5	155	0.00	5.28
47 I	Acenaphthene-d10	1.000	1.000	0.0	145	0.00	7.31
51 S	2-Fluorobiphenyl	1.385	1.408	-1.7	150	0.00	6.76
69 I	Phenanthrene-d10	1.000	1.000	0.0	135	0.00	8.60
73 S	2,4,6-Tribromophenol	0.140	0.115	17.9	107	0.00	7.97
83 I	Chrysene-d12	1.000	1.000	0.0	127	-0.01	11.89
85 S	Terphenyl-d14	0.995	1.010	-1.5	115	0.00	10.45

(#) = Out of Range SPCC's out = 0 CCC's out = 0
 2p86292a.D M2P3816.M Mon Apr 08 13:24:27 2019 RPT1

Initial Calibration Verification

Job Number: JC86043
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: E2P3816-ICV3816
 Lab FileID: 2P86303.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\2P3816\2p86303.D Vial: 15
 Acq On : 5 Apr 2019 11:55 am Operator: chriss2
 Sample : icv3816-50 Inst : MS2P
 Misc : op13652,e2p3816,1000,,,1,1 Multiplr: 1.00
 MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M2P3816.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Fri Apr 05 14:31:57 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.
83 I Chrysene-d12	1.000	1.000	0.0	171	0.00	11.89
----- True	Calc.	% Drift	-----			
88 t 3,3'-Dichlorobenzidine	50.000	41.175	17.7	137	0.00	11.88

(#) = Out of Range SPCC's out = 0 CCC's out = 0
 2p86292a.D M2P3816.M Mon Apr 08 13:24:29 2019 RPT1

Initial Calibration Verification

Job Number: JC86043
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: E2P3817-ICV3816
 Lab FileID: 2P86307.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\2P3817\2p86307.D Vial: 4
 Acq On : 5 Apr 2019 4:36 pm Operator: christc2
 Sample : icv3816-50 Inst : MS2P
 Misc : op13652,e2p3817,1000,,,1,1 Multiplr: 1.00
 MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M2P3816.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Fri Apr 05 14:31:57 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.
1 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	137	0.00	4.83
10	Aniline	2.557	2.506	2.0	136	0.00	4.57
16 t	Benzyl alcohol	0.808	0.776	4.0	118	0.00	4.96
24 I	Naphthalene-d8	1.000	1.000	0.0	139	-0.01	5.86
39 t	4-Chloroaniline	0.393	0.365	7.1	123	-0.02	5.93
44 t	2-Methylnaphthalene	0.609	0.530	13.0	113	-0.01	6.45
47 I	Acenaphthene-d10	1.000	1.000	0.0	126	-0.01	7.30
54 t	2-Nitroaniline	0.492	0.480	2.4	125	-0.02	6.94
58 t	3-Nitroaniline	0.351	0.338	3.7	113	-0.02	7.27
62 t	Dibenzofuran	1.584	1.541	2.7	114	-0.02	7.47
68 t	4-Nitroaniline	0.303	0.324	-6.9	127	-0.03	7.78
69 I	Phenanthrene-d10	1.000	1.000	0.0	128	-0.02	8.59
79 t	Carbazole	1.048	0.977	6.8	110	-0.02	8.84

(#) = Out of Range
 2p86292a.D M2P3816.M

SPCC's out = 0 CCC's out = 0
 Mon Apr 08 13:14:16 2019 RPT1

Continuing Calibration Summary

Job Number: JC86043
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: E2P3822-CC3816
 Lab FileID: 2P86451.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\2P3822\2p86451.D Vial: 2
 Acq On : 11 Apr 2019 3:15 am Operator: chriss2
 Sample : cc3816-50 Inst : MS2P
 Misc : op13652,e2p3822,1000,,,1,1 Multiplr: 1.00
 MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M2P3816.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Fri Apr 05 14:31:57 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	69	-0.10	4.74
	----- True	Calc.	% Drift	-----			
2 t	1,4-Dioxane	50.000	47.695	4.6	60	-0.12	2.03
	----- AvgRF	CCRF	% Dev	-----			
3 t	Pyridine	2.750	3.099	-12.7	69	-0.08	2.39
4 t	N-Nitrosodimethylamine	1.722	1.852	-7.5	67	-0.11	2.38
5 S	2-Fluorophenol	2.013	2.197	-9.1	67	-0.10	3.69
6 t	Indene	2.151	2.253	-4.7	70	-0.10	4.94
7 t	Cumene	5.081	5.225	-2.8	66	-0.10	4.08
8 S	Phenol-d5	2.206	2.285	-3.6	67	-0.09	4.49
9 t	Phenol	2.302	2.393	-4.0	70	-0.09	4.50
10	Aniline	2.557	3.057	-19.6	84	-0.10	4.48
11 t	bis(2-Chloroethyl)ether	1.645	1.570	4.6	68	-0.09	4.54
12 t	2-Chlorophenol	1.478	1.503	-1.7	69	-0.10	4.58
13 t	Decane	1.400	1.388	0.9	74	-0.09	4.63
14 t	1,3-Dichlorobenzene	1.631	1.622	0.6	69	-0.10	4.69
15 t	1,4-Dichlorobenzene	1.458	1.556	-6.7	70	-0.10	4.75
16 t	Benzyl alcohol	0.808	0.908	-12.4	70	-0.10	4.87
17 t	1,2-Dichlorobenzene	1.402	1.541	-9.9	72	-0.10	4.87
18 t	Acetophenone	2.017	2.085	-3.4	70	-0.10	5.08
19 t	2-Methylphenol	1.174	1.284	-9.4	76	-0.09	4.98
20 t	2,2'-oxybis(1-Chloropropa	0.340	0.346	-1.8	70	-0.10	4.97
21 t	3&4-Methylphenol	1.190	1.306	-9.7	73	-0.10	5.10
22 t	n-Nitroso-di-n-propylamin	1.064	1.110	-4.3	75	-0.10	5.09
23 t	Hexachloroethane	0.493	0.506	-2.6	67	-0.10	5.15
24 I	Naphthalene-d8	1.000	1.000	0.0	70	-0.10	5.77
25 S	Nitrobenzene-d5	0.538	0.540	-0.4	72	-0.10	5.19
26 t	Nitrobenzene	0.527	0.524	0.6	74	-0.10	5.21
27 t	Quinoline	0.707	0.727	-2.8	66	-0.10	6.08
28 t	Isophorone	0.925	0.956	-3.4	71	-0.10	5.41
29 t	2-Nitrophenol	0.215	0.236	-9.8	69	-0.10	5.47
30 t	2,4-Dimethylphenol	0.381	0.447	-17.3	76	-0.10	5.53
31 t	Benzoic acid	0.335	0.385	-14.9	73	-0.09	5.69
32 t	bis(2-Chloroethoxy)methan	0.515	0.499	3.1	69	-0.10	5.59
33 t	2,4-Dichlorophenol	0.301	0.323	-7.3	69	-0.10	5.68
34 t	2,6-Dichlorophenol	0.270	0.303	-12.2	72	-0.10	5.86
35	1,3,5-Trichlorobenzene	0.364	0.385	-5.8	69	-0.10	5.48
36 t	1,2,4-Trichlorobenzene	0.335	0.341	-1.8	68	-0.10	5.73
37	1,2,3-Trichlorobenzene	0.295	0.312	-5.8	71	-0.10	5.91

Continuing Calibration Summary

Job Number: JC86043
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: E2P3822-CC3816
 Lab FileID: 2P86451.D

38 t	Naphthalene	0.957	1.026	-7.2	72	-0.10	5.79
39 t	4-Chloroaniline	0.393	0.444	-13.0	75	-0.10	5.85
40 t	2,3-Dichloroaniline	0.378	0.394	-4.2	68	-0.10	6.59
41 t	Caprolactam	0.123	0.125	-1.6	66	-0.10	6.17
42 t	Hexachlorobutadiene	0.192	0.209	-8.9	69	-0.10	5.90
43 t	4-Chloro-3-methylphenol	0.389	0.424	-9.0	69	-0.10	6.27
44 t	2-Methylnaphthalene	0.609	0.640	-5.1	69	-0.10	6.35
45 t	1-Methylnaphthalene	0.667	0.697	-4.5	70	-0.11	6.43
46 t	Dimethylnaphthalene	0.615	0.609	1.0	66	-0.10	6.87
47 I	Acenaphthene-d10	1.000	1.000	0.0	71	-0.11	7.20
		----- True	Calc.	% Drift	-----		
48 t	Hexachlorocyclopentadiene	100.000	108.705	-8.7	76	-0.10	6.49
		----- AvgRF	CCRF	% Dev	-----		
49 t	2,4,6-Trichlorophenol	0.374	0.394	-5.3	69	-0.10	6.61
50 t	2,4,5-Trichlorophenol	0.390	0.407	-4.4	69	-0.10	6.64
51 S	2-Fluorobiphenyl	1.385	1.369	1.2	71	-0.11	6.66
52 t	2-Chloronaphthalene	1.147	1.133	1.2	72	-0.10	6.76
53 t	Biphenyl	1.603	1.618	-0.9	70	-0.11	6.74
54 t	2-Nitroaniline	0.492	0.452	8.1	66	-0.10	6.85
55 t	Dimethylphthalate	1.420	1.376	3.1	65	-0.10	7.00
56 t	Acenaphthylene	1.957	1.966	-0.5	70	-0.11	7.09
57 t	2,6-Dinitrotoluene	0.311	0.316	-1.6	67	-0.10	7.05
58 t	3-Nitroaniline	0.351	0.358	-2.0	67	-0.10	7.19
59 t	Acenaphthene	1.148	1.259	-9.7	71	-0.11	7.24
		----- True	Calc.	% Drift	-----		
60 t	2,4-Dinitrophenol	100.000	106.523	-6.5	74	0.00	7.28
		----- AvgRF	CCRF	% Dev	-----		
61 t	4-Nitrophenol	0.259	0.296	-14.3	69	-0.10	7.36
62 t	Dibenzofuran	1.584	1.745	-10.2	72	-0.11	7.38
63 t	2,4-Dinitrotoluene	0.400	0.451	-12.7	70	-0.10	7.38
64	2,3,4,6-Tetrachlorophenol	0.362	0.373	-3.0	66	-0.11	7.49
65 t	Diethylphthalate	1.475	1.527	-3.5	69	-0.10	7.58
66 t	Fluorene	1.358	1.514	-11.5	72	-0.11	7.66
67 t	4-Chlorophenyl-phenylethe	0.653	0.755	-15.6	71	-0.11	7.66
68 t	4-Nitroaniline	0.303	0.313	-3.3	69	-0.11	7.70
69 I	Phenanthrene-d10	1.000	1.000	0.0	67	-0.12	8.48
70 t	4,6-Dinitro-2-methylpheno	0.119	0.142	-19.3	71	-0.10	7.72
71 t	n-Nitrosodiphenylamine	0.540	0.559	-3.5	68	-0.11	7.76
72 t	1,2-Diphenylhydrazine	1.053	1.037	1.5	75	-0.11	7.79
73 S	2,4,6-Tribromophenol	0.140	0.140	0.0	65	-0.11	7.86
74 t	4-Bromophenyl-phenylether	0.239	0.261	-9.2	64	-0.12	8.07
75 t	Hexachlorobenzene	0.265	0.288	-8.7	66	-0.12	8.14
		----- True	Calc.	% Drift	-----		
76 t	Pentachlorophenol	100.000	104.051	-4.1	70	-0.12	8.32
		----- AvgRF	CCRF	% Dev	-----		
77 t	Phenanthrene	0.996	1.124	-12.9	70	-0.13	8.50
78 t	Anthracene	1.013	1.151	-13.6	72	-0.13	8.55
79 t	Carbazole	1.048	1.132	-8.0	67	-0.13	8.72
80 t	Di-n-butylphthalate	1.590	1.771	-11.4	71	-0.13	9.10
81 t	Fluoranthene	1.416	1.591	-12.4	71	-0.15	9.80
82 t	Octadecane	0.329	0.341	-3.6	79	-0.12	8.40

8.8.11

8

Continuing Calibration Summary

Job Number: JC86043
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: E2P3822-CC3816
 Lab FileID: 2P86451.D

83	I	Chrysene-d12	1.000	1.000	0.0	75	-0.17	11.72
84	t	Pyrene	1.556	1.570	-0.9	71	-0.16	10.07
85	S	Terphenyl-d14	0.995	1.032	-3.7	69	-0.16	10.30
86	t	Butylbenzylphthalate	0.873	0.900	-3.1	68	-0.16	11.00
87	t	Benzo[a]anthracene	1.502	1.595	-6.2	72	-0.18	11.70
			----- True	Calc.	% Drift	-----		
88	t	3,3'-Dichlorobenzidine	50.000	48.532	2.9	71	-0.17	11.71
			----- AvgRF	CCRF	% Dev	-----		
89	t	Chrysene	1.066	1.141	-7.0	74	-0.18	11.76
90	t	bis(2-Ethylhexyl)phthalat	0.898	0.985	-9.7	74	-0.16	11.87
91	I	Perylene-d12	1.000	1.000	0.0	71	-0.19	13.71
92	t	Di-n-octylphthalate	1.912	2.124	-11.1	69	-0.17	12.80
93	t	Benzo[b]fluoranthene	1.311	1.499	-14.3	71	-0.18	13.22
94	t	Benzo[k]fluoranthene	1.072	1.107	-3.3	72	-0.18	13.26
95	t	Benzo[a]pyrene	1.102	1.225	-11.2	71	-0.19	13.63
96	t	Indeno[1,2,3-cd]pyrene	1.255	1.425	-13.5	69	-0.22	15.07
97	t	Dibenz(a,h)acridine	1.088	1.118	-2.8	66	-0.21	14.77
98	t	Dibenz[a,h]anthracene	0.978	1.111	-13.6	70	-0.23	15.10
99	t	7,12-Dimethylbenz(a)anthr	0.596	0.713	-19.6	73	-0.18	13.22
100	t	Benzo[g,h,i]perylene	0.994	1.103	-11.0	68	-0.11	15.44

(#) = Out of Range
 2p86292a.D M2P3816.M

SPCC's out = 0 CCC's out = 0
 Thu Apr 11 10:54:51 2019 RPT1

8.8.11

8

Continuing Calibration Summary

Job Number: JC86043
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: E2P3822-CC3783
 Lab FileID: 2P86452.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\2P3822\2p86452.D Vial: 3
 Acq On : 11 Apr 2019 3:36 am Operator: chriss2
 Sample : cc3783-50 Inst : MS2P
 Misc : op13652,e2p3822,1000,,,1,1 Multiplr: 1.00
 MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M2P3816.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Fri Apr 05 14:31:57 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	123	-0.10	4.73
102 Benzaldehyde	1.446	1.403	3.0	119	-0.18	4.38
103 I Naphthalene-d8a	1.000	1.000	0.0	133	-0.11	5.77
104 Hydroquinone	0.302	0.377	-24.8#	160	-0.13	6.15
105 I Acenaphthene-d10a	1.000	1.000	0.0	135	-0.11	7.21
106 Atrazine	50.000	56.611	-13.2	152	-0.18	8.24
107 1,2,4,5-Tetrachlorobenzen	0.599	0.617	-3.0	138	-0.19	6.49
110 I Phenanthrene-d10a	1.000	1.000	0.0	123	-0.13	8.48
111 s 1-Chlorooctadecane	0.301	0.387	-28.6#	144	0.00	9.71
112 s o-terphenyl	0.538	0.632	-17.5	135	-0.23	8.87
113 Pentachloronitrobenzene	50.000	56.406	-12.8	142	-0.21	8.32

(#) = Out of Range SPCC's out = 0 CCC's out = 0
 2p86292a.D M2P3816.M Thu Apr 11 10:54:53 2019 RPT1

8.8.12
8

Continuing Calibration Summary

Job Number: JC86043
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: E2P3823-CC3816
 Lab FileID: 2P86487.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\2P3823\2p86487.D Vial: 2
 Acq On : 12 Apr 2019 9:21 am Operator: angelar
 Sample : cc3816-25 Inst : MS2P
 Misc : op13652,e2p3823,1000,,,1,1 Multiplr: 1.00
 MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M2P3816.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Fri Apr 05 14:31:57 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	70	-0.10	4.73
	----- True	Calc.	% Drift	-----			
2 t	1,4-Dioxane	25.000	26.827	-7.3	67	-0.13	2.02
	----- AvgRF	CCRF	% Dev	-----			
3 t	Pyridine	2.750	2.946	-7.1	71	-0.09	2.38
4 t	N-Nitrosodimethylamine	1.722	1.729	-0.4	69	-0.12	2.36
5 S	2-Fluorophenol	2.013	2.056	-2.1	70	-0.10	3.69
6 t	Indene	2.151	2.233	-3.8	71	-0.10	4.94
7 t	Cumene	5.081	5.317	-4.6	71	-0.10	4.08
8 S	Phenol-d5	2.206	2.354	-6.7	71	-0.10	4.48
9 t	Phenol	2.302	2.513	-9.2	74	-0.10	4.49
10	Aniline	2.557	3.125	-22.2#	87	-0.10	4.47
11 t	bis(2-Chloroethyl)ether	1.645	1.682	-2.2	72	-0.10	4.53
12 t	2-Chlorophenol	1.478	1.531	-3.6	71	-0.10	4.57
13 t	Decane	1.400	1.497	-6.9	76	-0.10	4.62
14 t	1,3-Dichlorobenzene	1.631	1.624	0.4	71	-0.11	4.69
15 t	1,4-Dichlorobenzene	1.458	1.504	-3.2	72	-0.11	4.74
16 t	Benzyl alcohol	0.808	0.893	-10.5	71	-0.10	4.86
17 t	1,2-Dichlorobenzene	1.402	1.421	-1.4	71	-0.11	4.87
18 t	Acetophenone	2.017	2.127	-5.5	74	-0.11	5.07
19 t	2-Methylphenol	1.174	1.276	-8.7	74	-0.10	4.97
20 t	2,2'-oxybis(1-Chloropropa	0.340	0.337	0.9	70	-0.10	4.97
21 t	3&4-Methylphenol	1.190	1.307	-9.8	75	-0.10	5.10
22 t	n-Nitroso-di-n-propylamin	1.064	1.156	-8.6	76	-0.11	5.08
23 t	Hexachloroethane	0.493	0.476	3.4	69	-0.11	5.14
24 I	Naphthalene-d8	1.000	1.000	0.0	72	-0.11	5.77
25 S	Nitrobenzene-d5	0.538	0.545	-1.3	75	-0.10	5.19
26 t	Nitrobenzene	0.527	0.536	-1.7	75	-0.10	5.20
27 t	Quinoline	0.707	0.711	-0.6	71	-0.12	6.06
28 t	Isophorone	0.925	0.950	-2.7	73	-0.11	5.40
29 t	2-Nitrophenol	0.215	0.220	-2.3	71	-0.11	5.46
30 t	2,4-Dimethylphenol	0.381	0.453	-18.9	83	-0.10	5.52
31 t	Benzoic acid	0.335	0.339	-1.2	75	-0.13	5.64
32 t	bis(2-Chloroethoxy)methan	0.515	0.516	-0.2	73	-0.11	5.58
33 t	2,4-Dichlorophenol	0.301	0.311	-3.3	74	-0.11	5.67
34 t	2,6-Dichlorophenol	0.270	0.276	-2.2	73	-0.11	5.85
35	1,3,5-Trichlorobenzene	0.364	0.348	4.4	69	-0.11	5.47
36 t	1,2,4-Trichlorobenzene	0.335	0.321	4.2	70	-0.10	5.73
37	1,2,3-Trichlorobenzene	0.295	0.291	1.4	72	-0.11	5.91

Continuing Calibration Summary

Job Number: JC86043
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: E2P3823-CC3816
 Lab FileID: 2P86487.D

38 t	Naphthalene	0.957	0.996	-4.1	75	-0.11	5.79
39 t	4-Chloroaniline	0.393	0.443	-12.7	79	-0.11	5.84
40 t	2,3-Dichloroaniline	0.378	0.377	0.3	72	-0.11	6.58
41 t	Caprolactam	0.123	0.123	0.0	70	-0.14	6.14
42 t	Hexachlorobutadiene	0.192	0.184	4.2	69	-0.11	5.89
43 t	4-Chloro-3-methylphenol	0.389	0.421	-8.2	74	-0.11	6.26
44 t	2-Methylnaphthalene	0.609	0.611	-0.3	71	-0.11	6.35
45 t	1-Methylnaphthalene	0.667	0.670	-0.4	73	-0.11	6.43
46 t	Dimethylnaphthalene	0.615	0.571	7.2	69	-0.11	6.86
47 I	Acenaphthene-d10	1.000	1.000	0.0	70	-0.11	7.20
		----- True	Calc.	% Drift	-----		
48 t	Hexachlorocyclopentadiene	50.000	44.161	11.7	66	-0.11	6.49
		----- AvgRF	CCRF	% Dev	-----		
49 t	2,4,6-Trichlorophenol	0.374	0.387	-3.5	70	-0.11	6.60
50 t	2,4,5-Trichlorophenol	0.390	0.404	-3.6	72	-0.11	6.63
51 S	2-Fluorobiphenyl	1.385	1.385	0.0	73	-0.11	6.65
52 t	2-Chloronaphthalene	1.147	1.133	1.2	72	-0.11	6.75
53 t	Biphenyl	1.603	1.581	1.4	71	-0.11	6.73
54 t	2-Nitroaniline	0.492	0.653	-32.7#	91	-0.11	6.84
55 t	Dimethylphthalate	1.420	1.377	3.0	69	-0.11	6.99
56 t	Acenaphthylene	1.957	1.954	0.2	71	-0.11	7.09
57 t	2,6-Dinitrotoluene	0.311	0.312	-0.3	70	-0.11	7.04
58 t	3-Nitroaniline	0.351	0.384	-9.4	74	-0.11	7.18
59 t	Acenaphthene	1.148	1.195	-4.1	74	-0.12	7.23
		----- True	Calc.	% Drift	-----		
60 t	2,4-Dinitrophenol	50.000	48.407	3.2	71	-0.01	7.27
		----- AvgRF	CCRF	% Dev	-----		
61 t	4-Nitrophenol	0.259	0.300	-15.8	76	-0.11	7.35
62 t	Dibenzofuran	1.584	1.631	-3.0	72	-0.11	7.37
63 t	2,4-Dinitrotoluene	0.400	0.433	-8.2	71	-0.11	7.37
64	2,3,4,6-Tetrachlorophenol	0.362	0.331	8.6	68	-0.11	7.48
65 t	Diethylphthalate	1.475	1.526	-3.5	71	-0.11	7.57
66 t	Fluorene	1.358	1.449	-6.7	72	-0.12	7.65
67 t	4-Chlorophenyl-phenylethe	0.653	0.657	-0.6	69	-0.11	7.65
68 t	4-Nitroaniline	0.303	0.342	-12.9	77	-0.12	7.68
69 I	Phenanthrene-d10	1.000	1.000	0.0	70	-0.13	8.47
70 t	4,6-Dinitro-2-methylpheno	0.119	0.128	-7.6	72	-0.11	7.71
71 t	n-Nitrosodiphenylamine	0.540	0.540	0.0	71	-0.12	7.76
72 t	1,2-Diphenylhydrazine	1.053	1.122	-6.6	77	-0.12	7.78
73 S	2,4,6-Tribromophenol	0.140	0.115	17.9	65	-0.12	7.86
74 t	4-Bromophenyl-phenylether	0.239	0.225	5.9	67	-0.12	8.07
75 t	Hexachlorobenzene	0.265	0.252	4.9	66	-0.13	8.12
		----- True	Calc.	% Drift	-----		
76 t	Pentachlorophenol	50.000	45.201	9.6	67	-0.13	8.31
		----- AvgRF	CCRF	% Dev	-----		
77 t	Phenanthrene	0.996	1.051	-5.5	74	-0.14	8.49
78 t	Anthracene	1.013	1.082	-6.8	75	-0.14	8.54
79 t	Carbazole	1.048	1.120	-6.9	73	-0.14	8.71
80 t	Di-n-butylphthalate	1.590	1.763	-10.9	72	-0.14	9.10
81 t	Fluoranthene	1.416	1.492	-5.4	68	-0.16	9.79
82 t	Octadecane	0.329	0.369	-12.2	79	-0.13	8.39

8.8.13

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Continuing Calibration Summary

Job Number: JC86043
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: E2P3823-CC3816
 Lab FileID: 2P86487.D

83	I	Chrysene-d12	1.000	1.000	0.0	68	-0.18	11.71
84	t	Pyrene	1.556	1.568	-0.8	68	-0.17	10.06
85	S	Terphenyl-d14	0.995	0.995	0.0	68	-0.17	10.29
86	t	Butylbenzylphthalate	0.873	0.921	-5.5	69	-0.17	10.99
87	t	Benzo[a]anthracene	1.502	1.503	-0.1	68	-0.19	11.69
----- True			Calc.	% Drift	-----			
88	t	3,3'-Dichlorobenzidine	25.000	23.314	6.7	69	-0.19	11.70
----- AvgRF			CCRF	% Dev	-----			
89	t	Chrysene	1.066	1.123	-5.3	72	-0.19	11.75
90	t	bis(2-Ethylhexyl)phthalat	0.898	1.047	-16.6	74	-0.17	11.86
91	I	Perylene-d12	1.000	1.000	0.0	63	-0.20	13.70
92	t	Di-n-octylphthalate	1.912	2.058	-7.6	62	-0.18	12.79
93	t	Benzo[b]fluoranthene	1.311	1.348	-2.8	59	-0.20	13.20
94	t	Benzo[k]fluoranthene	1.072	1.138	-6.2	68	-0.20	13.24
95	t	Benzo[a]pyrene	1.102	1.130	-2.5	63	-0.20	13.62
96	t	Indeno[1,2,3-cd]pyrene	1.255	1.150	8.4	54	-0.25	15.04
97	t	Dibenz(a,h)acridine	1.088	0.848	22.1#	50#	-0.23	14.75
98	t	Dibenz[a,h]anthracene	0.978	0.931	4.8	57	-0.25	15.08
99	t	7,12-Dimethylbenz(a)anthr	0.596	0.641	-7.6	67	-0.20	13.20
100	t	Benzo[g,h,i]perylene	0.994	0.918	7.6	54	-0.15	15.40

(#) = Out of Range
 2p86293a.D M2P3816.M

SPCC's out = 0 CCC's out = 0
 Fri Apr 12 14:36:23 2019 RPT1

8.8.13

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Continuing Calibration Summary

Job Number: JC86043
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: E2P3823-CC3783
 Lab FileID: 2P86488.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\2P3823\2p86488.D Vial: 3
 Acq On : 12 Apr 2019 9:42 am Operator: angular
 Sample : cc3783-25 Inst : MS2P
 Misc : op13652,e2p3823,1000,,,1,1 Multiplr: 1.00
 MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M2P3816.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Fri Apr 05 14:31:57 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	152	-0.10	4.73
102 Benzaldehyde	1.446	1.409	2.6	141	-0.18	4.38
103 I Naphthalene-d8a	1.000	1.000	0.0	154	-0.11	5.77
104 Hydroquinone	0.302	0.396	-31.1#	204#	-0.14	6.14
105 I Acenaphthene-d10a	1.000	1.000	0.0	168	-0.11	7.20
106 Atrazine	25.000	27.111	-8.4	182	-0.19	8.23
107 1,2,4,5-Tetrachlorobenzen	0.599	0.578	3.5	158	-0.19	6.49
110 I Phenanthrene-d10a	1.000	1.000	0.0	149	-0.13	8.47
111 s 1-Chlorooctadecane	0.301	0.408	-35.5#	169	0.00	9.70
112 s o-terphenyl	0.538	0.571	-6.1	150	-0.24	8.86
113 Pentachloronitrobenzene	25.000	27.354	-9.4	168	-0.22	8.32

(#) = Out of Range SPC's out = 0 CCC's out = 0
 2p86293a.D M2P3816.M Fri Apr 12 14:36:25 2019 RPT1

8.8.14

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Continuing Calibration Summary

Job Number: JC86043
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: E2P3823-ECC3816
 Lab FileID: 2P86517.D

Evaluate Continuing Calibration Report

Data File : Z:\svoa-gcms\complet...yllr\2p3823\2p86517.d Vial: 2
 Acq On : 12 Apr 2019 8:35 pm Operator: angular
 Sample : ecc3816-25 Inst : MS2P
 Misc : op13652,e2p3823,1000,,,1,1 Multiplr: 1.00
 MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M2P3816.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Fri Apr 05 14:31:57 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	85	-0.10	4.74
	----- True	Calc.	% Drift	-----			
2 t	1,4-Dioxane	25.000	25.430	-1.7	76	-0.12	2.03
	----- AvgRF	CCRF	% Dev	-----			
3 t	Pyridine	2.750	2.658	3.3	78	0.00	2.39
4 t	N-Nitrosodimethylamine	1.722	1.565	9.1	75	-0.11	2.38
5 S	2-Fluorophenol	2.013	1.935	3.9	80	-0.09	3.70
6 t	Indene	2.151	2.132	0.9	83	-0.10	4.95
7 t	Cumene	5.081	5.090	-0.2	83	-0.10	4.09
8 S	Phenol-d5	2.206	2.252	-2.1	82	-0.09	4.49
9 t	Phenol	2.302	2.492	-8.3	89	-0.09	4.50
10	Aniline	2.557	3.040	-18.9	103	-0.10	4.48
11 t	bis(2-Chloroethyl)ether	1.645	1.574	4.3	82	-0.09	4.54
12 t	2-Chlorophenol	1.478	1.507	-2.0	85	-0.09	4.58
13 t	Decane	1.400	1.356	3.1	83	-0.09	4.63
14 t	1,3-Dichlorobenzene	1.631	1.596	2.1	84	-0.10	4.70
15 t	1,4-Dichlorobenzene	1.458	1.460	-0.1	85	-0.10	4.76
16 t	Benzyl alcohol	0.808	0.837	-3.6	81	-0.10	4.87
17 t	1,2-Dichlorobenzene	1.402	1.394	0.6	85	-0.10	4.88
18 t	Acetophenone	2.017	2.058	-2.0	86	-0.10	5.08
19 t	2-Methylphenol	1.174	1.213	-3.3	86	-0.09	4.98
20 t	2,2'-oxybis(1-Chloropropa	0.340	0.326	4.1	82	-0.09	4.97
21 t	3&4-Methylphenol	1.190	1.254	-5.4	87	-0.09	5.11
22 t	n-Nitroso-di-n-propylamin	1.064	1.098	-3.2	88	-0.10	5.08
23 t	Hexachloroethane	0.493	0.374	24.1	66	-0.10	5.15
24 I	Naphthalene-d8	1.000	1.000	0.0	87	-0.10	5.78
25 S	Nitrobenzene-d5	0.538	0.527	2.0	88	-0.10	5.19
26 t	Nitrobenzene	0.527	0.512	2.8	86	-0.10	5.21
27 t	Quinoline	0.707	0.708	-0.1	85	-0.11	6.07
28 t	Isophorone	0.925	0.919	0.6	85	-0.10	5.41
29 t	2-Nitrophenol	0.215	0.184	14.4	72	-0.10	5.47
30 t	2,4-Dimethylphenol	0.381	0.443	-16.3	97	-0.09	5.53
31 t	Benzoic acid	0.335	0.323	3.6	86	-0.11	5.66
32 t	bis(2-Chloroethoxy)methan	0.515	0.499	3.1	85	-0.10	5.59
33 t	2,4-Dichlorophenol	0.301	0.309	-2.7	88	-0.10	5.68
34 t	2,6-Dichlorophenol	0.270	0.276	-2.2	87	-0.10	5.86
35	1,3,5-Trichlorobenzene	0.364	0.369	-1.4	88	-0.10	5.48
36 t	1,2,4-Trichlorobenzene	0.335	0.332	0.9	87	-0.10	5.73
37	1,2,3-Trichlorobenzene	0.295	0.289	2.0	86	-0.10	5.92

Continuing Calibration Summary

Job Number: JC86043
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: E2P3823-ECC3816
 Lab FileID: 2P86517.D

38 t	Naphthalene	0.957	0.950	0.7	86	-0.10	5.79
39 t	4-Chloroaniline	0.393	0.430	-9.4	92	-0.10	5.85
40 t	2,3-Dichloroaniline	0.378	0.392	-3.7	90	-0.10	6.60
41 t	Caprolactam	0.123	0.124	-0.8	86	-0.12	6.15
42 t	Hexachlorobutadiene	0.192	0.192	0.0	87	-0.10	5.90
43 t	4-Chloro-3-methylphenol	0.389	0.420	-8.0	89	-0.10	6.27
44 t	2-Methylnaphthalene	0.609	0.613	-0.7	85	-0.10	6.36
45 t	1-Methylnaphthalene	0.667	0.662	0.7	87	-0.10	6.44
46 t	Dimethylnaphthalene	0.615	0.569	7.5	83	-0.10	6.87
47 I	Acenaphthene-d10	1.000	1.000	0.0	85	-0.10	7.22
----- True Calc. % Drift -----							
48 t	Hexachlorocyclopentadiene	50.000	12.344	75.3#	17	-0.10	6.49
----- AvgRF CCRF % Dev -----							
49 t	2,4,6-Trichlorophenol	0.374	0.420	-12.3	91	-0.10	6.61
50 t	2,4,5-Trichlorophenol	0.390	0.423	-8.5	91	-0.10	6.65
51 S	2-Fluorobiphenyl	1.385	1.393	-0.6	88	-0.10	6.66
52 t	2-Chloronaphthalene	1.147	1.142	0.4	88	-0.10	6.76
53 t	Biphenyl	1.603	1.600	0.2	87	-0.10	6.74
54 t	2-Nitroaniline	0.492	0.480	2.4	81	-0.10	6.85
55 t	Dimethylphthalate	1.420	1.402	1.3	85	-0.10	7.00
56 t	Acenaphthylene	1.957	1.925	1.6	85	-0.10	7.10
57 t	2,6-Dinitrotoluene	0.311	0.275	11.6	74	-0.10	7.05
58 t	3-Nitroaniline	0.351	0.364	-3.7	84	-0.10	7.19
59 t	Acenaphthene	1.148	1.171	-2.0	87	-0.10	7.24
----- True Calc. % Drift -----							
60 t	2,4-Dinitrophenol	50.000	11.705	76.6#	13	-0.10	7.29
----- AvgRF CCRF % Dev -----							
61 t	4-Nitrophenol	0.259	0.286	-10.4	87	-0.10	7.37
62 t	Dibenzofuran	1.584	1.665	-5.1	88	-0.10	7.38
63 t	2,4-Dinitrotoluene	0.400	0.353	11.8	70	-0.10	7.38
64	2,3,4,6-Tetrachlorophenol	0.362	0.348	3.9	87	-0.10	7.50
65 t	Diethylphthalate	1.475	1.535	-4.1	86	-0.10	7.58
66 t	Fluorene	1.358	1.465	-7.9	87	-0.10	7.66
67 t	4-Chlorophenyl-phenylethe	0.653	0.699	-7.0	88	-0.10	7.66
68 t	4-Nitroaniline	0.303	0.322	-6.3	88	-0.11	7.70
69 I	Phenanthrene-d10	1.000	1.000	0.0	81	-0.12	8.49
70 t	4,6-Dinitro-2-methylpheno	0.119	0.023#	80.7#	15#	-0.10	7.72
71 t	n-Nitrosodiphenylamine	0.540	0.574	-6.3	88	-0.11	7.77
72 t	1,2-Diphenylhydrazine	1.053	1.062	-0.9	85	-0.11	7.79
73 S	2,4,6-Tribromophenol	0.140	0.133	5.0	87	-0.11	7.87
74 t	4-Bromophenyl-phenylether	0.239	0.239	0.0	84	-0.11	8.08
75 t	Hexachlorobenzene	0.265	0.273	-3.0	84	-0.11	8.14
----- True Calc. % Drift -----							
76 t	Pentachlorophenol	50.000	46.908	6.2	82	-0.12	8.33
----- AvgRF CCRF % Dev -----							
77 t	Phenanthrene	0.996	1.019	-2.3	84	-0.12	8.51
78 t	Anthracene	1.013	1.080	-6.6	87	-0.13	8.56
79 t	Carbazole	1.048	1.096	-4.6	83	-0.12	8.73
80 t	Di-n-butylphthalate	1.590	1.630	-2.5	77	-0.13	9.11
81 t	Fluoranthene	1.416	1.212	14.4	64	-0.14	9.80
82 t	Octadecane	0.329	0.335	-1.8	84	-0.11	8.41

8.8.15

8

Continuing Calibration Summary

Job Number: JC86043
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: E2P3823-ECC3816
 Lab FileID: 2P86517.D

83	I	Chrysene-d12	1.000	1.000	0.0	60	-0.16	11.74
84	t	Pyrene	1.556	1.692	-8.7	65	-0.15	10.08
85	S	Terphenyl-d14	0.995	1.102	-10.8	66	-0.14	10.31
86	t	Butylbenzylphthalate	0.873	0.895	-2.5	59	-0.16	11.00
87	t	Benzo[a]anthracene	1.502	1.422	5.3	56	-0.16	11.72
----- True			Calc.	% Drift	-----			
88	t	3,3'-Dichlorobenzidine	25.000	24.477	2.1	65	-0.16	11.72
----- AvgRF			CCRF	% Dev	-----			
89	t	Chrysene	1.066	1.189	-11.5	67	-0.17	11.77
90	t	bis(2-Ethylhexyl)phthalat	0.898	1.087	-21.0	68	-0.15	11.88
91	I	Perylene-d12	1.000	1.000	0.0	60	-0.17	13.73
92	t	Di-n-octylphthalate	1.912	1.728	9.6	50#	-0.16	12.82
93	t	Benzo[b]fluoranthene	1.311	1.270	3.1	53	-0.17	13.23
94	t	Benzo[k]fluoranthene	1.072	1.103	-2.9	62	-0.17	13.27
95	t	Benzo[a]pyrene	1.102	1.066	3.3	57	-0.17	13.65
96	t	Indeno[1,2,3-cd]pyrene	1.255	1.122	10.6	50#	-0.21	15.08
97	t	Dibenz(a,h)acridine	1.088	0.872	19.9	48#	-0.19	14.79
98	t	Dibenz[a,h]anthracene	0.978	0.946	3.3	55	-0.21	15.12
99	t	7,12-Dimethylbenz(a)anthr	0.596	0.610	-2.3	61	-0.17	13.23
100	t	Benzo[g,h,i]perylene	0.994	0.815	18.0	46#	-0.23	15.45

(#) = Out of Range
 2p86293a.D M2P3816.M

SPCC's out = 0 CCC's out = 0
 Mon Apr 15 11:04:36 2019 MANAGER

8.8.15

8

Continuing Calibration Summary

Job Number: JC86043
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: E2P3823-ECC3783
 Lab FileID: 2P86518.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\jeryllr\2p3823\2p86518.d Vial: 3
 Acq On : 12 Apr 2019 8:56 pm Operator: angular
 Sample : ecc3783-25 Inst : MS2P
 Misc : op13652,e2p3823,1000,,,1,1 Multiplr: 1.00
 MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\M2P3816.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Mon Apr 15 02:19:32 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	169	0.00	4.74
102 Benzaldehyde	1.446	1.387	4.1	154	0.00	4.38
103 I Naphthalene-d8a	1.000	1.000	0.0	169	0.00	5.77
104 Hydroquinone	0.302	0.406	-34.4	229#	0.01	6.15
105 I Acenaphthene-d10a	1.000	1.000	0.0	188	0.01	7.21
106 Atrazine	25.000	25.681	-2.7	192	0.01	8.24
107 1,2,4,5-Tetrachlorobenzen	0.599	0.590	1.5	181	0.00	6.50
110 I Phenanthrene-d10a	1.000	1.000	0.0	165	0.02	8.49
111 s 1-Chlorooctadecane	0.301	0.343	-14.0	157	0.02	9.71
112 s o-terphenyl	0.538	0.560	-4.1	163	0.02	8.88
113 Pentachloronitrobenzene	25.000	13.227	47.1	79	0.02	8.33

(#) = Out of Range SPCC's out = 0 CCC's out = 0
 2p86488.d M2P3816.M Mon Apr 15 03:24:38 2019

8.8.16
8

Initial Calibration Summary

Job Number: JC86043
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: EP5819-ICC5819
 Lab FileID: P128678.D

Response Factor Report MSVOAMSP

Method : C:\msdchem\1\METHODS\MP5819.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Mon Mar 25 16:40:12 2019
 Response via : Initial Calibration

Calibration Files

2 =p128682.D 5 =p128681.D 25 =p128679.D 80 =p128677.D
 100 =p128676.D 50 =p128678.D 10 =p128680.D 1 =p128683.D

Compound	2	5	25	80	100	50	10	1	Avg	%RSD

1) I 1,4-Dichlorobenzene-d	-----ISTD-----									
2) 1,4-Dioxane	0.674	0.679	0.746	0.775	0.816	0.782	0.721	0.607	0.725	9.47
3) Pyridine	1.608	1.715	1.893	1.972	2.010	2.014	1.807	1.618	1.830	9.21
4) N-Nitrosodim	0.959	0.977	1.034	1.060	1.104	1.082	0.992	0.821	1.004	8.94
5) 2-Fluorophen	1.352	1.383	1.554	1.595	1.615	1.632	1.489	1.367	1.498	7.83
6) Indene	2.448	2.456	2.395	2.444	2.429	2.414	2.501	2.690	2.472	3.78
7) Cumene	4.017	4.045	4.176	4.182	4.144	4.305	4.249	4.229	4.168	2.36
8) Phenol-d5	1.964	1.980	1.996	2.043	2.038	2.062	2.072	1.913	2.008	2.72
9) Phenol	2.285	2.176	2.161	2.144	2.095	2.158	2.269	2.199	2.186	2.91
10) Aniline	2.393	2.468	2.394	2.245	2.235	2.363	2.484	2.380	2.370	3.83
11) bis(2-Chloro	1.728	1.722	1.588	1.592	1.551	1.571	1.738	1.785	1.660	5.56
12) 2-Chlorophen	1.440	1.466	1.456	1.445	1.461	1.441	1.541	1.530	1.472	2.71
13) Decane	2.026	2.055	1.686	1.263	1.153	1.496	1.947	2.141	1.721	22.14
---- Quadratic regression ---- Coefficient = 0.9996										
Response Ratio = 0.02745 + 1.79923 *A + -0.26608 *A^2										
14) 1,3-Dichloro	1.613	1.657	1.646	1.645	1.637	1.662	1.722	1.798	1.673	3.55
15) 1,4-Dichloro	1.627	1.601	1.554	1.664	1.668	1.632	1.608	1.801	1.644	4.44
16) Benzyl alcohol	0.949	1.011	0.981	0.996	0.977	1.024	1.038	0.926	0.988	3.80
17) 1,2-Dichloro	1.546	1.598	1.547	1.724	1.724	1.678	1.591	1.685	1.637	4.57
18) Acetophenone	2.400	2.420	2.303	2.315	2.261	2.305	2.403	2.487	2.362	3.25
19) 2-Methylphen	1.472	1.455	1.394	1.346	1.352	1.366	1.493	1.527	1.426	4.90
20) 2,2'-oxybis(	0.433	0.423	0.418	0.392	0.376	0.400	0.444	0.412	0.412	5.37
21) 3&4-Methylph	1.476	1.576	1.499	1.514	1.556	1.484	1.630	1.571	1.538	3.48
22) n-Nitroso-di	1.306	1.335	1.195	1.121	1.076	1.159	1.310	1.386	1.236	9.13
23) Hexachloroet	0.560	0.571	0.565	0.614	0.638	0.578	0.582	0.591	0.587	4.51

24) I Naphthalene-d8	-----ISTD-----									
25) Nitrobenzene	0.545	0.534	0.520	0.507	0.507	0.522	0.533	0.511	0.522	2.66
26) Nitrobenzene	0.581	0.568	0.532	0.491	0.495	0.523	0.555	0.645	0.549	9.24
27) Quinoline	0.806	0.772	0.791	0.779	0.780	0.800	0.790	0.781	0.787	1.47
28) Isophorone	0.978	0.947	0.928	0.913	0.922	0.941	0.943	0.973	0.943	2.45
29) 2-Nitrophen	0.206	0.205	0.208	0.242	0.243	0.232	0.209	0.206	0.219	7.71
30) 2,4-Dimethyl		0.408	0.417	0.452	0.458	0.440	0.403		0.430	5.43
31) Benzoic acid	0.313	0.349	0.365	0.340	0.351	0.326	0.371	0.319	0.342	6.14
32) bis(2-Chloro	0.524	0.517	0.484	0.478	0.485	0.489	0.512	0.534	0.503	4.26
33) 2,4-Dichloro	0.338	0.330	0.328	0.368	0.391	0.349	0.331	0.328	0.345	6.69
34) 2,6-Dichloro	0.316	0.298	0.308	0.359	0.371	0.346	0.303	0.305	0.326	8.73
35) 1,3,5-Trichl	0.369	0.360	0.369	0.431	0.428	0.413	0.366	0.359	0.387	8.10
36) 1,2,4-Trichl	0.346	0.344	0.344	0.385	0.394	0.358	0.336	0.340	0.356	6.10
37) 1,2,3-Trichl	0.326	0.319	0.325	0.370	0.384	0.348	0.334	0.341	0.343	6.77
38) Naphthalene	1.054	1.010	0.998	1.097	1.124	1.062	1.017	1.097	1.057	4.37
39) 4-Chloroanil	0.433	0.431	0.420	0.474	0.480	0.458	0.439	0.402	0.442	6.09
40) 2,3-Dichloro	0.430	0.429	0.407	0.459	0.465	0.436	0.408	0.431	0.433	4.80
41) Caprolactam	0.272	0.247	0.244	0.252	0.249	0.254	0.252	0.282	0.257	5.20
42) Hexachlorobu	0.207	0.197	0.216	0.256	0.262	0.243	0.204	0.201	0.223	11.78

8.8.17
8

Initial Calibration Summary

Job Number: JC86043
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: EP5819-ICC5819
 Lab FileID: P128678.D

43)	4-Chloro-3-m	0.395	0.415	0.424	0.417	0.422	0.426	0.424	0.392	0.414	3.27
44)	2-Methylnaph	0.622	0.609	0.601	0.652	0.658	0.642	0.610	0.615	0.626	3.42
45)	1-Methylnaph	0.806	0.793	0.755	0.834	0.844	0.804	0.772	0.841	0.806	4.04
46)	Dimethylnaph	0.707	0.689	0.664	0.777	0.809	0.736	0.682	0.716	0.722	6.83
47)	I Acenaphthene-d10	-----ISTD-----									
48)	Hexachlorocy	0.113	0.158	0.278	0.385	0.387	0.362	0.208		0.270	41.74
		---- Quadratic regression ---- Coefficient = 0.9985									
		Response Ratio = -0.05482 + 0.34823 *A + 0.01074 *A^2									
49)	2,4,6-Trichl	0.397	0.373	0.389	0.431	0.429	0.420	0.395	0.368	0.400	6.05
50)	2,4,5-Trichl	0.390	0.413	0.443	0.493	0.467	0.518	0.409	0.376	0.439	11.51
51)	2-Fluorobiph	1.441	1.350	1.386	1.513	1.438	1.552	1.353	1.391	1.428	5.13
52)	2-Chloronaph	1.218	1.143	1.128	1.197	1.185	1.169	1.146	1.211	1.175	2.84
53)	Biphenyl	1.669	1.529	1.493	1.710	1.624	1.662	1.496	1.577	1.595	5.24
54)	2-Nitroanili	0.567	0.561	0.540	0.465	0.418	0.531	0.559	0.565	0.526	10.42
55)	Dimethylphth	1.533	1.432	1.474	1.486	1.432	1.519	1.464	1.459	1.475	2.49
56)	Acenaphthyle	2.062	1.905	1.879	1.933	1.892	1.960	1.910	2.037	1.947	3.50
57)	2,6-Dinitrot	0.326	0.303	0.321	0.308	0.296	0.326	0.316	0.313	0.314	3.40
58)	3-Nitroanili	0.345	0.338	0.350	0.347	0.340	0.359	0.347	0.316	0.343	3.64
59)	Acenaphthene	1.187	1.113	1.153	1.232	1.207	1.241	1.138	1.172	1.180	3.84
60)	2,4-Dinitrop	0.046	0.067	0.138	0.168	0.164	0.161	0.106		0.121	40.84
		---- Quadratic regression ---- Coefficient = 0.9989									
		Response Ratio = -0.02543 + 0.16983 *A + 0.00015 *A^2									
61)	4-Nitropheno	0.269	0.277	0.296	0.286	0.269	0.303	0.295	0.230	0.278	8.37
62)	Dibenzofuran	1.726	1.654	1.656	1.862	1.813	1.881	1.632	1.673	1.737	5.80
63)	2,4-Dinitrot	0.443	0.429	0.455	0.496	0.462	0.508	0.442	0.396	0.454	7.93
64)	2,3,4,6-Tetr	0.300	0.303	0.344	0.393	0.399	0.381	0.338	0.293	0.344	12.56
65)	Diethylphtha	1.585	1.537	1.580	1.574	1.506	1.642	1.579	1.548	1.569	2.55
66)	Fluorene	1.443	1.402	1.459	1.540	1.462	1.576	1.420	1.399	1.463	4.39
67)	4-Chlorophen	0.676	0.650	0.726	0.856	0.822	0.864	0.660	0.644	0.737	12.92
68)	4-Nitroanili	0.309	0.341	0.327	0.314	0.297	0.332	0.335	0.288	0.318	5.94
69)	I Phenanthrene-d10	-----ISTD-----									
70)	4,6-Dinitro-	0.098	0.130	0.139	0.139	0.138	0.117		0.127	12.94	
71)	n-Nitrosodip	0.572	0.563	0.540	0.559	0.569	0.551	0.550	0.547	0.556	2.05
72)	1,2-Diphenyl	1.165	1.100	1.039	0.925	0.978	0.998	1.104	1.160	1.059	8.29
73)	2,4,6-Tribo	0.100	0.098	0.108	0.126	0.130	0.117	0.103	0.104	0.111	10.90
74)	4-Bromopheny	0.226	0.210	0.235	0.258	0.260	0.244	0.228	0.209	0.234	8.42
75)	Hexachlorobe	0.224	0.223	0.240	0.264	0.271	0.253	0.231	0.228	0.242	7.70
76)	Pentachlorop	0.073	0.092	0.128	0.163	0.173	0.151	0.111		0.127	29.37
		---- Quadratic regression ---- Coefficient = 0.9998									
		Response Ratio = -0.00995 + 0.13006 *A + 0.00905 *A^2									
77)	Phenanthrene	1.121	1.080	1.089	1.154	1.152	1.132	1.088	1.067	1.110	3.05
78)	Anthracene	1.204	1.182	1.164	1.200	1.200	1.176	1.179	1.153	1.182	1.55
79)	Carbazole	1.148	1.124	1.078	1.090	1.065	1.090	1.110	1.059	1.096	2.77
80)	Di-n-butylph	1.634	1.626	1.641	1.639	1.578	1.645	1.642	1.559	1.621	2.03
81)	Fluoranthene	1.276	1.338	1.370	1.396	1.357	1.387	1.348	1.251	1.340	3.85
82)	Octadecane	0.707	0.683	0.624	0.529	0.502	0.584	0.676	0.738	0.631	13.58
83)	I Chrysene-d12	-----ISTD-----									
84)	Pyrene	1.510	1.454	1.500	1.500	1.520	1.542	1.440	1.496	1.495	2.24
85)	Terphenyl-d1	0.939	0.953	0.984	1.050	1.057	1.041	0.942	0.939	0.988	5.35
86)	Butylbenzylp	0.815	0.789	0.829	0.792	0.763	0.820	0.808	0.821	0.805	2.73
87)	Benzo[a]anth	1.409	1.329	1.371	1.380	1.353	1.405	1.319	1.446	1.377	3.10
88)	3,3'-Dichlor	0.387	0.392	0.443	0.506	0.502	0.480	0.415	0.349	0.434	13.35
89)	Chrysene	1.218	1.218	1.195	1.263	1.230	1.230	1.188	1.218	1.220	1.89
90)	bis(2-Ethylh	1.118	1.117	1.119	1.094	1.058	1.124	1.122	1.115	1.108	2.02

Initial Calibration Summary

Job Number: JC86043
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA

Sample: EP5819-ICC5819
Lab FileID: P128678.D

	-----ISTD-----									
91) I Perylene-d12										
92) Di-n-octylph	1.857	1.908	1.960	1.960	1.830	1.953	1.963	1.797	1.904	3.51
93) Benzo[b]fluo	1.245	1.253	1.325	1.483	1.442	1.357	1.283	1.239	1.328	6.99
94) Benzo[k]fluo	1.182	1.182	1.116	1.048	1.051	1.112	1.166	1.166	1.128	4.92
95) Benzo[a]pyre	1.096	1.096	1.112	1.135	1.125	1.129	1.132	1.122	1.118	1.39
96) Indeno[1,2,3	0.940	0.966	0.997	1.068	1.096	1.056	1.004	0.979	1.013	5.39
97) Dibenz(a,h)a	0.889	0.913	0.962	1.012	1.025	0.978	0.955	0.873	0.951	5.84
98) Dibenz[a,h)a	1.003	1.003	1.023	1.089	1.138	1.057	1.002	0.960	1.034	5.53
99) 7,12-Dimethy	0.498	0.493	0.558	0.630	0.613	0.603	0.512	0.461	0.546	11.67
100) Benzo[g,h,i]	0.956	0.944	0.972	1.016	1.049	1.005	0.979	0.943	0.983	3.83

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

MP5819.M

Mon Mar 25 17:10:39 2019

ACLIMS

8.8.17

8

Initial Calibration Verification

Job Number: JC86043
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: EP5819-ICV5819
 Lab FileID: P128684.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EP5819\p128684.D Vial: 10
 Acq On : 25 Mar 2019 1:54 pm Operator: christc2
 Sample : icv5819-50 Inst : MSVOAMSP
 Misc : op13894,ep5819,1000,,,1,1 Multiplr: 1.00
 MS Integration Params: rteint.p

Method : C:\msdchem\1\METHODS\MP5819.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Mon Mar 25 14:35:38 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	93	0.00	4.39
4 t	N-Nitrosodimethylamine	1.004	1.042	-3.8	90	0.00	2.18
11 t	bis(2-Chloroethyl)ether	1.660	1.606	3.3	96	0.00	4.19
	----- AvgRF	CCRF	% Dev	-----			
14 t	1,3-Dichlorobenzene	1.673	1.605	4.1	90	0.00	4.34
15 t	1,4-Dichlorobenzene	1.644	1.550	5.7	89	0.00	4.40
17 t	1,2-Dichlorobenzene	1.637	1.462	10.7	81	0.00	4.51
20 t	2,2'-oxybis(1-Chloropropa	0.412	0.446	-8.3	104	0.00	4.59
22	n-Nitroso-di-n-propylamin	1.236	1.214	1.8	98	0.00	4.69
23 t	Hexachloroethane	0.587	0.559	4.8	90	0.00	4.76
24 I	Naphthalene-d8	1.000	1.000	0.0	87	0.00	5.33
26 t	Nitrobenzene	0.549	0.535	2.6	89	0.00	4.82
28 t	Isophorone	0.943	0.886	6.0	82	0.00	4.99
32 t	bis(2-Chloroethoxy)methan	0.503	0.503	0.0	89	0.00	5.15
36 t	1,2,4-Trichlorobenzene	0.356	0.351	1.4	85	0.00	5.28
38 t	Naphthalene	1.057	1.023	3.2	84	0.00	5.34
42 t	Hexachlorobutadiene	0.223	0.229	-2.7	82	0.00	5.43
47 I	Acenaphthene-d10	1.000	1.000	0.0	81	0.00	6.68
	----- True	Calc.	% Drift	-----			
48 t	Hexachlorocyclopentadiene	50.000	45.189	9.6	71	0.00	5.96
52 t	2-Chloronaphthalene	1.175	1.180	-0.4	82	0.00	6.20
55 t	Dimethylphthalate	1.475	1.299	11.9	69	0.01	6.44

Initial Calibration Verification

Job Number: JC86043
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: EP5819-ICV5819
 Lab FileID: P128684.D

56 t	Acenaphthylene	1.947	1.764	9.4	73	0.00	6.55
57 t	2,6-Dinitrotoluene	0.314	0.271	13.7	67	0.00	6.50
59 t	Acenaphthene	1.180	1.062	10.0	69	0.00	6.71
63 t	2,4-Dinitrotoluene	0.454	0.368	18.9	59	0.00	6.87
65 t	Diethylphthalate	1.569	1.379	12.1	68	0.01	7.11
66 t	Fluorene	1.463	1.369	6.4	70	0.00	7.23
67 t	4-Chlorophenyl-phenylethe	0.737	0.691	6.2	65	0.00	7.23
69 I	Phenanthrene-d10	1.000	1.000	0.0	76	0.00	8.43
71 t	n-Nitrosodiphenylamine	0.556	0.491	11.7	67	0.00	7.37
72 t	1,2-Diphenylhydrazine	1.059	1.014	4.2	77	0.01	7.41
74 t	4-Bromophenyl-phenylether	0.234	0.214	8.5	66	0.00	7.82
75 t	Hexachlorobenzene	0.242	0.211	12.8	63	0.00	7.91
	----- AvgRF		CCRF	% Dev	-----		
77 t	Phenanthrene	1.110	1.024	7.7	68	0.00	8.47
78 t	Anthracene	1.182	1.046	11.5	67	0.01	8.55
80 t	Di-n-butylphthalate	1.621	1.357	16.3	62	0.00	9.49
81 t	Fluoranthene	1.340	1.156	13.7	63	0.01	10.53
83 I	Chrysene-d12	1.000	1.000	0.0	66	0.00	13.58
84 t	Pyrene	1.495	1.431	4.3	61	0.02	10.97
86 t	Butylbenzylphthalate	0.805	0.744	7.6	60	0.02	12.55
87 t	Benzo[a]anthracene	1.377	1.268	7.9	59	0.01	13.56
89 t	Chrysene	1.220	1.144	6.2	61	0.02	13.64
90 t	bis(2-Ethylhexyl)phthalat	1.108	0.979	11.6	57	0.01	13.95
91 I	Perylene-d12	1.000	1.000	0.0	69	0.00	16.61
92 t	Di-n-octylphthalate	1.904	1.605	15.7	56	0.01	15.38
93 t	Benzo[b]fluoranthene	1.328	1.079	18.8	55	0.02	15.87
94 t	Benzo[k]fluoranthene	1.128	1.058	6.2	65	0.00	15.92
95 t	Benzo[a]pyrene	1.118	1.028	8.1	63	0.02	16.50
96 t	Indeno[1,2,3-cd]pyrene	1.013	1.032	-1.9	67	0.02	18.56
98 t	Dibenz[a,h]anthracene	1.034	1.015	1.8	66	0.03	18.62
100 t	Benzo[g,h,i]perylene	0.983	1.045	-6.3	71	0.03	18.99

(#) = Out of Range
 p128678.D MP5819.M

SPCC's out = 0 CCC's out = 0
 Mon Mar 25 14:40:39 2019 ACLIMS

8.8.18

8

Initial Calibration Verification

Job Number: JC86043
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: EP5819-ICV5819
 Lab FileID: P128685.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EP5819\p128685.D Vial: 11
 Acq On : 25 Mar 2019 2:21 pm Operator: christc2
 Sample : icv5819-50 Inst : MSVOAMSP
 Misc : op13894,ep5819,1000,,,1,1 Multiplr: 1.00
 MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MP5819.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Thu Mar 28 14:47:31 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	121	0.00	4.38
2 t	1,4-Dioxane	0.725	0.576	20.6	90	0.03	1.87
6 t	Indene	2.472	2.583	-4.5	130	0.00	4.58
7 t	Cumene	4.168	3.869	7.2	109	0.01	3.78
		----- True	Calc.	% Drift	-----		
13 t	Decane	50.000	44.259	11.5	110	0.00	4.27
69 I	Phenanthrene-d10	1.000	1.000	0.0	95	0.00	8.43-
82 t	Octadecane	0.631	0.578	8.4	94	0.00	8.34

(#) = Out of Range
 p128716b.D MP5819.M

SPCC's out = 0 CCC's out = 0
 Thu Mar 28 18:12:50 2019 ACLIMS

8.8.19

8

Initial Calibration Verification

Job Number: JC86043
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: EP5819-ICV5819
 Lab FileID: P128686.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EP5819\p128686.D Vial: 12
 Acq On : 25 Mar 2019 2:48 pm Operator: christc2
 Sample : icv5819-50 Inst : MSVOAMSP
 Misc : op13894,ep5819,1000,,,1,1 Multiplr: 1.00
 MS Integration Params: rteint.p

Method : C:\msdchem\1\METHODS\MP5819.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Mon Mar 25 16:40:12 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	91	0.00	4.38
3 t	Pyridine	1.830	1.867	-2.0	85	0.18	2.38
10 t	Aniline	2.370	2.704	-14.1	104	0.00	4.16
16 t	Benzyl alcohol	0.988	1.074	-8.7	96	0.00	4.52
24 I	Naphthalene-d8	1.000	1.000	0.0	99	0.00	5.32
39 t	4-Chloroaniline	0.442	0.388	12.2	84	0.00	5.39
44 t	2-Methylnaphthalene	0.626	0.575	8.1	89	0.00	5.84
47 I	Acenaphthene-d10	1.000	1.000	0.0	80	0.00	6.68
54 t	2-Nitroaniline	0.526	0.533	-1.3	80	0.00	6.30
58 t	3-Nitroaniline	0.343	0.332	3.2	74	0.01	6.66
62 t	Dibenzofuran	1.737	1.715	1.3	73	0.00	6.87
68 t	4-Nitroaniline	0.318	0.339	-6.6	81	0.00	7.28
69 I	Phenanthrene-d10	1.000	1.000	0.0	84	0.00	8.43
79 t	Carbazole	1.096	1.040	5.1	80	0.01	8.84

(#) = Out of Range
 p128678.D MP5819.M

SPCC's out = 0 CCC's out = 0
 Mon Mar 25 17:10:11 2019 ACLIMS

8.8.20

8

Initial Calibration Verification

Job Number: JC86043
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: EP5819-ICV5819
 Lab FileID: P128687.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EP5819\p128687.D Vial: 13
 Acq On : 25 Mar 2019 3:15 pm Operator: christc2
 Sample : icv5819-50 Inst : MSVOAMSP
 Misc : op13894,ep5819,1000,,,1,1 Multiplr: 1.00
 MS Integration Params: rteint.p

Method : C:\msdchem\1\METHODS\MP5819.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Mon Mar 25 16:40:12 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	125	0.00	4.38
5 S	2-Fluorophenol	1.498	1.405	6.2	108	0.00	3.44
8 S	Phenol-d5	2.008	1.853	7.7	112	0.00	4.19
24 I	Naphthalene-d8	1.000	1.000	0.0	127	0.00	5.33
25 S	Nitrobenzene-d5	0.522	0.521	0.2	127	0.00	4.80
47 I	Acenaphthene-d10	1.000	1.000	0.0	110	0.00	6.68
51 S	2-Fluorobiphenyl	1.428	1.473	-3.2	104	0.00	6.11
69 I	Phenanthrene-d10	1.000	1.000	0.0	99	0.00	8.43
73 S	2,4,6-Tribromophenol	0.111	0.103	7.2	87	0.00	7.52
83 I	Chrysene-d12	1.000	1.000	0.0	94	0.00	13.57
85 S	Terphenyl-d14	0.988	0.952	3.6	86	0.02	11.39
91 I	Perylene-d12	1.000	1.000	0.0	89	0.00	16.61

(#) = Out of Range
 p128678.D MP5819.M

SPCC's out = 0 CCC's out = 0
 Mon Mar 25 17:10:13 2019 ACLIMS

Initial Calibration Verification

Job Number: JC86043
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: EP5819-ICV5819
 Lab FileID: P128688.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EP5819\p128688.D Vial: 14
 Acq On : 25 Mar 2019 3:42 pm Operator: christc2
 Sample : icv5819-50 Inst : MSVOAMSP
 Misc : opl3894,ep5819,1000,,,1,1 Multiplr: 1.00
 MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MP5819.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Thu Mar 28 14:47:31 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	83	0.00	4.38
9 t	Phenol	2.186	2.199	-0.6	85	0.00	4.19
12 t	2-Chlorophenol	1.472	1.467	0.3	85	0.00	4.25
19 t	2-Methylphenol	1.426	1.504	-5.5	92	0.00	4.62
21 t	3&4-Methylphenol	1.538	1.547	-0.6	87	0.00	4.74
24 I	Naphthalene-d8	1.000	1.000	0.0	76	0.00	5.32
29 t	2-Nitrophenol	0.219	0.217	0.9	71	0.00	5.05
30 t	2,4-Dimethylphenol	0.430	0.510	-18.6	88	0.00	5.11
31 t	Benzoic acid	0.342	0.319	6.7	75	0.05	5.25
33 t	2,4-Dichlorophenol	0.345	0.327	5.2	71	0.00	5.24
34	2,6-Dichlorophenol	0.326	0.330	-1.2	73	0.00	5.39
43 t	4-Chloro-3-methylphenol	0.414	0.417	-0.7	75	0.00	5.76
47 I	Acenaphthene-d10	1.000	1.000	0.0	75	0.00	6.68
49 t	2,4,6-Trichlorophenol	0.400	0.425	-6.2	75	0.00	6.06
50 t	2,4,5-Trichlorophenol	0.439	0.421	4.1	61	0.00	6.10
	----- True Calc. % Drift -----						
60 t	2,4-Dinitrophenol	50.000	40.745	18.5	56	-0.01	6.75
	----- AvgRF CCRF % Dev -----						
61 t	4-Nitrophenol	0.278	0.266	4.3	65	-0.02	6.87
64	2,3,4,6-Tetrachlorophenol	0.344	0.307	10.8	60	0.00	7.01
69 I	Phenanthrene-d10	1.000	1.000	0.0	67	0.00	8.43
70 t	4,6-Dinitro-2-methylpheno	0.127	0.127	0.0	62	0.00	7.31
	----- True Calc. % Drift -----						
76 t	Pentachlorophenol	50.000	48.669	2.7	60	0.00	8.19

(#) = Out of Range SPCC's out = 0 CCC's out = 0
 p128716b.D MP5819.M Thu Mar 28 18:05:31 2019 ACLIMS

Initial Calibration Verification

Job Number: JC86043
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: EP5819-ICV5819
 Lab FileID: P128689.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EP5819\p128689.D Vial: 15
 Acq On : 25 Mar 2019 4:09 pm Operator: christc2
 Sample : icv5819-50 Inst : MSVOAMSP
 Misc : op13894,ep5819,1000,,,1,1 Multiplr: 1.00
 MS Integration Params: rteint.p

Method : C:\msdchem\1\METHODS\MP5819.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Mon Mar 25 16:40:12 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.
83 I Chrysene-d12	1.000	1.000	0.0	163	0.00	13.58
88 t 3,3'-Dichlorobenzidine	0.434	0.418	3.7	142	0.03	13.63

(#) = Out of Range SPCC's out = 0 CCC's out = 0
 p128678.D MP5819.M Mon Mar 25 17:10:17 2019 ACLIMS

8.8.23
8

Initial Calibration Summary

Job Number: JC86043
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: EP5821-ICC5821
 Lab FileID: P128705B.D

Response Factor Report MSVOAMSP

Method : C:\MSDCHEM\1\METHODS\MP5821.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Wed Mar 27 09:13:41 2019
 Response via : Initial Calibration

Calibration Files

2 =p128709.D 5 =p128708.D 25 =p128706.D 80 =p128704b.D
 100 =p128703b.D 50 =p128705b.D 10 =p128707.D 1 =p128710.D

Compound	2	5	25	80	100	50	10	1	Avg %RSD
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157) I	1,4-Dichlorobenzene-d	-----ISTD-----									
158)	Benzaldehyde	1.287	1.333	1.248	1.225	1.264	1.267	1.368	1.269	1.283	3.64
159) I	Phenanthrene-d10b	-----ISTD-----									
160)	Atrazine	0.200	0.233	0.242	0.246	0.240	0.245	0.239	0.193	0.230	9.15
163) I	Naphthalene-d8b	-----ISTD-----									
164)	Hydroquinone	0.206	0.330	0.359	0.343	0.350	0.277		0.311		18.93
165) I	Acenaphthene-d10b	-----ISTD-----									
166)	1,2,4,5-Tetr	0.532	0.532	0.521	0.609	0.643	0.591	0.566	0.525	0.565	8.06

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

MP5819.M Wed Mar 27 09:15:26 2019 ACLIMS

8.8.24

8

Initial Calibration Verification

Job Number: JC86043
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: EP5821-ICV5821
 Lab FileID: P128711.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EP5821\p128711.D Vial: 10
 Acq On : 26 Mar 2019 8:50 pm Operator: christc2
 Sample : icv5821-50 Inst : MSVOAMSP
 Misc : op13894,ep5821,1000,,,1,1 Multiplr: 1.00
 MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MP5819.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Sun Apr 07 07:31:56 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	164	0.00	4.38
102 Benzaldehyde	1.283	1.202	6.3	155	0.00	4.06
103 I Phenanthrene-d10b	1.000	1.000	0.0	164	0.02	8.44
104 Atrazine	0.230	0.232	-0.9	155	0.04	8.09
1						
109 I Acenaphthene-d10b	1.000	1.000	0.0	154	0.00	6.67
110 1,2,4,5-Tetrachlorobenzen	0.565	0.649	-14.9	169	0.00	5.96

(#) = Out of Range
 p128716b.D MP5819.M

SPCC's out = 0 CCC's out = 0
 Mon Apr 08 10:08:44 2019 ACLIMS

Initial Calibration Verification

Job Number: JC86043
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: EP5821-ICV5821
 Lab FileID: P128712.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EP5821\p128712.D Vial: 11
 Acq On : 26 Mar 2019 9:17 pm Operator: christc2
 Sample : icv5821-50 Inst : MSVOAMSP
 Misc : op13894,ep5821,1000,,,1,1 Multiplr: 1.00
 MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MP5819.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Sun Apr 07 07:31:56 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.
107 I Naphthalene-d8b	1.000	1.000	0.0	75	0.00	5.31
108 Hydroquinone	0.311	0.339	-9.0	72	-0.04	5.67

(#) = Out of Range SPCC's out = 0 CCC's out = 0
 p128716b.D MP5819.M Mon Apr 08 10:08:46 2019 ACLIMS

8.8.26
8

Initial Calibration Summary

Job Number: JC86043 **Sample:** EP5822-ICC5822
Account: BBLNYS Arcadis **Lab FileID:** P128716A.D
Project: National Grid, Philly Coke, Philadelphia, PA

Response Factor Report MSVOAMSP

Method : C:\MSDCHEM\1\METHODS\MP5822.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Wed Mar 27 10:04:47 2019
 Response via : Initial Calibration

Calibration Files

2 =p128720.D 5 =p128719.D 25 =p128717.D 80 =p128715a.D
 100 =p128714a.D 50 =p128716a.D 10 =p128718.D 1 =

Compound	2	5	25	80	100	50	10	1	Avg %RSD
----------	---	---	----	----	-----	----	----	---	----------

161) I Chrysene-d12b	-----ISTD-----								
162) Benzidine	0.944	1.008	1.008	0.980	0.750		0.938	11.55	

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

MP5819.M Wed Mar 27 10:07:19 2019 ACLIMS

8.8.27

8

Initial Calibration Verification

Job Number: JC86043
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: EP5822-ICV5822
 Lab FileID: P128722.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EP5822\p128722.D Vial: 20
 Acq On : 27 Mar 2019 2:20 am Operator: christc2
 Sample : icv5822-50 Inst : MSVOAMSP
 Misc : op13894,ep5822,1000,,,1,1 Multiplr: 1.00
 MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MP5819.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Wed Mar 27 10:04:47 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.
161 I Chrysene-d12b	1.000	1.000	0.0	154	0.01	13.56
162 Benzidine	0.938	0.811	13.5	127	0.02	10.87

(#) = Out of Range SPCC's out = 0 CCC's out = 0
 p128716b.D MP5819.M Wed Mar 27 10:07:40 2019 ACLIMS

8.8.28
8

Initial Calibration Verification

Job Number: JC86043
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: EP5823-ICV5819
 Lab FileID: P128724.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EP5823\p128724.D Vial: 2
 Acq On : 27 Mar 2019 3:31 pm Operator: christc2
 Sample : icv5819-50 Inst : MSVOAMSP
 Misc : op13894,ep5823,1000,,,1,1 Multiplr: 1.00
 MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MP5819.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Wed Mar 27 10:04:47 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	67	-0.02	4.36
18 t	Acetophenone	2.362	2.743	-16.1	79	-0.02	4.66
24 I	Naphthalene-d8	1.000	1.000	0.0	69	-0.02	5.30
27 t	Quinoline	0.787	0.891	-13.2	76	-0.02	5.56
40 t	2,3-Dichloroaniline	0.433	0.406	6.2	64	-0.02	6.03
41 t	Caprolactam	0.257	0.285	-10.9	77	0.00	5.62
45 t	1-Methylnaphthalene	0.806	0.826	-2.5	70	-0.02	5.89
46 t	Dimethylnaphthalene	0.722	0.757	-4.8	71	-0.01	6.29
47 I	Acenaphthene-d10	1.000	1.000	0.0	63	-0.02	6.65
53 t	Biphenyl	1.595	1.814	-13.7	69	-0.02	6.17
91 I	Perylene-d12	1.000	1.000	0.0	65	-0.07	16.55
99 t	7,12-Dimethylbenz(a)anthr	0.546	0.669	-22.5	72	-0.03	15.82

(#) = Out of Range
 p128716b.D MP5819.M

SPPC's out = 0 CCC's out = 0
 Wed Mar 27 19:15:58 2019 ACLIMS

Continuing Calibration Summary

Job Number: JC86043
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: EP5835-CC5819
 Lab FileID: P128926.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EP5835\p128926.D Vial: 2
 Acq On : 11 Apr 2019 1:08 am Operator: chriss2
 Sample : cc5819-25 Inst : MSVOAMSP
 Misc : op13894,ep5835,1000,,,1,1 Multiplr: 1.00
 MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MP5819.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Tue Apr 09 07:59:45 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	75	-0.11	4.28
2 t	1,4-Dioxane	0.725	0.721	0.6	72	-0.14	1.70
3 t	Pyridine	1.830	1.955	-6.8	77	-0.19	2.02
4 t	N-Nitrosodimethylamine	1.004	1.227	-22.2#	89	-0.18	2.00
5 S	2-Fluorophenol	1.498	1.571	-4.9	76	-0.13	3.31
6 t	Indene	2.472	2.537	-2.6	79	-0.11	4.47
7 t	Cumene	4.168	4.522	-8.5	81	-0.11	3.66
8 S	Phenol-d5	2.008	2.078	-3.5	78	-0.13	4.07
9 t	Phenol	2.186	2.243	-2.6	78	-0.12	4.08
10 t	Aniline	2.370	2.647	-11.7	83	-0.11	4.04
11 t	bis(2-Chloroethyl)ether	1.660	1.630	1.8	77	-0.10	4.09
12 t	2-Chlorophenol	1.472	1.486	-1.0	76	-0.12	4.14
----- True Calc. % Drift -----							
13 t	Decane	25.000	31.937	-27.7#	92	-0.10	4.17
----- AvgRF CCRF % Dev -----							
14 t	1,3-Dichlorobenzene	1.673	1.700	-1.6	77	-0.11	4.24
15 t	1,4-Dichlorobenzene	1.644	1.632	0.7	79	-0.11	4.29
16 t	Benzyl alcohol	0.988	1.000	-1.2	76	-0.11	4.40
17 t	1,2-Dichlorobenzene	1.637	1.623	0.9	78	-0.11	4.41
18 t	Acetophenone	2.362	2.383	-0.9	77	-0.10	4.59
19 t	2-Methylphenol	1.426	1.444	-1.3	77	-0.12	4.51
20 t	2,2'-oxybis(1-Chloropropa	0.412	0.403	2.2	72	-0.11	4.49
21 t	3&4-Methylphenol	1.538	1.524	0.9	76	-0.11	4.63
22	n-Nitroso-di-n-propylamin	1.236	1.300	-5.2	81	-0.10	4.59
23 t	Hexachloroethane	0.587	0.597	-1.7	79	-0.11	4.65
24 I	Naphthalene-d8	1.000	1.000	0.0	73	-0.10	5.22
25 S	Nitrobenzene-d5	0.522	0.582	-11.5	82	-0.11	4.70
26 t	Nitrobenzene	0.549	0.594	-8.2	82	-0.10	4.71
27 t	Quinoline	0.787	0.768	2.4	71	-0.10	5.48
28 t	Isophorone	0.943	1.002	-6.3	79	-0.10	4.89
29 t	2-Nitrophenol	0.219	0.208	5.0	73	-0.11	4.95
30 t	2,4-Dimethylphenol	0.430	0.468	-8.8	82	-0.11	5.00
31 t	Benzoic acid	0.342	0.359	-5.0	72	-0.07	5.12
32 t	bis(2-Chloroethoxy)methan	0.503	0.517	-2.8	78	-0.10	5.05
33 t	2,4-Dichlorophenol	0.345	0.327	5.2	73	-0.11	5.14
34	2,6-Dichlorophenol	0.326	0.313	4.0	75	-0.11	5.29
35	1,3,5-Trichlorobenzene	0.387	0.377	2.6	75	-0.10	4.95
36 t	1,2,4-Trichlorobenzene	0.356	0.348	2.2	74	-0.10	5.18
37	1,2,3-Trichlorobenzene	0.343	0.330	3.8	75	-0.10	5.34

Continuing Calibration Summary

Job Number: JC86043
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: EP5835-CC5819
 Lab FileID: P128926.D

38 t	Naphthalene	1.057	1.044	1.2	77	-0.10	5.24
39 t	4-Chloroaniline	0.442	0.428	3.2	75	-0.11	5.28
40 t	2,3-Dichloroaniline	0.433	0.412	4.8	74	-0.11	5.94
41 t	Caprolactam	0.257	0.261	-1.6	78	-0.08	5.54
42 t	Hexachlorobutadiene	0.223	0.221	0.9	75	-0.10	5.33
43 t	4-Chloro-3-methylphenol	0.414	0.428	-3.4	74	-0.11	5.66
44 t	2-Methylnaphthalene	0.626	0.617	1.4	75	-0.11	5.73
45 t	1-Methylnaphthalene	0.806	0.765	5.1	74	-0.11	5.80
46 t	Dimethylnaphthalene	0.722	0.647	10.4	71	-0.11	6.20
47 I	Acenaphthene-d10	1.000	1.000	0.0	70	-0.13	6.54
		----- True	Calc.	% Drift	-----		
48 t	Hexachlorocyclopentadiene	50.000	48.409	3.2	77	-0.11	5.85
		----- AvgRF	CCRF	% Dev	-----		
49 t	2,4,6-Trichlorophenol	0.400	0.403	-0.8	72	-0.11	5.95
50 t	2,4,5-Trichlorophenol	0.439	0.427	2.7	67	-0.12	5.99
51 S	2-Fluorobiphenyl	1.428	1.388	2.8	70	-0.11	6.00
52 t	2-Chloronaphthalene	1.175	1.164	0.9	72	-0.11	6.09
53 t	Biphenyl	1.595	1.601	-0.4	75	-0.11	6.07
54 t	2-Nitroaniline	0.526	0.587	-11.6	76	-0.12	6.18
55 t	Dimethylphthalate	1.475	1.479	-0.3	70	-0.11	6.32
56 t	Acenaphthylene	1.947	1.972	-1.3	73	-0.13	6.42
57 t	2,6-Dinitrotoluene	0.314	0.323	-2.9	70	-0.12	6.37
58 t	3-Nitroaniline	0.343	0.352	-2.6	70	-0.13	6.52
59 t	Acenaphthene	1.180	1.215	-3.0	74	-0.13	6.57
		----- True	Calc.	% Drift	-----		
60 t	2,4-Dinitrophenol	50.000	41.062	17.9	60	-0.14	6.62
		----- AvgRF	CCRF	% Dev	-----		
61 t	4-Nitrophenol	0.278	0.334	-20.1#	79	-0.17	6.73
62 t	Dibenzofuran	1.737	1.693	2.5	71	-0.14	6.73
63 t	2,4-Dinitrotoluene	0.454	0.440	3.1	68	-0.14	6.73
64	2,3,4,6-Tetrachlorophenol	0.344	0.353	-2.6	72	-0.15	6.87
65 t	Diethylphthalate	1.569	1.606	-2.4	71	-0.14	6.97
66 t	Fluorene	1.463	1.491	-1.9	71	-0.15	7.08
67 t	4-Chlorophenyl-phenylethe	0.737	0.702	4.7	67	-0.15	7.08
68 t	4-Nitroaniline	0.318	0.301	5.3	64	-0.15	7.13
69 I	Phenanthrene-d10	1.000	1.000	0.0	68	-0.20	8.24
70 t	4,6-Dinitro-2-methylpheno	0.127	0.120	5.5	62	-0.15	7.15
71 t	n-Nitrosodiphenylamine	0.556	0.571	-2.7	72	-0.15	7.21
72 t	1,2-Diphenylhydrazine	1.059	1.212	-14.4	79	-0.04	7.25
73 S	2,4,6-Tribromophenol	0.111	0.106	4.5	67	-0.16	7.35
74 t	4-Bromophenyl-phenylether	0.234	0.233	0.4	67	-0.17	7.64
75 t	Hexachlorobenzene	0.242	0.237	2.1	67	-0.17	7.73
		----- True	Calc.	% Drift	-----		
76 t	Pentachlorophenol	50.000	50.384	-0.8	71	-0.19	8.01
		----- AvgRF	CCRF	% Dev	-----		
77 t	Phenanthrene	1.110	1.140	-2.7	71	-0.19	8.27
78 t	Anthracene	1.182	1.215	-2.8	71	-0.19	8.35
79 t	Carbazole	1.096	1.063	3.0	67	-0.20	8.62
80 t	Di-n-butylphthalate	1.621	1.641	-1.2	68	-0.20	9.28
81 t	Fluoranthene	1.340	1.378	-2.8	68	-0.23	10.29
82 t	Octadecane	0.631	0.723	-14.6	79	-0.17	8.17

8.8.30

8

Continuing Calibration Summary

Job Number: JC86043
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA

Sample: EP5835-CC5819
Lab FileID: P128926.D

83	I	Chrysene-d12	1.000	1.000	0.0	65	-0.27	13.31
84	t	Pyrene	1.495	1.571	-5.1	68	-0.23	10.72
85	S	Terphenyl-d14	0.988	0.997	-0.9	66	-0.23	11.14
86	t	Butylbenzylphthalate	0.805	0.839	-4.2	65	-0.23	12.30
87	t	Benzo[a]anthracene	1.377	1.432	-4.0	68	-0.26	13.29
88	t	3,3'-Dichlorobenzidine	0.434	0.439	-1.2	64	-0.26	13.34
89	t	Chrysene	1.220	1.264	-3.6	68	-0.26	13.37
90	t	bis(2-Ethylhexyl)phthalat	1.108	1.125	-1.5	65	-0.23	13.71
91	I	Perylene-d12	1.000	1.000	0.0	69	-0.28	16.34
92	t	Di-n-octylphthalate	1.904	1.842	3.3	65	-0.23	15.14
93	t	Benzo[b]fluoranthene	1.328	1.304	1.8	68	-0.26	15.58
94	t	Benzo[k]fluoranthene	1.128	1.162	-3.0	72	-0.28	15.65
95	t	Benzo[a]pyrene	1.118	1.182	-5.7	74	-0.26	16.21
96	t	Indeno[1,2,3-cd]pyrene	1.013	1.110	-9.6	77	-0.27	18.27
97	t	Dibenz(a,h)acridine	0.951	1.033	-8.6	74	-0.26	17.91
98	t	Dibenz[a,h]anthracene	1.034	1.107	-7.1	75	-0.13	18.33
99	t	7,12-Dimethylbenz(a)anthr	0.546	0.570	-4.4	71	-0.25	15.60
100	t	Benzo[g,h,i]perylene	0.983	1.103	-12.2	79	-0.27	18.70

(#) = Out of Range
p128717a.D MP5819.M

SPCC's out = 0 CCC's out = 0
Thu Apr 11 10:51:37 2019 ACLIMS

8.8.30

8

Continuing Calibration Summary

Job Number: JC86043
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: EP5835-CC5821
 Lab FileID: P128927.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EP5835\p128927.D Vial: 3
 Acq On : 11 Apr 2019 1:35 am Operator: chriss2
 Sample : cc5821-25 Inst : MSVOAMSP
 Misc : op13894,ep5835,1000,,,1,1 Multiplr: 1.00
 MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MP5819.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Thu Apr 11 10:55:50 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	65	-0.10	4.28
102	Benzaldehyde	1.283	1.327	-3.4	69	-0.11	3.95
103 I	Phenanthrene-d10b	1.000	1.000	0.0	69	-0.18	8.24
104	Atrazine	0.230	0.268	-16.5	76	-0.15	7.90
107 I	Naphthalene-d8b	1.000	1.000	0.0	64	-0.10	5.22
108	Hydroquinone	0.311	0.425	-36.7#	82	-0.15	5.56
109 I	Acenaphthene-d10b	1.000	1.000	0.0	63	-0.12	6.54
110	1,2,4,5-Tetrachlorobenzen	0.565	0.592	-4.8	72	-0.10	5.85

(#) = Out of Range
 p128717a.D MP5819.M

SPCC's out = 0 CCC's out = 0
 Thu Apr 11 11:00:54 2019 ACLIMS

Continuing Calibration Summary

Job Number: JC86043
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: EP5835-CC5822
 Lab FileID: P128928.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EP5835\p128928.D Vial: 4
 Acq On : 11 Apr 2019 2:02 am Operator: chriss2
 Sample : cc5822-25 Inst : MSVOAMSP
 Misc : op13894,ep5835,1000,,,1,1 Multiplr: 1.00
 MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MP5819.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Thu Apr 11 10:55:50 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	117	-0.24	13.31
106 Benzidine	0.938	0.772	17.7	96	-0.21	10.64

(#) = Out of Range
 p128717a.D MP5819.M

SPCC's out = 0 CCC's out = 0
 Thu Apr 11 11:01:54 2019 ACLIMS

Continuing Calibration Summary

Job Number: JC86043
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: EP5836-CC5819
 Lab FileID: P128951.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EP5836\p128951.D Vial: 2
 Acq On : 11 Apr 2019 1:16 pm Operator: christc2
 Sample : cc5819-50 Inst : MSVOAMSP
 Misc : op13894,ep5836,1000,,,1,1 Multiplr: 1.00
 MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MP5819.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Fri Apr 12 09:28:59 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	-0.12	4.27
2 t	1,4-Dioxane	0.725	0.711	1.9	82	-0.16	1.68
3 t	Pyridine	1.830	1.887	-3.1	84	-0.21	1.99
4 t	N-Nitrosodimethylamine	1.004	1.058	-5.4	88	-0.20	1.98
5 S	2-Fluorophenol	1.498	1.546	-3.2	85	-0.15	3.30
6 t	Indene	2.472	2.387	3.4	89	-0.12	4.46
7 t	Cumene	4.168	4.307	-3.3	90	-0.12	3.65
8 S	Phenol-d5	2.008	1.974	1.7	86	-0.14	4.05
9 t	Phenol	2.186	2.080	4.8	87	-0.13	4.07
10 t	Aniline	2.370	2.569	-8.4	98	-0.13	4.03
11 t	bis(2-Chloroethyl)ether	1.660	1.494	10.0	86	-0.11	4.08
12 t	2-Chlorophenol	1.472	1.425	3.2	89	-0.13	4.13
----- True Calc. % Drift -----							
13 t	Decane	50.000	56.294	-12.6	98	-0.11	4.16
----- AvgRF CCRF % Dev -----							
14 t	1,3-Dichlorobenzene	1.673	1.635	2.3	89	-0.12	4.23
15 t	1,4-Dichlorobenzene	1.644	1.590	3.3	88	-0.12	4.28
16 t	Benzyl alcohol	0.988	0.982	0.6	86	-0.12	4.40
17 t	1,2-Dichlorobenzene	1.637	1.611	1.6	86	-0.12	4.40
18 t	Acetophenone	2.362	2.250	4.7	88	-0.11	4.58
19 t	2-Methylphenol	1.426	1.358	4.8	89	-0.12	4.50
20 t	2,2'-oxybis(1-Chloropropa	0.412	0.387	6.1	87	-0.11	4.49
21 t	3&4-Methylphenol	1.538	1.442	6.2	87	-0.12	4.62
22	n-Nitroso-di-n-propylamin	1.236	1.168	5.5	91	-0.10	4.59
23 t	Hexachloroethane	0.587	0.596	-1.5	93	-0.12	4.64
24 I	Naphthalene-d8	1.000	1.000	0.0	86	-0.11	5.21
25 S	Nitrobenzene-d5	0.522	0.559	-7.1	92	-0.11	4.69
26 t	Nitrobenzene	0.549	0.553	-0.7	91	-0.11	4.71
27 t	Quinoline	0.787	0.780	0.9	84	-0.11	5.48
28 t	Isophorone	0.943	0.967	-2.5	89	-0.11	4.88
29 t	2-Nitrophenol	0.219	0.220	-0.5	82	-0.12	4.94
30 t	2,4-Dimethylphenol	0.430	0.461	-7.2	90	-0.11	4.99
31 t	Benzoic acid	0.342	0.391	-14.3	104	-0.06	5.13
32 t	bis(2-Chloroethoxy)methan	0.503	0.491	2.4	87	-0.11	5.04
33 t	2,4-Dichlorophenol	0.345	0.337	2.3	83	-0.12	5.13
34	2,6-Dichlorophenol	0.326	0.324	0.6	81	-0.11	5.28
35	1,3,5-Trichlorobenzene	0.387	0.393	-1.6	82	-0.11	4.94
36 t	1,2,4-Trichlorobenzene	0.356	0.361	-1.4	87	-0.11	5.17
37	1,2,3-Trichlorobenzene	0.343	0.339	1.2	84	-0.11	5.33

Continuing Calibration Summary

Job Number: JC86043
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: EP5836-CC5819
 Lab FileID: P128951.D

38 t	Naphthalene	1.057	1.074	-1.6	87	-0.11	5.22
39 t	4-Chloroaniline	0.442	0.445	-0.7	84	-0.11	5.28
40 t	2,3-Dichloroaniline	0.433	0.426	1.6	84	-0.12	5.93
41 t	Caprolactam	0.257	0.250	2.7	85	-0.06	5.56
42 t	Hexachlorobutadiene	0.223	0.237	-6.3	84	-0.11	5.32
43 t	4-Chloro-3-methylphenol	0.414	0.431	-4.1	87	-0.11	5.66
44 t	2-Methylnaphthalene	0.626	0.621	0.8	83	-0.11	5.73
45 t	1-Methylnaphthalene	0.806	0.785	2.6	84	-0.11	5.80
46 t	Dimethylnaphthalene	0.722	0.651	9.8	76	-0.12	6.19
47 I	Acenaphthene-d10	1.000	1.000	0.0	82	-0.14	6.53
----- True Calc. % Drift -----							
48 t	Hexachlorocyclopentadiene	100.000	105.589	-5.6	86	-0.12	5.84
----- AvgRF CCRF % Dev -----							
49 t	2,4,6-Trichlorophenol	0.400	0.404	-1.0	79	-0.12	5.95
50 t	2,4,5-Trichlorophenol	0.439	0.461	-5.0	73	-0.12	5.98
51 S	2-Fluorobiphenyl	1.428	1.406	1.5	75	-0.11	5.99
52 t	2-Chloronaphthalene	1.175	1.168	0.6	82	-0.12	6.08
53 t	Biphenyl	1.595	1.618	-1.4	80	-0.12	6.07
54 t	2-Nitroaniline	0.526	0.541	-2.9	84	-0.12	6.18
55 t	Dimethylphthalate	1.475	1.491	-1.1	81	-0.12	6.31
56 t	Acenaphthylene	1.947	1.953	-0.3	82	-0.14	6.41
57 t	2,6-Dinitrotoluene	0.314	0.326	-3.8	83	-0.12	6.37
58 t	3-Nitroaniline	0.343	0.347	-1.2	80	-0.13	6.52
59 t	Acenaphthene	1.180	1.234	-4.6	82	-0.14	6.57
----- True Calc. % Drift -----							
60 t	2,4-Dinitrophenol	100.000	110.034	-10.0	91	-0.15	6.61
----- AvgRF CCRF % Dev -----							
61 t	4-Nitrophenol	0.278	0.354	-27.3#	96	-0.18	6.71
62 t	Dibenzofuran	1.737	1.749	-0.7	77	-0.14	6.73
63 t	2,4-Dinitrotoluene	0.454	0.459	-1.1	74	-0.14	6.73
64	2,3,4,6-Tetrachlorophenol	0.344	0.375	-9.0	81	-0.16	6.86
65 t	Diethylphthalate	1.569	1.592	-1.5	80	-0.14	6.97
66 t	Fluorene	1.463	1.514	-3.5	79	-0.16	7.07
67 t	4-Chlorophenyl-phenylethe	0.737	0.752	-2.0	72	-0.16	7.07
68 t	4-Nitroaniline	0.318	0.320	-0.6	79	-0.15	7.13
69 I	Phenanthrene-d10	1.000	1.000	0.0	77	-0.21	8.23
70 t	4,6-Dinitro-2-methylpheno	0.127	0.146	-15.0	82	-0.15	7.15
71 t	n-Nitrosodiphenylamine	0.556	0.576	-3.6	80	-0.16	7.21
72 t	1,2-Diphenylhydrazine	1.059	1.123	-6.0	87	-0.05	7.24
73 S	2,4,6-Tribromophenol	0.111	0.115	-3.6	76	-0.17	7.34
74 t	4-Bromophenyl-phenylether	0.234	0.240	-2.6	76	-0.18	7.64
75 t	Hexachlorobenzene	0.242	0.248	-2.5	75	-0.18	7.72
----- True Calc. % Drift -----							
76 t	Pentachlorophenol	100.000	105.775	-5.8	81	-0.20	8.00
----- AvgRF CCRF % Dev -----							
77 t	Phenanthrene	1.110	1.163	-4.8	79	-0.20	8.27
78 t	Anthracene	1.182	1.244	-5.2	81	-0.20	8.34
79 t	Carbazole	1.096	1.134	-3.5	80	-0.21	8.62
80 t	Di-n-butylphthalate	1.621	1.671	-3.1	78	-0.21	9.27
81 t	Fluoranthene	1.340	1.396	-4.2	77	-0.24	10.28
82 t	Octadecane	0.631	0.657	-4.1	86	-0.18	8.16

8.8.33

8

Continuing Calibration Summary

Job Number: JC86043
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA

Sample: EP5836-CC5819
Lab FileID: P128951.D

83	I	Chrysene-d12	1.000	1.000	0.0	75	-0.27	13.31
84	t	Pyrene	1.495	1.573	-5.2	77	-0.23	10.71
85	S	Terphenyl-d14	0.988	1.027	-3.9	74	-0.24	11.13
86	t	Butylbenzylphthalate	0.805	0.841	-4.5	77	-0.24	12.29
87	t	Benzo[a]anthracene	1.377	1.434	-4.1	77	-0.26	13.29
88	t	3,3'-Dichlorobenzidine	0.434	0.479	-10.4	75	-0.26	13.34
89	t	Chrysene	1.220	1.279	-4.8	78	-0.26	13.37
90	t	bis(2-Ethylhexyl)phthalat	1.108	1.121	-1.2	75	-0.25	13.70
91	I	Perylene-d12	1.000	1.000	0.0	79	-0.29	16.33
92	t	Di-n-octylphthalate	1.904	1.819	4.5	74	-0.24	15.13
93	t	Benzo[b]fluoranthene	1.328	1.299	2.2	76	-0.25	15.59
94	t	Benzo[k]fluoranthene	1.128	1.141	-1.2	81	-0.27	15.65
95	t	Benzo[a]pyrene	1.118	1.157	-3.5	81	-0.26	16.21
96	t	Indeno[1,2,3-cd]pyrene	1.013	1.071	-5.7	80	-0.26	18.28
97	t	Dibenz(a,h)acridine	0.951	0.988	-3.9	80	-0.26	17.92
98	t	Dibenz[a,h]anthracene	1.034	1.098	-6.2	82	-0.13	18.33
99	t	7,12-Dimethylbenz(a)anthr	0.546	0.585	-7.1	77	-0.25	15.60
100	t	Benzo[g,h,i]perylene	0.983	1.043	-6.1	82	-0.26	18.70

(#) = Out of Range
p128716b.D MP5819.M

SPCC's out = 0 CCC's out = 0
Fri Apr 12 09:31:32 2019 ACLIMS

8.8.33

8

Continuing Calibration Summary

Job Number: JC86043
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: EP5836-CC5821
 Lab FileID: P128952.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EP5836\p128952.D Vial: 3
 Acq On : 11 Apr 2019 1:43 pm Operator: christc2
 Sample : cc5821-50 Inst : MSVOAMSP
 Misc : op13894,ep5836,1000,,,1,1 Multiplr: 1.00
 MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MP5819.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Fri Apr 12 09:34:10 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	80	-0.11	4.27
102	Benzaldehyde	1.283	1.301	-1.4	82	-0.12	3.94
103 I	Phenanthrene-d10b	1.000	1.000	0.0	75	-0.19	8.23
104	Atrazine	0.230	0.268	-16.5	82	-0.16	7.90
107 I	Naphthalene-d8b	1.000	1.000	0.0	77	-0.11	5.20
108	Hydroquinone	0.311	0.426	-37.0#	93	-0.15	5.56
109 I	Acenaphthene-d10b	1.000	1.000	0.0	74	-0.14	6.53
110	1,2,4,5-Tetrachlorobenzen	0.565	0.607	-7.4	76	-0.11	5.84

(#) = Out of Range SPCC's out = 0 CCC's out = 0
 p128716b.D MP5819.M Fri Apr 12 09:43:39 2019 ACLIMS

8.8.34
8

Continuing Calibration Summary

Job Number: JC86043
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: EP5836-ECC5819
 Lab FileID: P128966.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EP5836\p128966.D Vial: 2
 Acq On : 11 Apr 2019 10:22 pm Operator: christc2
 Sample : ecc5819-50 Inst : MSVOAMSP
 Misc : op19673,ep5836,30.0,,,1,1 Multiplr: 1.00
 MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MP5819.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Fri Apr 12 09:48:05 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	79	-0.12	4.27
2 t	1,4-Dioxane	0.725	0.727	-0.3	73	-0.17	1.68
3 t	Pyridine	1.830	1.894	-3.5	74	-0.21	1.99
4 t	N-Nitrosodimethylamine	1.004	1.212	-20.7	88	-0.21	1.98
5 S	2-Fluorophenol	1.498	1.534	-2.4	74	-0.15	3.29
6 t	Indene	2.472	2.405	2.7	78	-0.12	4.46
7 t	Cumene	4.168	4.372	-4.9	80	-0.12	3.65
8 S	Phenol-d5	2.008	1.961	2.3	75	-0.14	4.05
9 t	Phenol	2.186	2.084	4.7	76	-0.14	4.06
10 t	Aniline	2.370	2.640	-11.4	88	-0.13	4.03
11 t	bis(2-Chloroethyl)ether	1.660	1.489	10.3	74	-0.11	4.08
12 t	2-Chlorophenol	1.472	1.414	3.9	77	-0.13	4.12
----- True Calc. % Drift -----							
13 t	Decane	50.000	68.105	-36.2	97	-0.11	4.16
----- AvgRF CCRF % Dev -----							
14 t	1,3-Dichlorobenzene	1.673	1.635	2.3	77	-0.12	4.23
15 t	1,4-Dichlorobenzene	1.644	1.596	2.9	77	-0.12	4.28
16 t	Benzyl alcohol	0.988	0.894	9.5	69	-0.12	4.40
17 t	1,2-Dichlorobenzene	1.637	1.629	0.5	76	-0.12	4.39
18 t	Acetophenone	2.362	2.321	1.7	79	-0.11	4.58
19 t	2-Methylphenol	1.426	1.325	7.1	76	-0.13	4.50
20 t	2,2'-oxybis(1-Chloropropa	0.412	0.385	6.6	76	-0.12	4.48
21 t	3&4-Methylphenol	1.538	1.453	5.5	77	-0.12	4.62
22	n-Nitroso-di-n-propylamin	1.236	1.207	2.3	82	-0.10	4.59
23 t	Hexachloroethane	0.587	0.571	2.7	78	-0.12	4.64
24 I	Naphthalene-d8	1.000	1.000	0.0	76	-0.11	5.21
25 S	Nitrobenzene-d5	0.522	0.554	-6.1	81	-0.11	4.69
26 t	Nitrobenzene	0.549	0.572	-4.2	83	-0.11	4.70
27 t	Quinoline	0.787	0.769	2.3	73	-0.11	5.48
28 t	Isophorone	0.943	0.985	-4.5	80	-0.11	4.88
29 t	2-Nitrophenol	0.219	0.218	0.5	72	-0.12	4.94
30 t	2,4-Dimethylphenol	0.430	0.469	-9.1	81	-0.12	4.99
31 t	Benzoic acid	0.342	0.345	-0.9	81	-0.07	5.13
32 t	bis(2-Chloroethoxy)methan	0.503	0.494	1.8	77	-0.11	5.04
33 t	2,4-Dichlorophenol	0.345	0.332	3.8	73	-0.12	5.13
34	2,6-Dichlorophenol	0.326	0.321	1.5	71	-0.11	5.28
35	1,3,5-Trichlorobenzene	0.387	0.403	-4.1	74	-0.11	4.94
36 t	1,2,4-Trichlorobenzene	0.356	0.362	-1.7	77	-0.11	5.17
37	1,2,3-Trichlorobenzene	0.343	0.339	1.2	74	-0.11	5.33

Continuing Calibration Summary

Job Number: JC86043
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: EP5836-ECC5819
 Lab FileID: P128966.D

38 t	Naphthalene	1.057	1.063	-0.6	76	-0.11	5.22
39 t	4-Chloroaniline	0.442	0.460	-4.1	77	-0.11	5.28
40 t	2,3-Dichloroaniline	0.433	0.415	4.2	73	-0.12	5.93
41 t	Caprolactam	0.257	0.258	-0.4	77	-0.06	5.56
42 t	Hexachlorobutadiene	0.223	0.238	-6.7	75	-0.11	5.32
43 t	4-Chloro-3-methylphenol	0.414	0.425	-2.7	76	-0.12	5.65
44 t	2-Methylnaphthalene	0.626	0.624	0.3	74	-0.12	5.72
45 t	1-Methylnaphthalene	0.806	0.789	2.1	75	-0.12	5.79
46 t	Dimethylnaphthalene	0.722	0.656	9.1	68	-0.12	6.19
47 I	Acenaphthene-d10	1.000	1.000	0.0	72	-0.14	6.53
----- True Calc. % Drift -----							
48 t	Hexachlorocyclopentadiene	100.000	101.265	-1.3	71	-0.12	5.84
----- AvgRF CCRF % Dev -----							
49 t	2,4,6-Trichlorophenol	0.400	0.403	-0.8	69	-0.12	5.94
50 t	2,4,5-Trichlorophenol	0.439	0.442	-0.7	61	-0.13	5.98
51 S	2-Fluorobiphenyl	1.428	1.422	0.4	66	-0.12	5.99
52 t	2-Chloronaphthalene	1.175	1.166	0.8	72	-0.12	6.08
53 t	Biphenyl	1.595	1.629	-2.1	70	-0.12	6.06
54 t	2-Nitroaniline	0.526	0.574	-9.1	78	-0.13	6.17
55 t	Dimethylphthalate	1.475	1.492	-1.2	71	-0.12	6.31
56 t	Acenaphthylene	1.947	1.989	-2.2	73	-0.14	6.41
57 t	2,6-Dinitrotoluene	0.314	0.320	-1.9	70	-0.13	6.36
58 t	3-Nitroaniline	0.343	0.365	-6.4	73	-0.14	6.51
59 t	Acenaphthene	1.180	1.260	-6.8	73	-0.14	6.56
----- True Calc. % Drift -----							
60 t	2,4-Dinitrophenol	100.000	99.201	0.8	71	-0.15	6.61
----- AvgRF CCRF % Dev -----							
61 t	4-Nitrophenol	0.278	0.350	-25.9	83	-0.18	6.71
62 t	Dibenzofuran	1.737	1.744	-0.4	67	-0.15	6.72
63 t	2,4-Dinitrotoluene	0.454	0.451	0.7	64	-0.14	6.73
64	2,3,4,6-Tetrachlorophenol	0.344	0.352	-2.3	66	-0.16	6.86
65 t	Diethylphthalate	1.569	1.590	-1.3	70	-0.14	6.96
66 t	Fluorene	1.463	1.558	-6.5	71	-0.17	7.06
67 t	4-Chlorophenyl-phenylethe	0.737	0.776	-5.3	65	-0.16	7.07
68 t	4-Nitroaniline	0.318	0.349	-9.7	76	-0.15	7.12
69 I	Phenanthrene-d10	1.000	1.000	0.0	67	-0.21	8.23
70 t	4,6-Dinitro-2-methylpheno	0.127	0.141	-11.0	68	-0.16	7.15
71 t	n-Nitrosodiphenylamine	0.556	0.579	-4.1	70	-0.16	7.21
72 t	1,2-Diphenylhydrazine	1.059	1.194	-12.7	80	-0.05	7.24
73 S	2,4,6-Tribromophenol	0.111	0.109	1.8	62	-0.18	7.33
74 t	4-Bromophenyl-phenylether	0.234	0.240	-2.6	66	-0.18	7.63
75 t	Hexachlorobenzene	0.242	0.242	0.0	64	-0.19	7.71
----- True Calc. % Drift -----							
76 t	Pentachlorophenol	100.000	99.695	0.3	66	-0.20	8.00
----- AvgRF CCRF % Dev -----							
77 t	Phenanthrene	1.110	1.165	-5.0	69	-0.20	8.26
78 t	Anthracene	1.182	1.241	-5.0	71	-0.20	8.34
79 t	Carbazole	1.096	1.170	-6.8	72	-0.21	8.61
80 t	Di-n-butylphthalate	1.621	1.663	-2.6	68	-0.22	9.26
81 t	Fluoranthene	1.340	1.409	-5.1	68	-0.25	10.28
82 t	Octadecane	0.631	0.703	-11.4	81	-0.19	8.15

8.8.35

8

Continuing Calibration Summary

Job Number: JC86043
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA

Sample: EP5836-ECC5819
Lab FileID: P128966.D

83	I	Chrysene-d12	1.000	1.000	0.0	66	-0.28	13.30
84	t	Pyrene	1.495	1.556	-4.1	67	-0.25	10.70
85	S	Terphenyl-d14	0.988	0.993	-0.5	63	-0.25	11.13
86	t	Butylbenzylphthalate	0.805	0.845	-5.0	68	-0.25	12.29
87	t	Benzo[a]anthracene	1.377	1.426	-3.6	67	-0.27	13.27
88	t	3,3'-Dichlorobenzidine	0.434	0.487	-12.2	67	-0.27	13.33
89	t	Chrysene	1.220	1.265	-3.7	68	-0.27	13.36
90	t	bis(2-Ethylhexyl)phthalat	1.108	1.130	-2.0	67	-0.25	13.69
91	I	Perylene-d12	1.000	1.000	0.0	71	-0.30	16.31
92	t	Di-n-octylphthalate	1.904	1.824	4.2	66	-0.25	15.13
93	t	Benzo[b]fluoranthene	1.328	1.297	2.3	68	-0.27	15.58
94	t	Benzo[k]fluoranthene	1.128	1.141	-1.2	73	-0.28	15.64
95	t	Benzo[a]pyrene	1.118	1.166	-4.3	73	-0.27	16.20
96	t	Indeno[1,2,3-cd]pyrene	1.013	1.098	-8.4	74	-0.27	18.27
97	t	Dibenz(a,h)acridine	0.951	1.024	-7.7	74	-0.27	17.91
98	t	Dibenz[a,h]anthracene	1.034	1.123	-8.6	75	-0.14	18.32
99	t	7,12-Dimethylbenz(a)anthr	0.546	0.582	-6.6	68	-0.26	15.59
100	t	Benzo[g,h,i]perylene	0.983	1.095	-11.4	77	-0.27	18.70

(#) = Out of Range
p128716b.D MP5819.M

SPCC's out = 0 CCC's out = 0
Fri Apr 12 09:52:11 2019 ACLIMS

8.8.35

8

Continuing Calibration Summary

Job Number: JC86043
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: EP5836-ECC5821
 Lab FileID: P128967.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EP5836\p128967.D Vial: 3
 Acq On : 11 Apr 2019 10:49 pm Operator: christc2
 Sample : ecc5821-50 Inst : MSVOAMSP
 Misc : op19673,ep5836,30.0,,,1,1 Multiplr: 1.00
 MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MP5819.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Fri Apr 12 09:48:05 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-d4b	1.000	1.000	0.0	70	-0.11	4.26
102	Benzaldehyde	1.283	1.271	0.9	71	-0.12	3.93
103 I	Phenanthrene-d10b	1.000	1.000	0.0	62	-0.20	8.22
104	Atrazine	0.230	0.260	-13.0	66	-0.17	7.88
107 I	Naphthalene-d8b	1.000	1.000	0.0	66	-0.11	5.20
108	Hydroquinone	0.311	0.402	-29.3	76	-0.16	5.55
109 I	Acenaphthene-d10b	1.000	1.000	0.0	62	-0.14	6.53
110	1,2,4,5-Tetrachlorobenzen	0.565	0.612	-8.3	64	-0.11	5.84

(#) = Out of Range
 p128716b.D MP5819.M

SPCC's out = 0 CCC's out = 0
 Fri Apr 12 09:53:05 2019 ACLIMS

Continuing Calibration Summary

Job Number: JC86043
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: EP5838-CC5819
 Lab FileID: P128993.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\da...meel\ep5838\p128993.d Vial: 2
 Acq On : 14 Apr 2019 1:19 pm Operator: carolb
 Sample : cc5819-50 Inst : MSVOAMSP
 Misc : op13894,ep5838,1000,,,1,1 Multiplr: 1.00
 MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MP5819.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Mon Apr 15 12:30:54 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	122	0.00	4.26
2 t	1,4-Dioxane	0.725	0.693	4.4	108	-0.12	1.67
3 t	Pyridine	1.830	1.913	-4.5	116	-0.16	1.99
4 t	N-Nitrosodimethylamine	1.004	1.103	-9.9	124	-0.15	1.98
5 S	2-Fluorophenol	1.498	1.543	-3.0	115	-0.06	3.29
6 t	Indene	2.472	2.394	3.2	121	0.00	4.46
7 t	Cumene	4.168	4.238	-1.7	120	-0.02	3.65
8 S	Phenol-d5	2.008	1.995	0.6	118	-0.02	4.05
9 t	Phenol	2.186	2.079	4.9	117	-0.02	4.06
10 t	Aniline	2.370	2.550	-7.6	132	-0.01	4.03
11 t	bis(2-Chloroethyl)ether	1.660	1.461	12.0	113	0.00	4.08
12 t	2-Chlorophenol	1.472	1.450	1.5	123	-0.01	4.12
----- True Calc. % Drift -----							
13 t	Decane	50.000	54.789	-9.6	130	0.00	4.16
----- AvgRF CCRF % Dev -----							
14 t	1,3-Dichlorobenzene	1.673	1.633	2.4	120	0.00	4.22
15 t	1,4-Dichlorobenzene	1.644	1.600	2.7	120	0.00	4.28
16 t	Benzyl alcohol	0.988	1.017	-2.9	121	0.00	4.40
17 t	1,2-Dichlorobenzene	1.637	1.632	0.3	119	0.00	4.39
18 t	Acetophenone	2.362	2.391	-1.2	126	0.02	4.58
19 t	2-Methylphenol	1.426	1.350	5.3	120	0.00	4.50
20 t	2,2'-oxybis(1-Chloropropa	0.412	0.401	2.7	122	0.01	4.48
21 t	3&4-Methylphenol	1.538	1.550	-0.8	127	0.00	4.62
22	n-Nitroso-di-n-propylamin	1.236	1.237	-0.1	130	0.03	4.59
23 t	Hexachloroethane	0.587	0.599	-2.0	126	0.01	4.64
24 I	Naphthalene-d8	1.000	1.000	0.0	125	0.00	5.20
25 S	Nitrobenzene-d5	0.522	0.542	-3.8	130	-0.01	4.68
26 t	Nitrobenzene	0.549	0.528	3.8	127	0.00	4.70
27 t	Quinoline	0.787	0.802	-1.9	126	0.02	5.48
28 t	Isophorone	0.943	0.976	-3.5	130	0.00	4.88
29 t	2-Nitrophenol	0.219	0.222	-1.4	120	0.00	4.94
30 t	2,4-Dimethylphenol	0.430	0.458	-6.5	130	0.00	4.99
31 t	Benzoic acid	0.342	0.301	12.0	116	0.06	5.14
32 t	bis(2-Chloroethoxy)methan	0.503	0.497	1.2	127	0.00	5.04
33 t	2,4-Dichlorophenol	0.345	0.356	-3.2	128	-0.01	5.12
34	2,6-Dichlorophenol	0.326	0.342	-4.9	124	0.00	5.28
35	1,3,5-Trichlorobenzene	0.387	0.393	-1.6	119	0.00	4.94
36 t	1,2,4-Trichlorobenzene	0.356	0.355	0.3	124	0.00	5.17
37	1,2,3-Trichlorobenzene	0.343	0.345	-0.6	124	0.00	5.33

Continuing Calibration Summary

Job Number: JC86043
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: EP5838-CC5819
 Lab FileID: P128993.D

38 t	Naphthalene	1.057	1.036	2.0	122	0.00	5.22
39 t	4-Chloroaniline	0.442	0.457	-3.4	125	0.00	5.27
40 t	2,3-Dichloroaniline	0.433	0.453	-4.6	130	0.01	5.93
41 t	Caprolactam	0.257	0.268	-4.3	132	0.08	5.58
42 t	Hexachlorobutadiene	0.223	0.250	-12.1	129	0.00	5.32
43 t	4-Chloro-3-methylphenol	0.414	0.444	-7.2	131	0.00	5.65
44 t	2-Methylnaphthalene	0.626	0.632	-1.0	123	0.01	5.72
45 t	1-Methylnaphthalene	0.806	0.803	0.4	125	0.01	5.79
46 t	Dimethylnaphthalene	0.722	0.713	1.2	121	0.02	6.19
47 I	Acenaphthene-d10	1.000	1.000	0.0	127	0.00	6.53
----- True Calc. % Drift -----							
48 t	Hexachlorocyclopentadiene	100.000	104.252	-4.3	130	0.01	5.84
----- AvgRF CCRF % Dev -----							
49 t	2,4,6-Trichlorophenol	0.400	0.416	-4.0	126	0.00	5.94
50 t	2,4,5-Trichlorophenol	0.439	0.490	-11.6	120	0.00	5.98
51 S	2-Fluorobiphenyl	1.428	1.452	-1.7	119	0.01	5.99
52 t	2-Chloronaphthalene	1.175	1.161	1.2	126	0.01	6.08
53 t	Biphenyl	1.595	1.652	-3.6	127	0.01	6.06
54 t	2-Nitroaniline	0.526	0.520	1.1	125	0.00	6.17
55 t	Dimethylphthalate	1.475	1.565	-6.1	131	0.02	6.31
56 t	Acenaphthylene	1.947	1.961	-0.7	127	0.00	6.41
57 t	2,6-Dinitrotoluene	0.314	0.323	-2.9	126	0.01	6.36
58 t	3-Nitroaniline	0.343	0.355	-3.5	126	0.01	6.52
59 t	Acenaphthene	1.180	1.251	-6.0	128	0.00	6.56
----- True Calc. % Drift -----							
60 t	2,4-Dinitrophenol	100.000	110.796	-10.8	141	0.00	6.61
----- AvgRF CCRF % Dev -----							
61 t	4-Nitrophenol	0.278	0.351	-26.3#	147	-0.03	6.71
62 t	Dibenzofuran	1.737	1.867	-7.5	126	0.00	6.72
63 t	2,4-Dinitrotoluene	0.454	0.478	-5.3	120	0.00	6.73
64	2,3,4,6-Tetrachlorophenol	0.344	0.414	-20.3#	138	0.00	6.86
65 t	Diethylphthalate	1.569	1.673	-6.6	130	0.00	6.96
66 t	Fluorene	1.463	1.601	-9.4	129	0.00	7.06
67 t	4-Chlorophenyl-phenylethe	0.737	0.846	-14.8	125	0.00	7.06
68 t	4-Nitroaniline	0.318	0.333	-4.7	128	0.01	7.13
69 I	Phenanthrene-d10	1.000	1.000	0.0	128	0.00	8.23
70 t	4,6-Dinitro-2-methylpheno	0.127	0.146	-15.0	136	0.03	7.15
71 t	n-Nitrosodiphenylamine	0.556	0.576	-3.6	134	0.03	7.21
72 t	1,2-Diphenylhydrazine	1.059	1.032	2.5	132	0.00	7.24
73 S	2,4,6-Tribromophenol	0.111	0.122	-9.9	133	0.01	7.33
74 t	4-Bromophenyl-phenylether	0.234	0.251	-7.3	131	0.02	7.63
75 t	Hexachlorobenzene	0.242	0.259	-7.0	131	0.01	7.71
----- True Calc. % Drift -----							
76 t	Pentachlorophenol	100.000	112.977	-13.0	145	0.00	8.00
----- AvgRF CCRF % Dev -----							
77 t	Phenanthrene	1.110	1.144	-3.1	129	0.01	8.26
78 t	Anthracene	1.182	1.220	-3.2	133	0.01	8.34
79 t	Carbazole	1.096	1.156	-5.5	136	0.00	8.61
80 t	Di-n-butylphthalate	1.621	1.684	-3.9	131	0.02	9.26
81 t	Fluoranthene	1.340	1.445	-7.8	133	0.02	10.28
82 t	Octadecane	0.631	0.608	3.6	133	0.02	8.15

8.8.37

8

Continuing Calibration Summary

Job Number: JC86043
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA

Sample: EP5838-CC5819
Lab FileID: P128993.D

83	I	Chrysene-d12	1.000	1.000	0.0	136	0.00	13.30
84	t	Pyrene	1.495	1.493	0.1	132	-0.02	10.71
85	S	Terphenyl-d14	0.988	1.028	-4.0	135	-0.01	11.13
86	t	Butylbenzylphthalate	0.805	0.805	0.0	134	0.01	12.29
87	t	Benzo[a]anthracene	1.377	1.423	-3.3	138	0.01	13.28
88	t	3,3'-Dichlorobenzidine	0.434	0.491	-13.1	140	0.02	13.34
89	t	Chrysene	1.220	1.260	-3.3	140	0.02	13.37
90	t	bis(2-Ethylhexyl)phthalat	1.108	1.108	0.0	134	0.03	13.69
91	I	Perylene-d12	1.000	1.000	0.0	146	0.00	16.33
92	t	Di-n-octylphthalate	1.904	1.798	5.6	134	0.03	15.13
93	t	Benzo[b]fluoranthene	1.328	1.388	-4.5	149	0.03	15.60
94	t	Benzo[k]fluoranthene	1.128	1.071	5.1	141	0.01	15.66
95	t	Benzo[a]pyrene	1.118	1.158	-3.6	150	0.03	16.21
96	t	Indeno[1,2,3-cd]pyrene	1.013	1.058	-4.4	146	0.07	18.28
97	t	Dibenz(a,h)acridine	0.951	1.024	-7.7	153	0.06	17.91
98	t	Dibenz[a,h]anthracene	1.034	1.094	-5.8	151	0.20	18.33
99	t	7,12-Dimethylbenz(a)anthr	0.546	0.591	-8.2	143	0.04	15.61
100	t	Benzo[g,h,i]perylene	0.983	1.036	-5.4	150	0.07	18.70

(#) = Out of Range
p128993.d MP5819.M

SPCC's out = 0 CCC's out = 0
Mon Apr 15 12:40:12 2019

8.8.37

8

Continuing Calibration Summary

Page 1 of 1

Job Number: JC86043
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: EP5838-CC5821
 Lab FileID: P128994.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\da...meel\ep5838\p128994.d Vial: 3
 Acq On : 14 Apr 2019 1:47 pm Operator: carolb
 Sample : cc5821-50 Inst : MSVOAMSP
 Misc : op13894,ep5838,1000,,,1,1 Multiplr: 1.00
 MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MP5819.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Mon Apr 15 12:30:54 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	95	0.00	4.26
102	Benzaldehyde	1.283	1.322	-3.0	99	0.00	3.93
103 I	Phenanthrene-d10b	1.000	1.000	0.0	114	0.00	8.22
104	Atrazine	0.230	0.270	-17.4	125	0.00	7.89
107 I	Naphthalene-d8b	1.000	1.000	0.0	97	0.00	5.20
108	Hydroquinone	0.311	0.478	-53.7#	132	0.00	5.56
109 I	Acenaphthene-d10b	1.000	1.000	0.0	103	0.00	6.53
110	1,2,4,5-Tetrachlorobenzen	0.565	0.604	-6.9	106	0.00	5.84

(#) = Out of Range
 p128993.d MP5819.M

SPCC's out = 0 CCC's out = 0
 Mon Apr 15 12:47:04 2019

8.8.38

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Continuing Calibration Summary

Job Number: JC86043
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: EP5839-CC5819
 Lab FileID: P129022.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\jonkm\ep5839\p129022.d Vial: 2
 Acq On : 15 Apr 2019 10:33 am Operator: yujiac
 Sample : cc5819-25 Inst : MSVOAMSP
 Misc : op13894,ep5839,1000,,,1,1 Multiplr: 1.00
 MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MP5819.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Sun Apr 07 07:31:56 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	102	-0.12	4.27
2 t	1,4-Dioxane	0.725	0.678	6.5	92	-0.15	1.69
3 t	Pyridine	1.830	1.926	-5.2	103	-0.20	2.01
4 t	N-Nitrosodimethylamine	1.004	1.036	-3.2	102	-0.19	2.00
5 S	2-Fluorophenol	1.498	1.551	-3.5	102	-0.14	3.30
6 t	Indene	2.472	2.472	0.0	105	-0.12	4.46
7 t	Cumene	4.168	4.404	-5.7	107	-0.12	3.65
8 S	Phenol-d5	2.008	2.066	-2.9	105	-0.14	4.05
9 t	Phenol	2.186	2.222	-1.6	105	-0.13	4.07
10 t	Aniline	2.370	2.579	-8.8	110	-0.12	4.03
11 t	bis(2-Chloroethyl)ether	1.660	1.579	4.9	101	-0.11	4.08
12 t	2-Chlorophenol	1.472	1.513	-2.8	106	-0.13	4.13
----- True		Calc.	% Drift	-----			
13 t	Decane	25.000	28.392	-13.6	113	-0.11	4.16
----- AvgRF		CCRF	% Dev	-----			
14 t	1,3-Dichlorobenzene	1.673	1.694	-1.3	105	-0.12	4.23
15 t	1,4-Dichlorobenzene	1.644	1.597	2.9	105	-0.12	4.28
16 t	Benzyl alcohol	0.988	1.007	-1.9	104	-0.12	4.40
17 t	1,2-Dichlorobenzene	1.637	1.579	3.5	104	-0.12	4.40
18 t	Acetophenone	2.362	2.335	1.1	103	-0.11	4.58
19 t	2-Methylphenol	1.426	1.432	-0.4	104	-0.12	4.50
20 t	2,2'-oxybis(1-Chloropropa	0.412	0.416	-1.0	101	-0.11	4.49
21 t	3&4-Methylphenol	1.538	1.523	1.0	103	-0.12	4.62
22	n-Nitroso-di-n-propylamin	1.236	1.245	-0.7	106	-0.11	4.58
23 t	Hexachloroethane	0.587	0.581	1.0	105	-0.12	4.64
24 I	Naphthalene-d8	1.000	1.000	0.0	97	-0.11	5.21
25 S	Nitrobenzene-d5	0.522	0.569	-9.0	106	-0.12	4.68
26 t	Nitrobenzene	0.549	0.581	-5.8	106	-0.11	4.70
27 t	Quinoline	0.787	0.811	-3.0	100	-0.11	5.47
28 t	Isophorone	0.943	1.003	-6.4	105	-0.11	4.88
29 t	2-Nitrophenol	0.219	0.214	2.3	100	-0.12	4.94
30 t	2,4-Dimethylphenol	0.430	0.472	-9.8	110	-0.12	4.99
31 t	Benzoic acid	0.342	0.391	-14.3	104	-0.08	5.12
32 t	bis(2-Chloroethoxy)methan	0.503	0.528	-5.0	106	-0.11	5.04
33 t	2,4-Dichlorophenol	0.345	0.343	0.6	101	-0.12	5.13
34	2,6-Dichlorophenol	0.326	0.320	1.8	101	-0.11	5.28
35	1,3,5-Trichlorobenzene	0.387	0.383	1.0	101	-0.11	4.94
36 t	1,2,4-Trichlorobenzene	0.356	0.360	-1.1	101	-0.11	5.17
37	1,2,3-Trichlorobenzene	0.343	0.341	0.6	102	-0.11	5.33

Continuing Calibration Summary

Job Number: JC86043
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: EP5839-CC5819
 Lab FileID: P129022.D

38 t	Naphthalene	1.057	1.051	0.6	102	-0.11	5.22
39 t	4-Chloroaniline	0.442	0.423	4.3	98	-0.12	5.27
40 t	2,3-Dichloroaniline	0.433	0.423	2.3	101	-0.12	5.93
41 t	Caprolactam	0.257	0.262	-1.9	104	-0.08	5.54
42 t	Hexachlorobutadiene	0.223	0.227	-1.8	102	-0.11	5.32
43 t	4-Chloro-3-methylphenol	0.414	0.439	-6.0	101	-0.12	5.65
44 t	2-Methylnaphthalene	0.626	0.620	1.0	100	-0.12	5.72
45 t	1-Methylnaphthalene	0.806	0.782	3.0	101	-0.12	5.79
46 t	Dimethylnaphthalene	0.722	0.666	7.8	97	-0.12	6.19
47 I	Acenaphthene-d10	1.000	1.000	0.0	95	-0.14	6.53
		----- True	Calc.	% Drift	-----		
48 t	Hexachlorocyclopentadiene	50.000	47.646	4.7	102	-0.12	5.84
		----- AvgRF	CCRF	% Dev	-----		
49 t	2,4,6-Trichlorophenol	0.400	0.395	1.3	96	-0.12	5.94
50 t	2,4,5-Trichlorophenol	0.439	0.436	0.7	93	-0.13	5.98
51 S	2-Fluorobiphenyl	1.428	1.352	5.3	93	-0.12	5.99
52 t	2-Chloronaphthalene	1.175	1.160	1.3	97	-0.12	6.08
53 t	Biphenyl	1.595	1.569	1.6	100	-0.12	6.06
54 t	2-Nitroaniline	0.526	0.549	-4.4	96	-0.13	6.16
55 t	Dimethylphthalate	1.475	1.497	-1.5	96	-0.12	6.31
56 t	Acenaphthylene	1.947	1.976	-1.5	100	-0.14	6.41
57 t	2,6-Dinitrotoluene	0.314	0.328	-4.5	97	-0.13	6.36
58 t	3-Nitroaniline	0.343	0.338	1.5	92	-0.14	6.51
59 t	Acenaphthene	1.180	1.205	-2.1	99	-0.14	6.56
		----- True	Calc.	% Drift	-----		
60 t	2,4-Dinitrophenol	50.000	50.919	-1.8	105	-0.16	6.60
		----- AvgRF	CCRF	% Dev	-----		
61 t	4-Nitrophenol	0.278	0.327	-17.6	104	-0.18	6.71
62 t	Dibenzofuran	1.737	1.669	3.9	96	-0.15	6.72
63 t	2,4-Dinitrotoluene	0.454	0.436	4.0	91	-0.15	6.72
64	2,3,4,6-Tetrachlorophenol	0.344	0.367	-6.7	101	-0.17	6.85
65 t	Diethylphthalate	1.569	1.591	-1.4	96	-0.15	6.96
66 t	Fluorene	1.463	1.459	0.3	95	-0.17	7.06
67 t	4-Chlorophenyl-phenylethe	0.737	0.687	6.8	90	-0.17	7.06
68 t	4-Nitroaniline	0.318	0.283	11.0	82	-0.17	7.11
69 I	Phenanthrene-d10	1.000	1.000	0.0	90	-0.21	8.23
70 t	4,6-Dinitro-2-methylpheno	0.127	0.144	-13.4	99	-0.16	7.14
71 t	n-Nitrosodiphenylamine	0.556	0.586	-5.4	97	-0.17	7.20
72 t	1,2-Diphenylhydrazine	1.059	1.163	-9.8	100	-0.16	7.24
73 S	2,4,6-Tribromophenol	0.111	0.112	-0.9	92	-0.18	7.33
74 t	4-Bromophenyl-phenylether	0.234	0.246	-5.1	94	-0.19	7.63
75 t	Hexachlorobenzene	0.242	0.247	-2.1	92	-0.19	7.71
		----- True	Calc.	% Drift	-----		
76 t	Pentachlorophenol	50.000	56.761	-13.5	108	-0.21	7.99
		----- AvgRF	CCRF	% Dev	-----		
77 t	Phenanthrene	1.110	1.151	-3.7	95	-0.21	8.26
78 t	Anthracene	1.182	1.243	-5.2	96	-0.21	8.33
79 t	Carbazole	1.096	1.098	-0.2	91	-0.22	8.61
80 t	Di-n-butylphthalate	1.621	1.659	-2.3	91	-0.22	9.26
81 t	Fluoranthene	1.340	1.394	-4.0	91	-0.25	10.27
82 t	Octadecane	0.631	0.707	-12.0	102	-0.19	8.15

8.8.39

8

Continuing Calibration Summary

Job Number: JC86043
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA

Sample: EP5839-CC5819
Lab FileID: P129022.D

83	I	Chrysene-d12	1.000	1.000	0.0	85	-0.29	13.29
84	t	Pyrene	1.495	1.619	-8.3	92	-0.25	10.69
85	S	Terphenyl-d14	0.988	1.031	-4.4	89	-0.25	11.12
86	t	Butylbenzylphthalate	0.805	0.832	-3.4	86	-0.25	12.28
87	t	Benzo[a]anthracene	1.377	1.440	-4.6	90	-0.28	13.27
88	t	3,3'-Dichlorobenzidine	0.434	0.431	0.7	83	-0.28	13.32
89	t	Chrysene	1.220	1.242	-1.8	89	-0.28	13.34
90	t	bis(2-Ethylhexyl)phthalat	1.108	1.118	-0.9	85	-0.26	13.69
91	I	Perylene-d12	1.000	1.000	0.0	87	-0.30	16.31
92	t	Di-n-octylphthalate	1.904	1.837	3.5	82	-0.26	15.12
93	t	Benzo[b]fluoranthene	1.328	1.327	0.1	88	-0.28	15.57
94	t	Benzo[k]fluoranthene	1.128	1.179	-4.5	92	-0.30	15.63
95	t	Benzo[a]pyrene	1.118	1.193	-6.7	94	-0.28	16.19
96	t	Indeno[1,2,3-cd]pyrene	1.013	1.074	-6.0	94	-0.28	18.25
97	t	Dibenz(a,h)acridine	0.951	1.016	-6.8	92	-0.28	17.89
98	t	Dibenz[a,h]anthracene	1.034	1.085	-4.9	93	-0.15	18.31
99	t	7,12-Dimethylbenz(a)anthr	0.546	0.570	-4.4	89	-0.27	15.58
100	t	Benzo[g,h,i]perylene	0.983	1.063	-8.1	96	-0.28	18.68

(#) = Out of Range
p128717a.D MP5819.M

SPCC's out = 0 CCC's out = 0
Tue Apr 16 04:47:45 2019

8.8.39

8

Continuing Calibration Summary

Job Number: JC86043
 Account: BBLNYS Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

Sample: EP5839-CC5821
 Lab FileID: P129023.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\jonkm\ep5839\p129023.d Vial: 3
 Acq On : 15 Apr 2019 11:00 am Operator: yujiac
 Sample : cc5821-25 Inst : MSVOAMSP
 Misc : op13894,ep5839,1000,,,1,1 Multiplr: 1.00
 MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MP5819.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS
 Last Update : Sun Apr 07 07:31:56 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	82	-0.11	4.27
102	Benzaldehyde	1.283	1.376	-7.2	90	-0.12	3.94
103 I	Phenanthrene-d10b	1.000	1.000	0.0	91	-0.20	8.22
104	Atrazine	0.230	0.276	-20.0	104	-0.17	7.88
105 I	Chrysene-d12b	1.000	1.000	0.0	153	-0.26	13.29
106	Benzidine			-----NA-----			
107 I	Naphthalene-d8b	1.000	1.000	0.0	80	-0.11	5.20
108	Hydroquinone	0.311	0.505	-62.4#	122	-0.16	5.55
109 I	Acenaphthene-d10b	1.000	1.000	0.0	83	-0.14	6.53
110	1,2,4,5-Tetrachlorobenzen	0.565	0.581	-2.8	92	-0.11	5.84

(#) = Out of Range
 p128717a.D MP5819.M

SPCC's out = 0 CCC's out = 0
 Tue Apr 16 04:47:48 2019

MS Semi-volatiles

Raw Data

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\jeryllr\2p3823\
 Data File : 2p86515.d
 Acq On : 12 Apr 2019 7:51 pm
 Operator : angelar
 Sample : jc86043-1 Inst : MS2P
 Misc : op19672,e2p3823,31.5,,,1,1
 ALS Vial : 29 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2P3816.M
 Quant Results File: M2P3816.RES
 Quant Time: Apr 15 03:12:32 2019
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Mon Apr 15 02:19:32 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
Internal Standards							
1) 1,4-Dichlorobenzene-d4	4.739	152	830920	40.00	ppm	0.00	
24) Naphthalene-d8	5.772	136	2896316	40.00	ppm	0.00	
47) Acenaphthene-d10	7.210	164	1440313	40.00	ppm	0.01	
69) Phenanthrene-d10	8.483	188	2132022	40.00	ppm	0.01	
83) Chrysene-d12	11.730	240	1390204	40.00	ppm	0.02	
91) Perylene-d12	13.725	264	1465287	40.00	ppm	0.03	
101) 1,4-Dichlorobenzene-d4a	4.739	152	830920	40.00	ppm	0.00	
103) Naphthalene-d8a	5.772	136	2896316	40.00	ppm	0.00	
105) Acenaphthene-d10a	7.210	164	1440313	40.00	ppm	0.01	
108) Chrysene-d12a	11.730	240	1389419	40.00	ppm	0.02	
110) Phenanthrene-d10a	8.483	188	2132022	40.00	ppm	0.01	
System Monitoring Compounds							
5) 2-Fluorophenol	3.707	112	1137400	27.20	ppm	0.02	
Spiked Amount	50.000	Range 11 - 58	Recovery =	54.40%			
8) Phenol-d5	4.493	99	1498264	32.69	ppm	0.01	
Spiked Amount	50.000	Range 10 - 59	Recovery =	65.38%#			
25) Nitrobenzene-d5	5.194	82	1522246	39.10	ppm	0.00	
Spiked Amount	50.000	Range 19 - 61	Recovery =	78.20%#			
51) 2-Fluorobiphenyl	6.660	172	2168501	43.50	ppm	0.00	
Spiked Amount	50.000	Range 21 - 58	Recovery =	87.00%#			
73) 2,4,6-Tribromophenol	7.863	330	290387	38.83	ppm	0.00	
Spiked Amount	50.000	Range 12 - 68	Recovery =	77.66%#			
85) Terphenyl-d14	10.307	244	1503159	43.45	ppm	0.02	
Spiked Amount	50.000	Range 16 - 65	Recovery =	86.90%#			
111) 1-Chlorooctadecane	0.000	57	0d	0.00	ppm		
Spiked Amount	50.000	Range 20 - 70	Recovery =	0.00%#			
112) o-terphenyl	0.000	230	0d	0.00	ppm		
Spiked Amount	50.000	Range 20 - 70	Recovery =	0.00%#			
Target Compounds							Qvalue
38) Naphthalene	5.788	128	44494m	0.64	ppm		
44) 2-Methylnaphthalene	6.355	141	19659	0.45	ppm		96
56) Acenaphthylene	7.087	152	12860	0.18	ppm		93
59) Acenaphthene	7.232	153	23501	0.57	ppm		88
62) Dibenzofuran	7.376	168	13779	0.24	ppm		92
77) Phenanthrene	8.505	178	113610m	2.14	ppm		
78) Anthracene	8.553	178	32214	0.60	ppm		96
79) Carbazole	8.724	167	13213	0.24	ppm		91
81) Fluoranthene	9.799	202	147442	1.95	ppm		96
84) Pyrene	10.072	202	163314	3.02	ppm		98
87) Benzo[a]anthracene	11.714	228	78251	1.50	ppm		97
89) Chrysene	11.757	228	71214	1.92	ppm		96
93) Benzo[b]fluoranthene	13.217	252	80404	1.67	ppm		93
94) Benzo[k]fluoranthene	13.244	252	28109	0.72	ppm		95
95) Benzo[a]pyrene	13.634	252	58468	1.45	ppm		95
96) Indeno[1,2,3-cd]pyrene	15.062	276	32810m	0.71	ppm		
100) Benzo[g,h,i]perylene	15.426	276	32909	0.90	ppm		97

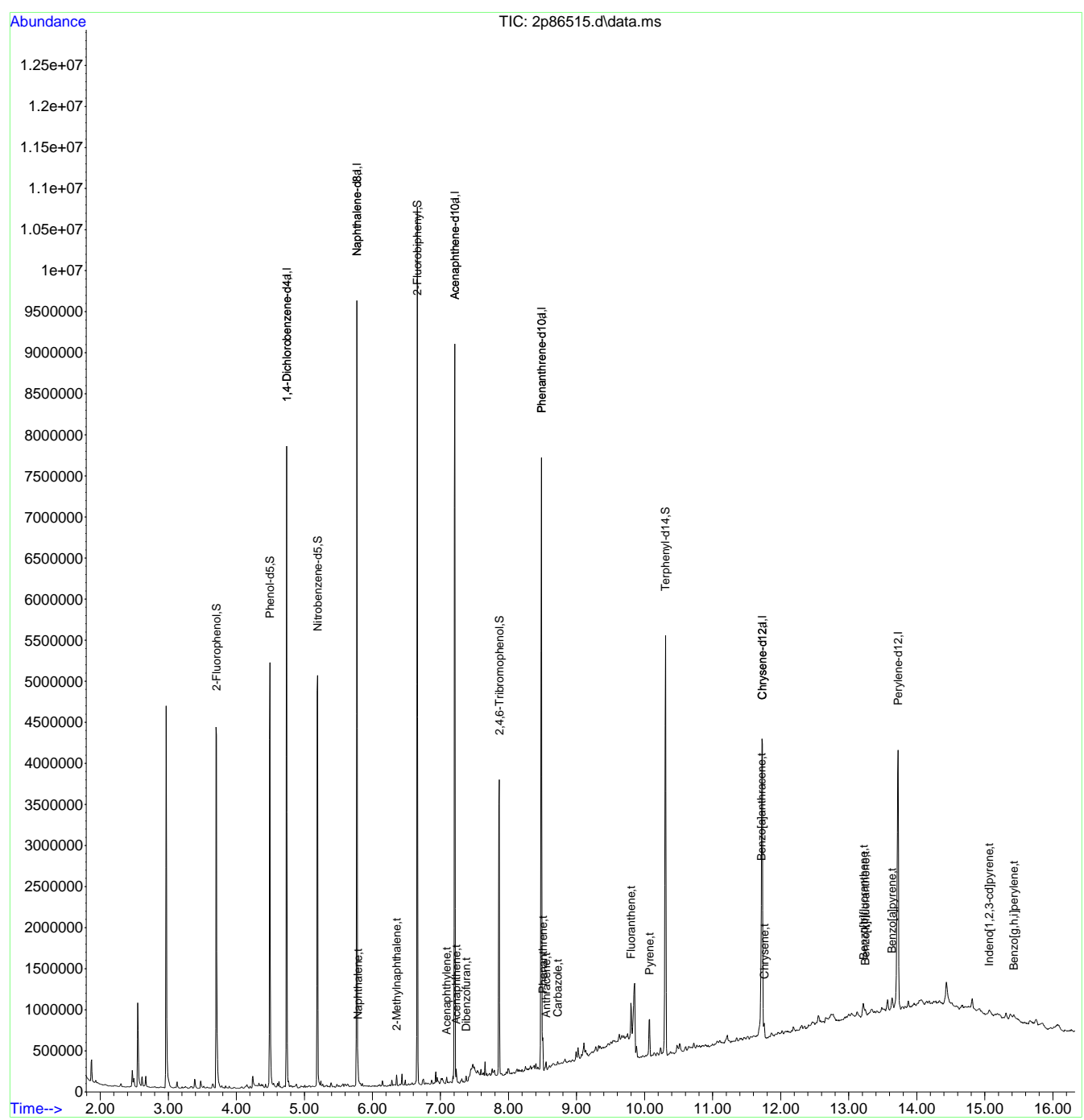
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\jeryllr\2p3823\
Data File : 2p86515.d
Acq On : 12 Apr 2019 7:51 pm
Operator : angelar
Sample : jc86043-1
Misc : op19672,e2p3823,31.5,,,1,1
ALS Vial : 29 Sample Multiplier: 1

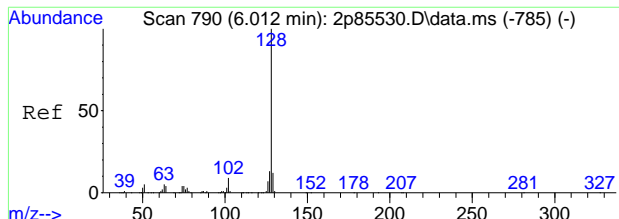
Inst : MS2P

Quant Method : C:\MSDCHEM\1\METHODS\M2P3816.M
Quant Results File: M2P3816.RES
Quant Time: Apr 15 03:12:32 2019
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Apr 15 02:19:32 2019
Response via : Initial Calibration



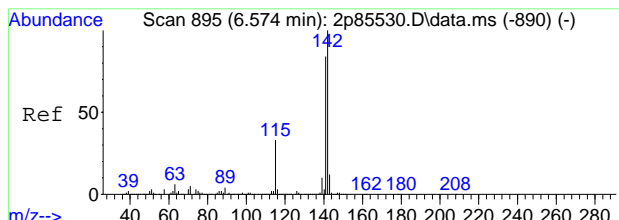
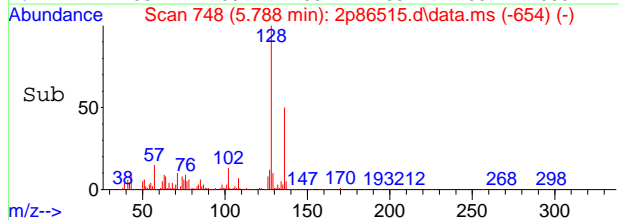
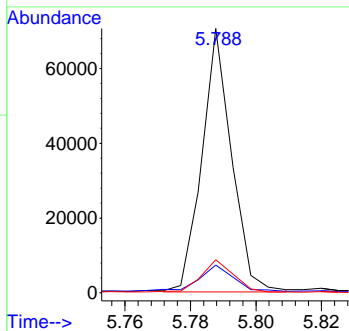
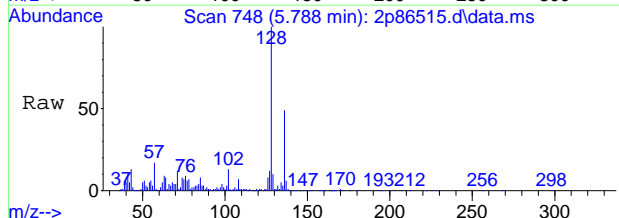
9.1.1
9





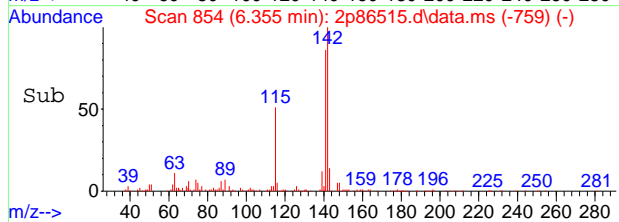
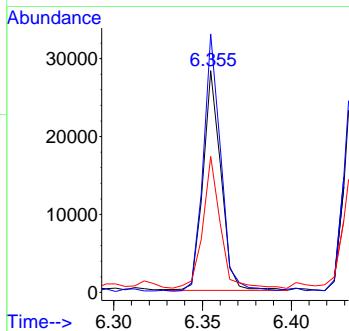
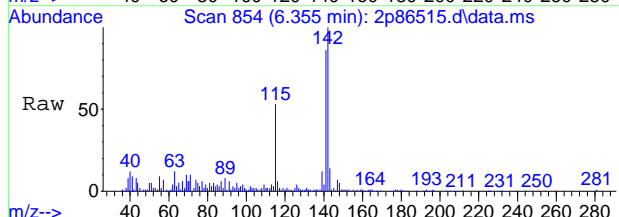
#38
 Naphthalene
 Concen: 0.64 ppm m
 RT: 5.788 min Scan# 748
 Delta R.T. 0.000 min
 Lab File: 2p86515.d
 Acq: 12 Apr 2019 7:51 pm

Tgt Ion	Ratio	Lower	Upper
128	100		
129	10.5	0.0	41.3
127	12.5	0.0	43.2

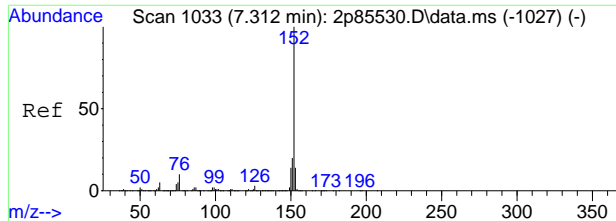


#44
 2-Methylnaphthalene
 Concen: 0.45 ppm
 RT: 6.355 min Scan# 854
 Delta R.T. 0.005 min
 Lab File: 2p86515.d
 Acq: 12 Apr 2019 7:51 pm

Tgt Ion	Ratio	Lower	Upper
141	100		
142	116.7	88.3	148.3
115	59.9	23.8	83.8

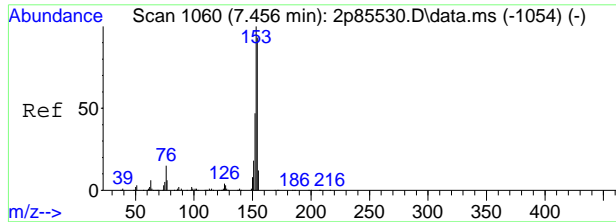
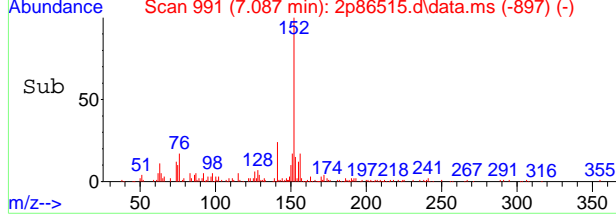
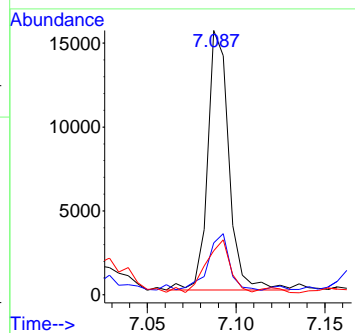
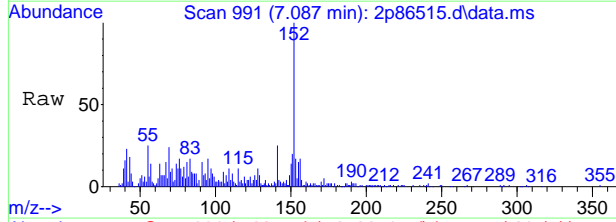


9.11
 9



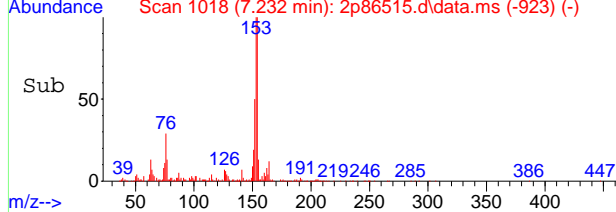
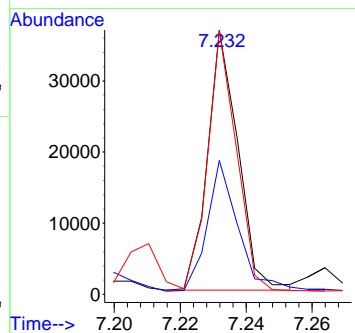
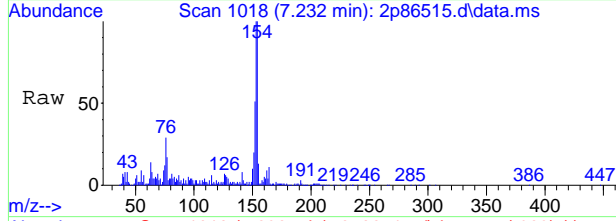
#56
 Acenaphthylene
 Concen: 0.18 ppm
 RT: 7.087 min Scan# 991
 Delta R.T. 0.000 min
 Lab File: 2p86515.d
 Acq: 12 Apr 2019 7:51 pm

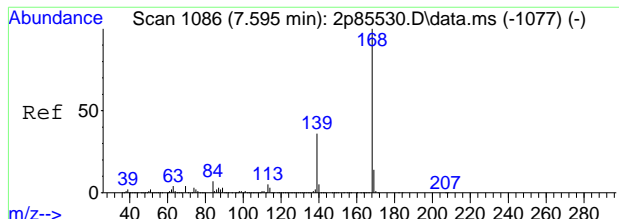
Tgt Ion	Resp	Lower	Upper
152	12860		
151	17.1	0.0	49.8
153	16.1	0.0	42.9



#59
 Acenaphthene
 Concen: 0.57 ppm
 RT: 7.232 min Scan# 1018
 Delta R.T. 0.005 min
 Lab File: 2p86515.d
 Acq: 12 Apr 2019 7:51 pm

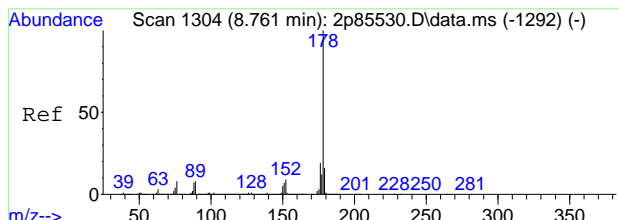
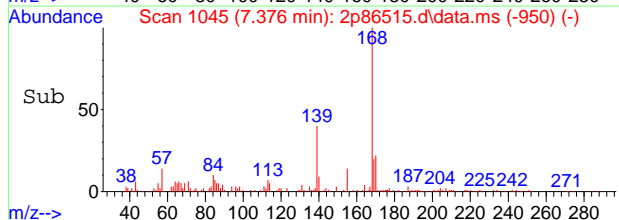
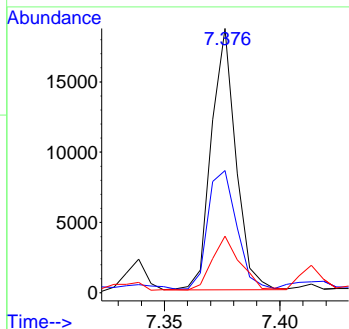
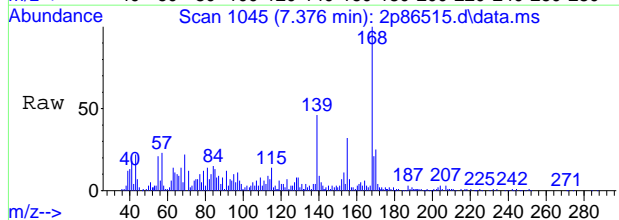
Tgt Ion	Resp	Lower	Upper
153	23501		
152	49.9	17.6	77.6
154	99.3	53.9	113.9





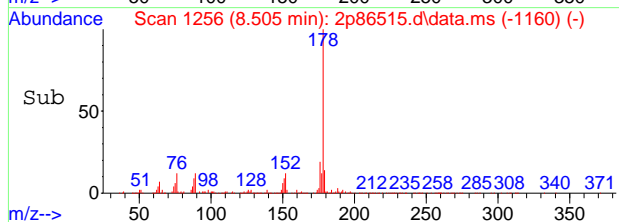
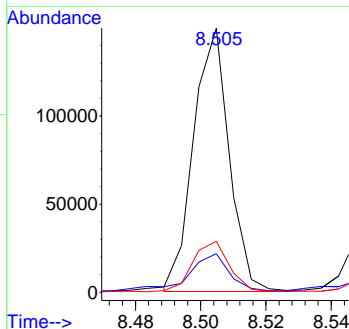
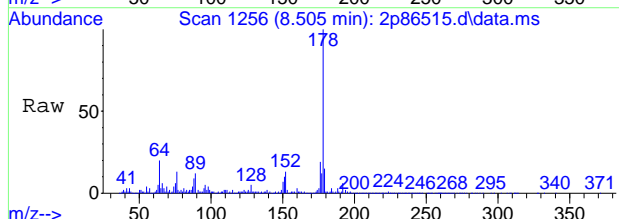
#62
 Dibenzofuran
 Concen: 0.24 ppm
 RT: 7.376 min Scan# 1045
 Delta R.T. 0.005 min
 Lab File: 2p86515.d
 Acq: 12 Apr 2019 7:51 pm

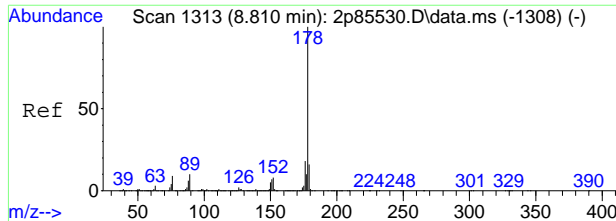
Tgt Ion	Ratio	Lower	Upper
168	100		
139	44.0	10.8	70.8
169	20.4	0.0	43.7



#77
 Phenanthrene
 Concen: 2.14 ppm m
 RT: 8.505 min Scan# 1256
 Delta R.T. 0.011 min
 Lab File: 2p86515.d
 Acq: 12 Apr 2019 7:51 pm

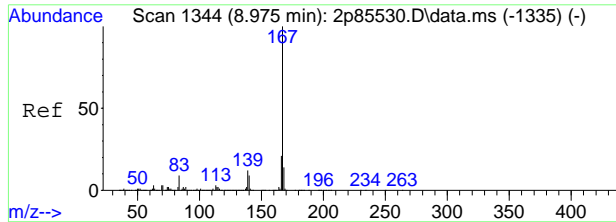
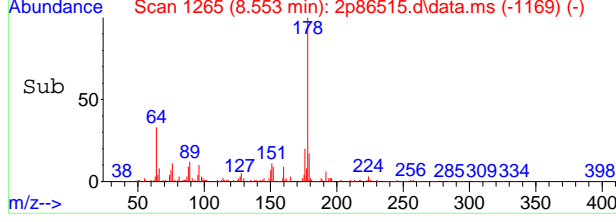
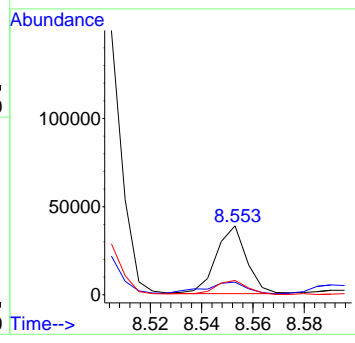
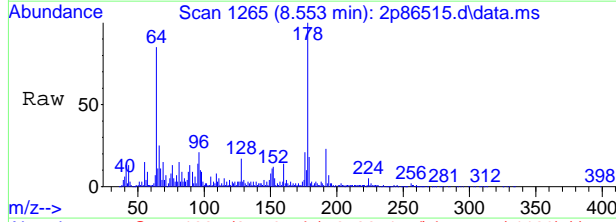
Tgt Ion	Ratio	Lower	Upper
178	100		
179	14.7	0.0	45.9
176	19.3	0.0	49.7





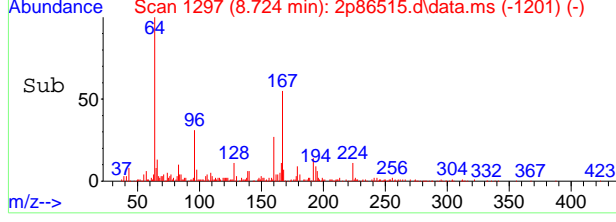
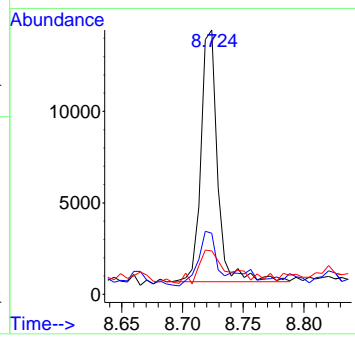
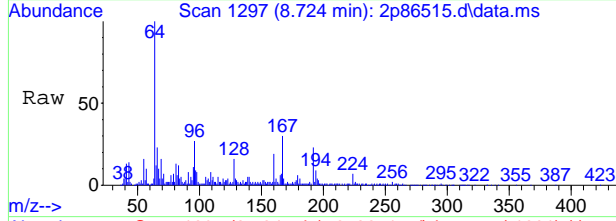
#78
 Anthracene
 Concen: 0.60 ppm
 RT: 8.553 min Scan# 1265
 Delta R.T. 0.011 min
 Lab File: 2p86515.d
 Acq: 12 Apr 2019 7:51 pm

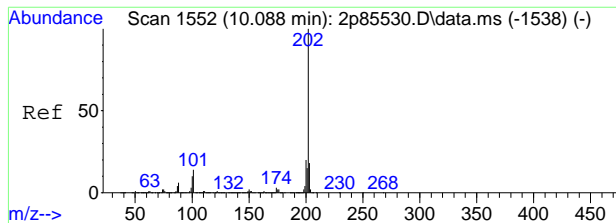
Tgt Ion	Ratio	Lower	Upper
178	100		
179	16.4	0.0	45.6
176	20.5	0.0	48.3



#79
 Carbazole
 Concen: 0.24 ppm
 RT: 8.724 min Scan# 1297
 Delta R.T. 0.011 min
 Lab File: 2p86515.d
 Acq: 12 Apr 2019 7:51 pm

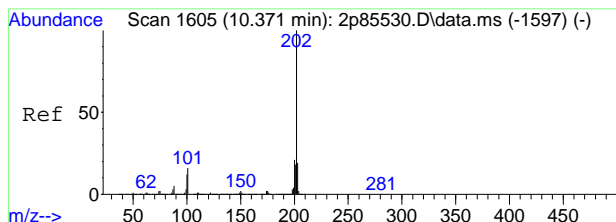
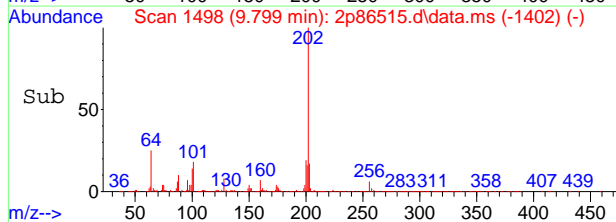
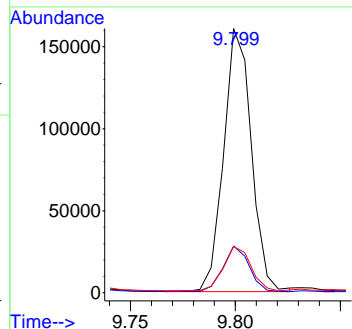
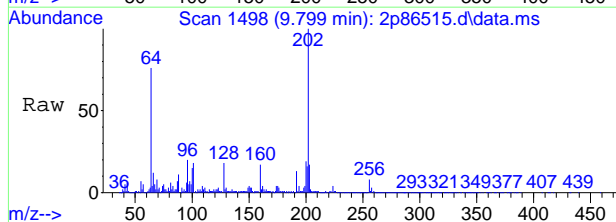
Tgt Ion	Ratio	Lower	Upper
167	100		
166	18.1	0.0	51.7
139	10.4	0.0	45.0





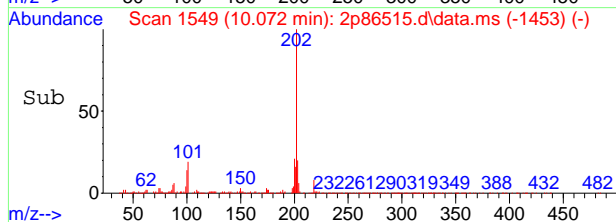
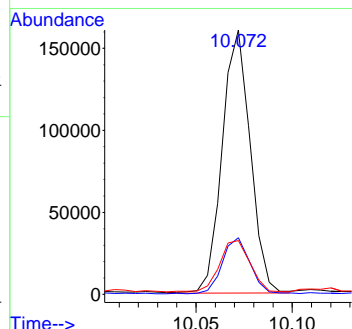
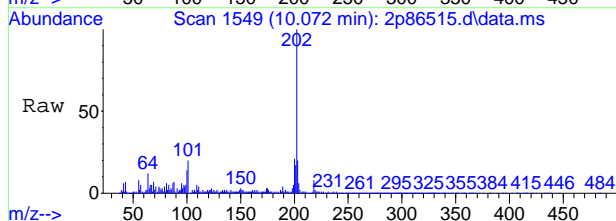
#81
 Fluoranthene
 Concen: 1.95 ppm
 RT: 9.799 min Scan# 1498
 Delta R.T. 0.011 min
 Lab File: 2p86515.d
 Acq: 12 Apr 2019 7:51 pm

Tgt Ion	Ratio	Lower	Upper
202	100		
101	17.3	0.0	44.4
203	16.7	0.0	47.5

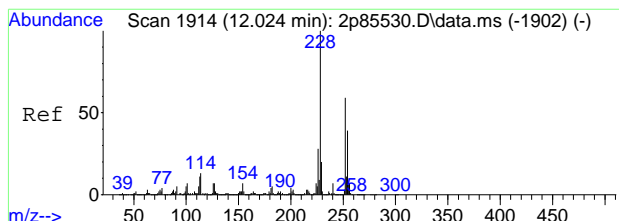


#84
 Pyrene
 Concen: 3.02 ppm
 RT: 10.072 min Scan# 1549
 Delta R.T. 0.011 min
 Lab File: 2p86515.d
 Acq: 12 Apr 2019 7:51 pm

Tgt Ion	Ratio	Lower	Upper
202	100		
200	21.2	0.0	50.8
203	19.6	0.0	47.8

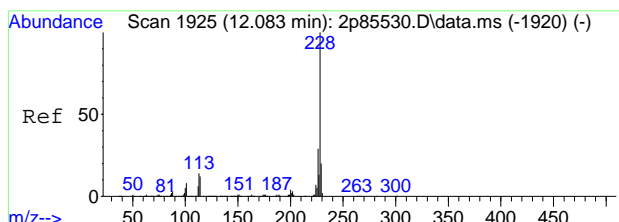
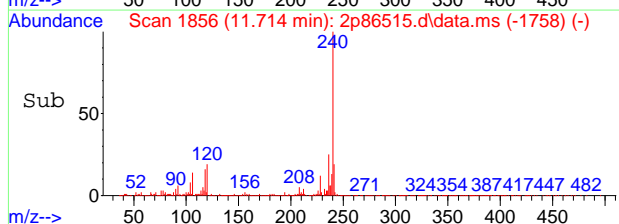
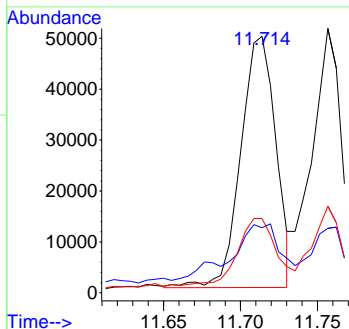
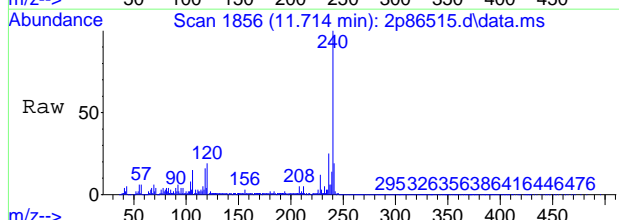


9.1.1
9



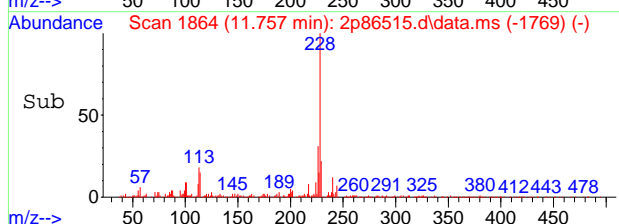
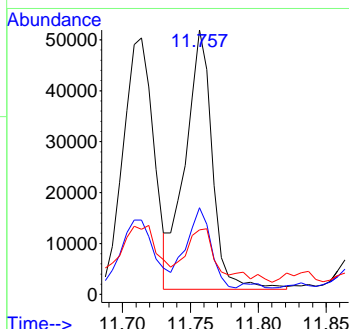
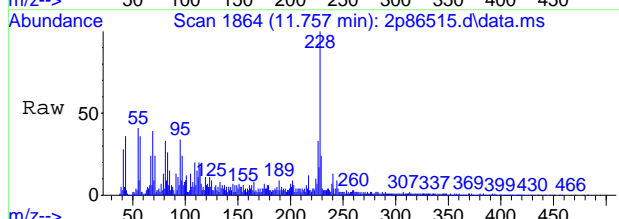
#87
 Benzo[a]anthracene
 Concen: 1.50 ppm
 RT: 11.714 min Scan# 1856
 Delta R.T. 0.021 min
 Lab File: 2p86515.d
 Acq: 12 Apr 2019 7:51 pm

Tgt Ion	Ratio	Lower	Upper
228	100		
229	18.1	0.0	50.0
226	26.1	0.0	57.2

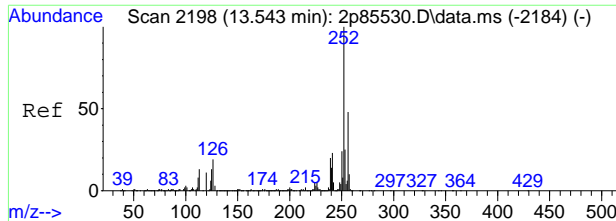


#89
 Chrysene
 Concen: 1.92 ppm
 RT: 11.757 min Scan# 1864
 Delta R.T. 0.005 min
 Lab File: 2p86515.d
 Acq: 12 Apr 2019 7:51 pm

Tgt Ion	Ratio	Lower	Upper
228	100		
226	30.1	0.0	59.6
229	15.8	0.0	49.3

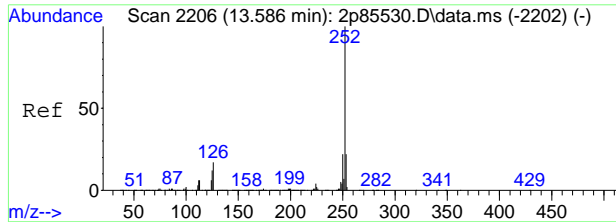
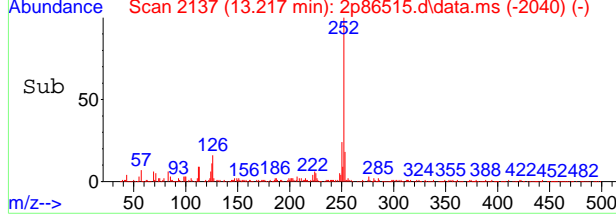
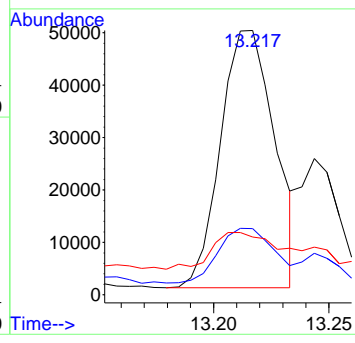
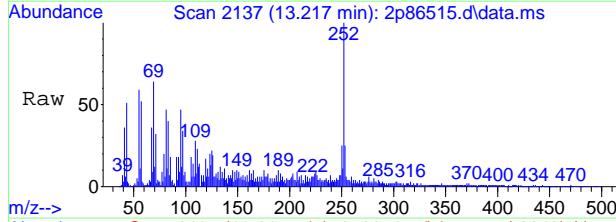


9.1.1
9



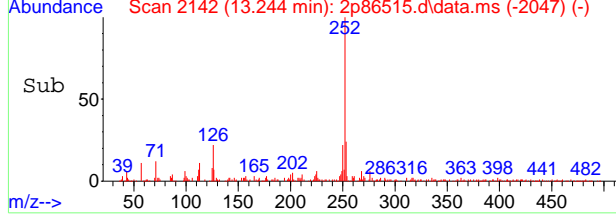
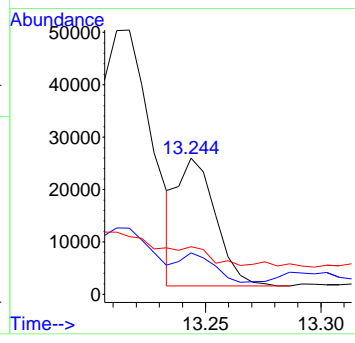
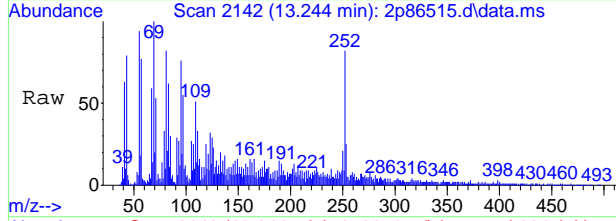
#93
 Benzo[b]fluoranthene
 Concen: 1.67 ppm
 RT: 13.217 min Scan# 2137
 Delta R.T. 0.016 min
 Lab File: 2p86515.d
 Acq: 12 Apr 2019 7:51 pm

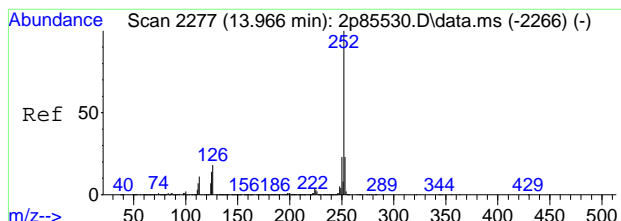
Tgt Ion	Resp	Lower	Upper
252	80404		
253	21.7	0.0	54.3
125	10.3	0.0	44.6



#94
 Benzo[k]fluoranthene
 Concen: 0.72 ppm
 RT: 13.244 min Scan# 2142
 Delta R.T. 0.005 min
 Lab File: 2p86515.d
 Acq: 12 Apr 2019 7:51 pm

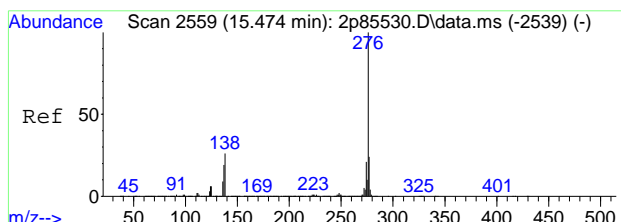
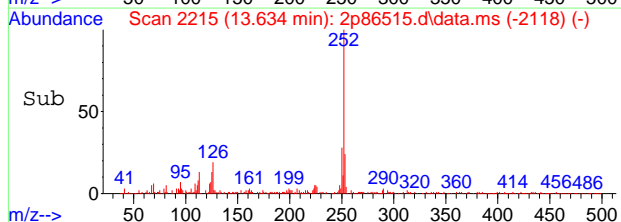
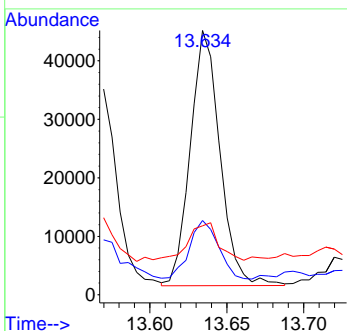
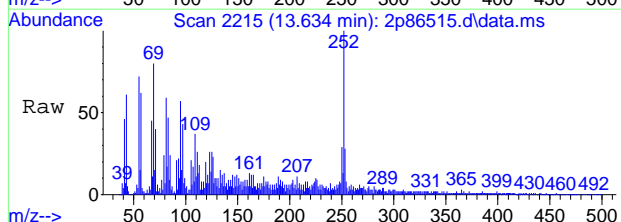
Tgt Ion	Resp	Lower	Upper
252	28109		
253	19.6	0.0	52.4
125	11.6	0.0	43.0





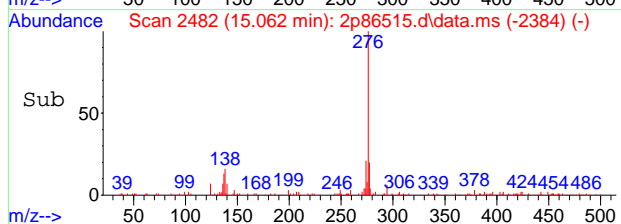
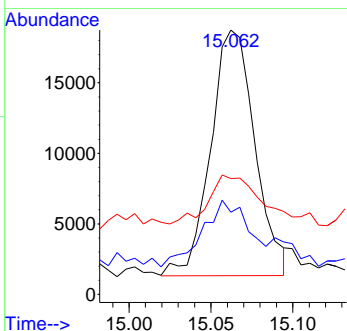
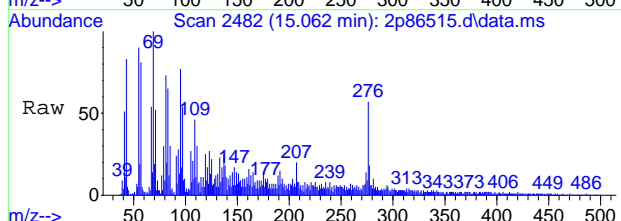
#95
 Benzo[a]pyrene
 Concen: 1.45 ppm
 RT: 13.634 min Scan# 2215
 Delta R.T. 0.016 min
 Lab File: 2p86515.d
 Acq: 12 Apr 2019 7:51 pm

Tgt Ion	Resp	Lower	Upper
252	58468		
253	21.6	0.0	52.3
125	11.8	0.0	45.5

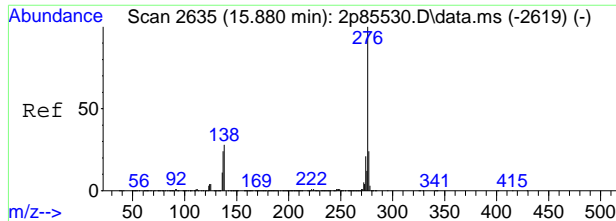


#96
 Indeno[1,2,3-cd]pyrene
 Concen: 0.71 ppm m
 RT: 15.062 min Scan# 2482
 Delta R.T. 0.021 min
 Lab File: 2p86515.d
 Acq: 12 Apr 2019 7:51 pm

Tgt Ion	Resp	Lower	Upper
276	32810		
138	31.1	0.0	58.2
137	43.8	0.0	50.6

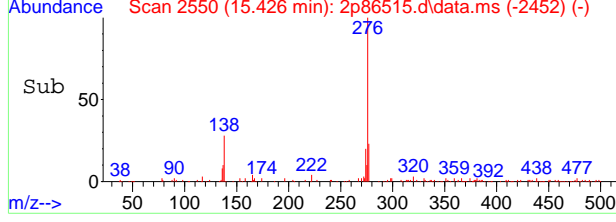
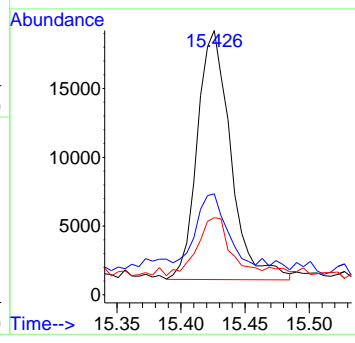
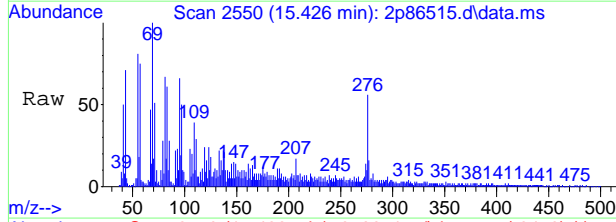


9.1.1
9



#100
 Benzo[g,h,i]perylene
 Concen: 0.90 ppm
 RT: 15.426 min Scan# 2550
 Delta R.T. 0.022 min
 Lab File: 2p86515.d
 Acq: 12 Apr 2019 7:51 pm

Tgt Ion	Ratio	Lower	Upper
276	100		
138	28.7	1.1	61.1
277	22.8	0.0	53.3



9.1.1
 9



Manual Integration Approval Summary

Sample Number: JC86043-1 Method: SW846 8270D
Lab FileID: 2P86515.D Analyst approved: 04/15/19 04:07 Jeryll Fabriene Reyes
Injection Time: 04/12/19 19:51 Supervisor approved: 04/15/19 13:17 Nina Pandya

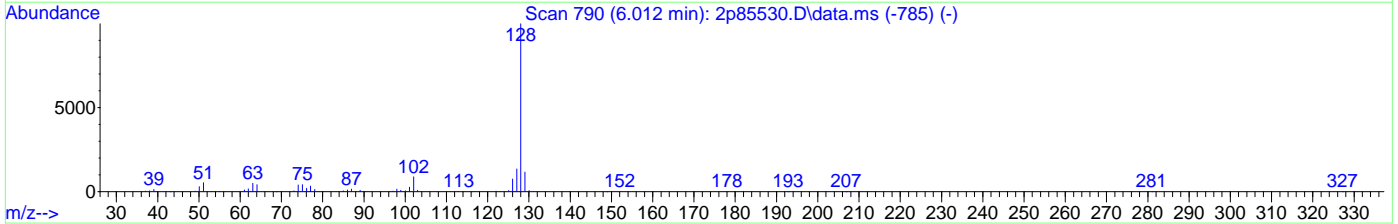
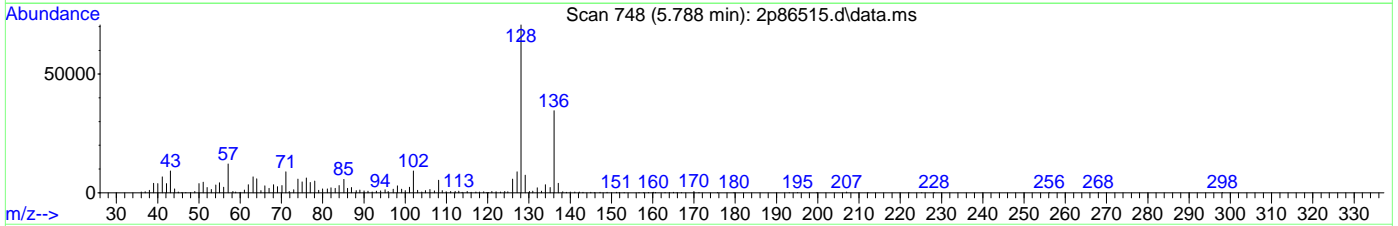
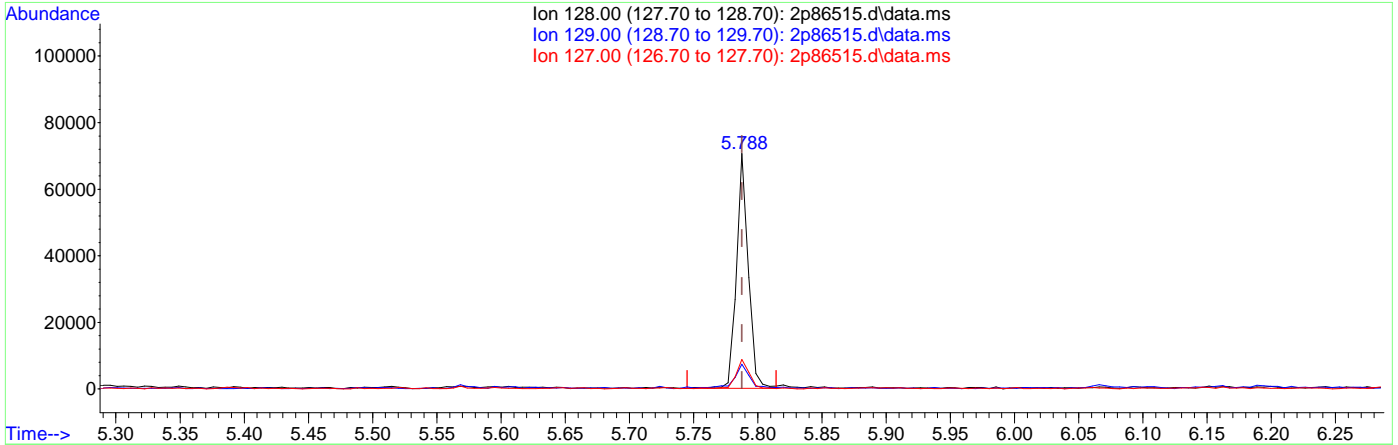
Parameter	CAS	Sig#	R.T. (min.)	Reason
Naphthalene	91-20-3		5.79	Poor instrument integration
Phenanthrene	85-01-8		8.50	Poor instrument integration
Indeno(1,2,3-cd)pyrene	193-39-5		15.06	Poor instrument integration

9.1.1.1
9

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\jeryllr\2p3823\
 Data File : 2p86515.d
 Acq On : 12 Apr 2019 7:51 pm
 Operator : angelar
 Sample : jc86043-1 Inst : MS2P
 Misc : op19672,e2p3823,31.5,,,1,1
 ALS Vial : 29 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2P3816.M
 Quant Results File: M2P3816.RES
 Quant Time: Apr 15 02:21:51 2019
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Mon Apr 15 02:19:32 2019
 Response via : Initial Calibration



TIC: 2p86515.d\data.ms

(38) Naphthalene (t)
 5.788min (+0.000) 0.65ppm
 response 45100

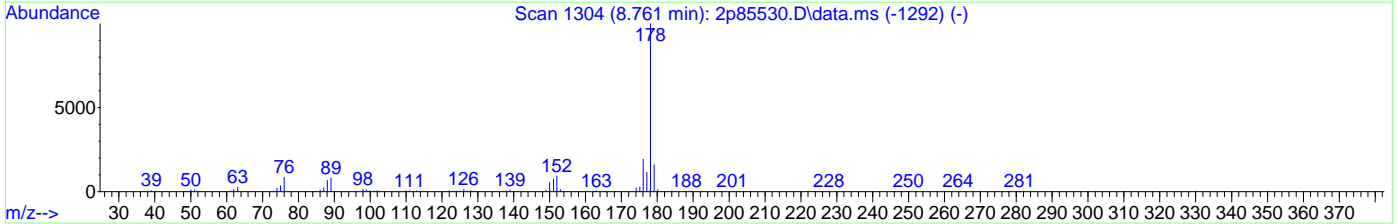
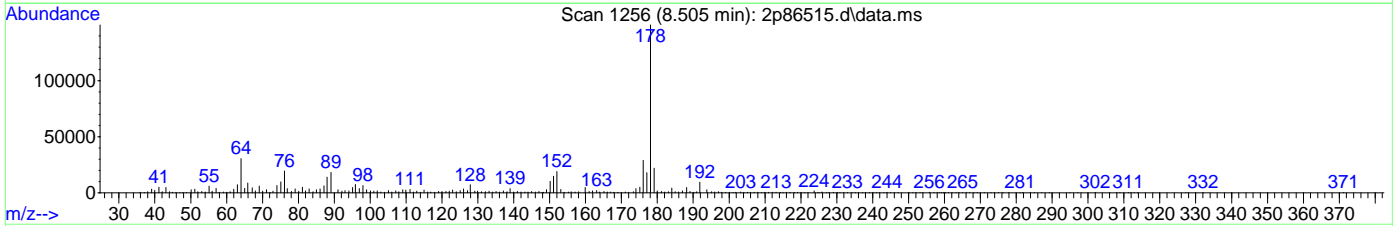
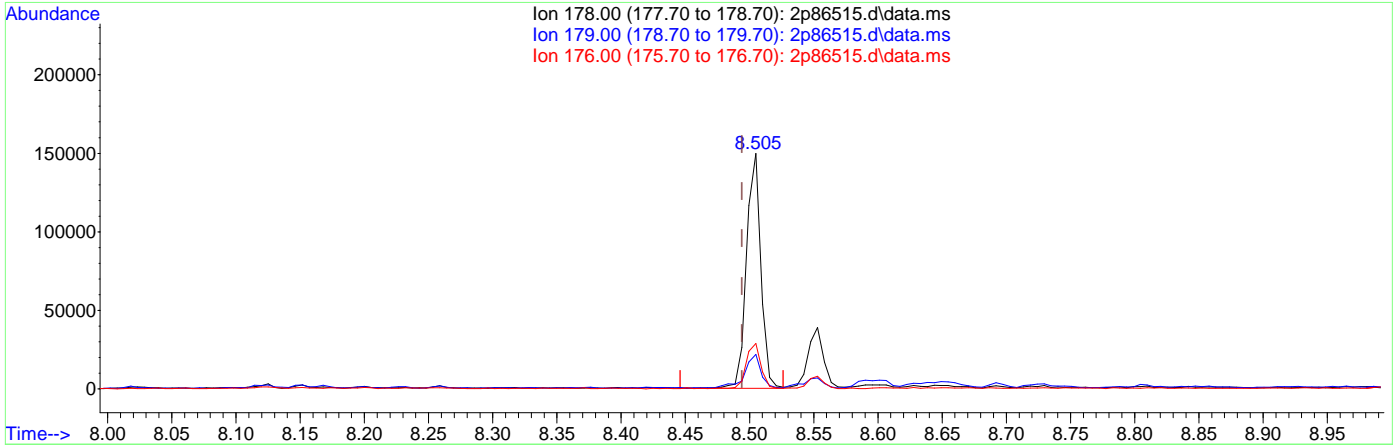
Ion	Exp%	Act%
128.00	100	100
129.00	11.30	9.76
127.00	13.20	12.30
0.00	0.00	0.00

9.1.12
9

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\jeryllr\2p3823\
 Data File : 2p86515.d
 Acq On : 12 Apr 2019 7:51 pm
 Operator : angelar
 Sample : jc86043-1 Inst : MS2P
 Misc : op19672,e2p3823,31.5,,,1,1
 ALS Vial : 29 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2P3816.M
 Quant Results File: M2P3816.RES
 Quant Time: Apr 15 02:21:51 2019
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Mon Apr 15 02:19:32 2019
 Response via : Initial Calibration



TIC: 2p86515.d\data.ms

(77) Phenanthrene (t)

8.505min (+0.011) 2.18ppm

response 115925

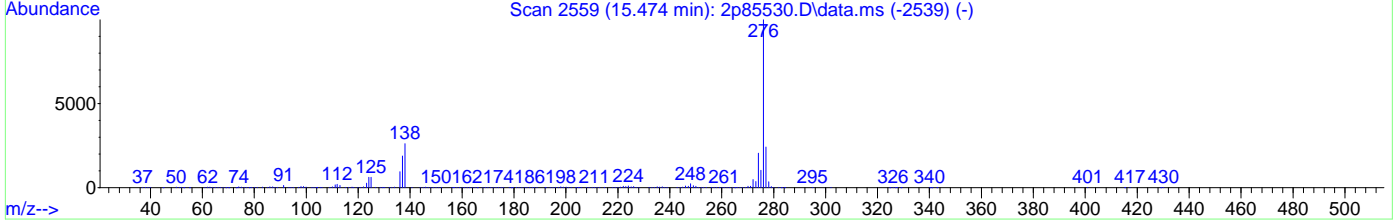
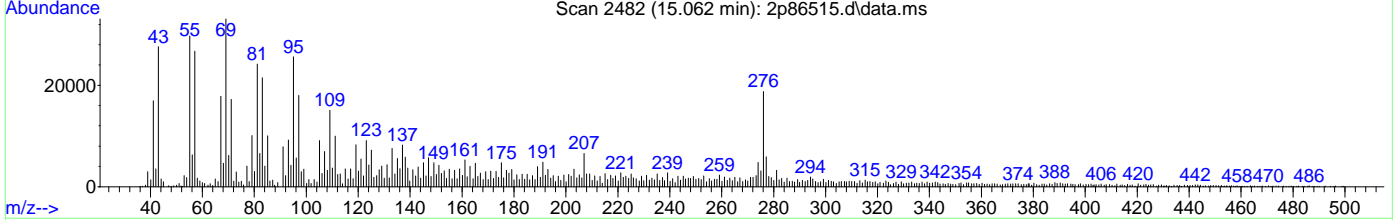
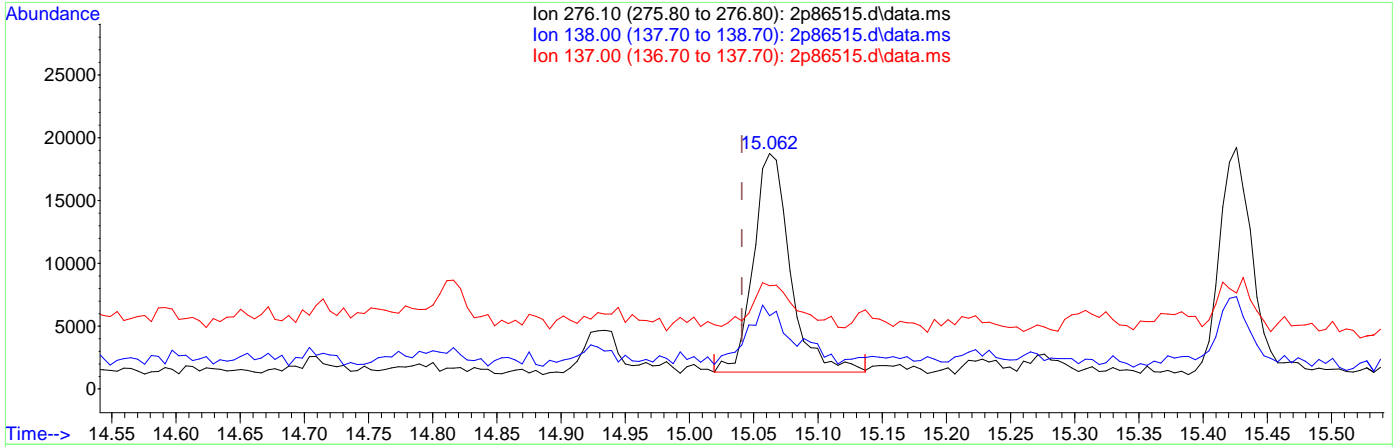
Ion	Exp%	Act%
178.00	100	100
179.00	15.90	14.12
176.00	19.70	19.18
0.00	0.00	0.00

9.1.1.3
9

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\jeryllr\2p3823\
 Data File : 2p86515.d
 Acq On : 12 Apr 2019 7:51 pm
 Operator : angelar
 Sample : jc86043-1 Inst : MS2P
 Misc : op19672,e2p3823,31.5,,,1,1
 ALS Vial : 29 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2P3816.M
 Quant Results File: M2P3816.RES
 Quant Time: Apr 15 02:21:51 2019
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Mon Apr 15 02:19:32 2019
 Response via : Initial Calibration



TIC: 2p86515.d\data.ms

(96) Indeno[1,2,3-cd]pyrene (t)
 15.062min (+0.021) 0.75ppm
 response 34602

Ion	Exp%	Act%
276.10	100	100
138.00	28.20	20.77
137.00	20.60	14.42
0.00	0.00	0.00

9.1.1.4
 9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\jeryllr\2p3823\
 Data File : 2p86516.d
 Acq On : 12 Apr 2019 8:13 pm
 Operator : angelar
 Sample : jc86043-2 Inst : MS2P
 Misc : op19672,e2p3823,30.3,,,1,1
 ALS Vial : 30 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2P3816.M
 Quant Results File: M2P3816.RES
 Quant Time: Apr 15 03:16:43 2019
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Mon Apr 15 02:19:32 2019
 Response via : Initial Calibration

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

Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.739	152	829453	40.00	ppm	0.00
24) Naphthalene-d8	5.772	136	3024745	40.00	ppm	0.00
47) Acenaphthene-d10	7.210	164	1423969	40.00	ppm	0.01
69) Phenanthrene-d10	8.483	188	1961980	40.00	ppm	0.01
83) Chrysene-d12	11.741	240	1461961	40.00	ppm	0.03
91) Perylene-d12	13.746	264	1556780	40.00	ppm	0.05
101) 1,4-Dichlorobenzene-d4a	4.739	152	829453	40.00	ppm	0.00
103) Naphthalene-d8a	5.772	136	3024880	40.00	ppm	0.00
105) Acenaphthene-d10a	7.210	164	1423969	40.00	ppm	0.01
108) Chrysene-d12a	11.741	240	1461961	40.00	ppm	0.03
110) Phenanthrene-d10a	8.483	188	1962105	40.00	ppm	0.01

System Monitoring Compounds

5) 2-Fluorophenol	3.702	112	980641	23.49	ppm	0.02
Spiked Amount	50.000	Range	11 - 58	Recovery	=	46.98%
8) Phenol-d5	4.493	99	1295595	28.32	ppm	0.01
Spiked Amount	50.000	Range	10 - 59	Recovery	=	56.64%
25) Nitrobenzene-d5	5.189	82	1334472	32.82	ppm	0.00
Spiked Amount	50.000	Range	19 - 61	Recovery	=	65.64%#
51) 2-Fluorobiphenyl	6.659	172	1882629	38.19	ppm	0.00
Spiked Amount	50.000	Range	21 - 58	Recovery	=	76.38%#
73) 2,4,6-Tribromophenol	7.863	330	216364	31.44	ppm	0.00
Spiked Amount	50.000	Range	12 - 68	Recovery	=	62.88%
85) Terphenyl-d14	10.313	244	1241131	34.11	ppm	0.02
Spiked Amount	50.000	Range	16 - 65	Recovery	=	68.22%#
111) 1-Chlorooctadecane	0.000	57	0d	0.00	ppm	
Spiked Amount	50.000	Range	20 - 70	Recovery	=	0.00%#
112) o-terphenyl	0.000	230	0d	0.00	ppm	
Spiked Amount	50.000	Range	20 - 70	Recovery	=	0.00%#

Target Compounds

Compound	R.T.	QIon	Response	Conc	Units	Qvalue
38) Naphthalene	5.788	128	139988m	1.93	ppm	
44) 2-Methylnaphthalene	6.355	141	54631	1.19	ppm	98
53) Biphenyl	6.740	154	22635	0.40	ppm	89
56) Acenaphthylene	7.093	152	55200	0.79	ppm	92
59) Acenaphthene	7.232	153	237300	5.80	ppm	95
62) Dibenzofuran	7.376	168	132203	2.34	ppm	93
66) Fluorene	7.654	166	223868m	4.63	ppm	
77) Phenanthrene	8.510	178	2379536	48.69	ppm	100
78) Anthracene	8.553	178	623929	12.55	ppm	98
79) Carbazole	8.724	167	196616	3.83	ppm	100
81) Fluoranthene	9.826	202	2907945	41.86	ppm	97
84) Pyrene	10.088	202	2552344	44.87	ppm	97
87) Benzo[a]anthracene	11.730	228	1243720	22.65	ppm	99
89) Chrysene	11.773	228	1020412	26.19	ppm	98
93) Benzo[b]fluoranthene	13.244	252	1179479	23.12	ppm	98
94) Benzo[k]fluoranthene	13.270	252	408906	9.80	ppm	98
95) Benzo[a]pyrene	13.666	252	887567	20.70	ppm	97
96) Indeno[1,2,3-cd]pyrene	15.116	276	392538	8.03	ppm	90
98) Dibenz[a,h]anthracene	15.142	278	114716	3.01	ppm	92
100) Benzo[g,h,i]perylene	15.490	276	310607	8.03	ppm	93
102) Benzaldehyde	4.386	105	17053	0.57	ppm	83

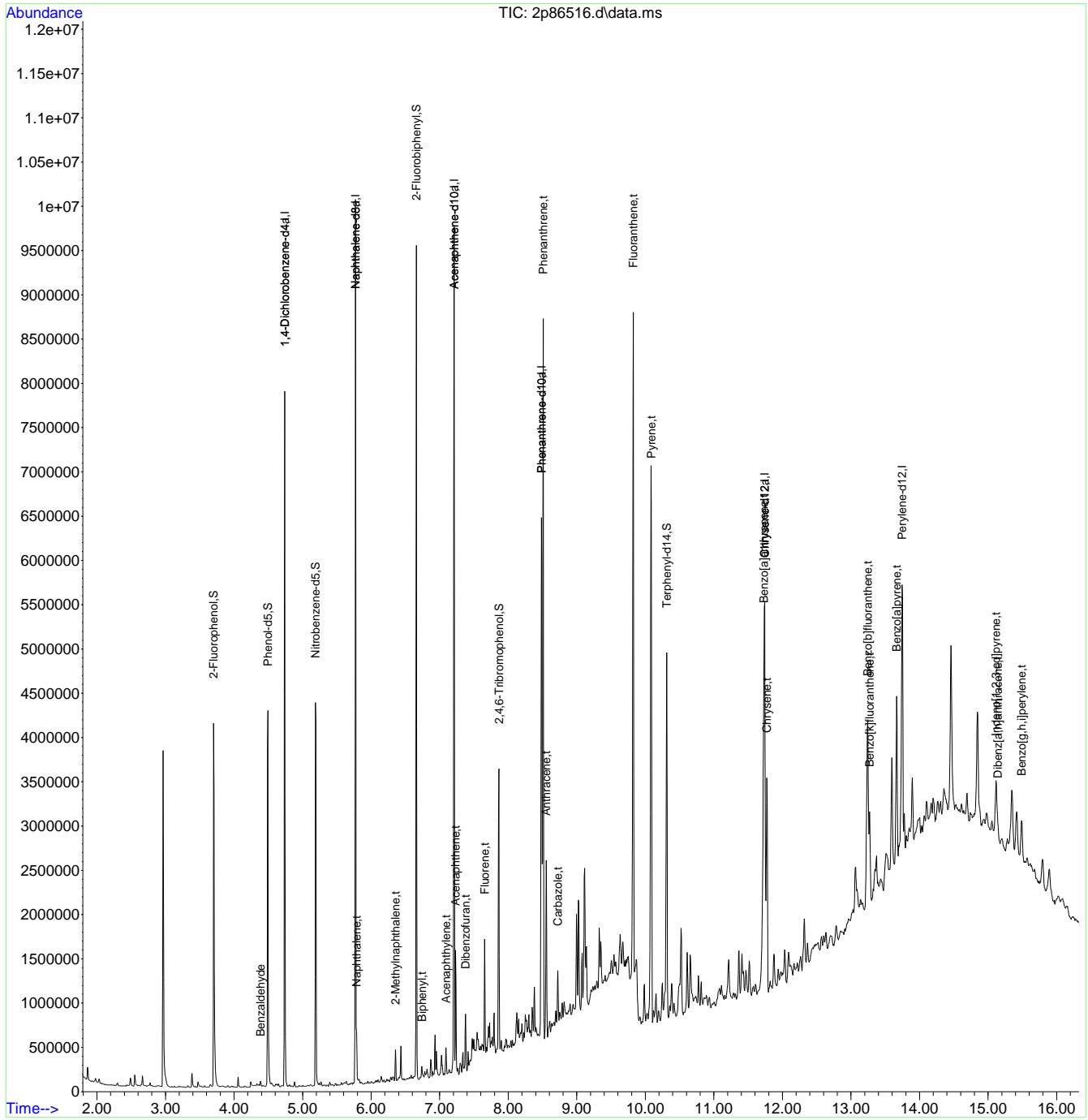
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

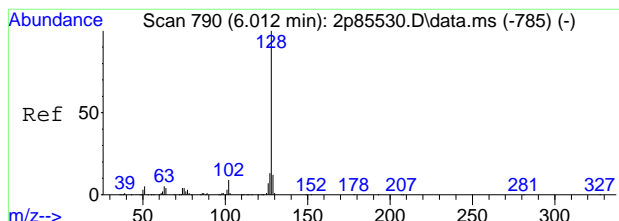
Data Path : C:\msdchem\1\data\jeryllr\2p3823\
Data File : 2p86516.d
Acq On : 12 Apr 2019 8:13 pm
Operator : angelar
Sample : jc86043-2
Misc : op19672,e2p3823,30.3,,,1,1
ALS Vial : 30 Sample Multiplier: 1

Inst : MS2P

Quant Method : C:\MSDCHEM\1\METHODS\M2P3816.M
Quant Results File: M2P3816.RES
Quant Time: Apr 15 03:16:43 2019
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Apr 15 02:19:32 2019
Response via : Initial Calibration

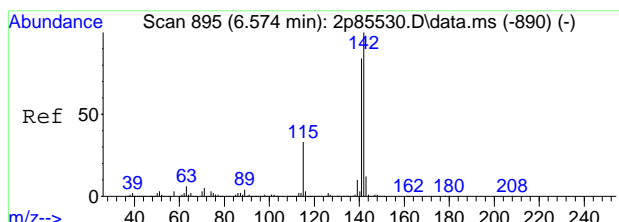
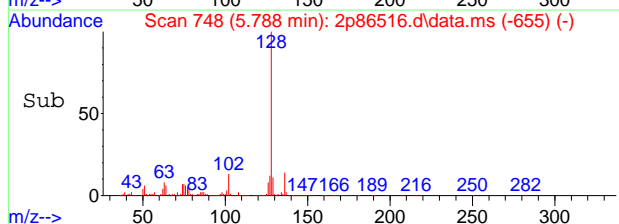
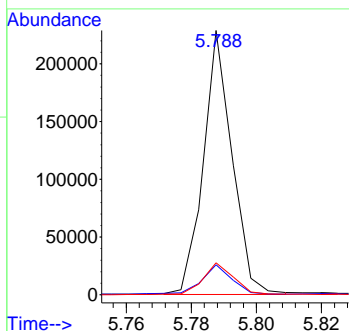
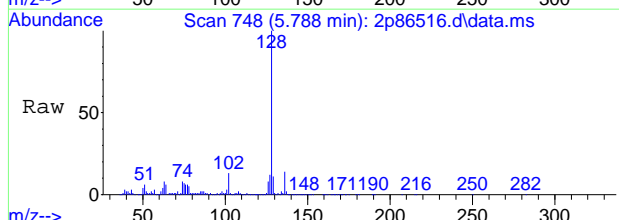


9.12
9



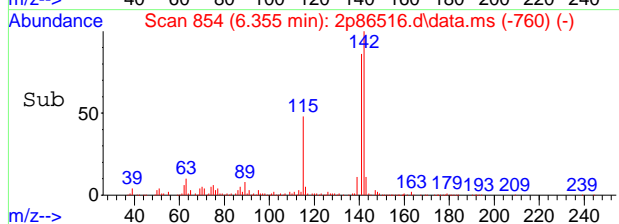
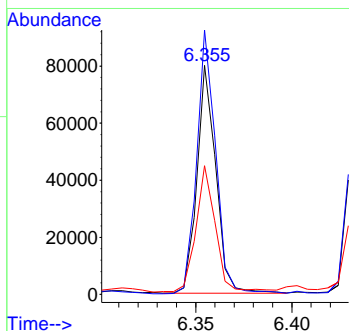
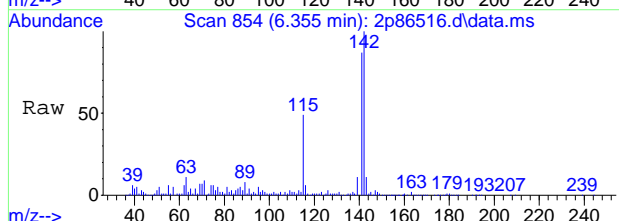
#38
 Naphthalene
 Concen: 1.93 ppm m
 RT: 5.788 min Scan# 748
 Delta R.T. 0.000 min
 Lab File: 2p86516.d
 Acq: 12 Apr 2019 8:13 pm

Tgt Ion	Resp	Lower	Upper
128	139988		
129	11.4	0.0	41.3
127	12.1	0.0	43.2

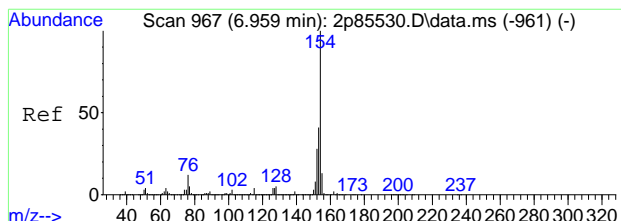


#44
 2-Methylnaphthalene
 Concen: 1.19 ppm
 RT: 6.355 min Scan# 854
 Delta R.T. 0.005 min
 Lab File: 2p86516.d
 Acq: 12 Apr 2019 8:13 pm

Tgt Ion	Resp	Lower	Upper
141	54631		
142	115.7	88.3	148.3
115	54.2	23.8	83.8

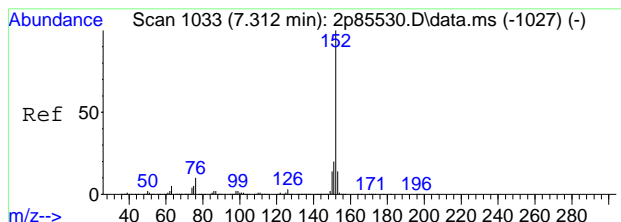
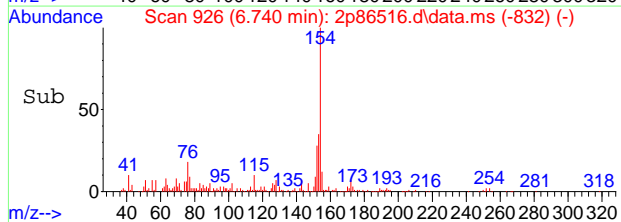
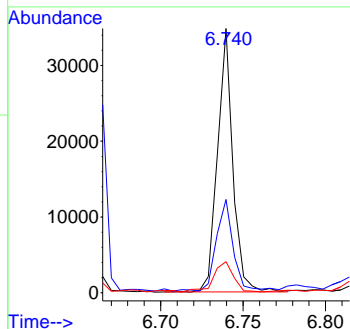
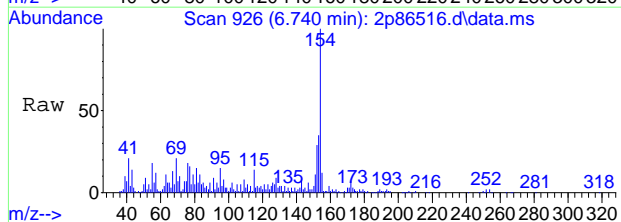


9.12
 9



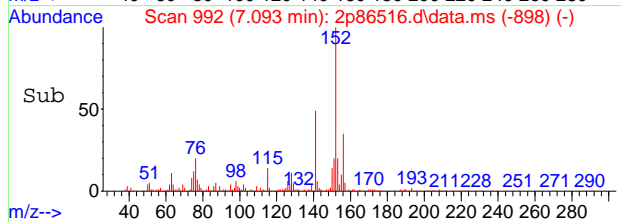
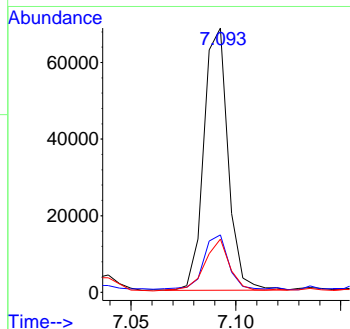
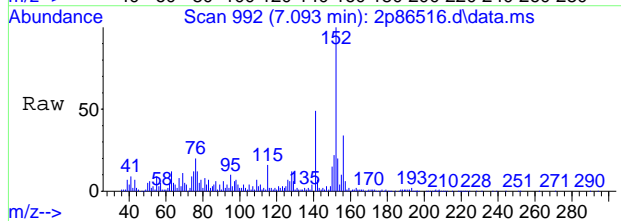
#53
 Biphenyl
 Concen: 0.40 ppm
 RT: 6.740 min Scan# 926
 Delta R.T. 0.005 min
 Lab File: 2p86516.d
 Acq: 12 Apr 2019 8:13 pm

Tgt Ion	Resp	Lower	Upper
154	22635		
153	33.1	11.0	71.0
155	10.9	0.0	43.3



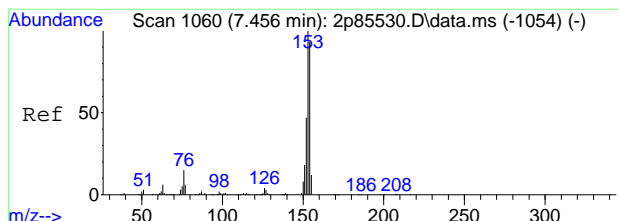
#56
 Acenaphthylene
 Concen: 0.79 ppm
 RT: 7.093 min Scan# 992
 Delta R.T. 0.005 min
 Lab File: 2p86516.d
 Acq: 12 Apr 2019 8:13 pm

Tgt Ion	Resp	Lower	Upper
152	55200		
151	20.7	0.0	49.8
153	19.5	0.0	42.9



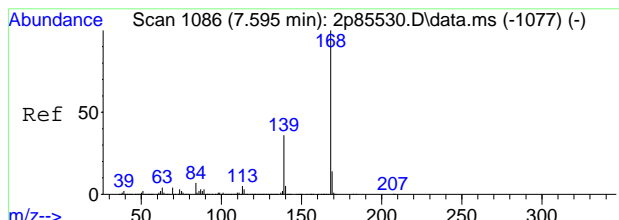
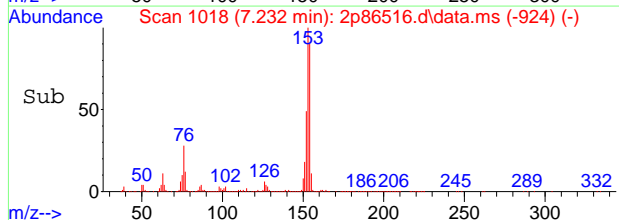
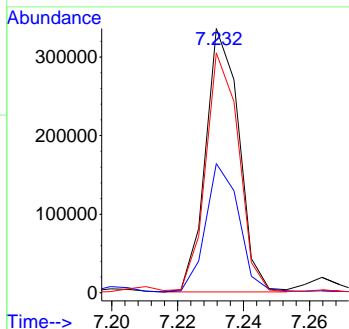
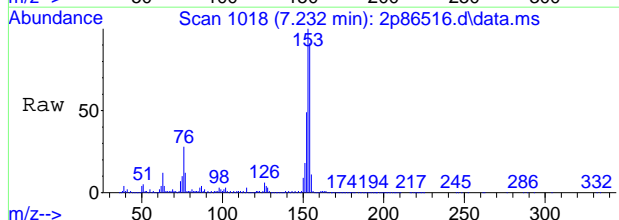
9.12
 9





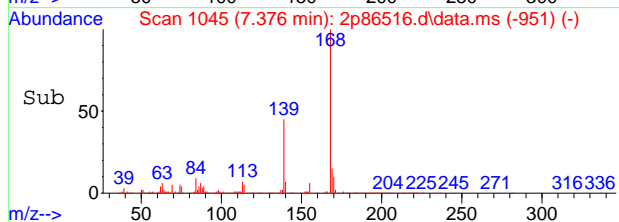
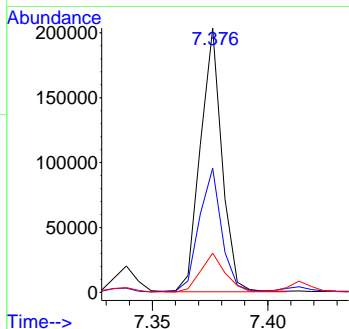
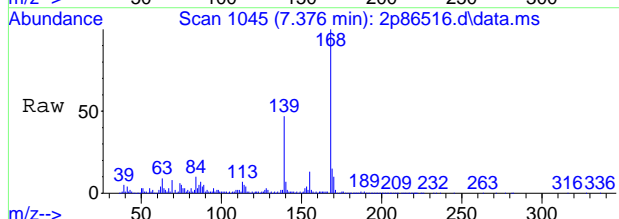
#59
 Acenaphthene
 Concen: 5.80 ppm
 RT: 7.232 min Scan# 1018
 Delta R.T. 0.005 min
 Lab File: 2p86516.d
 Acq: 12 Apr 2019 8:13 pm

Tgt Ion	Resp	Lower	Upper
153	237300		
152	48.6	17.6	77.6
154	90.7	53.9	113.9

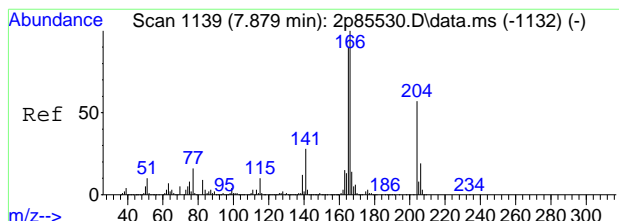


#62
 Dibenzofuran
 Concen: 2.34 ppm
 RT: 7.376 min Scan# 1045
 Delta R.T. 0.005 min
 Lab File: 2p86516.d
 Acq: 12 Apr 2019 8:13 pm

Tgt Ion	Resp	Lower	Upper
168	132203		
139	46.1	10.8	70.8
169	13.9	0.0	43.7

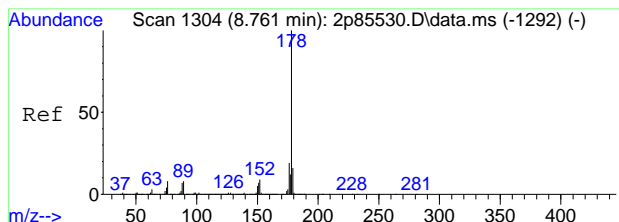
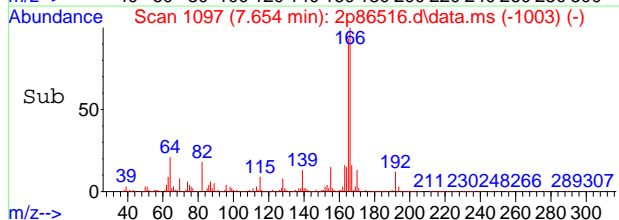
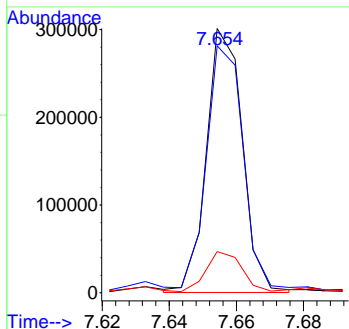
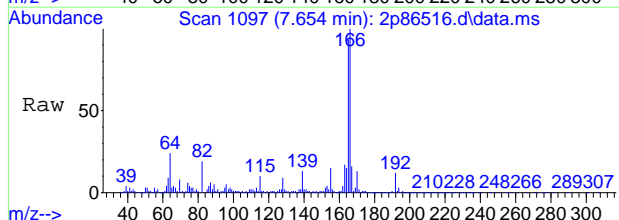


9.12
 9



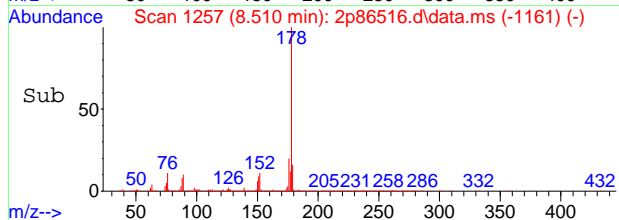
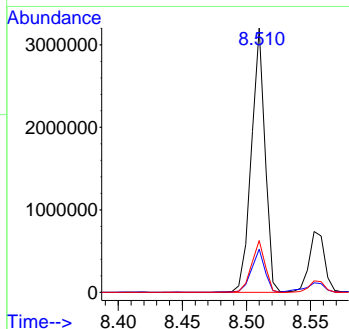
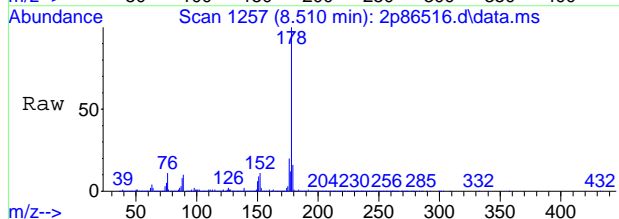
#66
 Fluorene
 Concen: 4.63 ppm m
 RT: 7.654 min Scan# 1097
 Delta R.T. 0.005 min
 Lab File: 2p86516.d
 Acq: 12 Apr 2019 8:13 pm

Tgt Ion	Ratio	Lower	Upper
166	100		
165	93.4	62.9	122.9
167	15.6	0.0	43.7

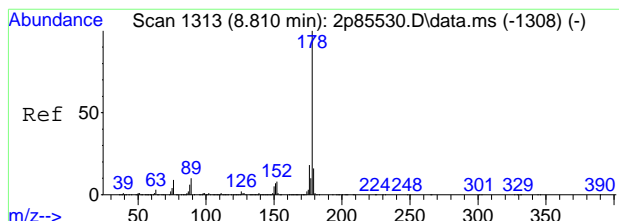


#77
 Phenanthrene
 Concen: 48.69 ppm
 RT: 8.510 min Scan# 1257
 Delta R.T. 0.016 min
 Lab File: 2p86516.d
 Acq: 12 Apr 2019 8:13 pm

Tgt Ion	Ratio	Lower	Upper
178	100		
179	16.1	0.0	45.9
176	19.6	0.0	49.7

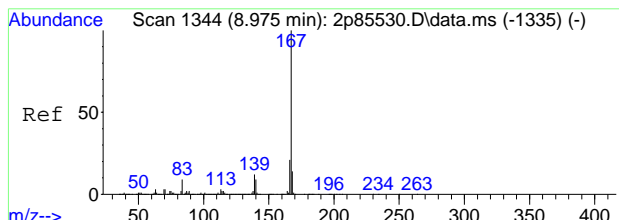
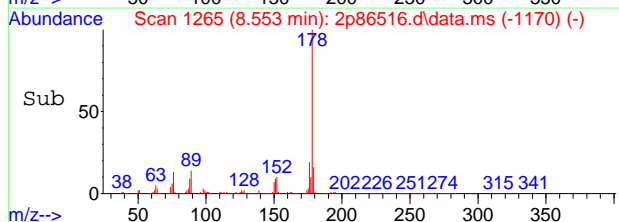
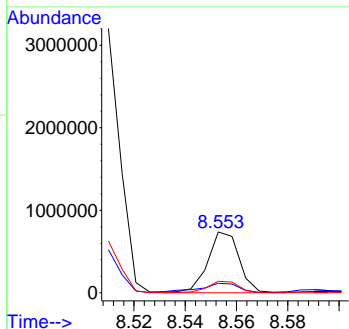
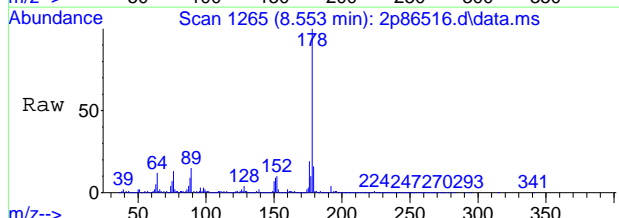


9.12
9



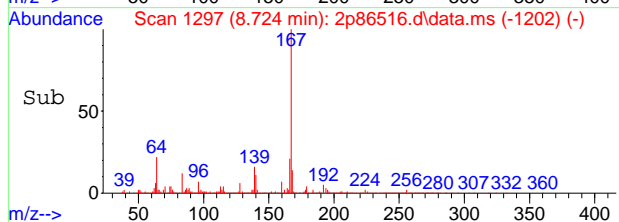
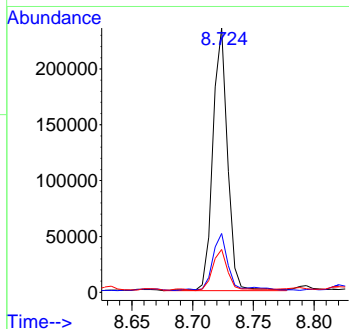
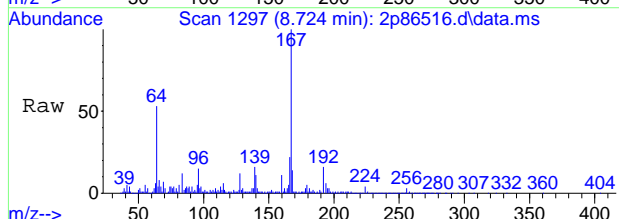
#78
 Anthracene
 Concen: 12.55 ppm
 RT: 8.553 min Scan# 1265
 Delta R.T. 0.011 min
 Lab File: 2p86516.d
 Acq: 12 Apr 2019 8:13 pm

Tgt Ion	Ratio	Lower	Upper
178	100		
179	14.3	0.0	45.6
176	19.1	0.0	48.3

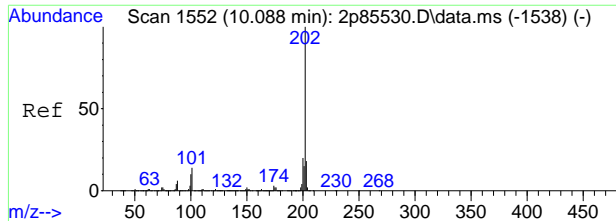


#79
 Carbazole
 Concen: 3.83 ppm
 RT: 8.724 min Scan# 1297
 Delta R.T. 0.011 min
 Lab File: 2p86516.d
 Acq: 12 Apr 2019 8:13 pm

Tgt Ion	Ratio	Lower	Upper
167	100		
166	21.5	0.0	51.7
139	15.2	0.0	45.0

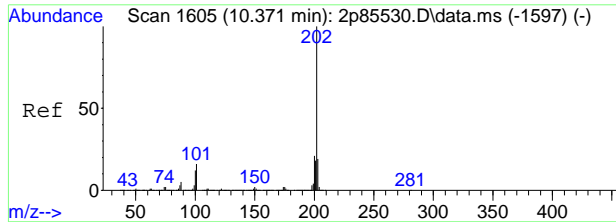
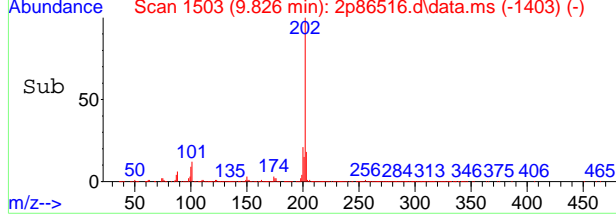
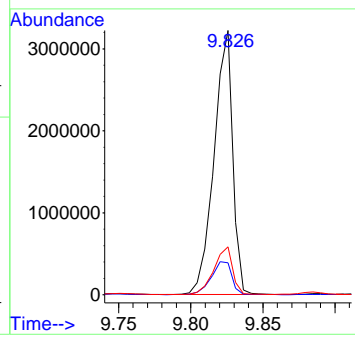
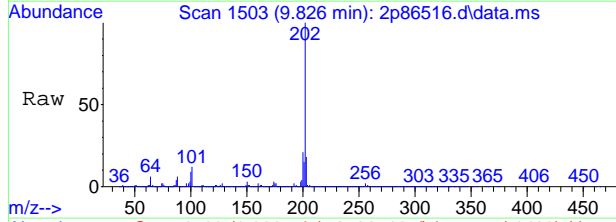


9.1.2
 9



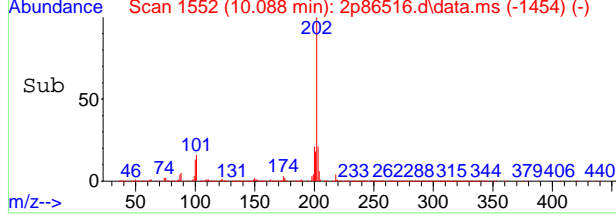
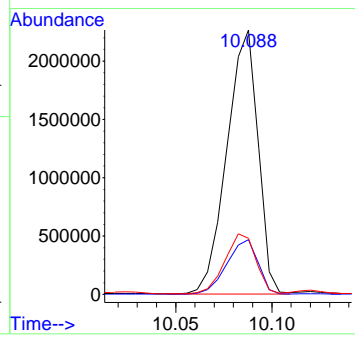
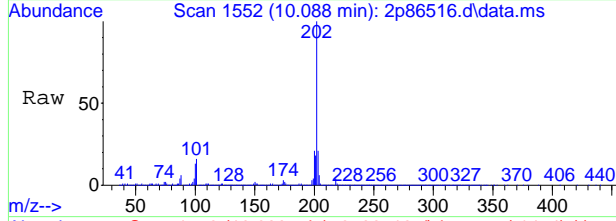
#81
 Fluoranthene
 Concen: 41.86 ppm
 RT: 9.826 min Scan# 1503
 Delta R.T. 0.037 min
 Lab File: 2p86516.d
 Acq: 12 Apr 2019 8:13 pm

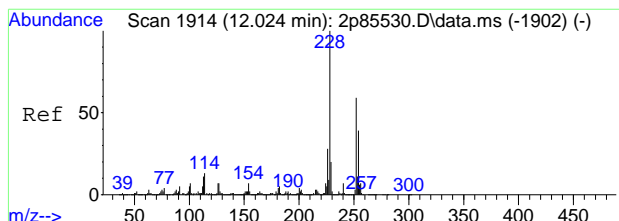
Tgt Ion	Ratio	Lower	Upper
202	100		
101	12.1	0.0	44.4
203	18.0	0.0	47.5



#84
 Pyrene
 Concen: 44.87 ppm
 RT: 10.088 min Scan# 1552
 Delta R.T. 0.027 min
 Lab File: 2p86516.d
 Acq: 12 Apr 2019 8:13 pm

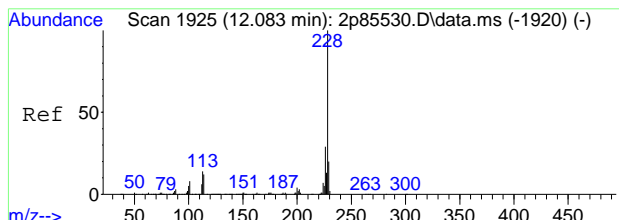
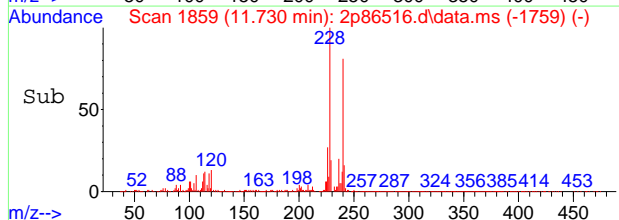
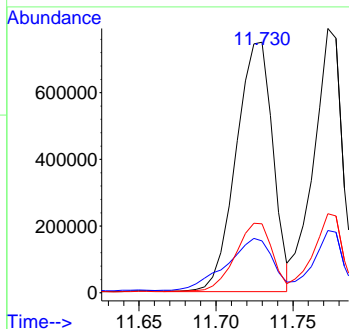
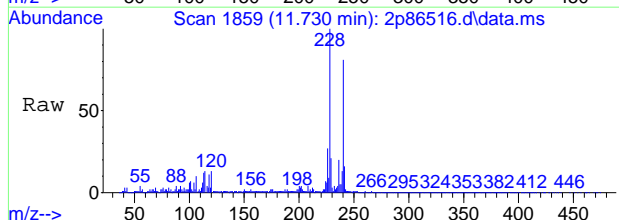
Tgt Ion	Ratio	Lower	Upper
202	100		
200	20.7	0.0	50.8
203	20.9	0.0	47.8





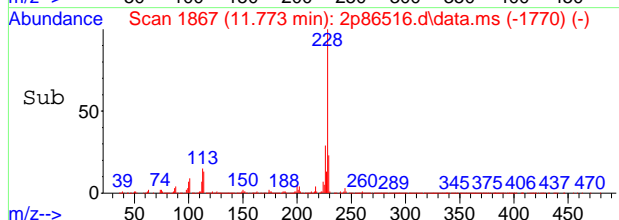
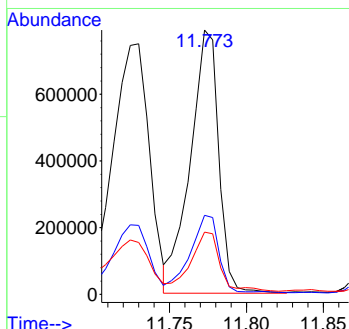
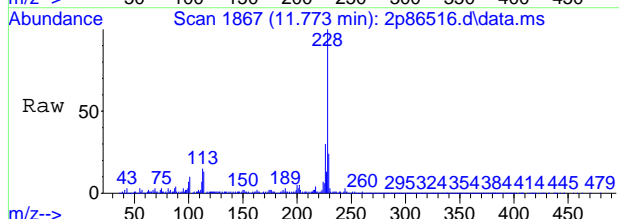
#87
 Benzo[a]anthracene
 Concen: 22.65 ppm
 RT: 11.730 min Scan# 1859
 Delta R.T. 0.037 min
 Lab File: 2p86516.d
 Acq: 12 Apr 2019 8:13 pm

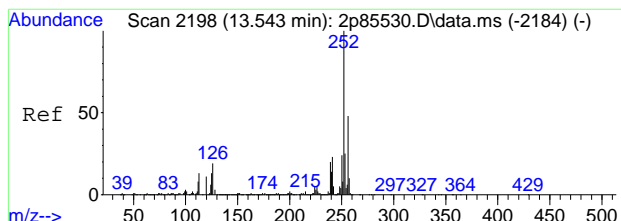
Tgt Ion	Ratio	Lower	Upper
228	100		
229	19.2	0.0	50.0
226	27.1	0.0	57.2



#89
 Chrysene
 Concen: 26.19 ppm
 RT: 11.773 min Scan# 1867
 Delta R.T. 0.021 min
 Lab File: 2p86516.d
 Acq: 12 Apr 2019 8:13 pm

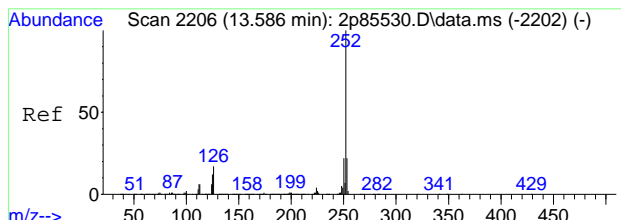
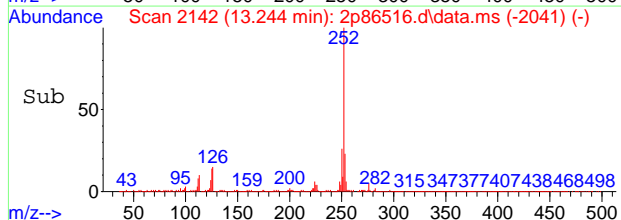
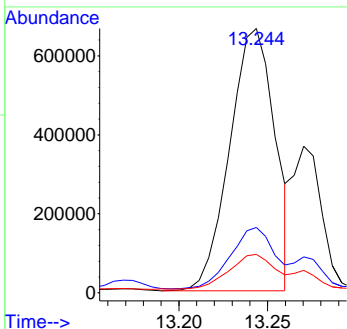
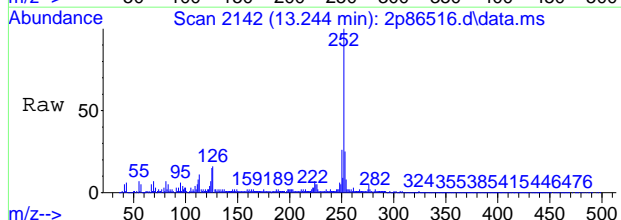
Tgt Ion	Ratio	Lower	Upper
228	100		
226	29.6	0.0	59.6
229	22.1	0.0	49.3





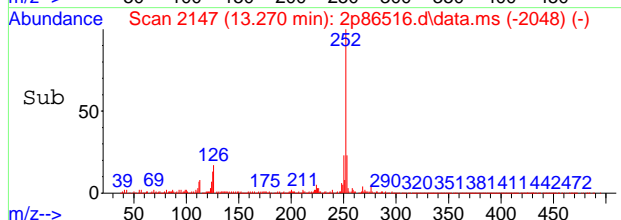
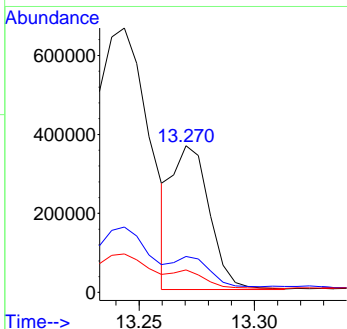
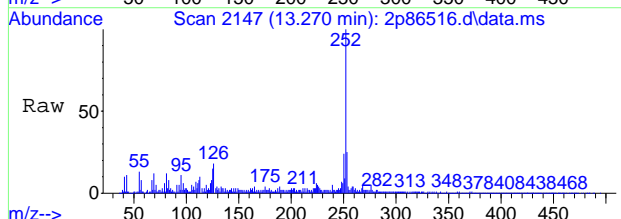
#93
 Benzo[b]fluoranthene
 Concen: 23.12 ppm
 RT: 13.244 min Scan# 2142
 Delta R.T. 0.043 min
 Lab File: 2p86516.d
 Acq: 12 Apr 2019 8:13 pm

Tgt Ion	Resp	Lower	Upper
252	1179479		
253	23.7	0.0	54.3
125	13.2	0.0	44.6

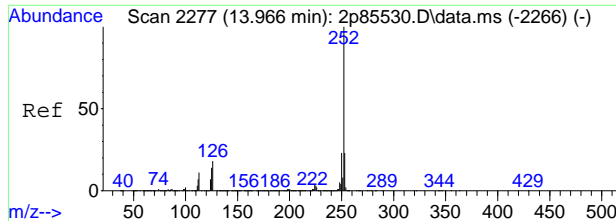


#94
 Benzo[k]fluoranthene
 Concen: 9.80 ppm
 RT: 13.270 min Scan# 2147
 Delta R.T. 0.032 min
 Lab File: 2p86516.d
 Acq: 12 Apr 2019 8:13 pm

Tgt Ion	Resp	Lower	Upper
252	408906		
253	21.2	0.0	52.4
125	12.7	0.0	43.0

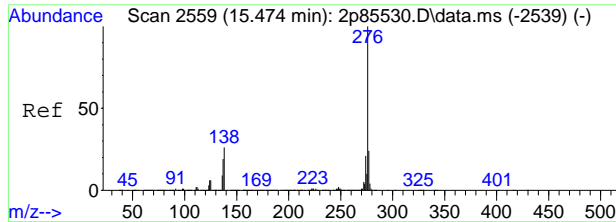
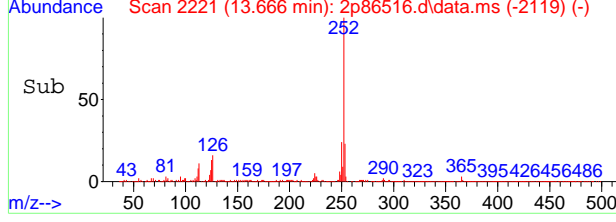
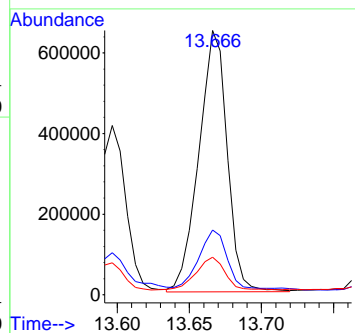
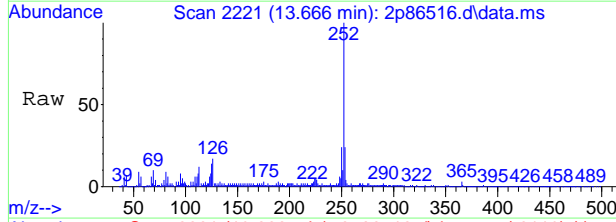


9.12
9



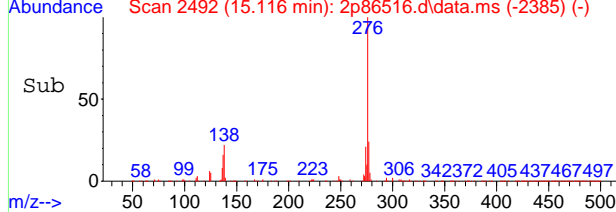
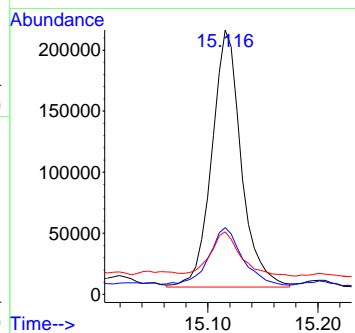
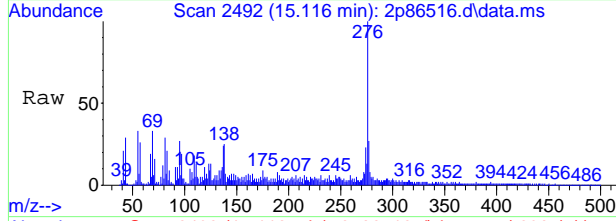
#95
 Benzo[a]pyrene
 Concen: 20.70 ppm
 RT: 13.666 min Scan# 2221
 Delta R.T. 0.048 min
 Lab File: 2p86516.d
 Acq: 12 Apr 2019 8:13 pm

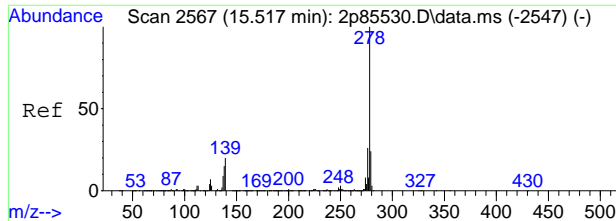
Tgt Ion	Resp	Lower	Upper
252	887567		
253	22.3	0.0	52.3
125	12.4	0.0	45.5



#96
 Indeno[1,2,3-cd]pyrene
 Concen: 8.03 ppm
 RT: 15.116 min Scan# 2492
 Delta R.T. 0.075 min
 Lab File: 2p86516.d
 Acq: 12 Apr 2019 8:13 pm

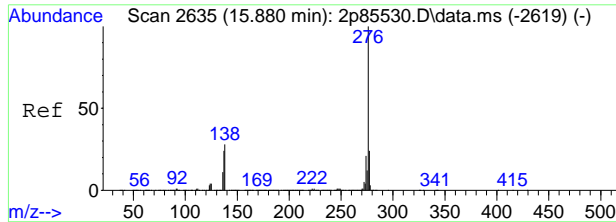
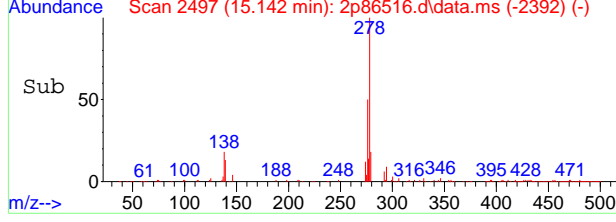
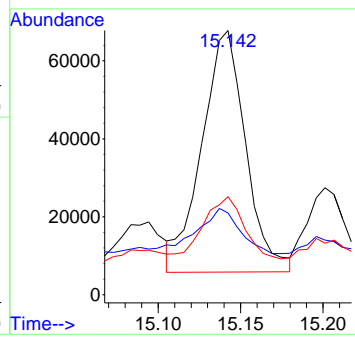
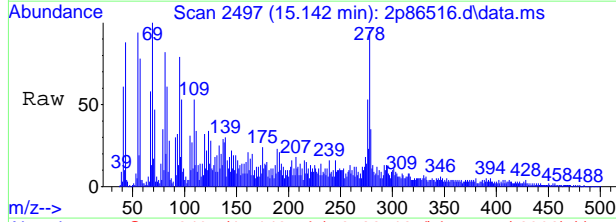
Tgt Ion	Resp	Lower	Upper
276	392538		
138	22.3	0.0	58.2
137	16.5	0.0	50.6





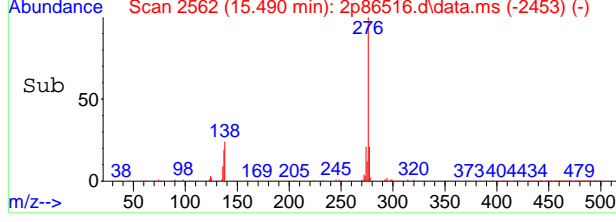
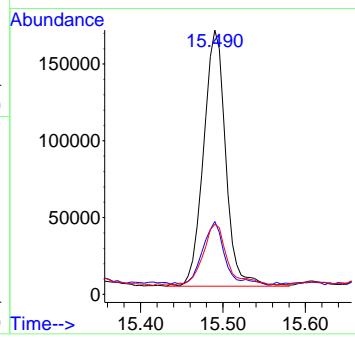
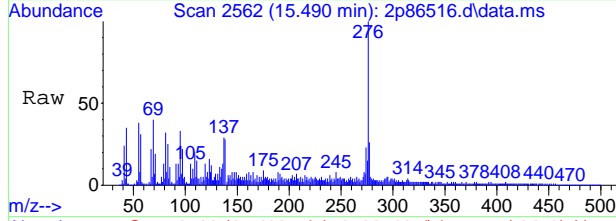
#98
 Dibenz[a,h]anthracene
 Concen: 3.01 ppm
 RT: 15.142 min Scan# 2497
 Delta R.T. 0.064 min
 Lab File: 2p86516.d
 Acq: 12 Apr 2019 8:13 pm

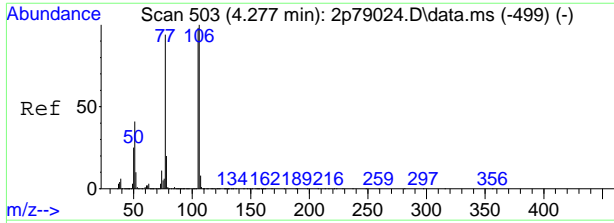
Tgt Ion	Resp	Lower	Upper
278	114716		
139	16.6	0.0	51.7
279	27.0	0.0	54.5



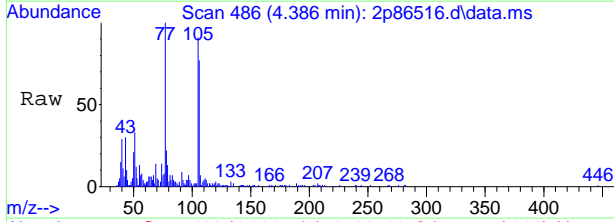
#100
 Benzo[g,h,i]perylene
 Concen: 8.03 ppm
 RT: 15.490 min Scan# 2562
 Delta R.T. 0.086 min
 Lab File: 2p86516.d
 Acq: 12 Apr 2019 8:13 pm

Tgt Ion	Resp	Lower	Upper
276	310607		
138	24.0	1.1	61.1
277	23.3	0.0	53.3

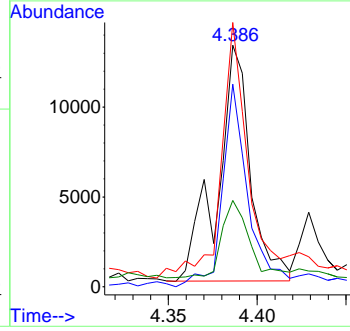
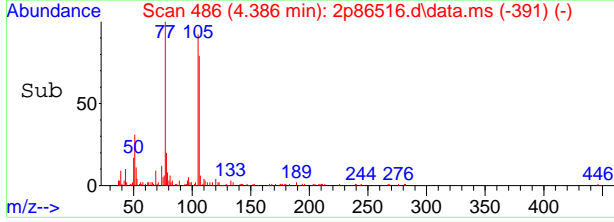




#102
 Benzaldehyde
 Concen: 0.57 ppm
 RT: 4.386 min Scan# 486
 Delta R.T. 0.011 min
 Lab File: 2p86516.d
 Acq: 12 Apr 2019 8:13 pm



Tgt Ion	Ratio	Lower	Upper
105	100		
106	85.3	70.3	130.3
77	103.8	95.5	155.5
51	32.2	13.0	73.0



Manual Integration Approval Summary

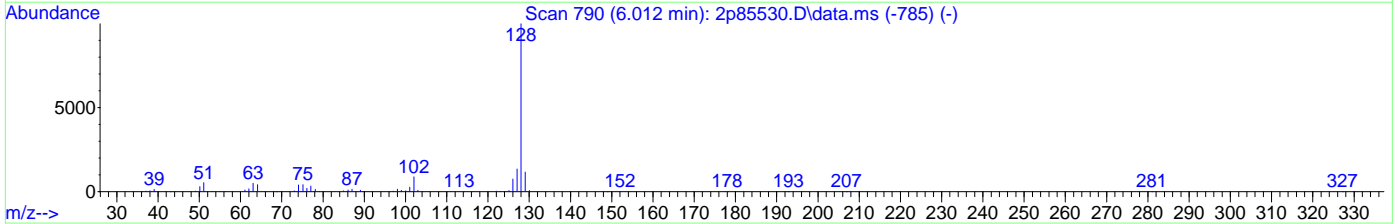
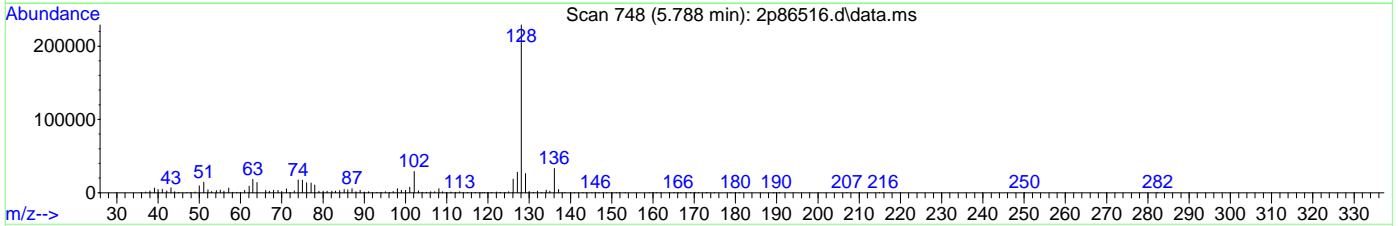
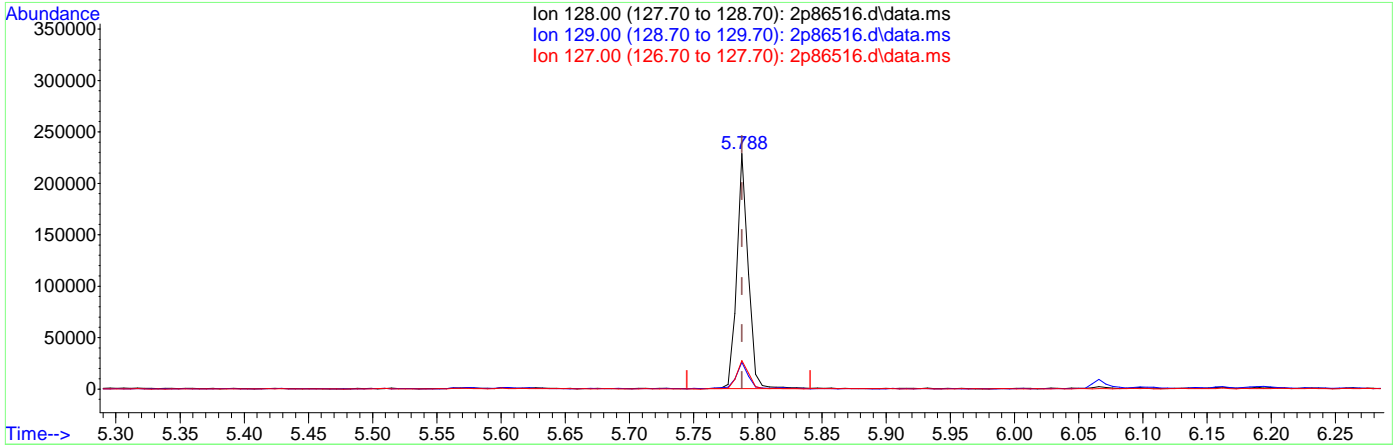
Sample Number: JC86043-2 Method: SW846 8270D
Lab FileID: 2P86516.D Analyst approved: 04/15/19 04:07 Jeryll Fabriene Reyes
Injection Time: 04/12/19 20:13 Supervisor approved: 04/15/19 13:17 Nina Pandya

Parameter	CAS	Sig#	R.T. (min.)	Reason
Naphthalene	91-20-3		5.79	Poor instrument integration
Fluorene	86-73-7		7.65	Poor instrument integration

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\jeryllr\2p3823\
 Data File : 2p86516.d
 Acq On : 12 Apr 2019 8:13 pm
 Operator : angelar
 Sample : jc86043-2 Inst : MS2P
 Misc : op19672,e2p3823,30.3,,,1,1
 ALS Vial : 30 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2P3816.M
 Quant Results File: M2P3816.RES
 Quant Time: Apr 15 02:22:01 2019
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Mon Apr 15 02:19:32 2019
 Response via : Initial Calibration



TIC: 2p86516.d\data.ms

(38) Naphthalene (t)

5.788min (0.000) 1.96ppm

response 141843

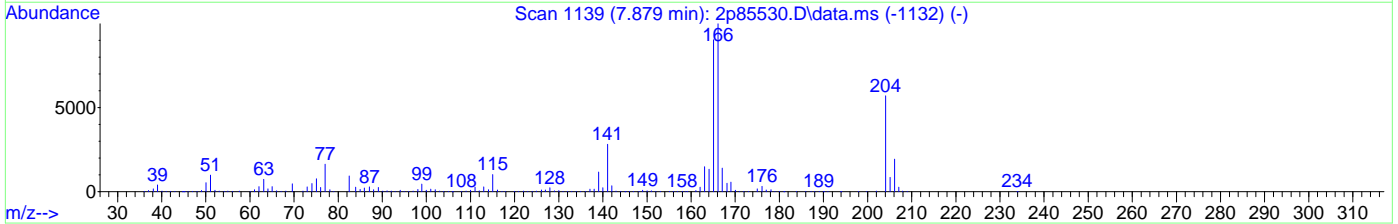
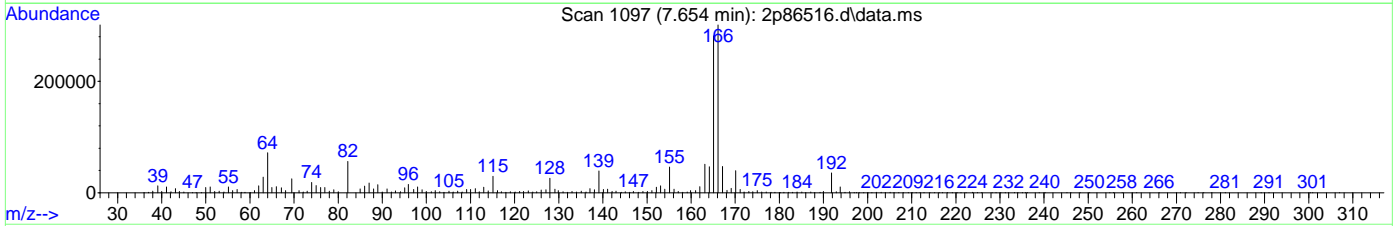
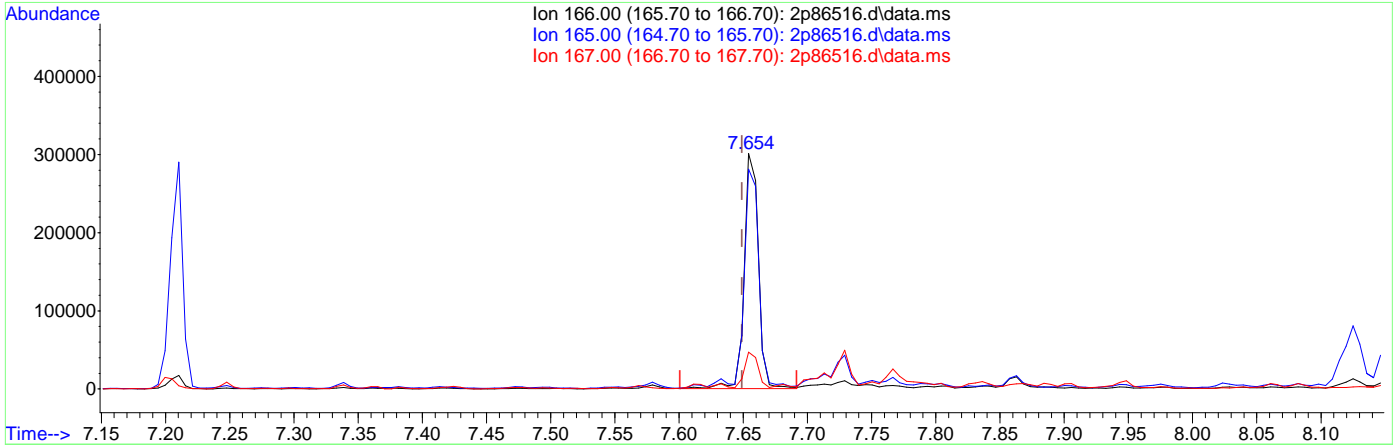
Ion	Exp%	Act%
128.00	100	100
129.00	11.30	11.25
127.00	13.20	11.99
0.00	0.00	0.00

9.1.2.2
9

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\jeryllr\2p3823\
 Data File : 2p86516.d
 Acq On : 12 Apr 2019 8:13 pm
 Operator : angelar
 Sample : jc86043-2 Inst : MS2P
 Misc : op19672,e2p3823,30.3,,,1,1
 ALS Vial : 30 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2P3816.M
 Quant Results File: M2P3816.RES
 Quant Time: Apr 15 02:22:01 2019
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Mon Apr 15 02:19:32 2019
 Response via : Initial Calibration



TIC: 2p86516.d\data.ms

(66) Fluorene (t)
 7.654min (+0.005) 4.80ppm
 response 232280

Ion	Exp%	Act%
166.00	100	100
165.00	92.90	92.87
167.00	13.70	15.07
0.00	0.00	0.00

9.1.2.3
 9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\data_aimeel\ep5838\
 Data File : p129017.d
 Acq On : 15 Apr 2019 1:01 am
 Operator : carolb
 Sample : jc86043-3 Inst : MSVOAMSP
 Misc : op19673,ep5838,30.1,,,1,1
 ALS Vial : 26 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MP5819.M
 Quant Results File: MP5819.RES
 Quant Time: Apr 15 15:08:30 2019
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Mon Apr 15 12:51:39 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
Internal Standards							
1) 1,4-Dichlorobenzene-d4	4.268	152	197218	40.00	ppm	0.00	
24) Naphthalene-d8	5.208	136	806918	40.00	ppm	0.01	
47) Acenaphthene-d10	6.533	164	477491	40.00	ppm	0.00	
69) Phenanthrene-d10	8.232	188	813447	40.00	ppm	0.01	
83) Chrysene-d12	13.318	240	680150	40.00	ppm	0.03	
91) Perylene-d12	16.342	264	700723	40.00	ppm	0.03	
101) 1,4-Dichlorobenzene-d4b	4.268	152	197218	40.00	ppm	0.00	
103) Phenanthrene-d10b	8.232	188	813447	40.00	ppm	0.01	
105) Chrysene-d12b	13.318	240	680150	40.00	ppm	0.03	
107) Naphthalene-d8b	5.208	136	806918	40.00	ppm	0.01	
109) Acenaphthene-d10b	6.533	164	477491	40.00	ppm	0.00	
System Monitoring Compounds							
5) 2-Fluorophenol	3.306	112	271044	36.69	ppm	-0.04	
Spiked Amount	50.000		Recovery	=	73.38%		
8) Phenol-d5	4.060	99	391811	39.57	ppm	-0.02	
Spiked Amount	50.000		Recovery	=	79.14%		
25) Nitrobenzene-d5	4.685	82	471888	44.79	ppm	-0.01	
Spiked Amount	50.000		Recovery	=	89.58%		
51) 2-Fluorobiphenyl	5.988	172	743844	43.64	ppm	0.01	
Spiked Amount	50.000		Recovery	=	87.28%		
73) 2,4,6-Tribromophenol	7.340	330	66235	29.38	ppm	0.02	
Spiked Amount	50.000		Recovery	=	58.76%		
85) Terphenyl-d14	11.144	244	787204	46.86	ppm	0.00	
Spiked Amount	50.000		Recovery	=	93.72%		
Target Compounds							
38) Naphthalene	5.224	128	39742	1.86	ppm	99	Qvalue
44) 2-Methylnaphthalene	5.721	141	13873	1.10	ppm	97	
53) Biphenyl	6.063	154	6902	0.36	ppm	93	
56) Acenaphthylene	6.410	152	67169	2.89	ppm	98	
59) Acenaphthene	6.560	153	41232	2.93	ppm	97	
62) Dibenzofuran	6.720	168	35530	1.71	ppm	93	
66) Fluorene	7.062	166	50389	2.89	ppm	93	
77) Phenanthrene	8.269	178	810064	35.88	ppm	99	
78) Anthracene	8.333	178	230333	9.58	ppm	99	
79) Carbazole	8.611	167	93544	4.20	ppm	96	
81) Fluoranthene	10.299	202	1867851	68.53	ppm	100	
84) Pyrene	10.721	202	1704070	67.02	ppm	96	
87) Benzo[a]anthracene	13.296	228	1008540	43.09	ppm	99	
89) Chrysene	13.377	228	938303	45.23	ppm	97	
90) bis(2-Ethylhexyl)phtha...	13.702	149	70666	3.75	ppm	95	
93) Benzo[b]fluoranthene	15.599	252	1025775	44.08	ppm	95	
94) Benzo[k]fluoranthene	15.647	252	375202	18.99	ppm	98	
95) Benzo[a]pyrene	16.224	252	739420	37.74	ppm	98	
96) Indeno[1,2,3-cd]pyrene	18.286	276	426359	24.02	ppm	94	
98) Dibenz[a,h]anthracene	18.329	278	117915	6.51	ppm	87	
100) Benzo[g,h,i]perylene	18.708	276	411980	23.92	ppm	94	

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

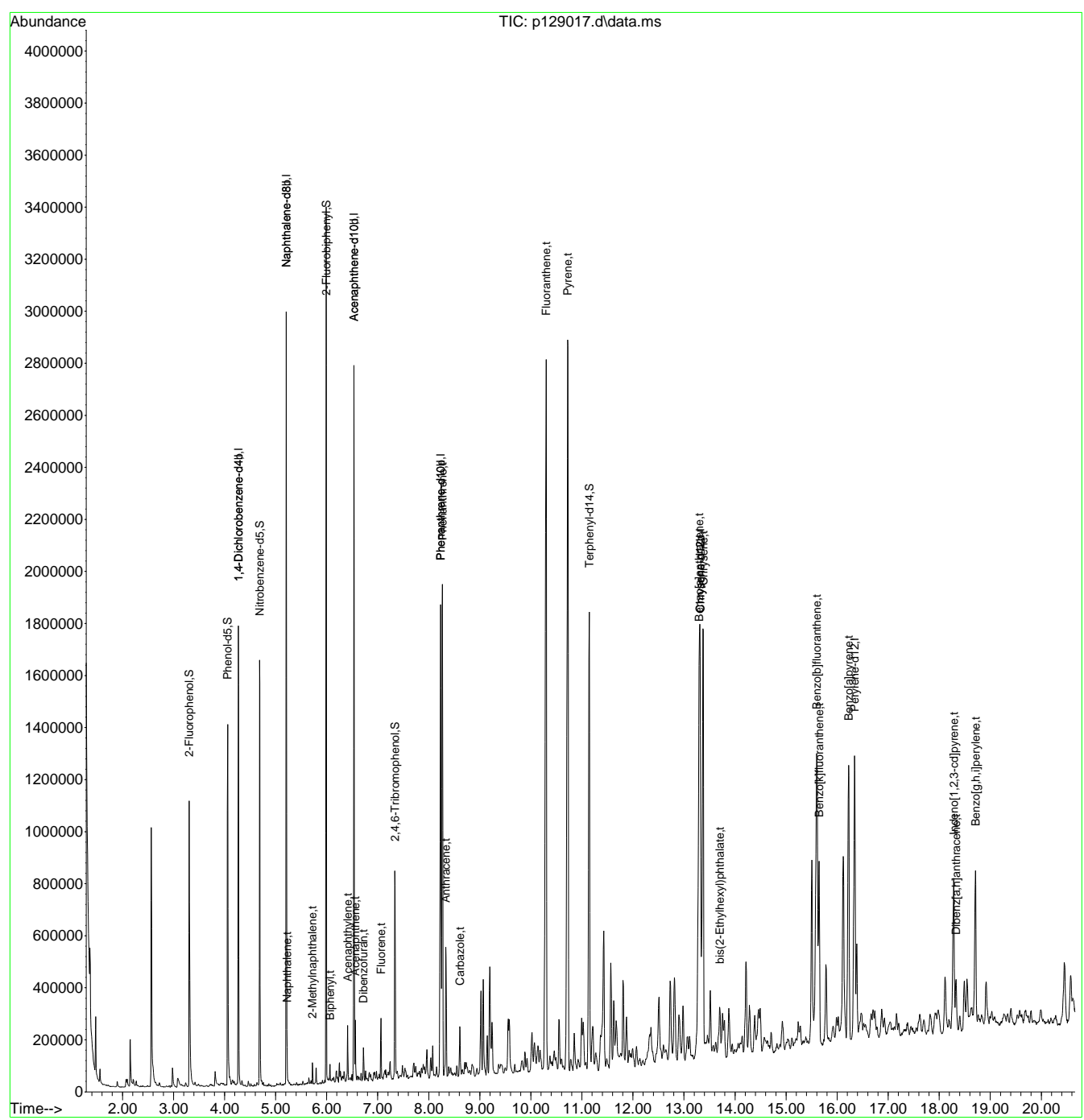
9.1.3
9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\data_aimeel\ep5838\
Data File : p129017.d
Acq On : 15 Apr 2019 1:01 am
Operator : carolb
Sample : jc86043-3
Misc : op19673,ep5838,30.1,,,1,1
ALS Vial : 26 Sample Multiplier: 1

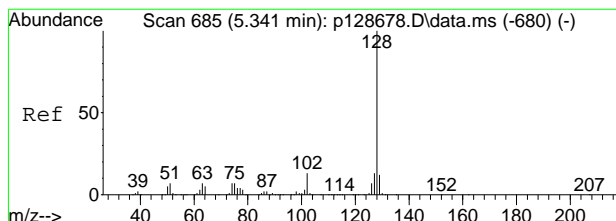
Inst : MSVOAMSP

Quant Method : C:\MSDCHEM\1\METHODS\MP5819.M
Quant Results File: MP5819.RES
Quant Time: Apr 15 15:08:30 2019
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Apr 15 12:51:39 2019
Response via : Initial Calibration



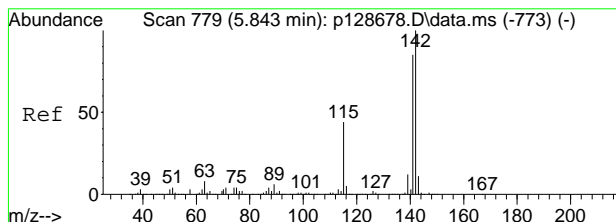
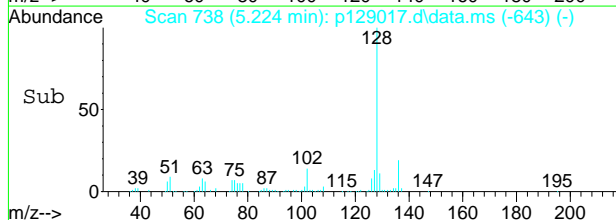
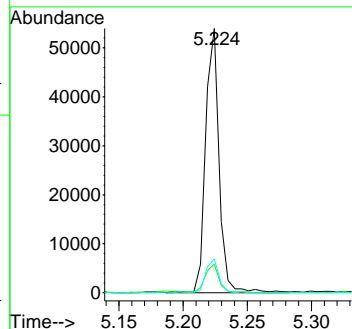
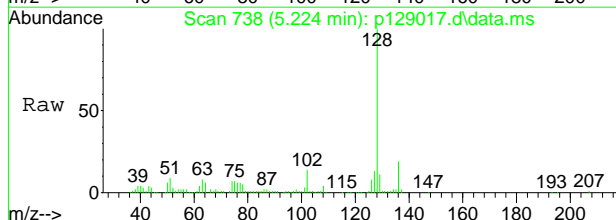
9.1.3
9





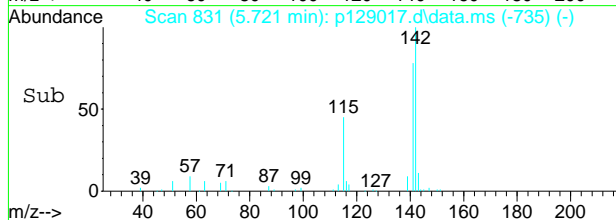
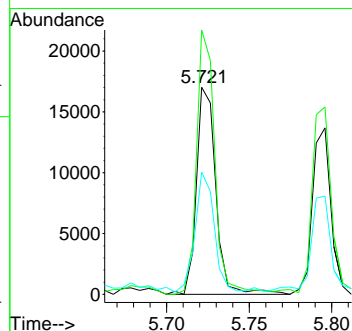
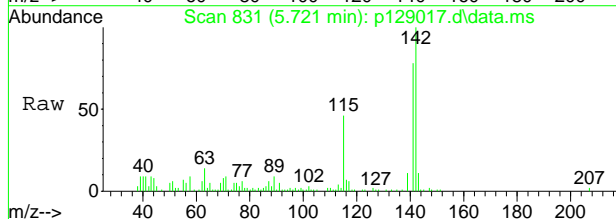
#38
 Naphthalene
 Concen: 1.86 ppm
 RT: 5.224 min Scan# 738
 Delta R.T. 0.006 min
 Lab File: p129017.d
 Acq: 15 Apr 2019 1:01 am

Tgt Ion	Resp	Lower	Upper
128	39742		
129	10.6	0.0	41.4
127	12.9	0.0	42.9

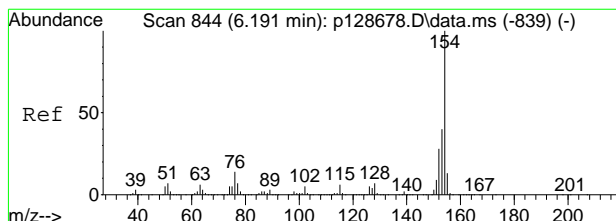


#44
 2-Methylnaphthalene
 Concen: 1.10 ppm
 RT: 5.721 min Scan# 831
 Delta R.T. 0.011 min
 Lab File: p129017.d
 Acq: 15 Apr 2019 1:01 am

Tgt Ion	Resp	Lower	Upper
141	13873		
142	126.5	91.7	151.7
115	55.6	25.2	85.2

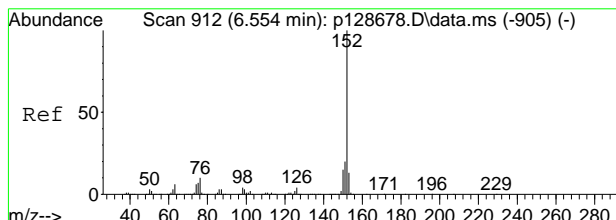
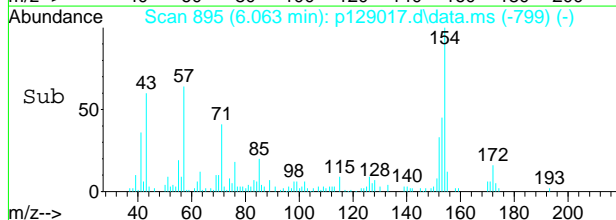
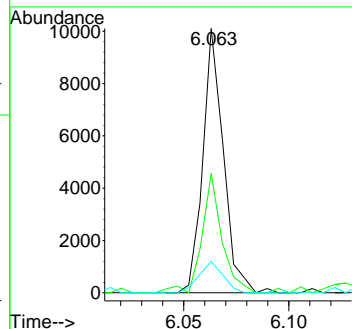
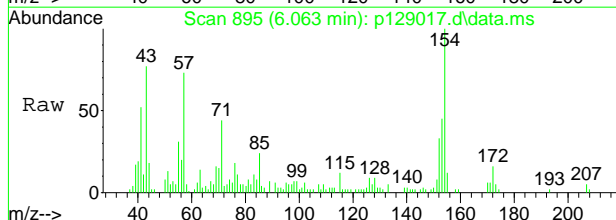


9.13
 9



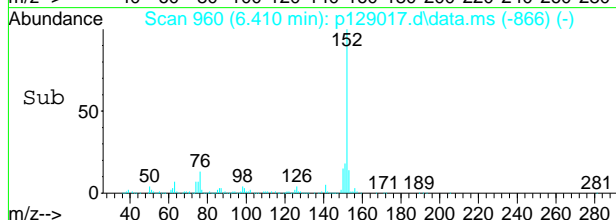
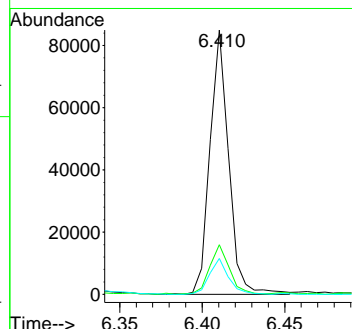
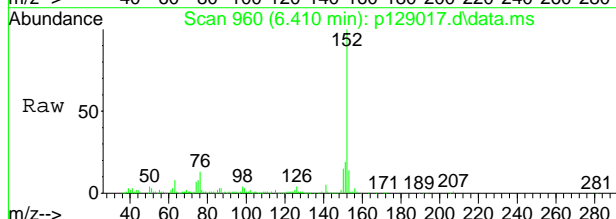
#53
 Biphenyl
 Concen: 0.36 ppm
 RT: 6.063 min Scan# 895
 Delta R.T. 0.011 min
 Lab File: p129017.d
 Acq: 15 Apr 2019 1:01 am

Tgt Ion	Ratio	Lower	Upper
154	100		
153	44.4	9.3	69.3
155	11.9	0.0	43.4

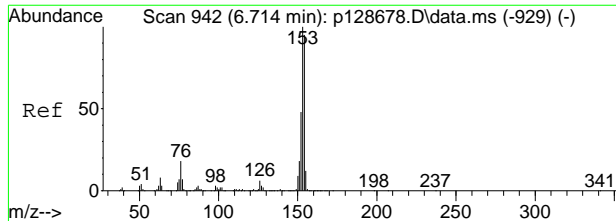


#56
 Acenaphthylene
 Concen: 2.89 ppm
 RT: 6.410 min Scan# 960
 Delta R.T. 0.003 min
 Lab File: p129017.d
 Acq: 15 Apr 2019 1:01 am

Tgt Ion	Ratio	Lower	Upper
152	100		
151	18.3	0.0	50.0
153	13.5	0.0	43.5

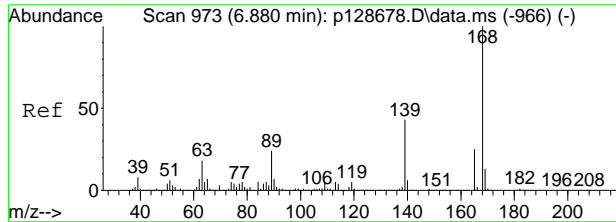
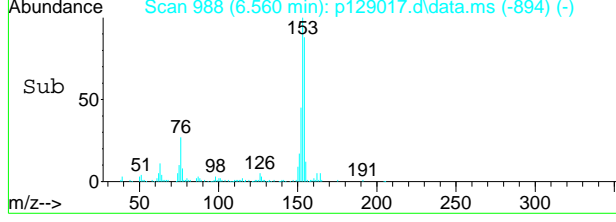
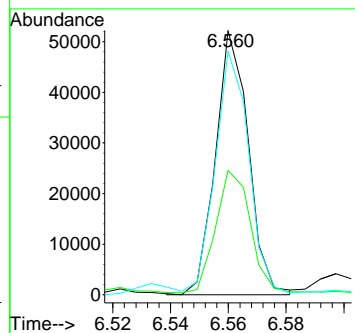
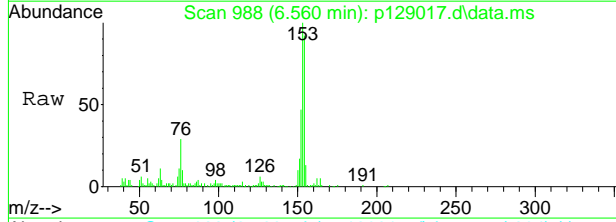


9.13
 9



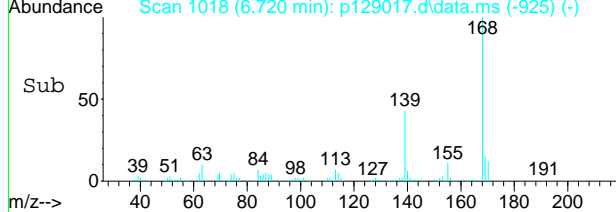
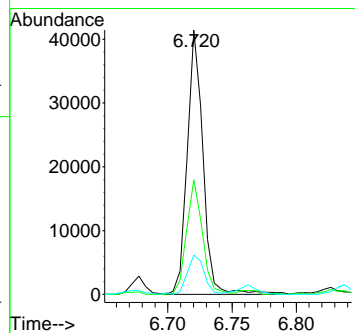
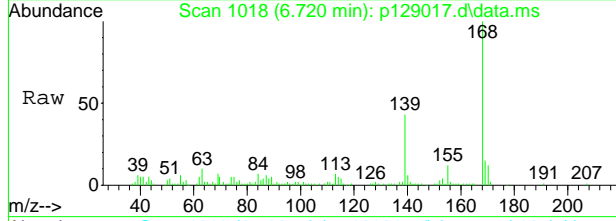
#59
 Acenaphthene
 Concen: 2.93 ppm
 RT: 6.560 min Scan# 988
 Delta R.T. 0.001 min
 Lab File: p129017.d
 Acq: 15 Apr 2019 1:01 am

Tgt Ion	Resp	Lower	Upper
153	41232		
152	46.6	18.2	78.2
154	91.4	57.6	117.6



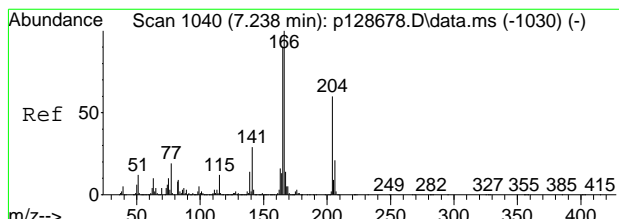
#62
 Dibenzofuran
 Concen: 1.71 ppm
 RT: 6.720 min Scan# 1018
 Delta R.T. -0.001 min
 Lab File: p129017.d
 Acq: 15 Apr 2019 1:01 am

Tgt Ion	Resp	Lower	Upper
168	35530		
139	43.4	18.9	78.9
169	14.5	0.0	43.7



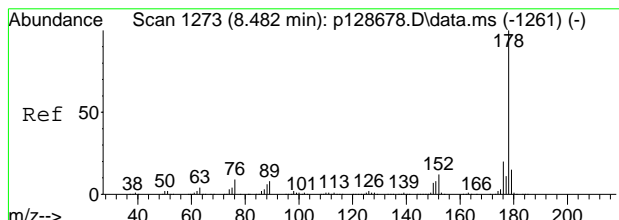
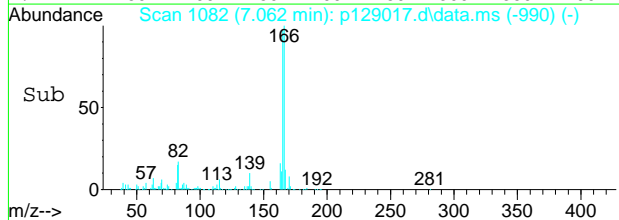
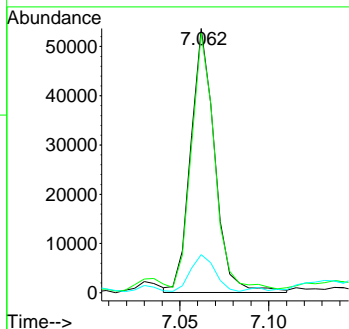
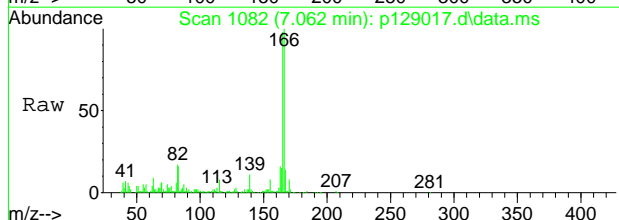
9.13
 9





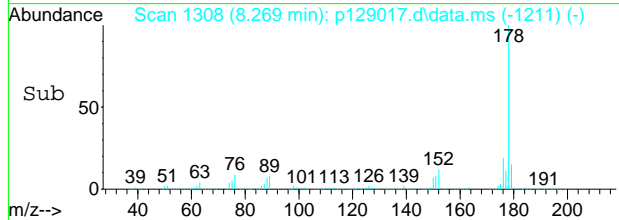
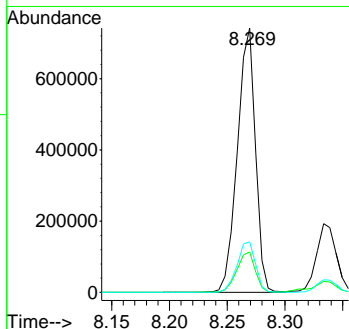
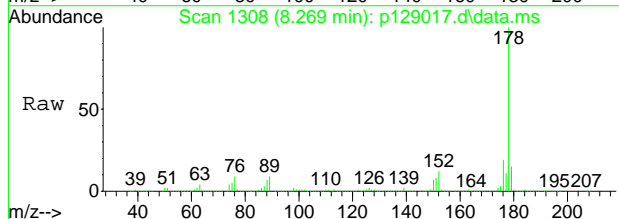
#66
 Fluorene
 Concen: 2.89 ppm
 RT: 7.062 min Scan# 1082
 Delta R.T. -0.010 min
 Lab File: p129017.d
 Acq: 15 Apr 2019 1:01 am

Tgt Ion	Ratio	Lower	Upper
166	100		
165	96.9	59.2	119.2
167	13.6	0.0	43.3

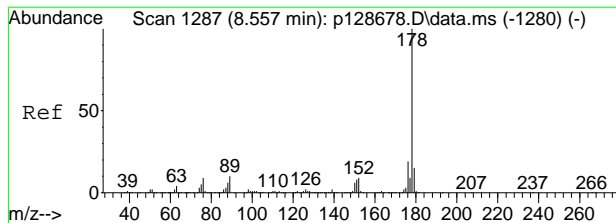


#77
 Phenanthrene
 Concen: 35.88 ppm
 RT: 8.269 min Scan# 1308
 Delta R.T. 0.017 min
 Lab File: p129017.d
 Acq: 15 Apr 2019 1:01 am

Tgt Ion	Ratio	Lower	Upper
178	100		
179	15.1	0.0	45.6
176	19.1	0.0	49.5

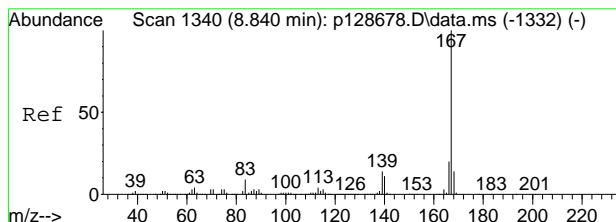
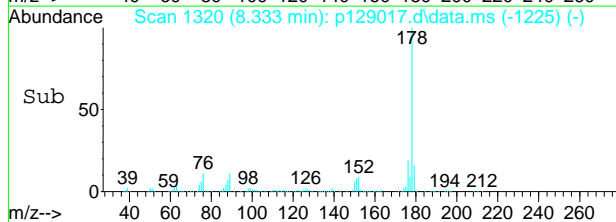
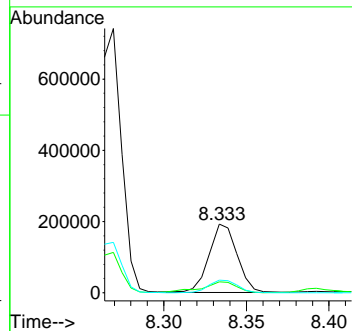
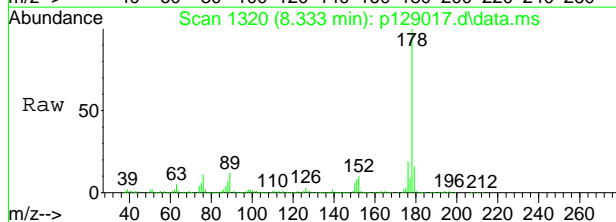


9.13
9



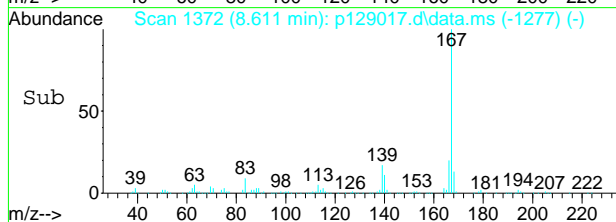
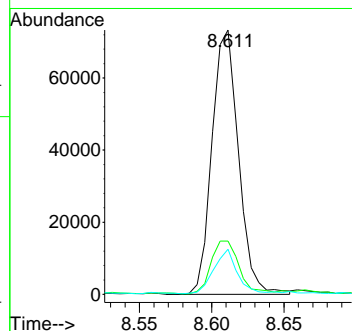
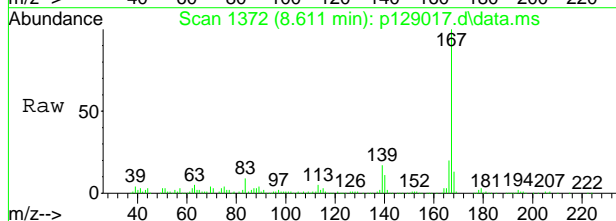
#78
 Anthracene
 Concen: 9.58 ppm
 RT: 8.333 min Scan# 1320
 Delta R.T. 0.008 min
 Lab File: p129017.d
 Acq: 15 Apr 2019 1:01 am

Tgt Ion	Ratio	Lower	Upper
178	100		
179	15.1	0.0	45.6
176	18.6	0.0	48.8



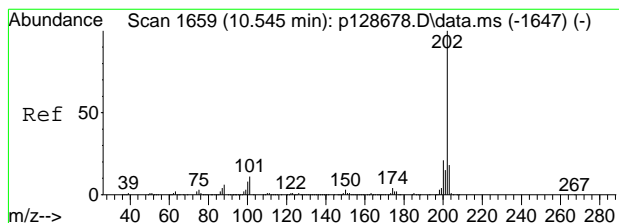
#79
 Carbazole
 Concen: 4.20 ppm
 RT: 8.611 min Scan# 1372
 Delta R.T. 0.010 min
 Lab File: p129017.d
 Acq: 15 Apr 2019 1:01 am

Tgt Ion	Ratio	Lower	Upper
167	100		
166	19.5	0.0	50.7
139	16.5	0.0	44.2



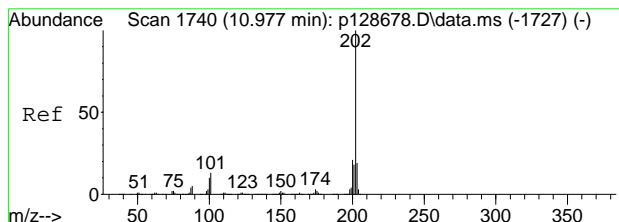
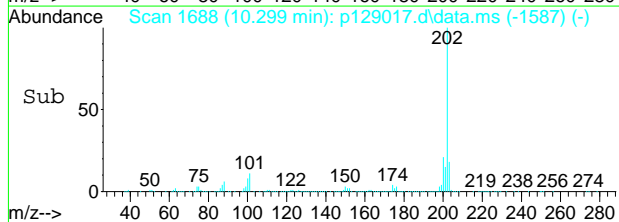
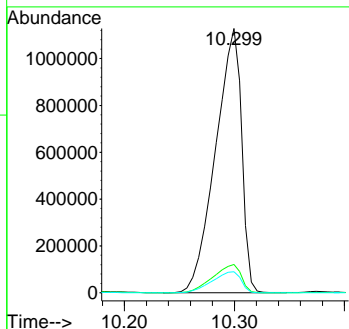
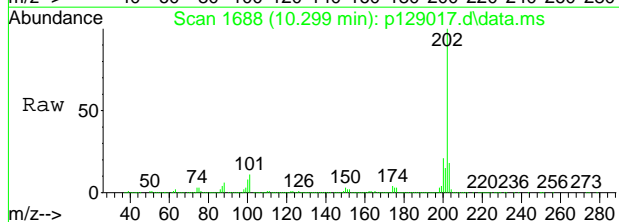
9.13
9





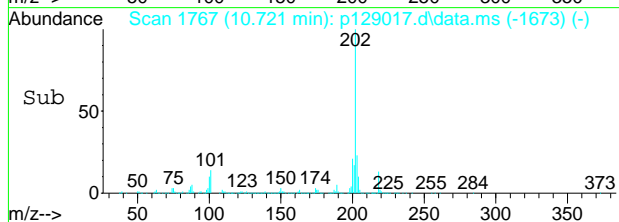
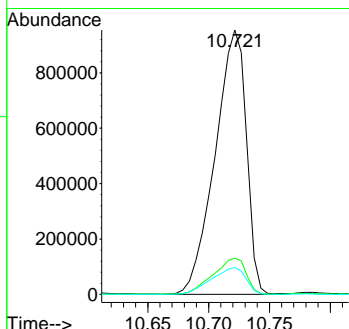
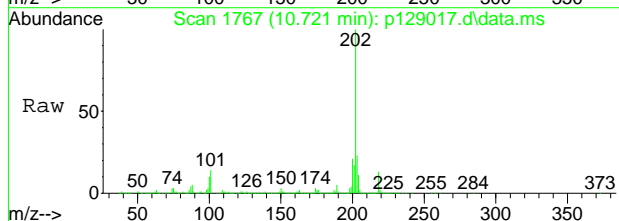
#81
 Fluoranthene
 Concen: 68.53 ppm
 RT: 10.299 min Scan# 1688
 Delta R.T. 0.042 min
 Lab File: p129017.d
 Acq: 15 Apr 2019 1:01 am

Tgt Ion	Ratio	Lower	Upper
202	100		
101	10.7	0.0	40.5
100	8.0	0.0	37.9

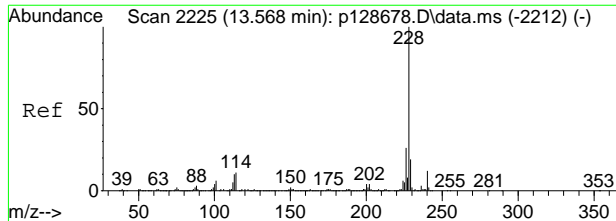


#84
 Pyrene
 Concen: 67.02 ppm
 RT: 10.721 min Scan# 1767
 Delta R.T. -0.000 min
 Lab File: p129017.d
 Acq: 15 Apr 2019 1:01 am

Tgt Ion	Ratio	Lower	Upper
202	100		
101	13.6	0.0	41.8
100	10.2	0.0	39.3

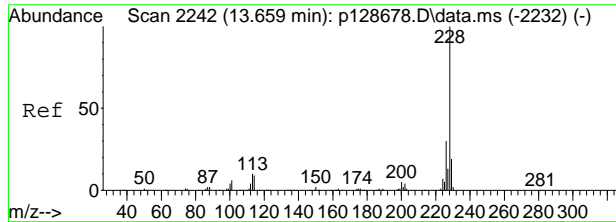
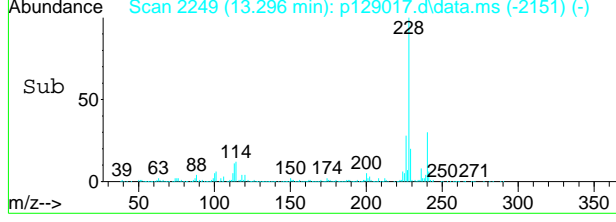
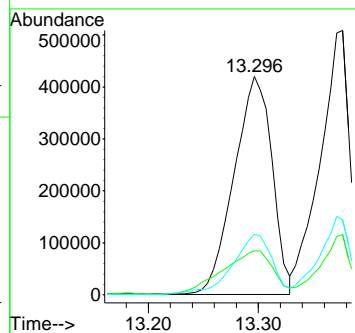
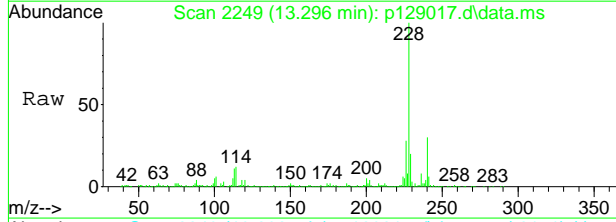


9.1.3
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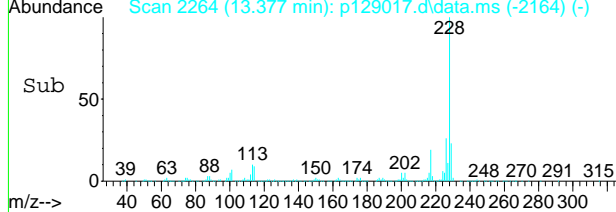
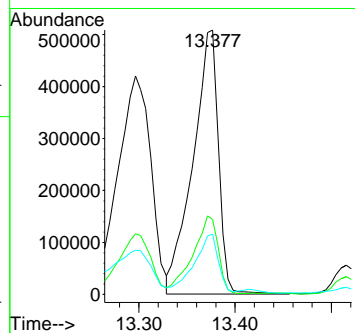
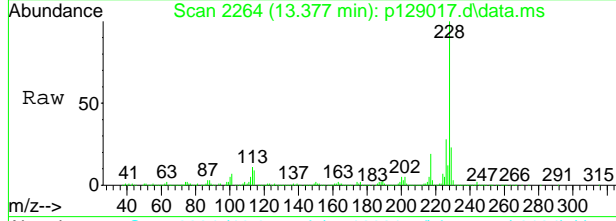
#87
 Benzo[a]anthracene
 Concen: 43.09 ppm
 RT: 13.296 min Scan# 2249
 Delta R.T. 0.026 min
 Lab File: p129017.d
 Acq: 15 Apr 2019 1:01 am

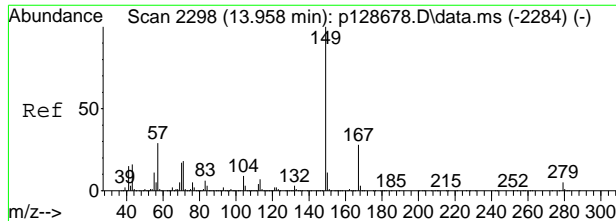
Tgt Ion	Ratio	Lower	Upper
228	100		
229	19.2	0.0	49.7
226	27.4	0.0	57.1



#89
 Chrysene
 Concen: 45.23 ppm
 RT: 13.377 min Scan# 2264
 Delta R.T. 0.033 min
 Lab File: p129017.d
 Acq: 15 Apr 2019 1:01 am

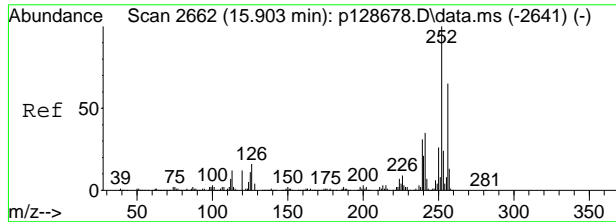
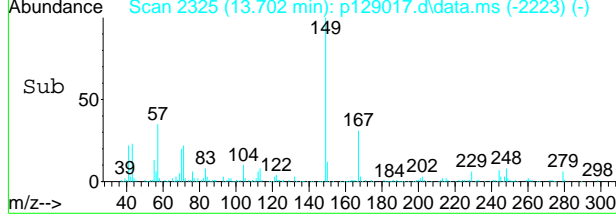
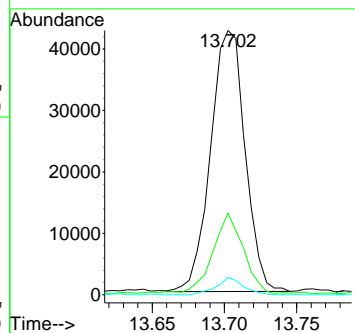
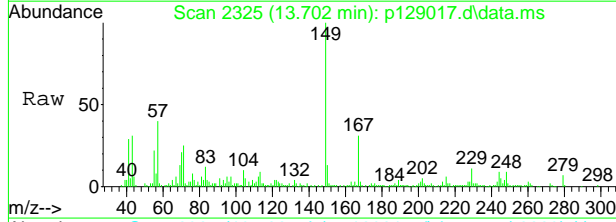
Tgt Ion	Ratio	Lower	Upper
228	100		
226	28.0	0.0	59.5
229	21.9	0.0	50.0





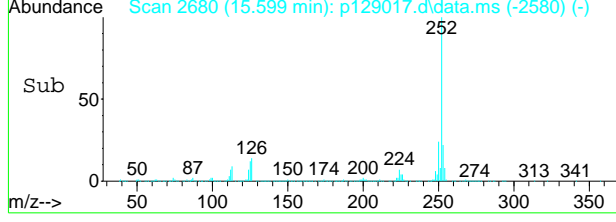
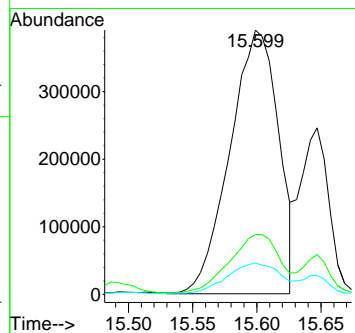
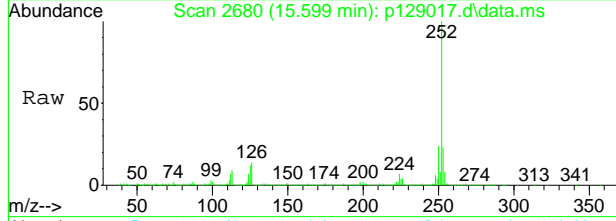
#90
 bis(2-Ethylhexyl)phthalate
 Concen: 3.75 ppm
 RT: 13.702 min Scan# 2325
 Delta R.T. 0.045 min
 Lab File: p129017.d
 Acq: 15 Apr 2019 1:01 am

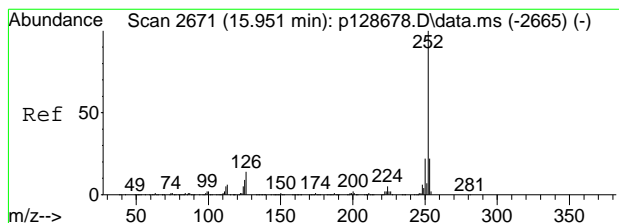
Tgt Ion	Resp	Lower	Upper
149	70666		
167	30.5	0.0	57.7
279	6.7	0.0	35.2



#93
 Benzo[b]fluoranthene
 Concen: 44.08 ppm
 RT: 15.599 min Scan# 2680
 Delta R.T. 0.034 min
 Lab File: p129017.d
 Acq: 15 Apr 2019 1:01 am

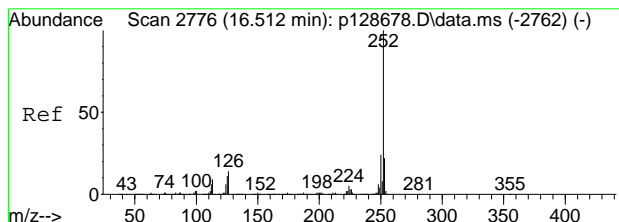
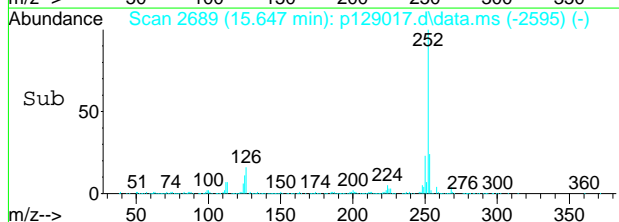
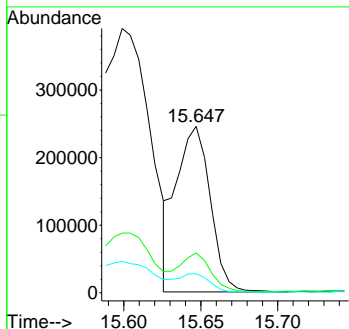
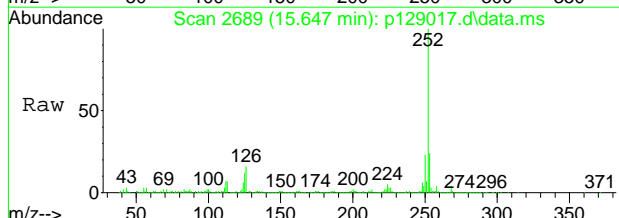
Tgt Ion	Resp	Lower	Upper
252	1025775		
253	22.1	0.0	54.7
125	11.2	0.0	39.2





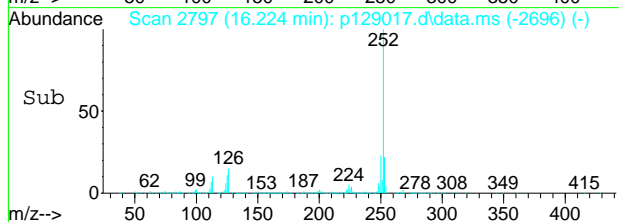
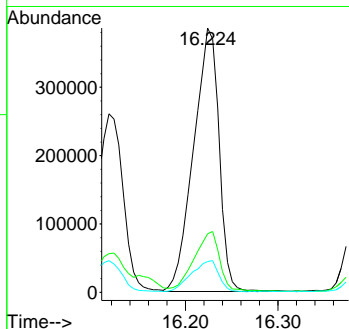
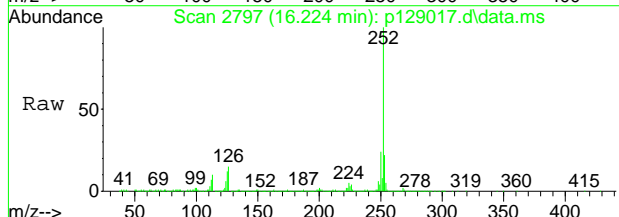
#94
 Benzo[k]fluoranthene
 Concen: 18.99 ppm
 RT: 15.647 min Scan# 2689
 Delta R.T. 0.004 min
 Lab File: p129017.d
 Acq: 15 Apr 2019 1:01 am

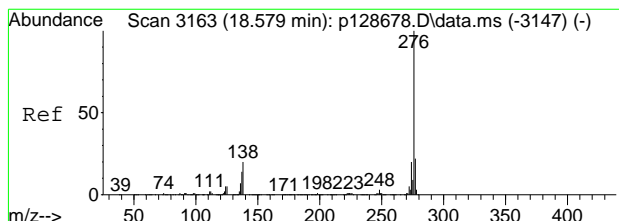
Tgt Ion	Ratio	Lower	Upper
252	100		
253	23.6	0.0	54.7
125	10.2	0.0	39.2



#95
 Benzo[a]pyrene
 Concen: 37.74 ppm
 RT: 16.224 min Scan# 2797
 Delta R.T. 0.040 min
 Lab File: p129017.d
 Acq: 15 Apr 2019 1:01 am

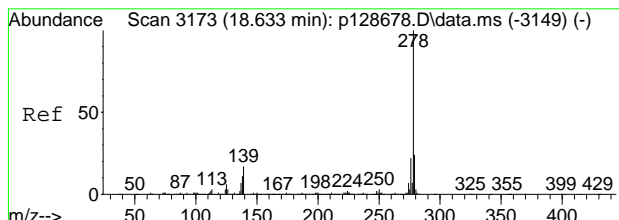
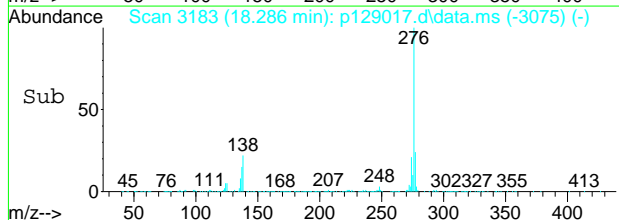
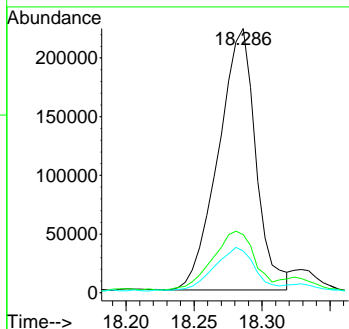
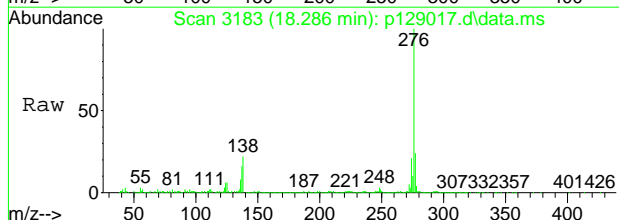
Tgt Ion	Ratio	Lower	Upper
252	100		
253	21.2	0.0	51.5
125	11.4	0.0	39.5





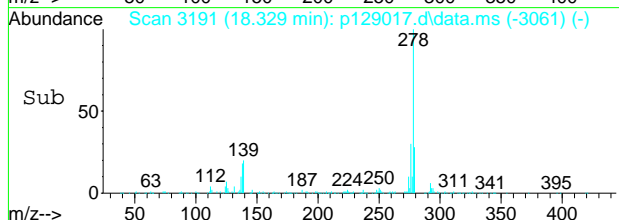
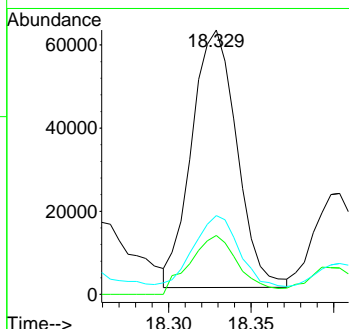
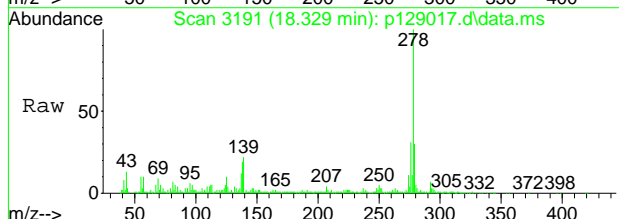
#96
 Indeno[1,2,3-cd]pyrene
 Concen: 24.02 ppm
 RT: 18.286 min Scan# 3183
 Delta R.T. 0.077 min
 Lab File: p129017.d
 Acq: 15 Apr 2019 1:01 am

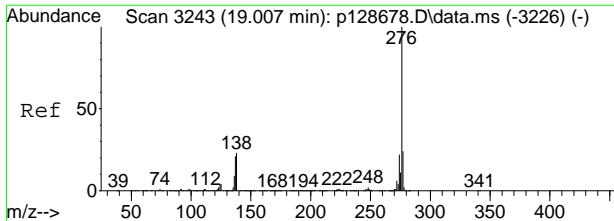
Tgt Ion	Ratio	Lower	Upper
276	100		
138	19.7	0.0	47.4
137	14.4	0.0	42.1



#98
 Dibenz[a,h]anthracene
 Concen: 6.51 ppm
 RT: 18.329 min Scan# 3191
 Delta R.T. 0.195 min
 Lab File: p129017.d
 Acq: 15 Apr 2019 1:01 am

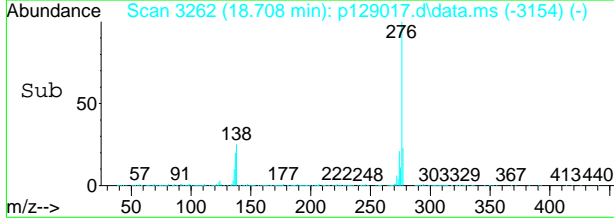
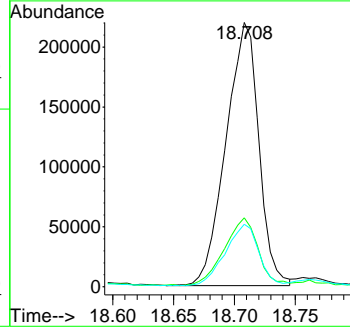
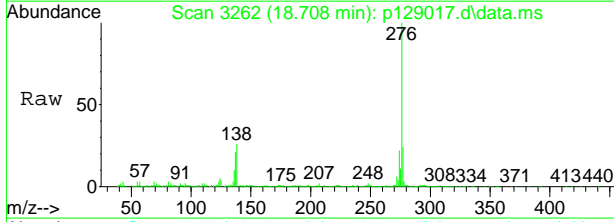
Tgt Ion	Ratio	Lower	Upper
278	100		
139	22.9	0.0	45.1
279	28.3	0.0	53.8





#100
 Benzo[g,h,i]perylene
 Concen: 23.92 ppm
 RT: 18.708 min Scan# 3262
 Delta R.T. 0.079 min
 Lab File: p129017.d
 Acq: 15 Apr 2019 1:01 am

Tgt Ion	Ratio	Lower	Upper
276	100		
138	25.5	0.0	50.7
277	23.0	0.0	54.4



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Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\jonkm\ep5839\
 Data File : p129046.d
 Acq On : 15 Apr 2019 9:19 pm
 Operator : yujiac
 Sample : jc86043-4 Inst : MSVOAMSP
 Misc : op19673,ep5839,31.1,,,1,2
 ALS Vial : 26 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MP5819.M
 Quant Results File: MP5819.RES
 Quant Time: Apr 16 06:51:22 2019
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Tue Apr 16 05:04:45 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
Internal Standards							
1) 1,4-Dichlorobenzene-d4	4.257	152	169080	40.00	ppm	-0.01	
24) Naphthalene-d8	5.198	136	654364	40.00	ppm	0.00	
47) Acenaphthene-d10	6.517	164	368354	40.00	ppm	-0.01	
69) Phenanthrene-d10	8.205	188	571309	40.00	ppm	-0.02	
83) Chrysene-d12	13.259	240	494050	40.00	ppm	-0.03	
91) Perylene-d12	16.288	264	563575	40.00	ppm	-0.03	
101) 1,4-Dichlorobenzene-d4b	4.257	152	169080	40.00	ppm	-0.01	
103) Phenanthrene-d10b	8.205	188	571309	40.00	ppm	-0.02	
105) Chrysene-d12b	13.259	240	494050	40.00	ppm	-0.03	
107) Naphthalene-d8b	5.198	136	654364	40.00	ppm	0.00	
109) Acenaphthene-d10b	6.517	164	368354	40.00	ppm	-0.01	
System Monitoring Compounds							
5) 2-Fluorophenol	3.296	112	116629	18.41	ppm	0.00	
Spiked Amount	50.000		Recovery	=	36.82%		
8) Phenol-d5	4.049	99	161722	19.05	ppm	0.00	
Spiked Amount	50.000		Recovery	=	38.10%		
25) Nitrobenzene-d5	4.674	82	199825	23.39	ppm	-0.01	
Spiked Amount	50.000		Recovery	=	46.78%		
51) 2-Fluorobiphenyl	5.978	172	274461	20.87	ppm	-0.01	
Spiked Amount	50.000		Recovery	=	41.74%		
73) 2,4,6-Tribromophenol	7.318	330	30200	19.07	ppm	-0.02	
Spiked Amount	50.000		Recovery	=	38.14%		
85) Terphenyl-d14	11.101	244	245637	20.13	ppm	-0.02	
Spiked Amount	50.000		Recovery	=	40.26%		
Target Compounds							
18) Acetophenone	4.572	105	4850	0.49	ppm		Qvalue 93
19) 2-Methylphenol	4.492	108	15414	2.56	ppm		88
21) 3&4-Methylphenol	4.615	108	21389	3.29	ppm		93
30) 2,4-Dimethylphenol	4.995	107	8409	1.20	ppm		98
38) Naphthalene	5.214	128	991093	57.29	ppm		99
44) 2-Methylnaphthalene	5.710	141	59117	5.77	ppm		94
53) Biphenyl	6.047	154	12383	0.84	ppm		95
56) Acenaphthylene	6.394	152	15689	0.87	ppm		87
59) Acenaphthene	6.544	153	16235	1.49	ppm		91
62) Dibenzofuran	6.704	168	18081	1.13	ppm		98
66) Fluorene	7.046	166	20832	1.55	ppm		99
77) Phenanthrene	8.237	178	64059	4.04	ppm		98
78) Anthracene	8.312	178	26249	1.55	ppm		95
79) Carbazole	8.585	167	7283	0.47	ppm		84
81) Fluoranthene	10.267	202	76703	4.01	ppm		99
84) Pyrene	10.673	202	86978	4.71	ppm		92
87) Benzo[a]anthracene	13.238	228	42462	2.50	ppm		92
89) Chrysene	13.307	228	43460	2.88	ppm		98
93) Benzo[b]fluoranthene	15.535	252	52351	2.80	ppm		95
94) Benzo[k]fluoranthene	15.583	252	19151	1.21	ppm		92
95) Benzo[a]pyrene	16.165	252	44139	2.80	ppm		99
96) Indeno[1,2,3-cd]pyrene	18.222	276	26955	1.89	ppm		93
98) Dibenz[a,h]anthracene	18.281	278	6471m	0.44	ppm		
100) Benzo[g,h,i]perylene	18.644	276	29939	2.16	ppm		95

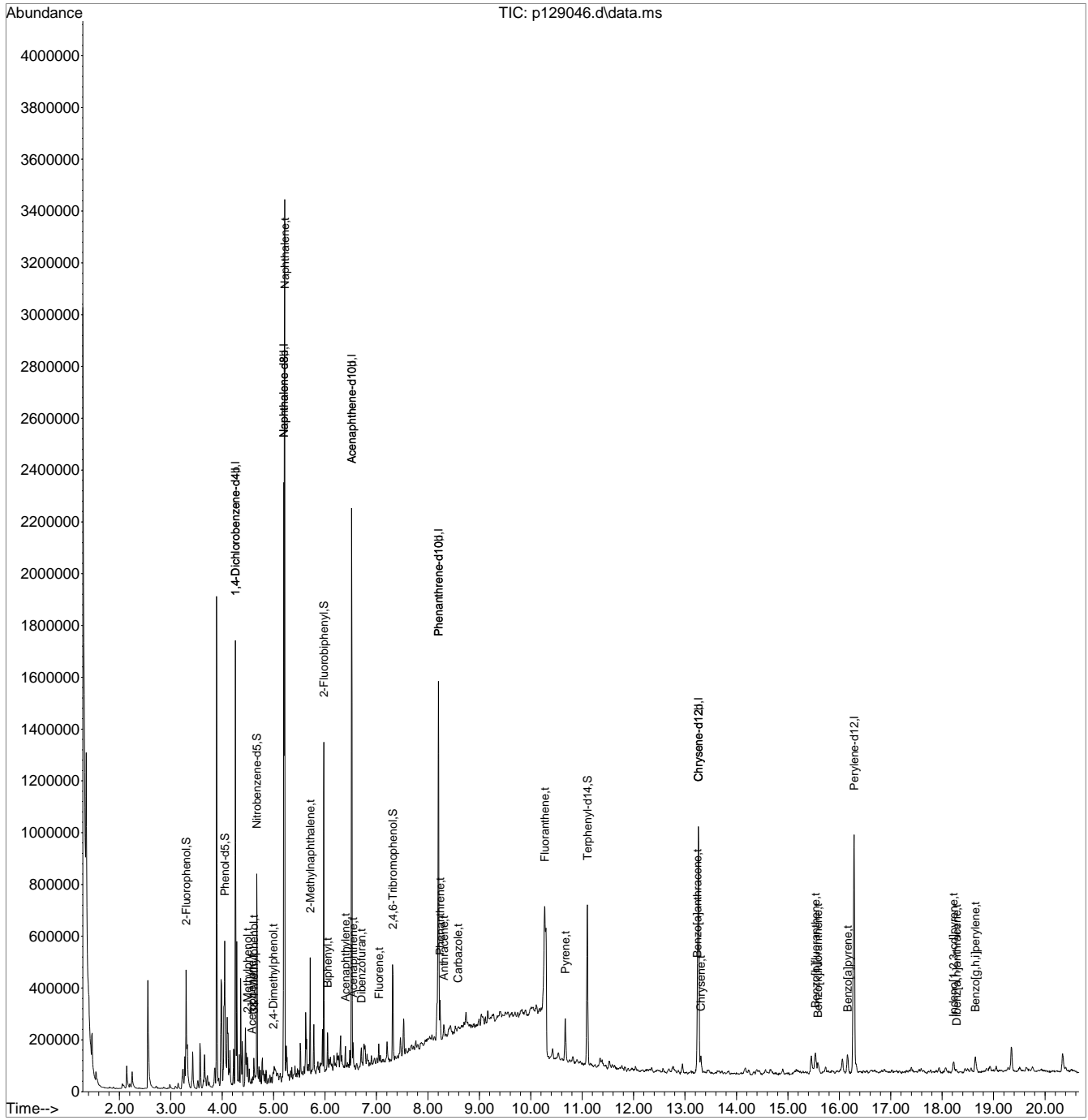
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\jonkm\ep5839\
Data File : p129046.d
Acq On : 15 Apr 2019 9:19 pm
Operator : yujiac
Sample : jc86043-4
Misc : op19673,ep5839,31.1,,,1,2
ALS Vial : 26 Sample Multiplier: 1

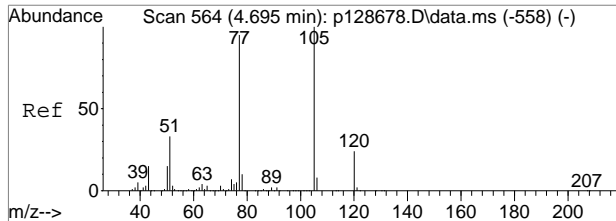
Inst : MSVOAMSP

Quant Method : C:\MSDCHEM\1\METHODS\MP5819.M
Quant Results File: MP5819.RES
Quant Time: Apr 16 06:51:22 2019
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Tue Apr 16 05:04:45 2019
Response via : Initial Calibration

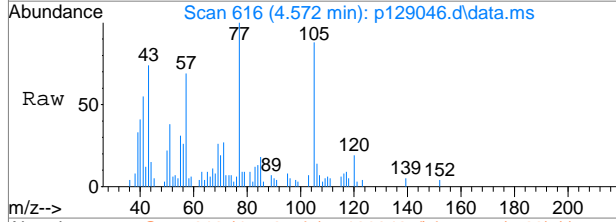


9.1.4
9

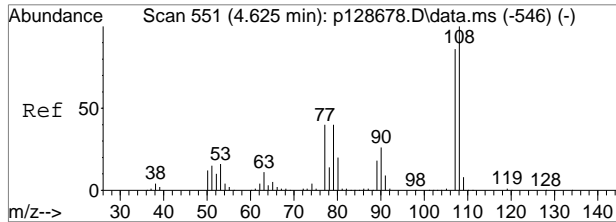
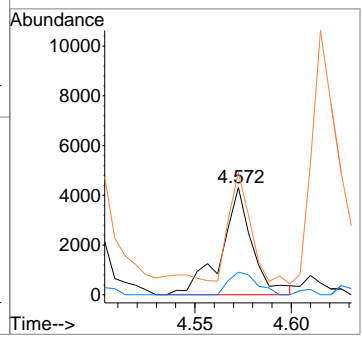
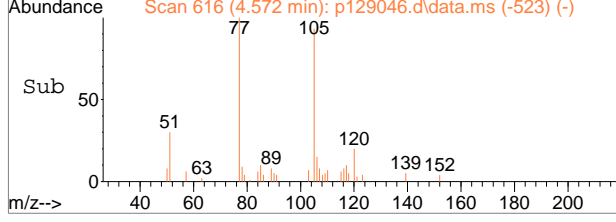




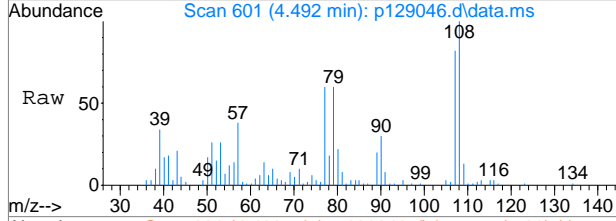
#18
 Acetophenone
 Concen: 0.49 ppm
 RT: 4.572 min Scan# 616
 Delta R.T. -0.005 min
 Lab File: p129046.d
 Acq: 15 Apr 2019 9:19 pm



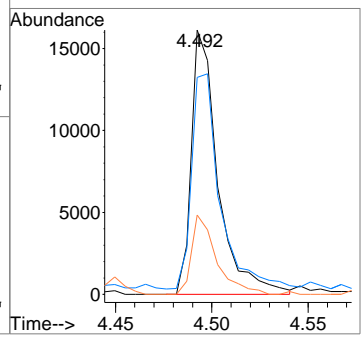
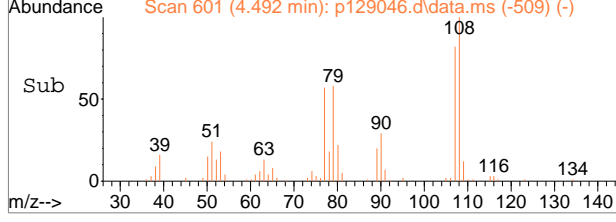
Tgt Ion	Resp	Lower	Upper
105	4850		
105	100		
120	22.2	0.0	54.0
77	104.3	67.0	127.0



#19
 2-Methylphenol
 Concen: 2.56 ppm
 RT: 4.492 min Scan# 601
 Delta R.T. -0.011 min
 Lab File: p129046.d
 Acq: 15 Apr 2019 9:19 pm

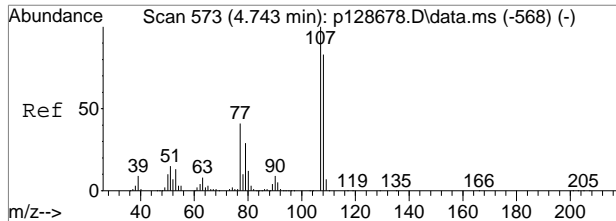


Tgt Ion	Resp	Lower	Upper
108	15414		
108	100		
107	80.0	61.8	121.8
90	29.7	0.0	54.9

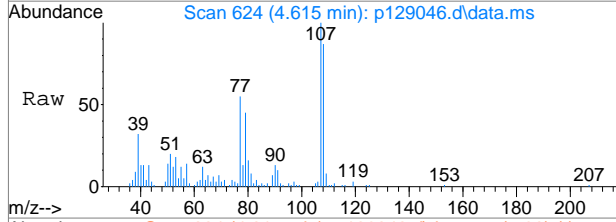


9.14
 9



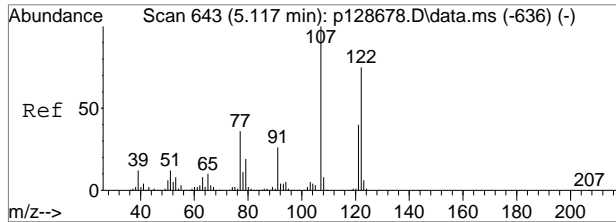
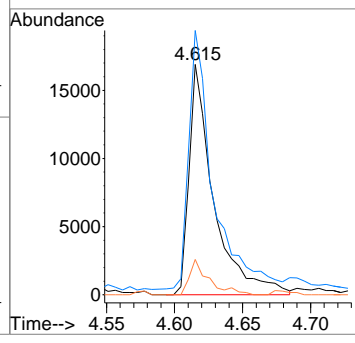
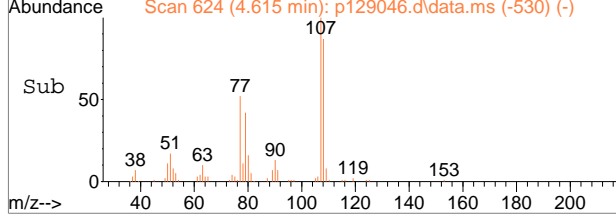


#21
 3&4-Methylphenol
 Concen: 3.29 ppm
 RT: 4.615 min Scan# 624
 Delta R.T. -0.000 min
 Lab File: p129046.d
 Acq: 15 Apr 2019 9:19 pm

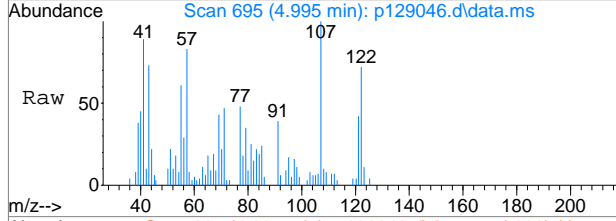


Tgt Ion:108 Resp: 21389

Ion	Ratio	Lower	Upper
108	100		
107	110.8	88.4	148.4
90	14.9	0.0	40.3

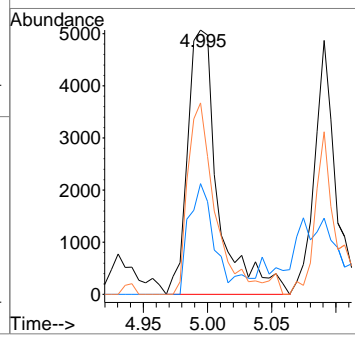
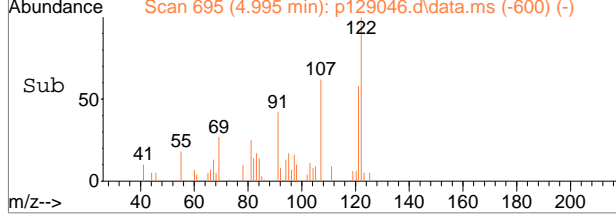


#30
 2,4-Dimethylphenol
 Concen: 1.20 ppm
 RT: 4.995 min Scan# 695
 Delta R.T. 0.005 min
 Lab File: p129046.d
 Acq: 15 Apr 2019 9:19 pm



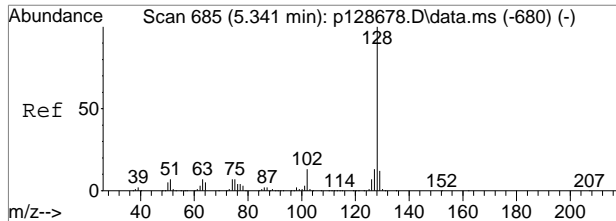
Tgt Ion:107 Resp: 8409

Ion	Ratio	Lower	Upper
107	100		
121	37.3	9.4	69.4
122	72.4	41.1	101.1



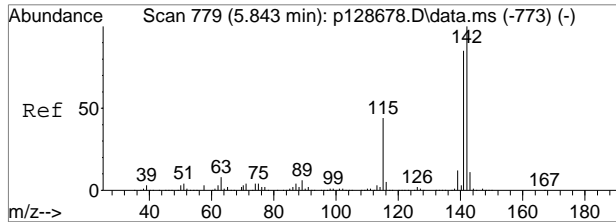
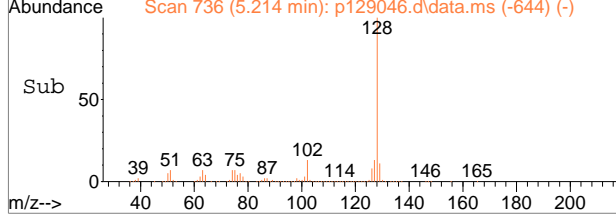
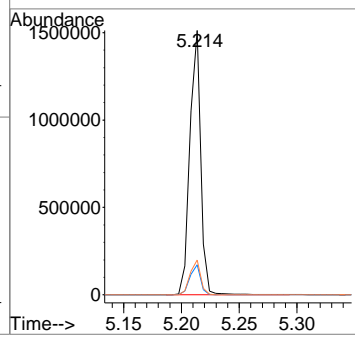
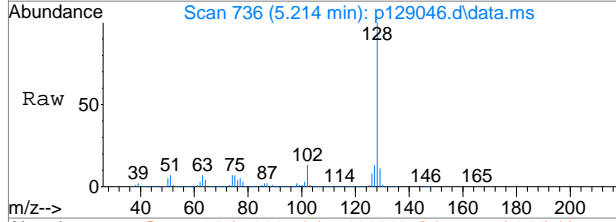
9.14
 9





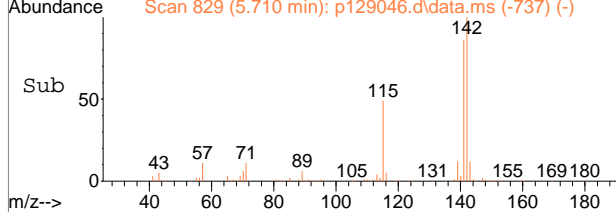
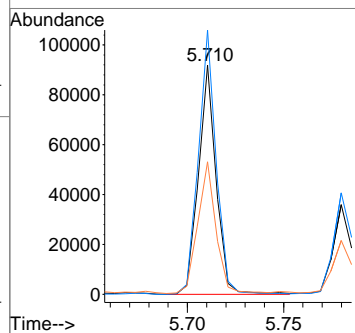
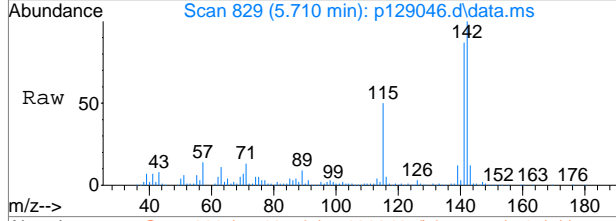
#38
 Naphthalene
 Concen: 57.29 ppm
 RT: 5.214 min Scan# 736
 Delta R.T. -0.011 min
 Lab File: p129046.d
 Acq: 15 Apr 2019 9:19 pm

Tgt Ion	Resp	Lower	Upper
128	991093		
129	11.3	0.0	41.0
127	13.2	0.0	42.9



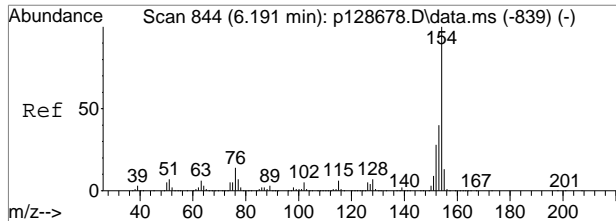
#44
 2-Methylnaphthalene
 Concen: 5.77 ppm
 RT: 5.710 min Scan# 829
 Delta R.T. -0.011 min
 Lab File: p129046.d
 Acq: 15 Apr 2019 9:19 pm

Tgt Ion	Resp	Lower	Upper
141	59117		
142	115.4	92.5	152.5
115	57.2	30.6	90.6



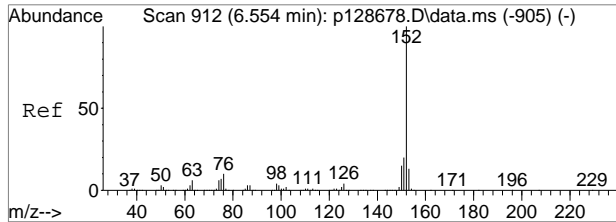
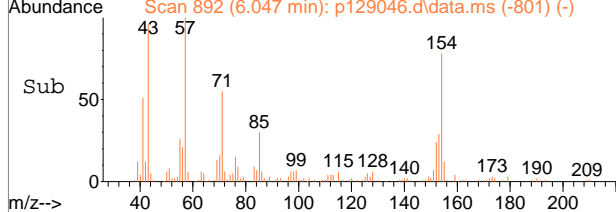
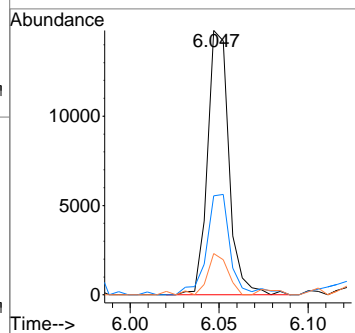
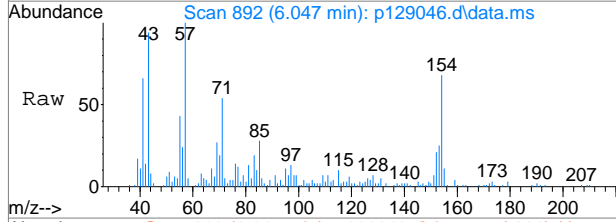
9.14
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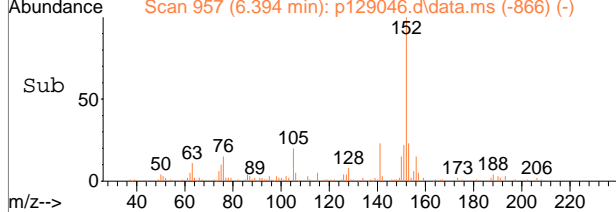
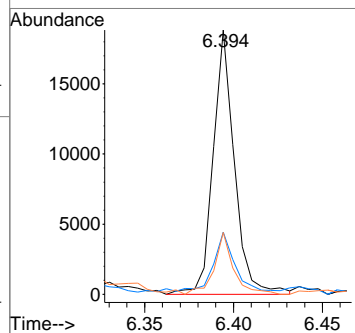
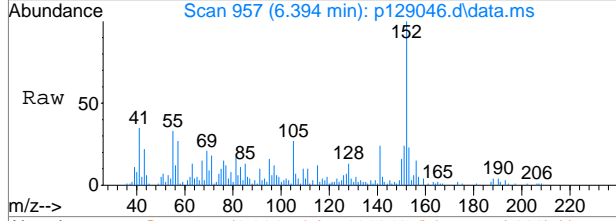
#53
 Biphenyl
 Concen: 0.84 ppm
 RT: 6.047 min Scan# 892
 Delta R.T. -0.016 min
 Lab File: p129046.d
 Acq: 15 Apr 2019 9:19 pm

Tgt Ion	Ratio	Lower	Upper
154	100		
153	37.4	10.0	70.0
155	14.9	0.0	42.8



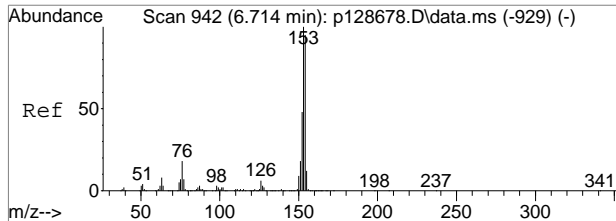
#56
 Acenaphthylene
 Concen: 0.87 ppm
 RT: 6.394 min Scan# 957
 Delta R.T. -0.016 min
 Lab File: p129046.d
 Acq: 15 Apr 2019 9:19 pm

Tgt Ion	Ratio	Lower	Upper
152	100		
151	21.4	0.0	49.3
153	23.1	0.0	43.3

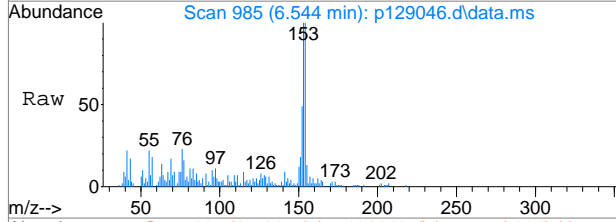


9.14
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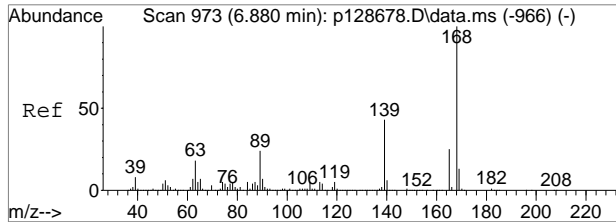
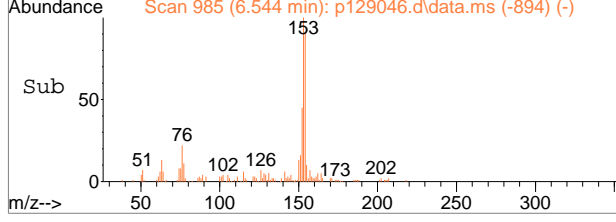
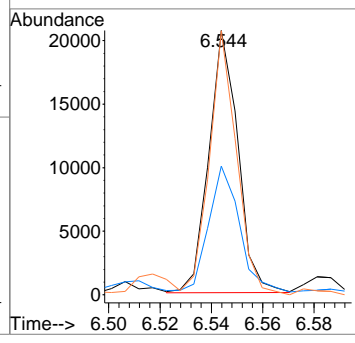


#59
 Acenaphthene
 Concen: 1.49 ppm
 RT: 6.544 min Scan# 985
 Delta R.T. -0.016 min
 Lab File: p129046.d
 Acq: 15 Apr 2019 9:19 pm

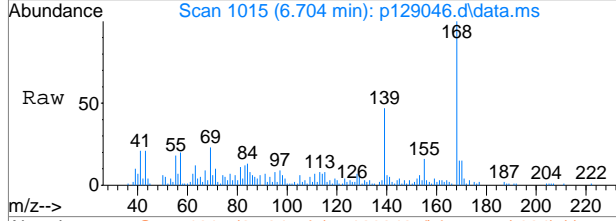


Tgt Ion: 153 Resp: 16235

Ion	Ratio	Lower	Upper
153	100		
152	47.9	18.8	78.8
154	98.1	56.3	116.3

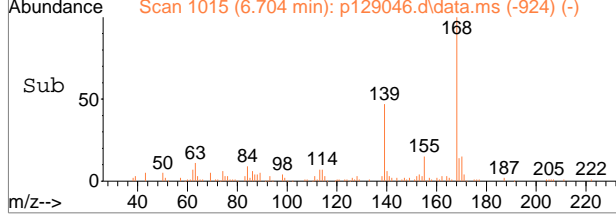
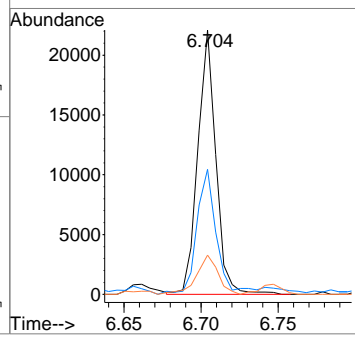


#62
 Dibenzofuran
 Concen: 1.13 ppm
 RT: 6.704 min Scan# 1015
 Delta R.T. -0.016 min
 Lab File: p129046.d
 Acq: 15 Apr 2019 9:19 pm



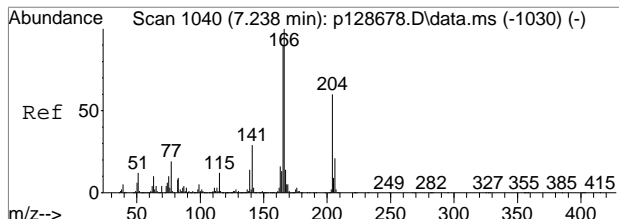
Tgt Ion: 168 Resp: 18081

Ion	Ratio	Lower	Upper
168	100		
139	46.1	17.3	77.3
169	14.2	0.0	43.2



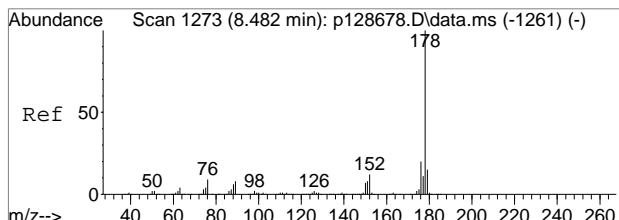
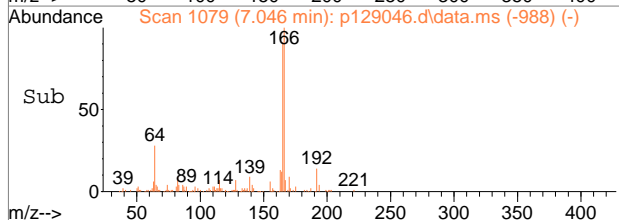
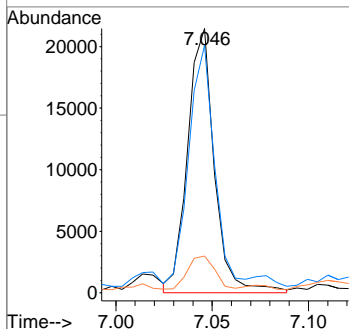
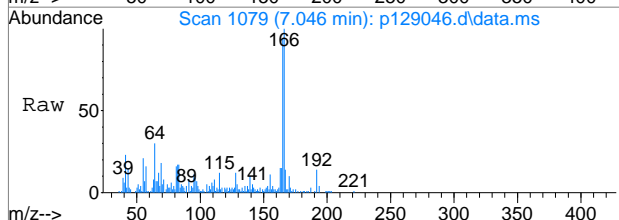
9.14
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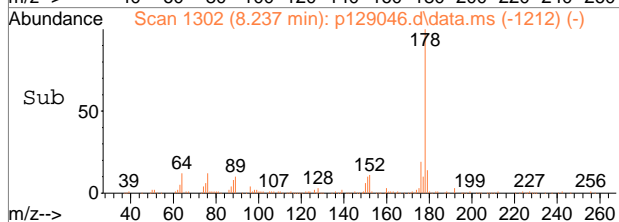
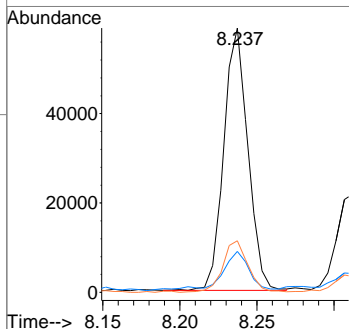
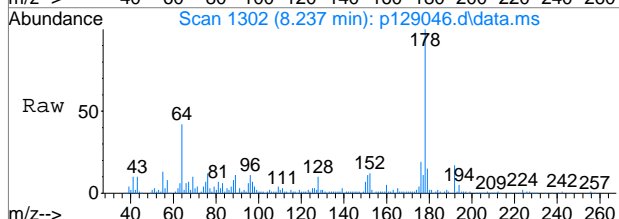
#66
 Fluorene
 Concen: 1.55 ppm
 RT: 7.046 min Scan# 1079
 Delta R.T. -0.016 min
 Lab File: p129046.d
 Acq: 15 Apr 2019 9:19 pm

Tgt Ion	Ratio	Lower	Upper
166	100		
165	92.7	61.3	121.3
167	12.9	0.0	43.0

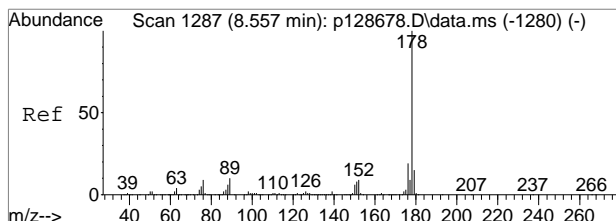


#77
 Phenanthrene
 Concen: 4.04 ppm
 RT: 8.237 min Scan# 1302
 Delta R.T. -0.021 min
 Lab File: p129046.d
 Acq: 15 Apr 2019 9:19 pm

Tgt Ion	Ratio	Lower	Upper
178	100		
179	13.8	0.0	45.9
176	19.3	0.0	49.1

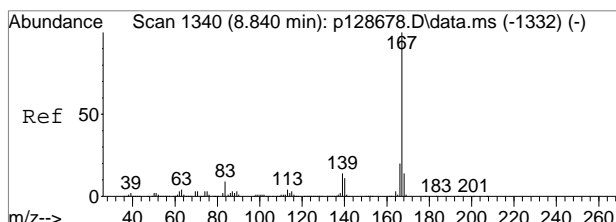
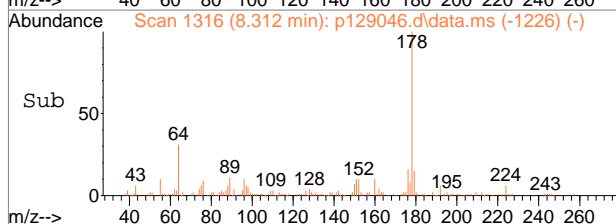
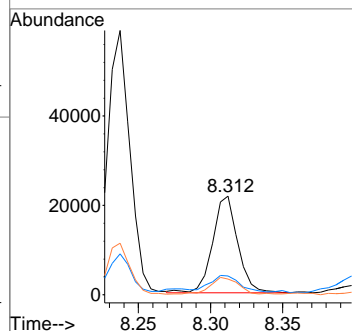
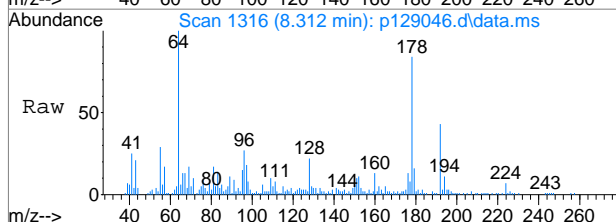


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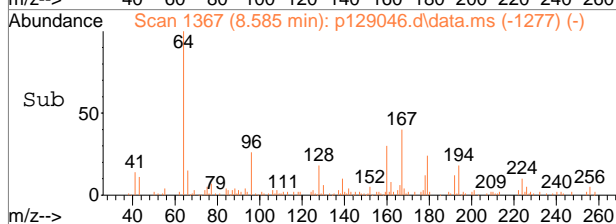
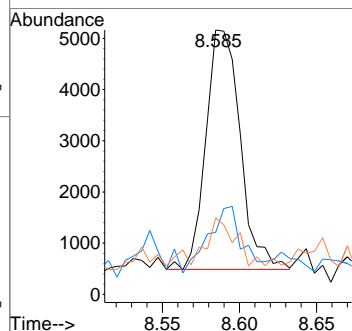
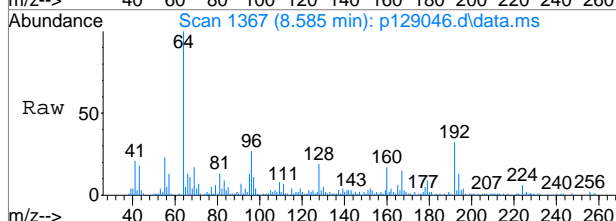
#78
 Anthracene
 Concen: 1.55 ppm
 RT: 8.312 min Scan# 1316
 Delta R.T. -0.021 min
 Lab File: p129046.d
 Acq: 15 Apr 2019 9:19 pm

Tgt Ion	Ratio	Lower	Upper
178	100		
179	15.4	0.0	45.4
176	15.1	0.0	48.9

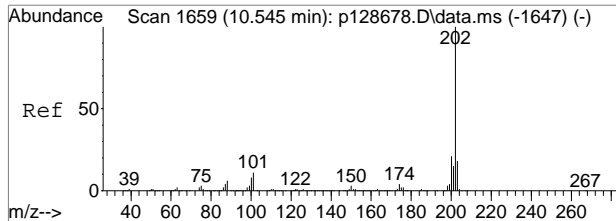


#79
 Carbazole
 Concen: 0.47 ppm
 RT: 8.585 min Scan# 1367
 Delta R.T. -0.021 min
 Lab File: p129046.d
 Acq: 15 Apr 2019 9:19 pm

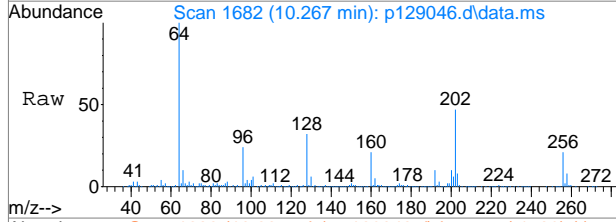
Tgt Ion	Ratio	Lower	Upper
167	100		
166	13.2	0.0	51.0
139	19.4	0.0	43.4



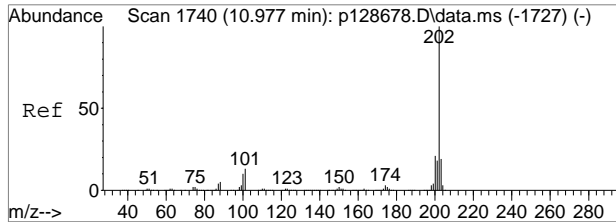
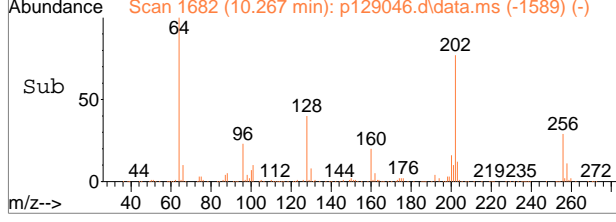
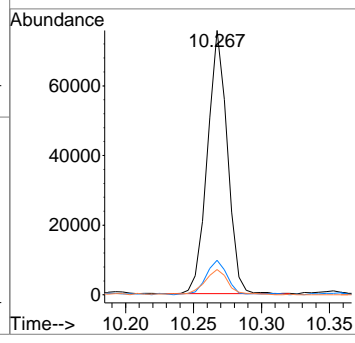
9.14
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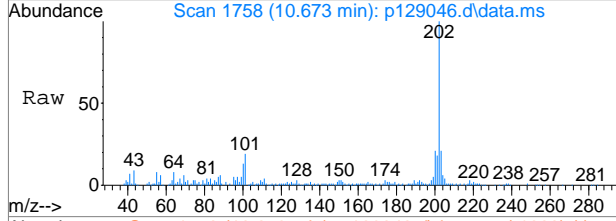
#81
 Fluoranthene
 Concen: 4.01 ppm
 RT: 10.267 min Scan# 1682
 Delta R.T. -0.005 min
 Lab File: p129046.d
 Acq: 15 Apr 2019 9:19 pm



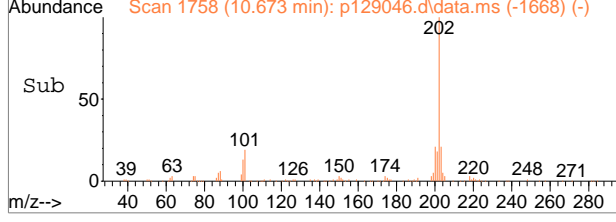
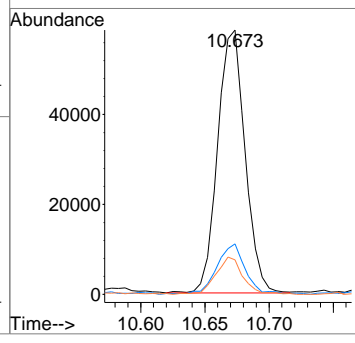
Tgt Ion	Ratio	Lower	Upper
202	100		
101	12.9	0.0	42.6
100	9.4	0.0	39.7



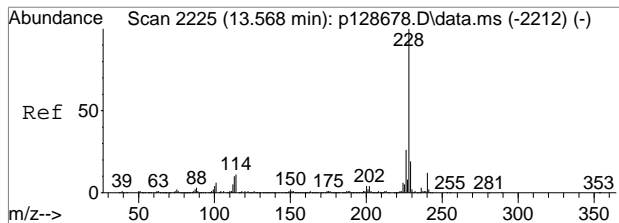
#84
 Pyrene
 Concen: 4.71 ppm
 RT: 10.673 min Scan# 1758
 Delta R.T. -0.021 min
 Lab File: p129046.d
 Acq: 15 Apr 2019 9:19 pm



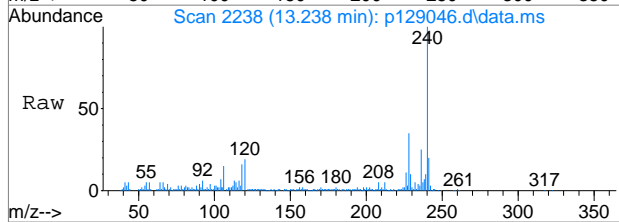
Tgt Ion	Ratio	Lower	Upper
202	100		
101	18.9	0.0	44.4
100	12.8	0.0	41.2



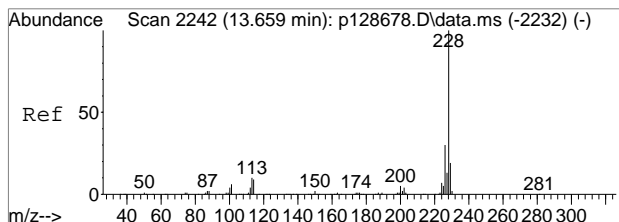
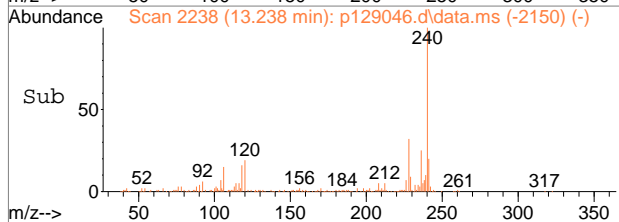
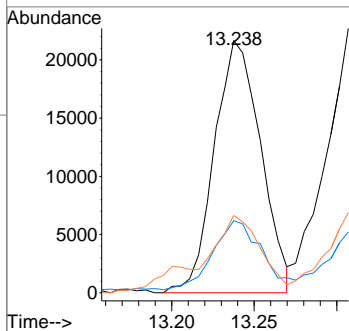
9.14
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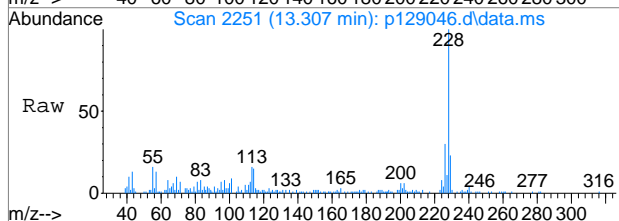
#87
 Benzo[a]anthracene
 Concen: 2.50 ppm
 RT: 13.238 min Scan# 2238
 Delta R.T. -0.032 min
 Lab File: p129046.d
 Acq: 15 Apr 2019 9:19 pm



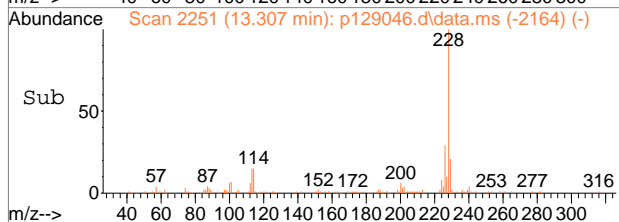
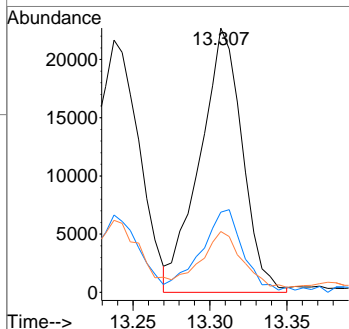
Tgt Ion	Ratio	Lower	Upper
228	100		
229	26.3	0.0	48.2
226	27.1	0.0	57.9



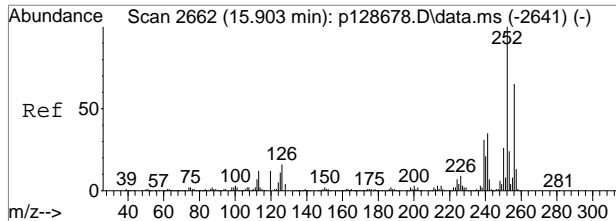
#89
 Chrysene
 Concen: 2.88 ppm
 RT: 13.307 min Scan# 2251
 Delta R.T. -0.037 min
 Lab File: p129046.d
 Acq: 15 Apr 2019 9:19 pm



Tgt Ion	Ratio	Lower	Upper
228	100		
226	29.5	0.0	58.3
229	20.3	0.0	49.5

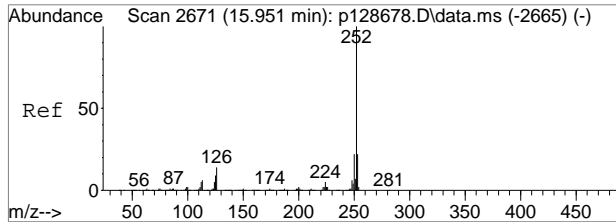
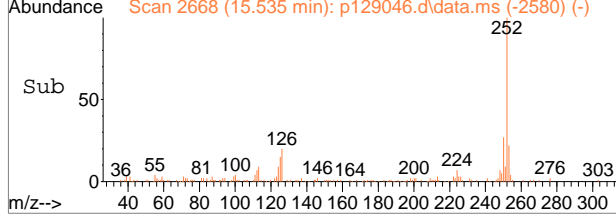
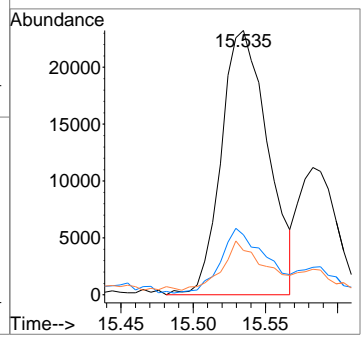
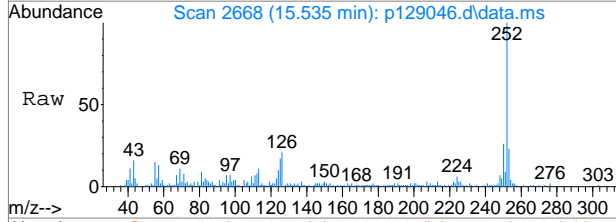


9.14
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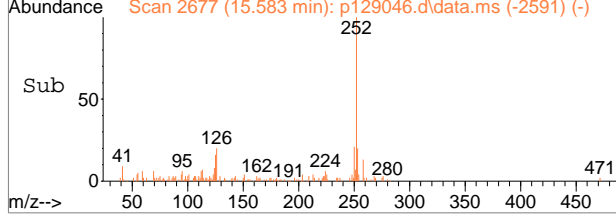
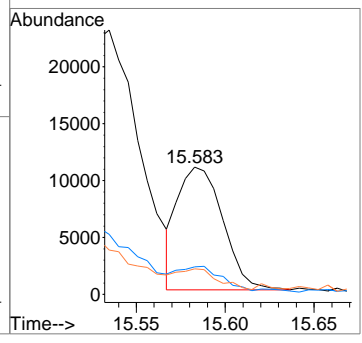
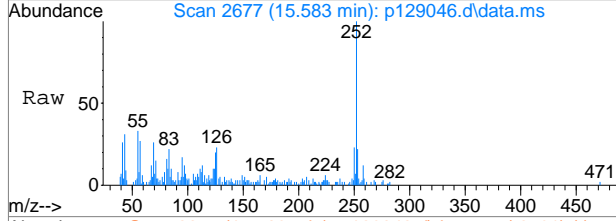
#93
 Benzo[b]fluoranthene
 Concen: 2.80 ppm
 RT: 15.535 min Scan# 2668
 Delta R.T. -0.032 min
 Lab File: p129046.d
 Acq: 15 Apr 2019 9:19 pm

Tgt Ion	Ratio	Lower	Upper
252	100		
253	20.8	0.0	54.6
125	13.2	0.0	42.7



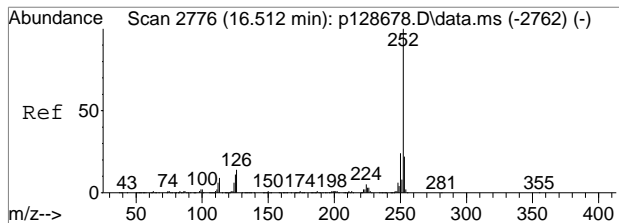
#94
 Benzo[k]fluoranthene
 Concen: 1.21 ppm
 RT: 15.583 min Scan# 2677
 Delta R.T. -0.043 min
 Lab File: p129046.d
 Acq: 15 Apr 2019 9:19 pm

Tgt Ion	Ratio	Lower	Upper
252	100		
253	17.0	0.0	51.5
125	13.8	0.0	41.8



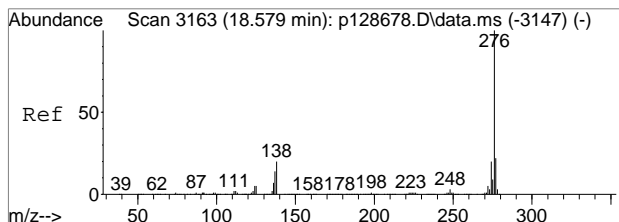
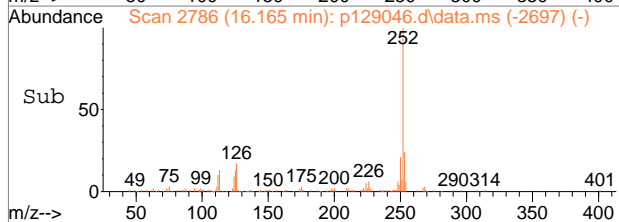
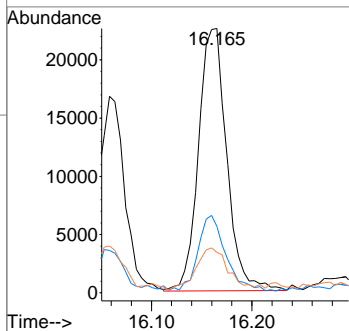
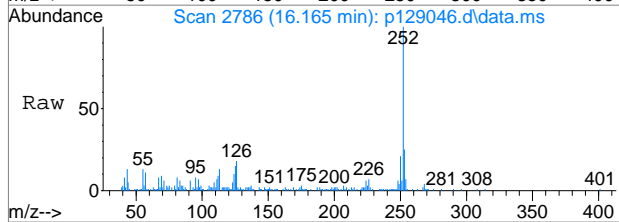
9.14
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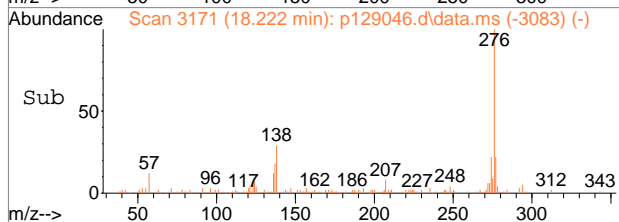
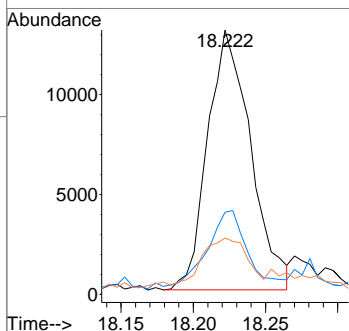
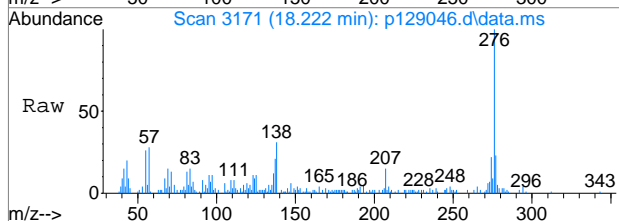
#95
 Benzo[a]pyrene
 Concen: 2.80 ppm
 RT: 16.165 min Scan# 2786
 Delta R.T. -0.027 min
 Lab File: p129046.d
 Acq: 15 Apr 2019 9:19 pm

Tgt Ion	Ratio	Lower	Upper
252	100		
253	23.5	0.0	53.1
125	13.2	0.0	43.0

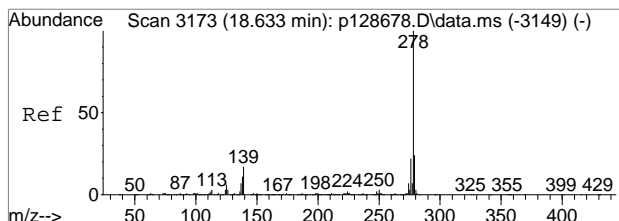


#96
 Indeno[1,2,3-cd]pyrene
 Concen: 1.89 ppm
 RT: 18.222 min Scan# 3171
 Delta R.T. -0.032 min
 Lab File: p129046.d
 Acq: 15 Apr 2019 9:19 pm

Tgt Ion	Ratio	Lower	Upper
276	100		
138	28.6	0.0	53.5
137	15.9	0.0	46.9

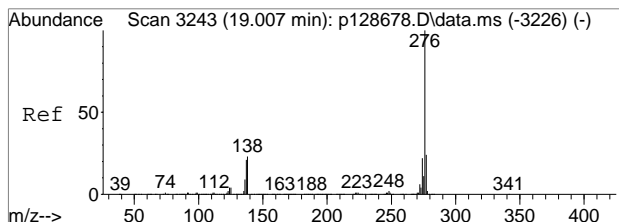
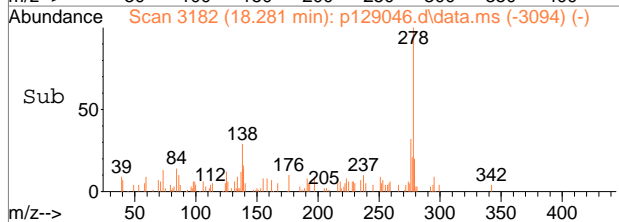
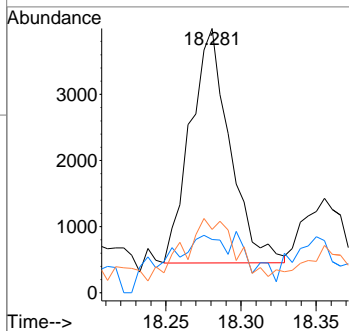
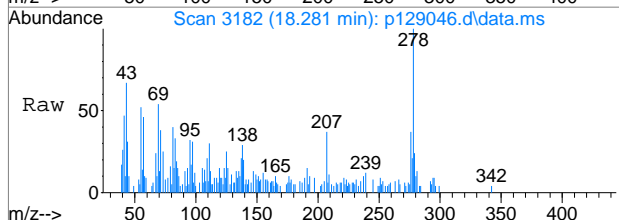


9.14
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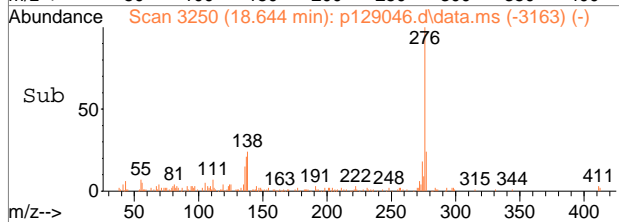
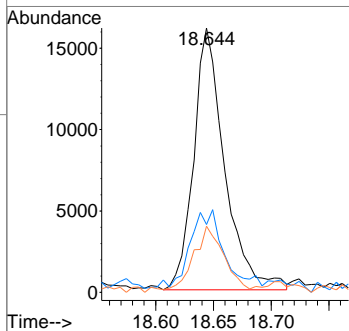
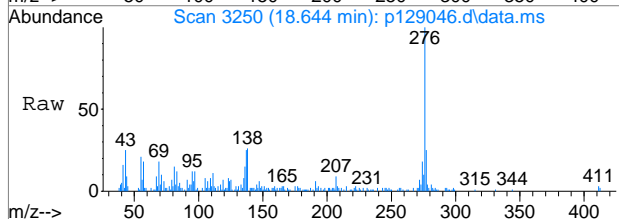
#98
 Dibenz[a,h]anthracene
 Concen: 0.44 ppm m
 RT: 18.281 min Scan# 3182
 Delta R.T. -0.032 min
 Lab File: p129046.d
 Acq: 15 Apr 2019 9:19 pm

Tgt Ion	Resp	Lower	Upper
278	6471		
139	20.2	0.0	48.5
279	24.0	0.0	53.5



#100
 Benzo[g,h,i]perylene
 Concen: 2.16 ppm
 RT: 18.644 min Scan# 3250
 Delta R.T. -0.037 min
 Lab File: p129046.d
 Acq: 15 Apr 2019 9:19 pm

Tgt Ion	Resp	Lower	Upper
276	29939		
138	22.2	0.0	56.3
277	24.0	0.0	53.0



9.14
9

Manual Integration Approval Summary

Sample Number: JC86043-4 Method: SW846 8270D
Lab FileID: P129046.D Analyst approved: 04/16/19 07:06 Jon Kreigmor Mamanta
Injection Time: 04/15/19 21:19 Supervisor approved: 04/22/19 09:39 Nancy Ma

Parameter	CAS	Sig#	R.T. (min.)	Reason
Dibenzo(a,h)anthracene	53-70-3		18.28	Missed peak

9.1.4.1

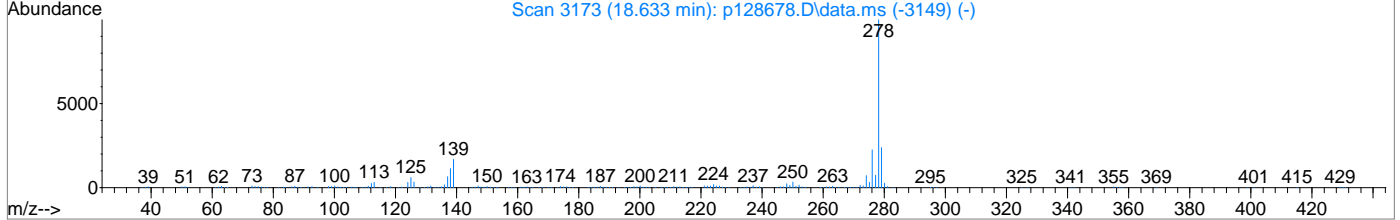
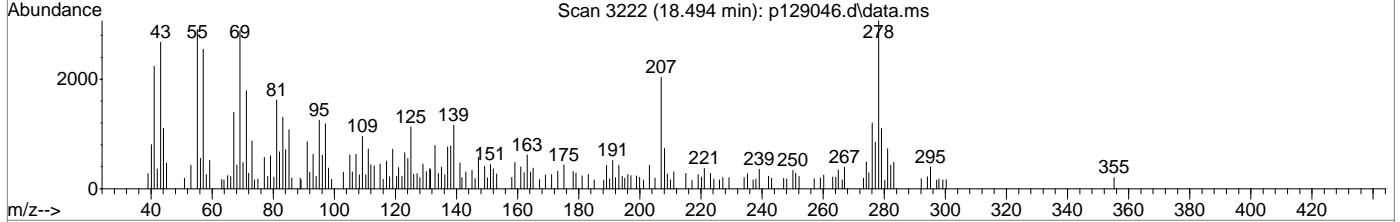
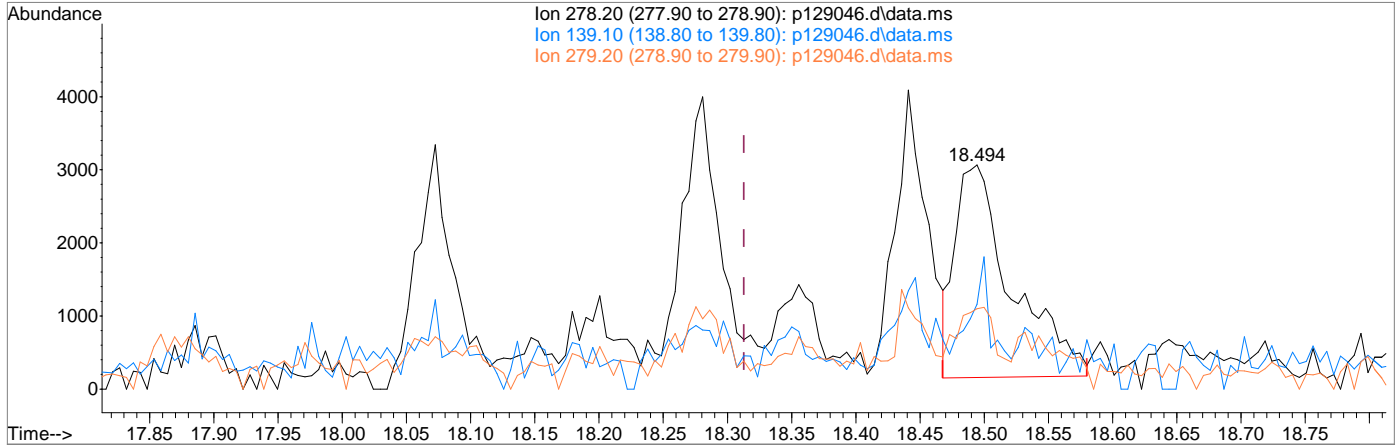
9

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\jonkm\ep5839\
 Data File : p129046.d
 Acq On : 15 Apr 2019 9:19 pm
 Operator : yujiac
 Sample : jc86043-4
 Misc : op19673,ep5839,31.1,,,1,2
 ALS Vial : 26 Sample Multiplier: 1

Inst : MSVOAMSP

Quant Method : C:\MSDCHEM\1\METHODS\MP5819.M
 Quant Results File: MP5819.RES
 Quant Time: Apr 16 05:09:04 2019
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Tue Apr 16 05:04:45 2019
 Response via : Initial Calibration



TIC: p129046.d\data.ms

(98) Dibenz[a,h]anthracene (t)

18.494min (+0.182) 0.61ppm

response 8936

Ion	Exp%	Act%
278.20	100	100
139.10	18.50	21.69
279.20	23.50	33.03
0.00	0.00	0.00

9.1.4.2
9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5835\
Data File : p128947.D
Acq On : 11 Apr 2019 10:27 am
Operator : chriss2
Sample : jc86043-5
Misc : op19673,ep5835,32.0,,,1,5
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Apr 12 13:54:24 2019
Quant Method : C:\MSDCHEM\1\METHODS\MP5819.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Thu Apr 11 10:55:50 2019
Response via : Initial Calibration

Table with 7 columns: Compound, R.T., QIon, Response, Conc, Units, Dev(Min). Rows include Internal Standards, System Monitoring Compounds, and Target Compounds.

9.15
9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5835\
Data File : p128947.D
Acq On : 11 Apr 2019 10:27 am
Operator : chriss2
Sample : jc86043-5
Misc : op19673,ep5835,32.0,,,1,5
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Apr 12 13:54:24 2019
Quant Method : C:\MSDCHEM\1\METHODS\MP5819.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Thu Apr 11 10:55:50 2019
Response via : Initial Calibration

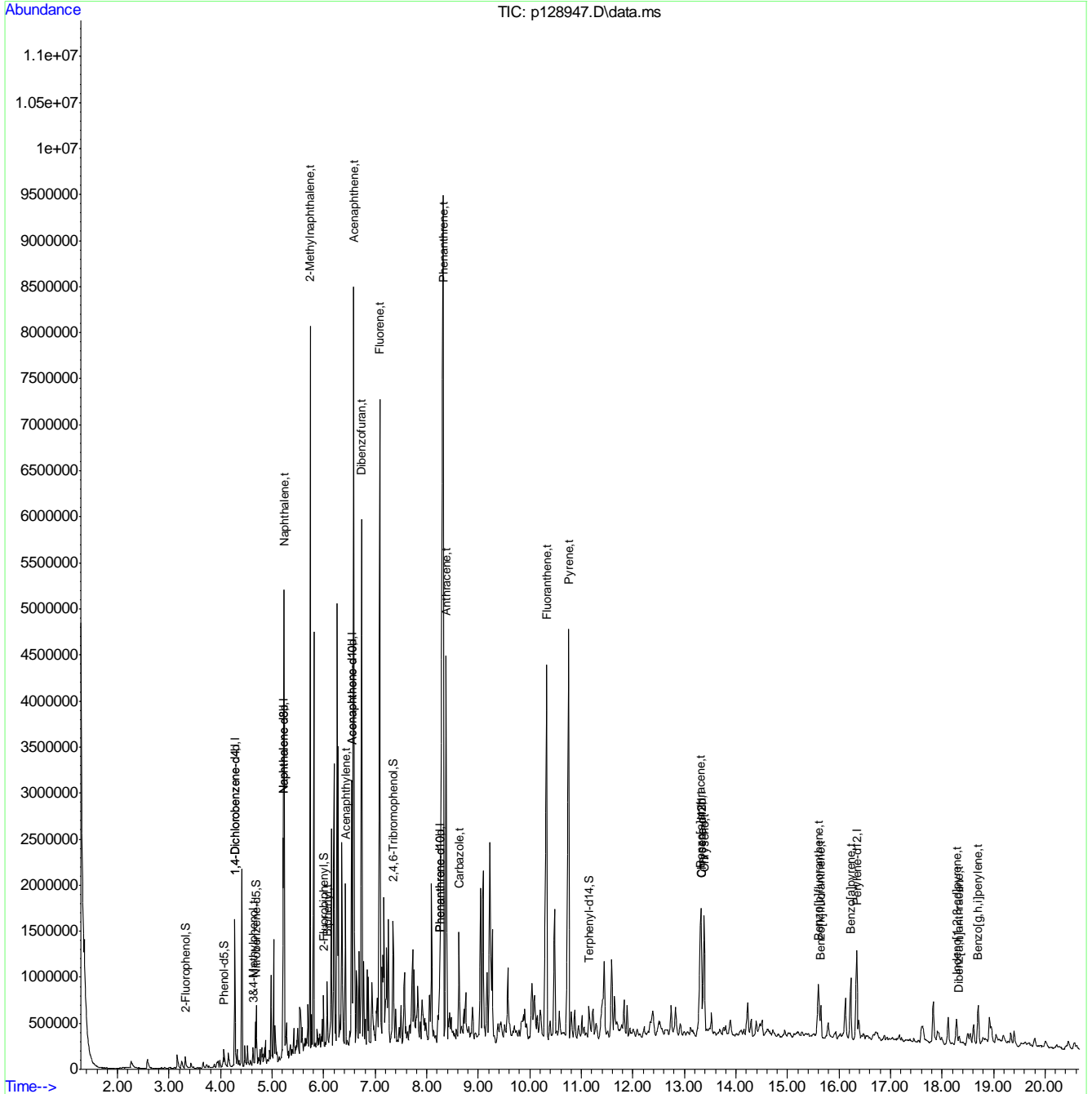
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
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(#) = qualifier out of range (m) = manual integration (+) = signals summed

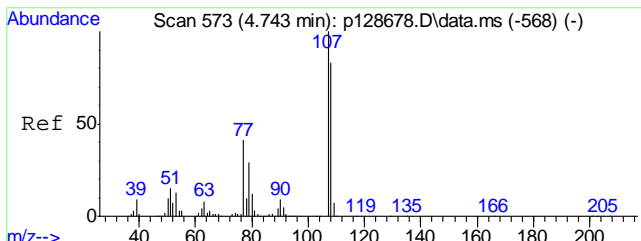
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5835\
Data File : p128947.D
Acq On : 11 Apr 2019 10:27 am
Operator : chriss2
Sample : jc86043-5
Misc : op19673,ep5835,32.0,,,1,5
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Apr 12 13:54:24 2019
Quant Method : C:\MSDCHEM\1\METHODS\MP5819.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Thu Apr 11 10:55:50 2019
Response via : Initial Calibration

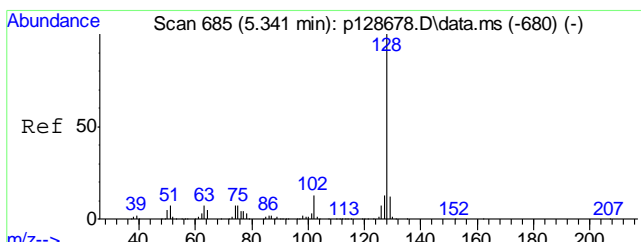
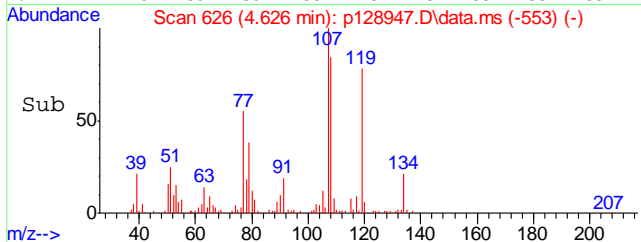
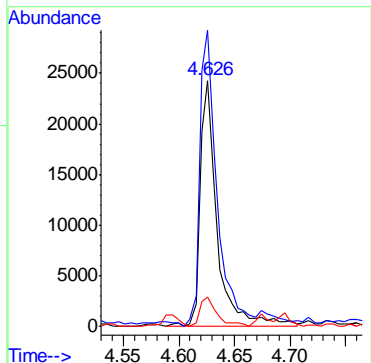
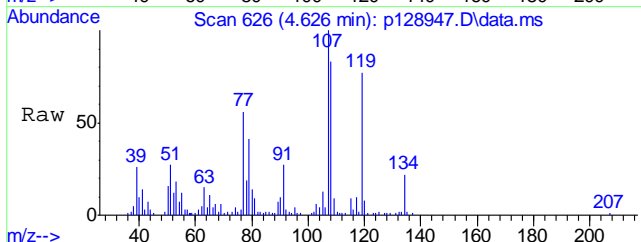


9.15
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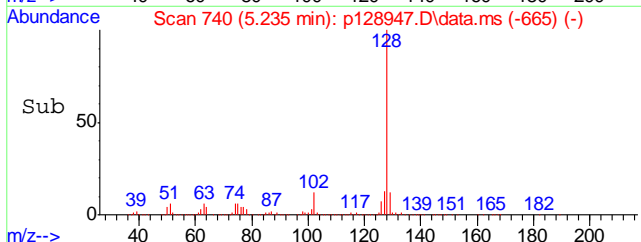
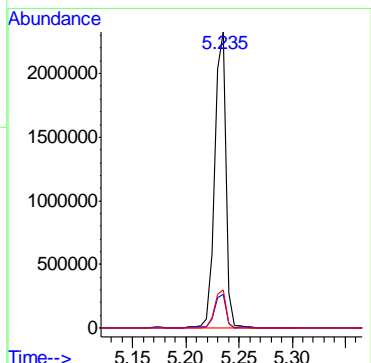
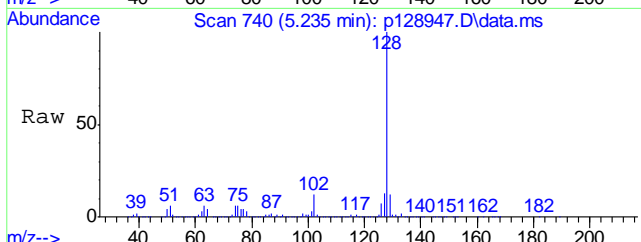
#21
 3&4-Methylphenol
 Concen: 3.65 ppm
 RT: 4.626 min Scan# 626
 Delta R.T. -0.112 min
 Lab File: p128947.D
 Acq: 11 Apr 2019 10:27 am

Tgt Ion	Resp	Lower	Upper
108	25528		
107	118.7	89.8	149.8
90	8.9	0.0	40.6

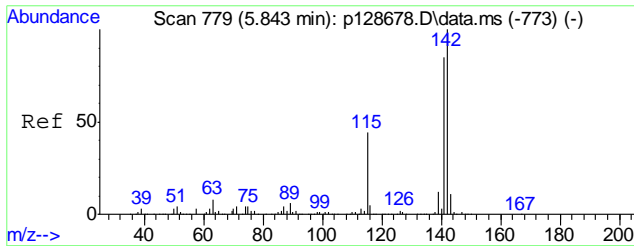


#38
 Naphthalene
 Concen: 98.77 ppm
 RT: 5.235 min Scan# 740
 Delta R.T. -0.101 min
 Lab File: p128947.D
 Acq: 11 Apr 2019 10:27 am

Tgt Ion	Resp	Lower	Upper
128	1725599		
129	11.5	0.0	41.6
127	13.0	0.0	43.4

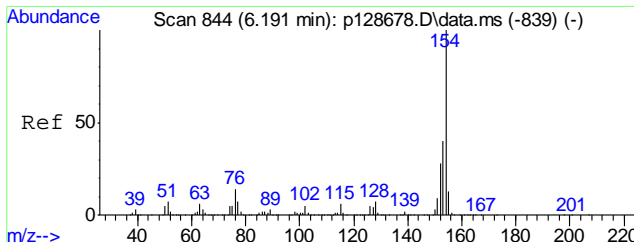
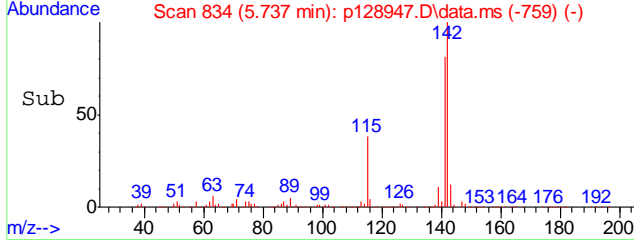
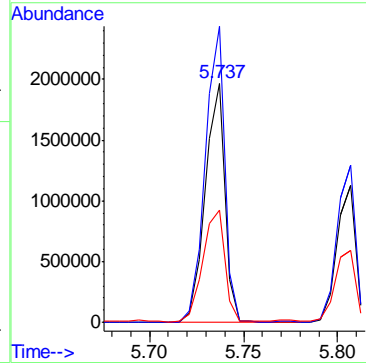
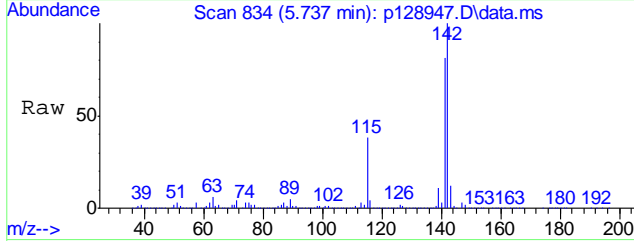


9.15
 9



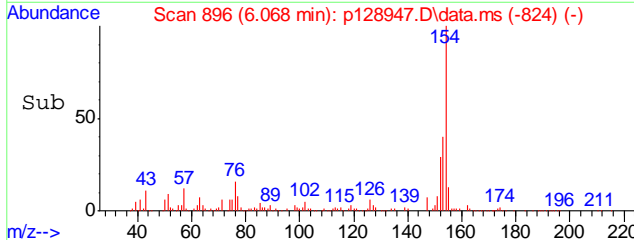
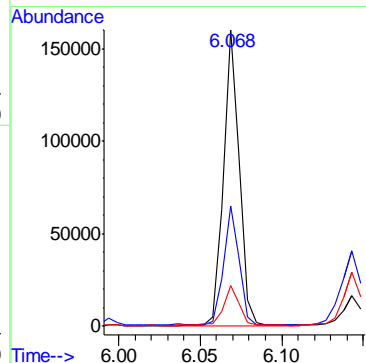
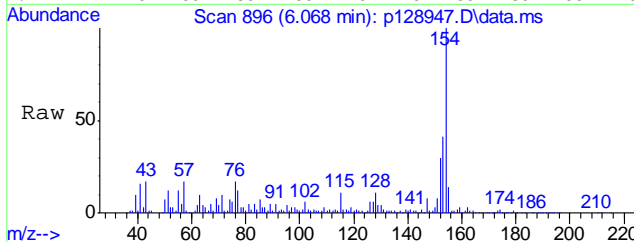
#44
 2-Methylnaphthalene
 Concen: 138.18 ppm
 RT: 5.737 min Scan# 834
 Delta R.T. -0.101 min
 Lab File: p128947.D
 Acq: 11 Apr 2019 10:27 am

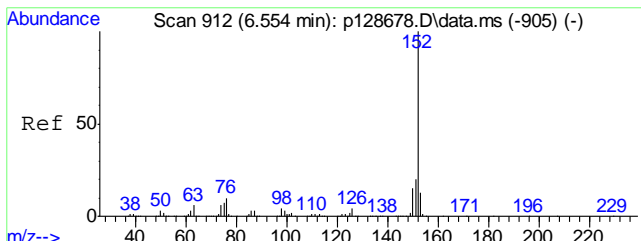
Tgt Ion	Resp	Lower	Upper
141	1429411		
142	123.7	87.8	147.8
115	46.7	22.3	82.3



#53
 Biphenyl
 Concen: 7.15 ppm
 RT: 6.068 min Scan# 896
 Delta R.T. -0.117 min
 Lab File: p128947.D
 Acq: 11 Apr 2019 10:27 am

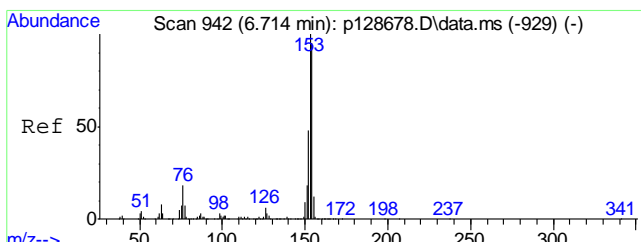
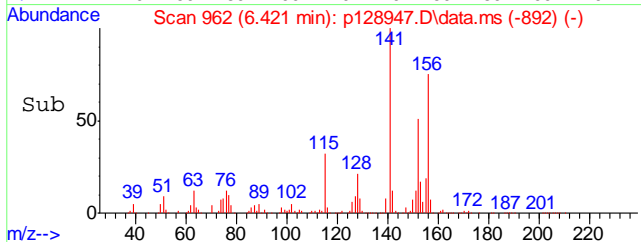
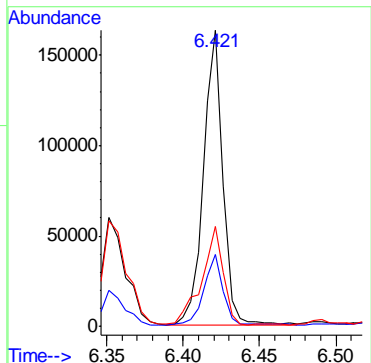
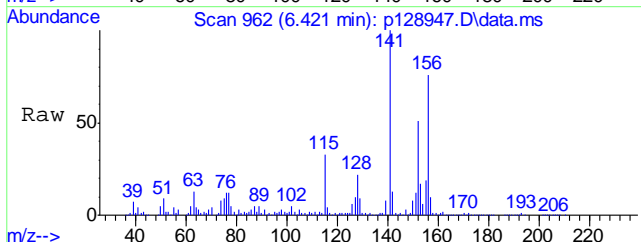
Tgt Ion	Resp	Lower	Upper
154	109549		
153	40.2	9.5	69.5
155	13.3	0.0	43.2





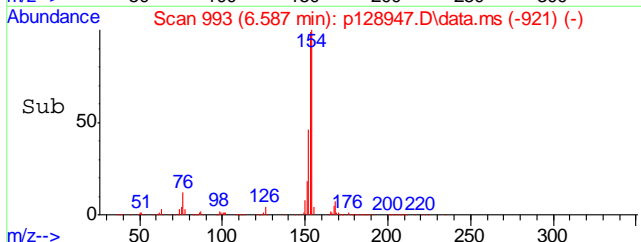
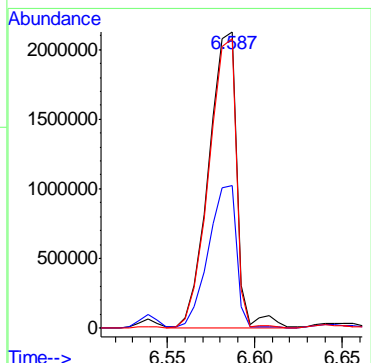
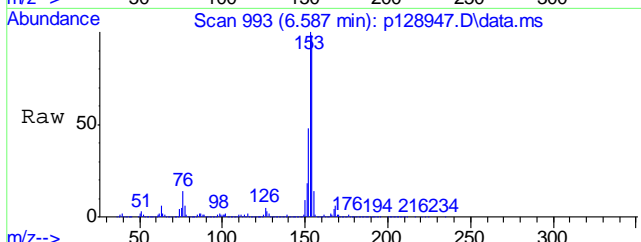
#56
 Acenaphthylene
 Concen: 7.63 ppm
 RT: 6.421 min Scan# 962
 Delta R.T. -0.128 min
 Lab File: p128947.D
 Acq: 11 Apr 2019 10:27 am

Tgt Ion	Resp	Lower	Upper
152	142693	100	
151	23.7	0.0	49.8
153	33.3	0.0	43.4

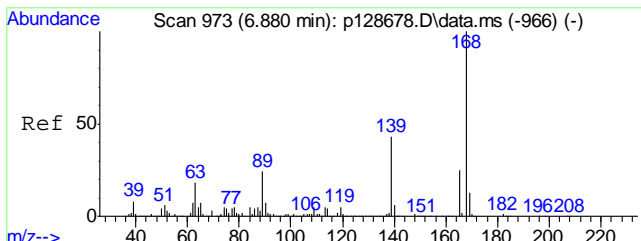


#59
 Acenaphthene
 Concen: 210.00 ppm
 RT: 6.587 min Scan# 993
 Delta R.T. -0.117 min
 Lab File: p128947.D
 Acq: 11 Apr 2019 10:27 am

Tgt Ion	Resp	Lower	Upper
153	2380166	100	
152	48.1	18.1	78.1
154	97.9	58.0	118.0



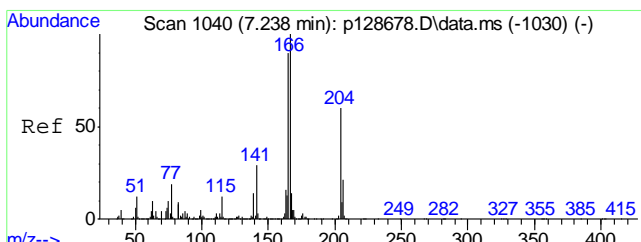
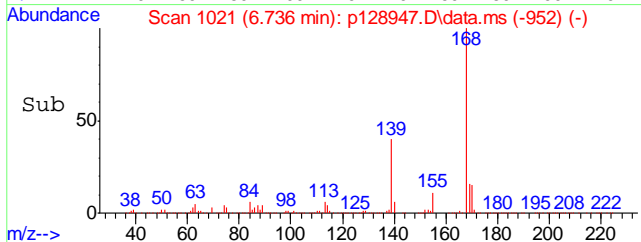
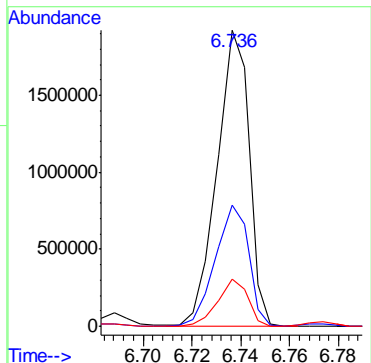
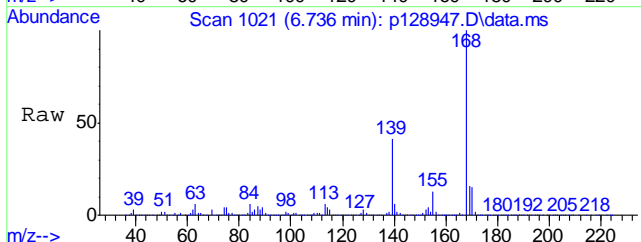
9.15
 9



#62
 Dibenzofuran
 Concen: 105.65 ppm
 RT: 6.736 min Scan# 1021
 Delta R.T. -0.133 min
 Lab File: p128947.D
 Acq: 11 Apr 2019 10:27 am

Tgt Ion:168 Resp: 1762109

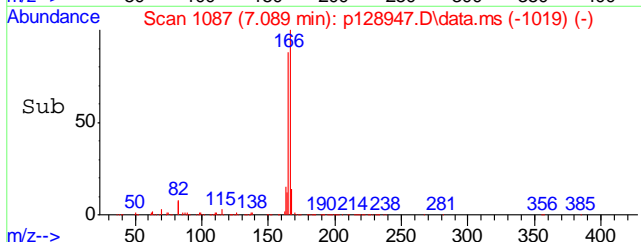
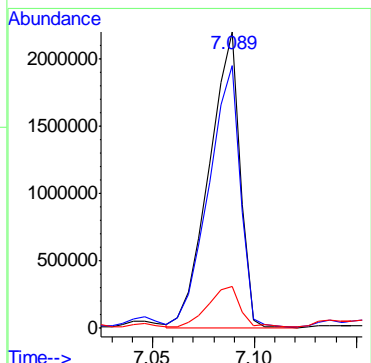
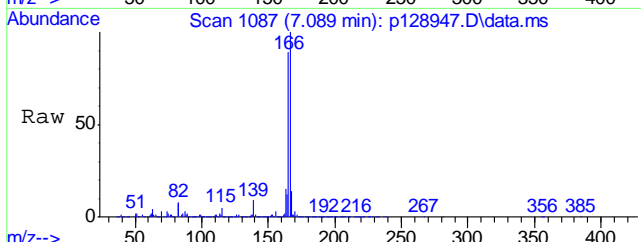
Ion	Ratio	Lower	Upper
168	100		
139	40.9	13.0	73.0
169	15.7	0.0	43.2



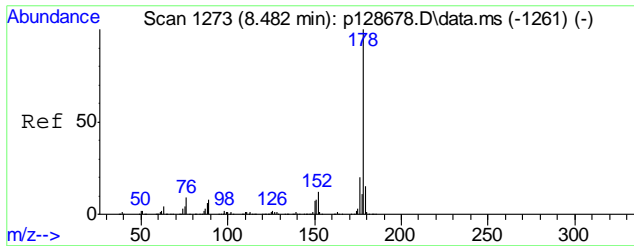
#66
 Fluorene
 Concen: 165.51 ppm
 RT: 7.089 min Scan# 1087
 Delta R.T. -0.138 min
 Lab File: p128947.D
 Acq: 11 Apr 2019 10:27 am

Tgt Ion:166 Resp: 2324445

Ion	Ratio	Lower	Upper
166	100		
165	88.3	60.4	120.4
167	14.0	0.0	43.8

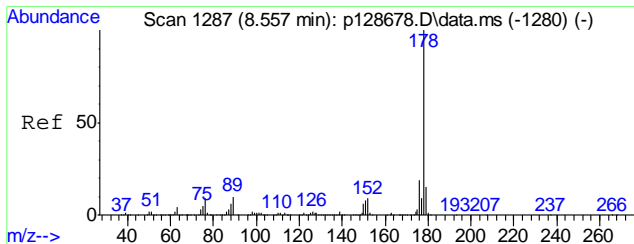
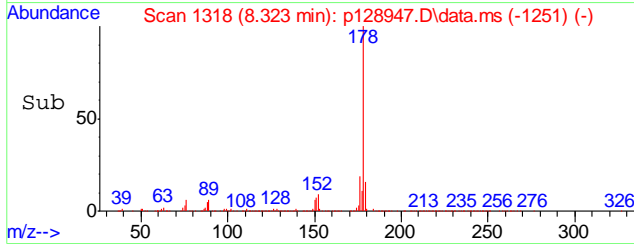
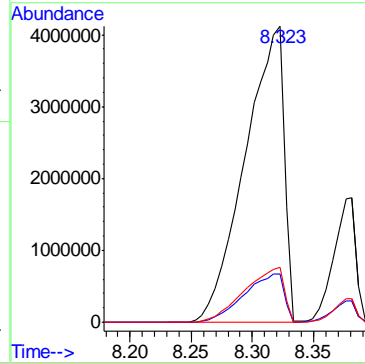
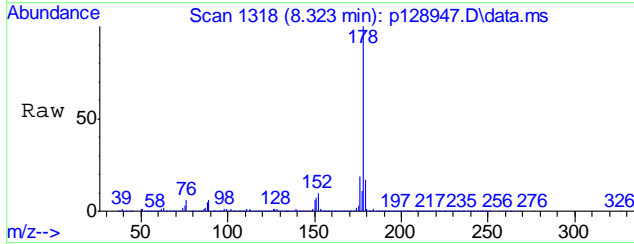


9.15
 9



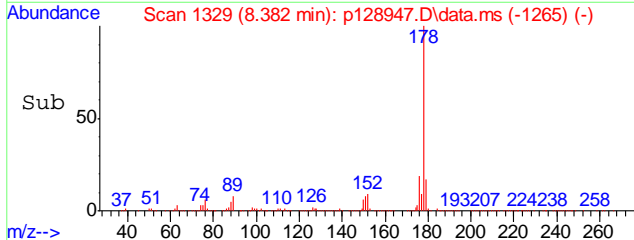
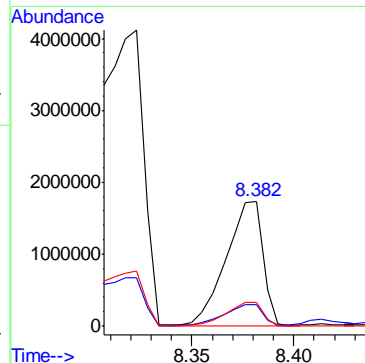
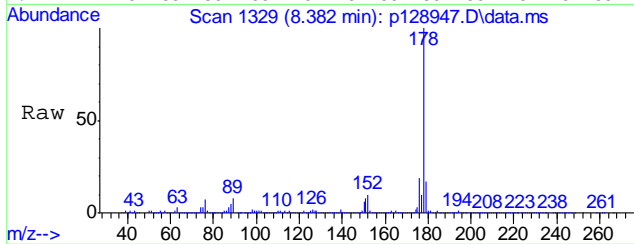
#77
 Phenanthrene
 Concen: 506.82 ppm
 RT: 8.323 min Scan# 1318
 Delta R.T. -0.144 min
 Lab File: p128947.D
 Acq: 11 Apr 2019 10:27 am

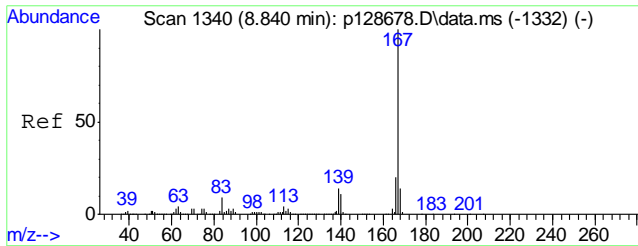
Tgt Ion	Resp	Lower	Upper
178	100		
179	16.4	0.0	45.2
176	18.7	0.0	49.8



#78
 Anthracene
 Concen: 113.24 ppm
 RT: 8.382 min Scan# 1329
 Delta R.T. -0.160 min
 Lab File: p128947.D
 Acq: 11 Apr 2019 10:27 am

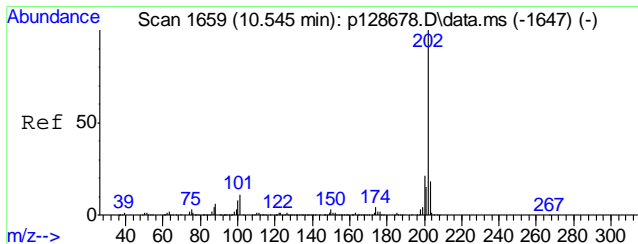
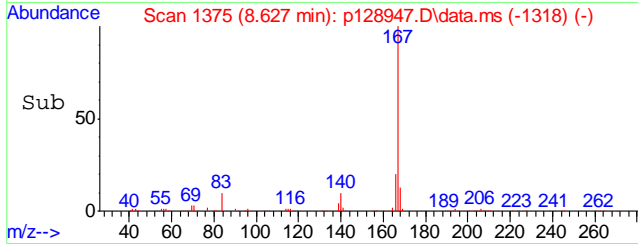
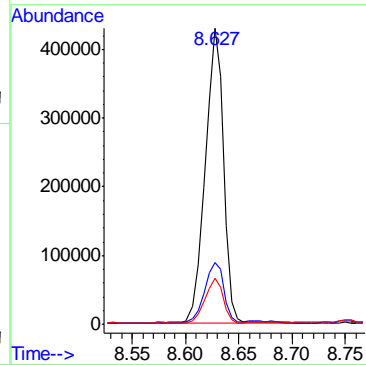
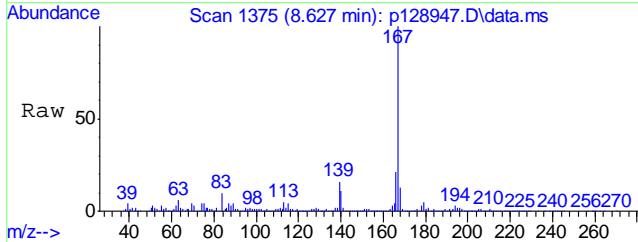
Tgt Ion	Resp	Lower	Upper
178	100		
179	15.9	0.0	45.3
176	19.0	0.0	48.6





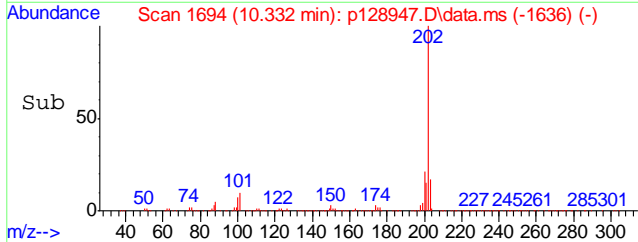
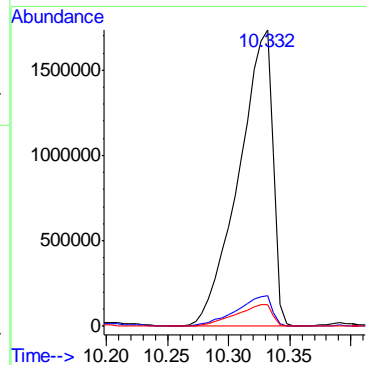
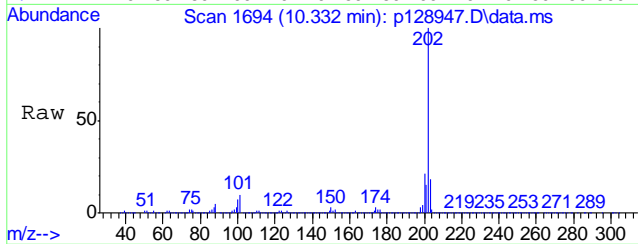
#79
 Carbazole
 Concen: 29.18 ppm
 RT: 8.627 min Scan# 1375
 Delta R.T. -0.197 min
 Lab File: p128947.D
 Acq: 11 Apr 2019 10:27 am

Tgt Ion	Resp	Lower	Upper
167	520485	100	
166	20.5	0.0	50.3
139	15.1	0.0	44.2

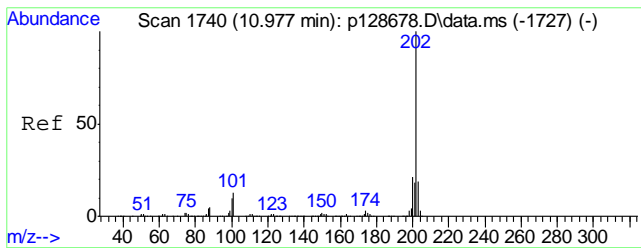


#81
 Fluoranthene
 Concen: 154.48 ppm
 RT: 10.332 min Scan# 1694
 Delta R.T. -0.192 min
 Lab File: p128947.D
 Acq: 11 Apr 2019 10:27 am

Tgt Ion	Resp	Lower	Upper
202	3371588	100	
101	10.2	0.0	40.6
100	7.3	0.0	38.1

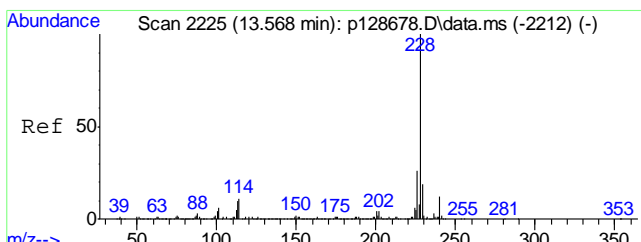
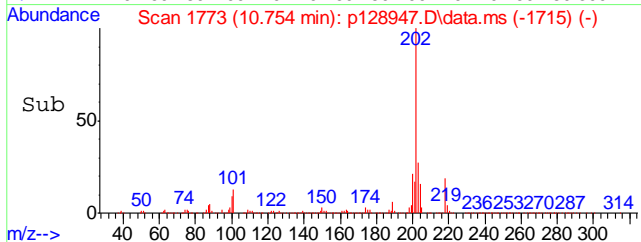
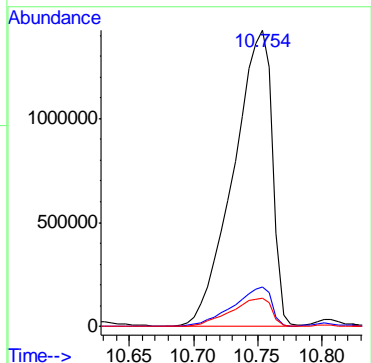
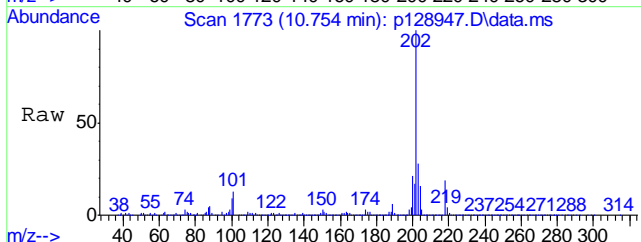


9.15
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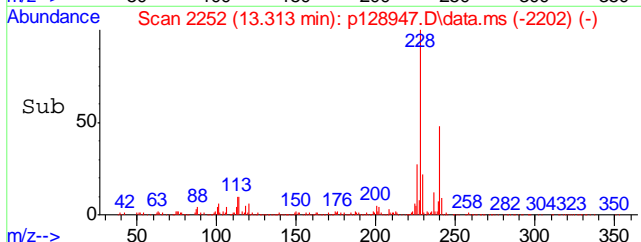
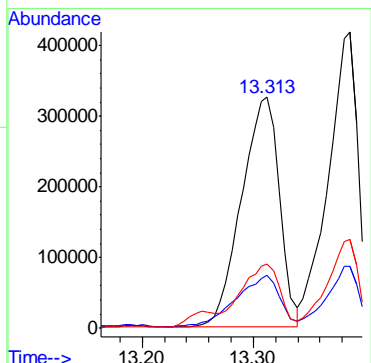
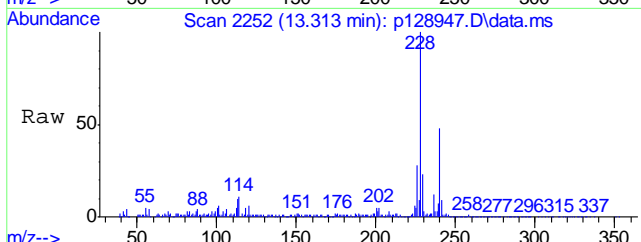
#84
 Pyrene
 Concen: 148.28 ppm
 RT: 10.754 min Scan# 1773
 Delta R.T. -0.192 min
 Lab File: p128947.D
 Acq: 11 Apr 2019 10:27 am

Tgt Ion	Resp	Lower	Upper
202	2983182	100	
101	13.2	0.0	42.9
100	9.3	0.0	40.3

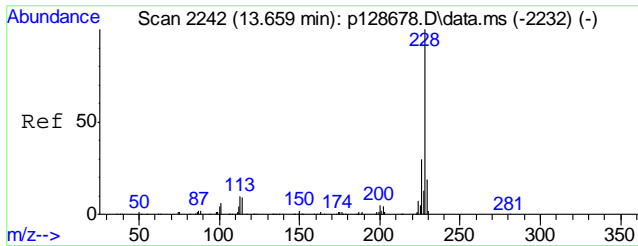


#87
 Benzo[a]anthracene
 Concen: 41.84 ppm
 RT: 13.313 min Scan# 2252
 Delta R.T. -0.234 min
 Lab File: p128947.D
 Acq: 11 Apr 2019 10:27 am

Tgt Ion	Resp	Lower	Upper
228	774987	100	
229	22.0	0.0	49.2
226	27.1	0.0	56.1

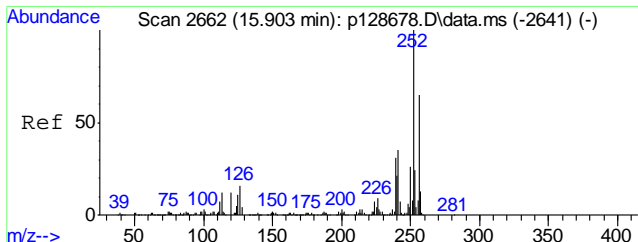
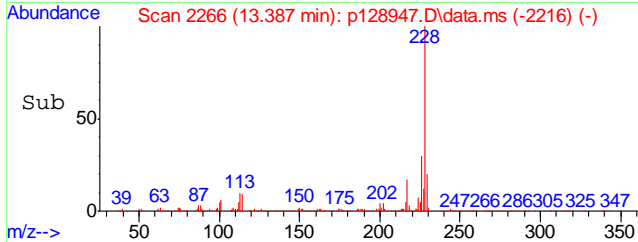
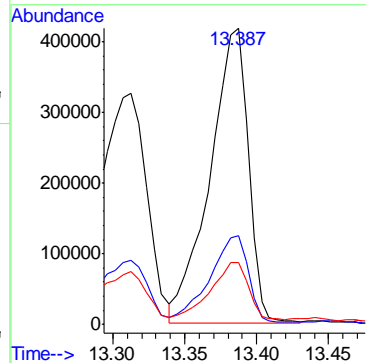
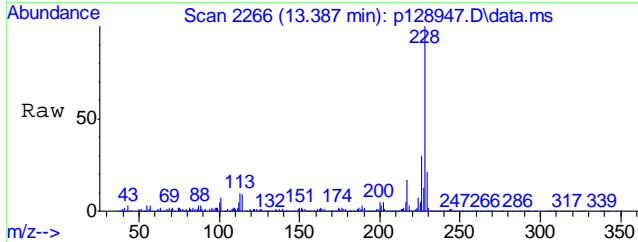


9.15
 9



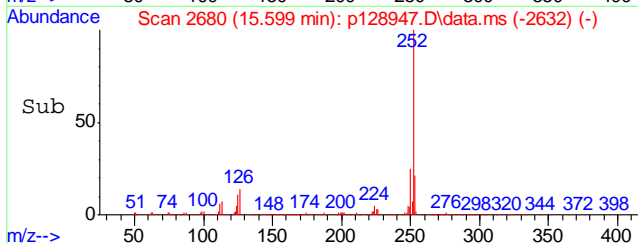
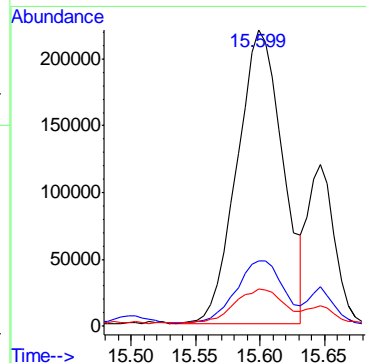
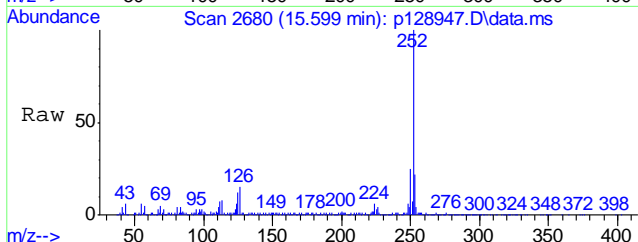
#89
 Chrysene
 Concen: 47.33 ppm
 RT: 13.387 min Scan# 2266
 Delta R.T. -0.234 min
 Lab File: p128947.D
 Acq: 11 Apr 2019 10:27 am

Tgt Ion	Ratio	Lower	Upper
228	100		
226	29.6	0.2	60.2
229	19.5	0.0	49.3

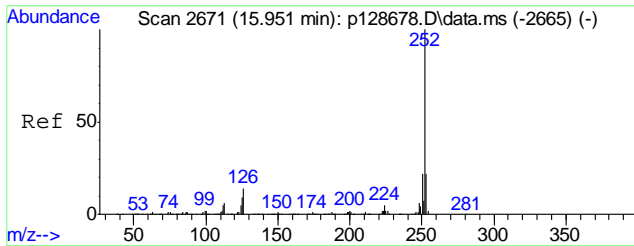


#93
 Benzo[b]fluoranthene
 Concen: 27.44 ppm
 RT: 15.599 min Scan# 2680
 Delta R.T. -0.245 min
 Lab File: p128947.D
 Acq: 11 Apr 2019 10:27 am

Tgt Ion	Ratio	Lower	Upper
252	100		
253	21.4	0.0	54.8
125	11.1	0.0	40.5

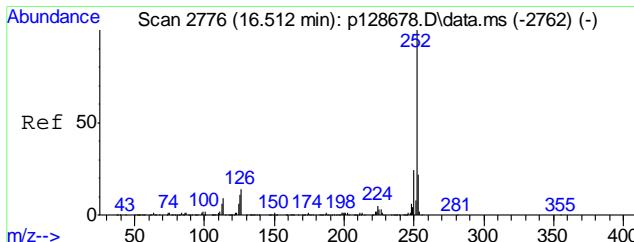
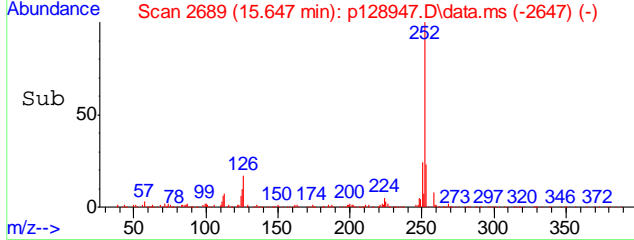
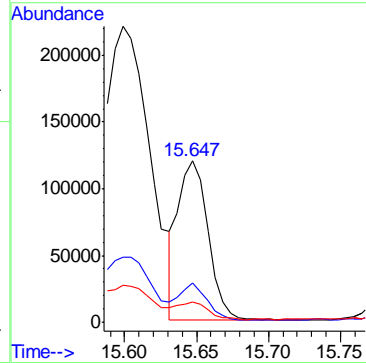
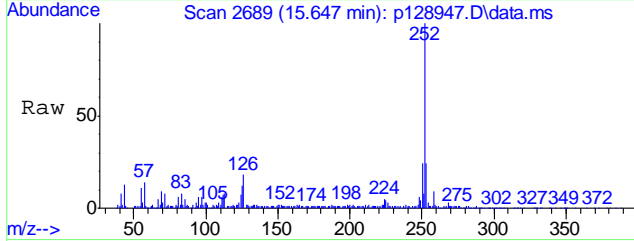


9.1.5
 9



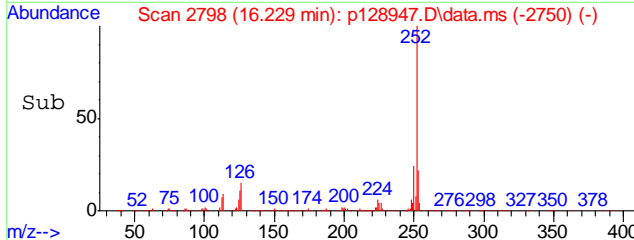
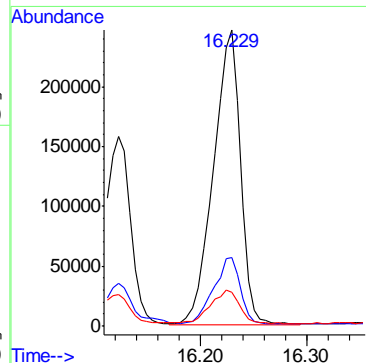
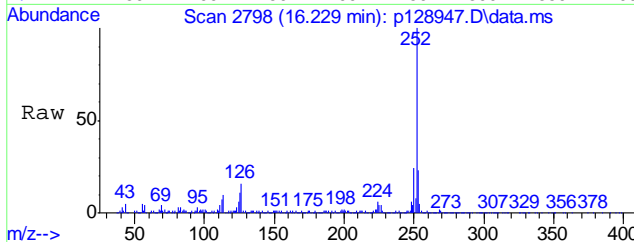
#94
 Benzo[k]fluoranthene
 Concen: 10.22 ppm
 RT: 15.647 min Scan# 2689
 Delta R.T. -0.277 min
 Lab File: p128947.D
 Acq: 11 Apr 2019 10:27 am

Tgt Ion	Resp	Lower	Upper
252	171495	100	
253	24.0	0.0	51.8
125	9.2	0.0	39.6

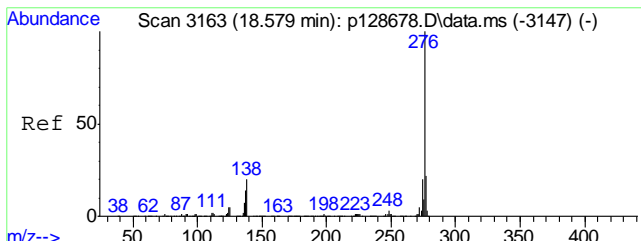


#95
 Benzo[a]pyrene
 Concen: 26.46 ppm
 RT: 16.229 min Scan# 2798
 Delta R.T. -0.245 min
 Lab File: p128947.D
 Acq: 11 Apr 2019 10:27 am

Tgt Ion	Resp	Lower	Upper
252	440171	100	
253	22.1	0.0	52.1
125	10.5	0.0	40.9

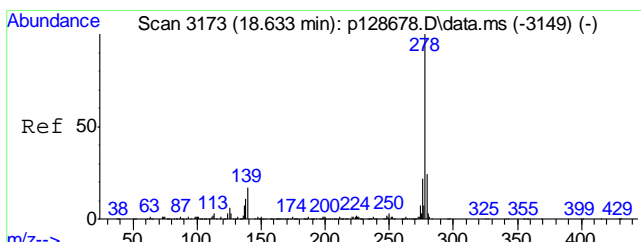
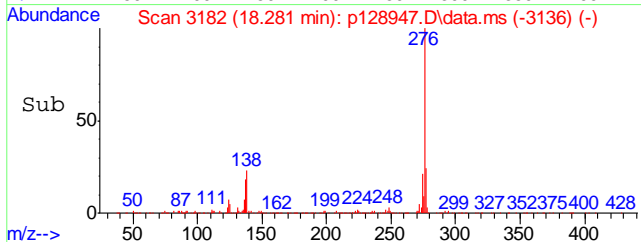
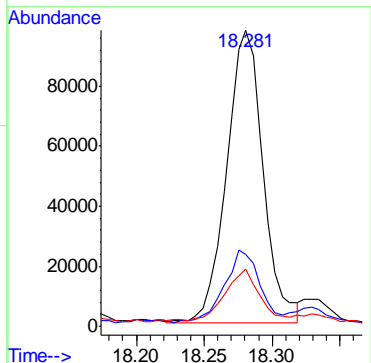
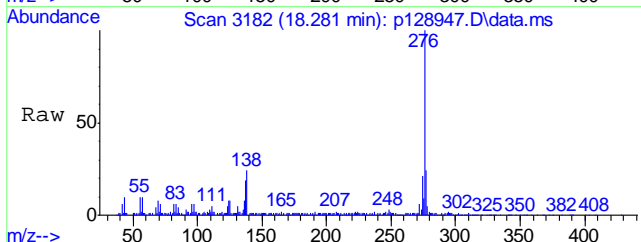


9.15
 9



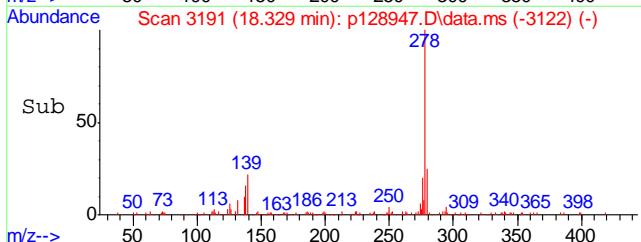
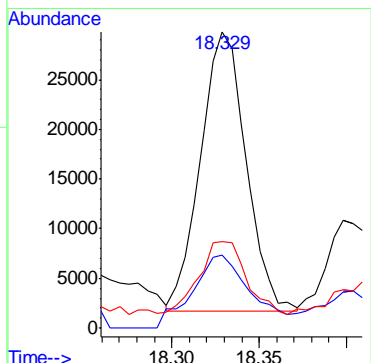
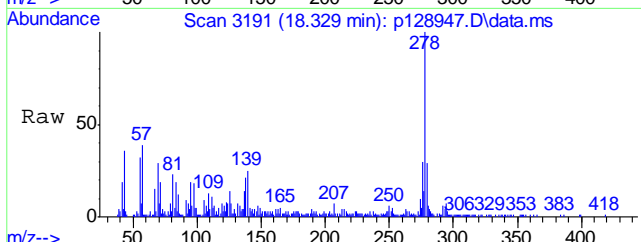
#96
 Indeno[1,2,3-cd]pyrene
 Concen: 12.21 ppm
 RT: 18.281 min Scan# 3182
 Delta R.T. -0.256 min
 Lab File: p128947.D
 Acq: 11 Apr 2019 10:27 am

Tgt Ion	Resp	Lower	Upper
276	183972		
138	22.0	0.0	47.6
137	17.4	0.0	42.9

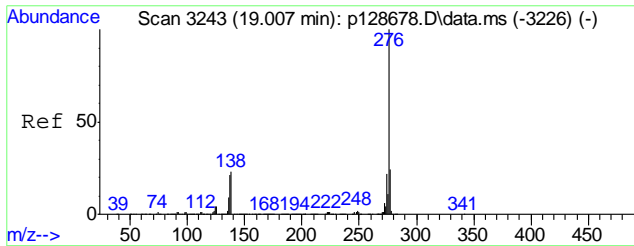


#98
 Dibenz[a,h]anthracene
 Concen: 3.31 ppm
 RT: 18.329 min Scan# 3191
 Delta R.T. -0.131 min
 Lab File: p128947.D
 Acq: 11 Apr 2019 10:27 am

Tgt Ion	Resp	Lower	Upper
278	50921		
139	20.5	0.0	46.7
279	25.0	0.0	53.8

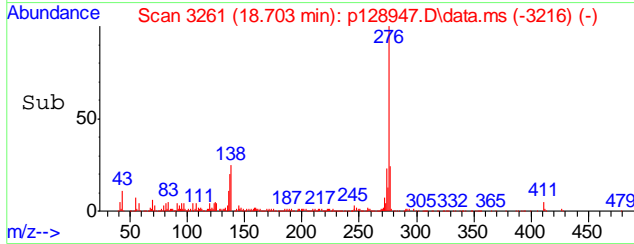
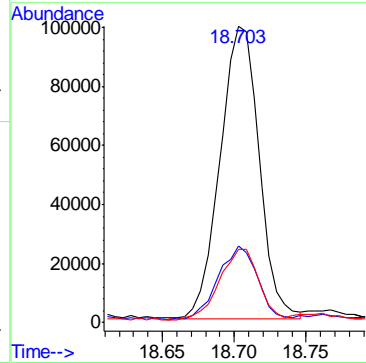
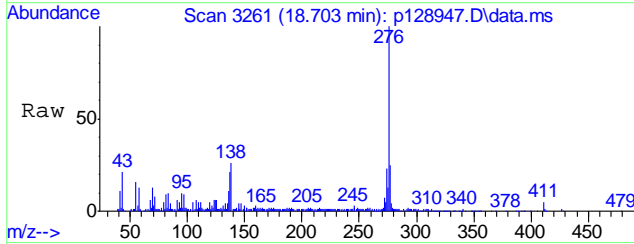


9.15
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#100
 Benzo[g,h,i]perylene
 Concen: 12.79 ppm
 RT: 18.703 min Scan# 3261
 Delta R.T. -0.261 min
 Lab File: p128947.D
 Acq: 11 Apr 2019 10:27 am

Tgt Ion	Ratio	Lower	Upper
276	100		
138	24.9	0.0	53.3
277	23.6	0.0	53.6



9.1.5
 9

Quantitation Report (QT Reviewed)

Data Path : V:\svoa-gcms\completed\04_apr\04-15-2019\michellc\ep5836\
 Data File : p128965.d
 Acq On : 11 Apr 2019 9:56 pm
 Operator : christc2
 Sample : jc86043-5
 Misc : op19673,ep5836,32.0,,,1,50
 ALS Vial : 16 Sample Multiplier: 1

Quant Time: Apr 22 12:57:11 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MP5819.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Sun Apr 14 23:26:36 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.263	152	156271	40.00	ppm	0.00
24) Naphthalene-d8	5.203	136	589108	40.00	ppm	0.00
47) Acenaphthene-d10	6.528	164	324692	40.00	ppm	0.00
69) Phenanthrene-d10	8.221	188	548230	40.00	ppm	0.00
83) Chrysene-d12	13.280	240	465453	40.00	ppm	-0.01
91) Perylene-d12	16.309	264	522930	40.00	ppm	-0.01
101) 1,4-Dichlorobenzene-d4b	4.263	152	156271	40.00	ppm	0.00
103) Phenanthrene-d10b	8.221	188	548230	40.00	ppm	0.00
105) Chrysene-d12b	13.280	240	465453	40.00	ppm	-0.01
107) Naphthalene-d8b	5.203	136	589108	40.00	ppm	0.00
109) Acenaphthene-d10b	6.528	164	324692	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	3.317	112	2878	0.49	ppm	0.02
Spiked Amount	50.000		Recovery	=	0.98%	
8) Phenol-d5	4.070	99	3857	0.49	ppm	0.02
Spiked Amount	50.000		Recovery	=	0.98%	
25) Nitrobenzene-d5	4.690	82	6334	0.82	ppm	0.00
Spiked Amount	50.000		Recovery	=	1.64%	
51) 2-Fluorobiphenyl	5.983	172	10375	0.90	ppm	-0.01
Spiked Amount	50.000		Recovery	=	1.80%	
73) 2,4,6-Tribromophenol	7.329	330	907	0.60	ppm	-0.01
Spiked Amount	50.000		Recovery	=	1.20%	
85) Terphenyl-d14	11.122	244	10593	0.92	ppm	-0.01
Spiked Amount	50.000		Recovery	=	1.84%	
Target Compounds						
38) Naphthalene	5.219	128	152051	9.76	ppm	99
44) 2-Methylnaphthalene	5.721	141	129723	14.07	ppm	96
53) Biphenyl	6.058	154	10581	0.82	ppm	91
56) Acenaphthylene	6.405	152	14809	0.94	ppm	76
59) Acenaphthene	6.555	153	198272	20.69	ppm	96
62) Dibenzofuran	6.715	168	147714	10.48	ppm	95
66) Fluorene	7.057	166	191976	16.17	ppm	95
77) Phenanthrene	8.259	178	735923	48.36	ppm	99
78) Anthracene	8.328	178	184232	11.37	ppm	99
79) Carbazole	8.595	167	47532	3.17	ppm	96
81) Fluoranthene	10.262	202	291563	15.87	ppm	96
84) Pyrene	10.689	202	255915	14.71	ppm	92
87) Benzo[a]anthracene	13.259	228	72755	4.54	ppm	97
89) Chrysene	13.334	228	73379	5.17	ppm	99
93) Benzo[b]fluoranthene	15.556	252	51189m	2.95	ppm	
94) Benzo[k]fluoranthene	15.604	252	19012	1.29	ppm	90
95) Benzo[a]pyrene	16.176	252	42110	2.88	ppm	95
96) Indeno[1,2,3-cd]pyrene	18.243	276	16503	1.25	ppm	84
98) Dibenz[a,h]anthracene	18.297	278	5772	0.43	ppm	88
100) Benzo[g,h,i]perylene	18.665	276	18824	1.46	ppm	87

Quantitation Report (QT Reviewed)

Data Path : V:\svoa-gcms\completed\04_apr\04-15-2019\michellc\ep5836\
Data File : p128965.d
Acq On : 11 Apr 2019 9:56 pm
Operator : christc2
Sample : jc86043-5
Misc : op19673,ep5836,32.0,,,1,50
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Apr 22 12:57:11 2019
Quant Method : C:\MSDCHEM\1\METHODS\MP5819.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Sun Apr 14 23:26:36 2019
Response via : Initial Calibration

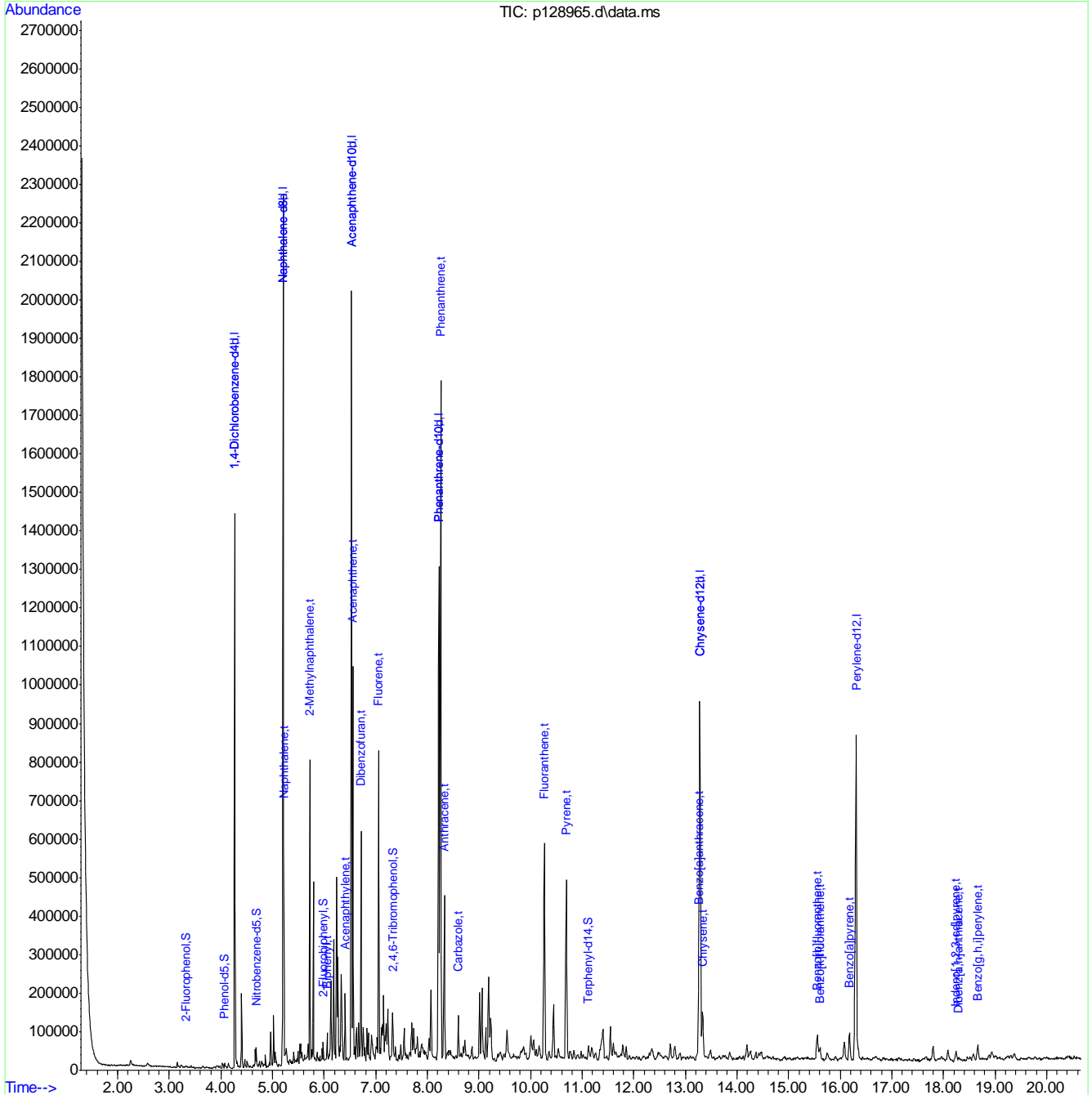
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

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

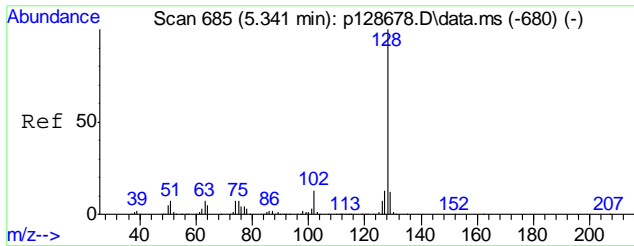
Quantitation Report (QT Reviewed)

Data Path : V:\svoa-gcms\completed\04_apr\04-15-2019\michellc\ep5836\
 Data File : pl28965.d
 Acq On : 11 Apr 2019 9:56 pm
 Operator : christc2
 Sample : jc86043-5
 Misc : op19673,ep5836,32.0,,,1,50
 ALS Vial : 16 Sample Multiplier: 1

Quant Time: Apr 22 12:57:11 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MP5819.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Sun Apr 14 23:26:36 2019
 Response via : Initial Calibration

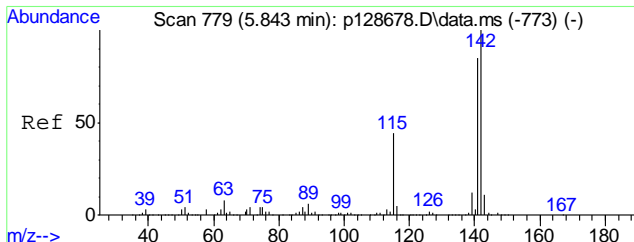
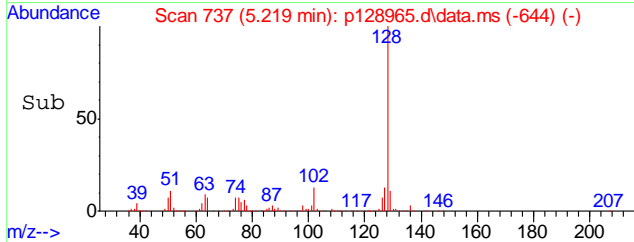
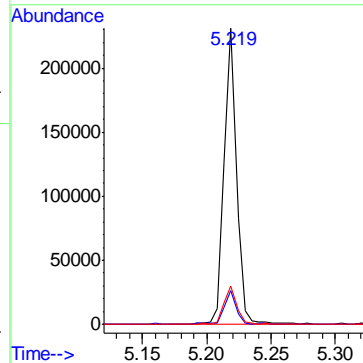
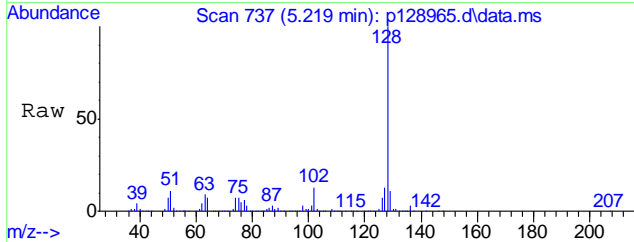


9.1.6
9



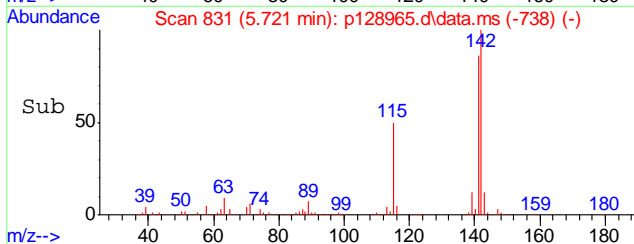
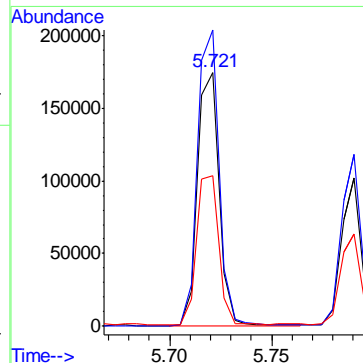
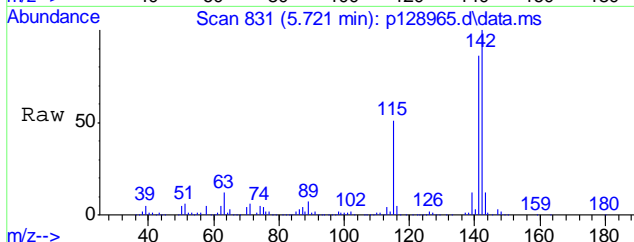
#38
 Naphthalene
 Concen: 9.76 ppm
 RT: 5.219 min Scan# 737
 Delta R.T. -0.005 min
 Lab File: p128965.d
 Acq: 11 Apr 2019 9:56 pm

Tgt Ion	Ratio	Lower	Upper
128	100		
129	11.4	0.0	41.0
127	12.9	0.0	42.6

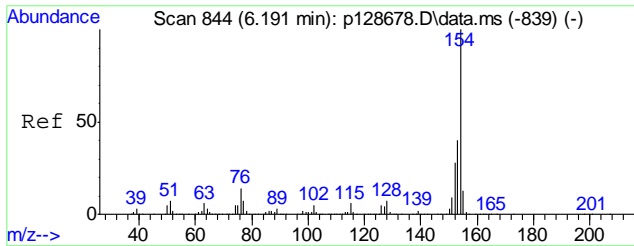


#44
 2-Methylnaphthalene
 Concen: 14.07 ppm
 RT: 5.721 min Scan# 831
 Delta R.T. -0.005 min
 Lab File: p128965.d
 Acq: 11 Apr 2019 9:56 pm

Tgt Ion	Ratio	Lower	Upper
141	100		
142	116.5	91.5	151.5
115	58.5	26.1	86.1

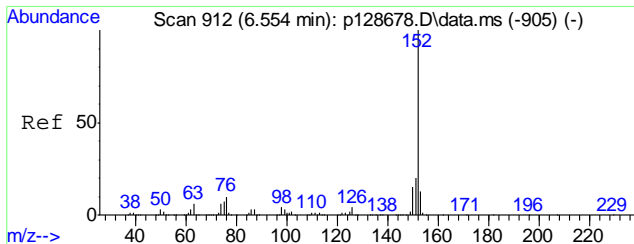
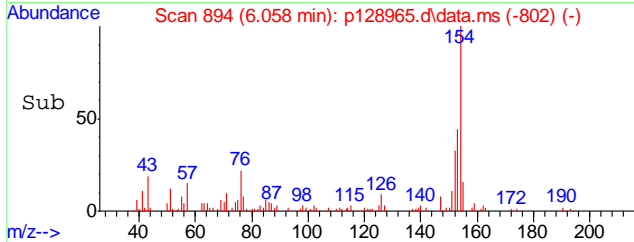
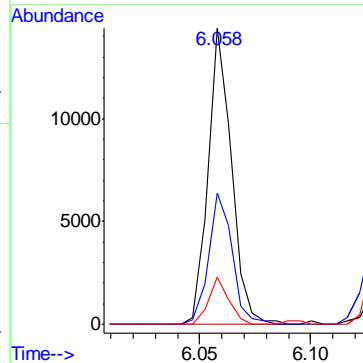
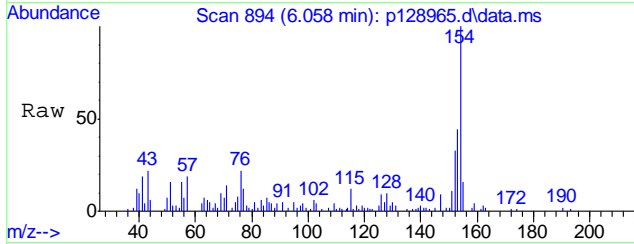


9.16
9



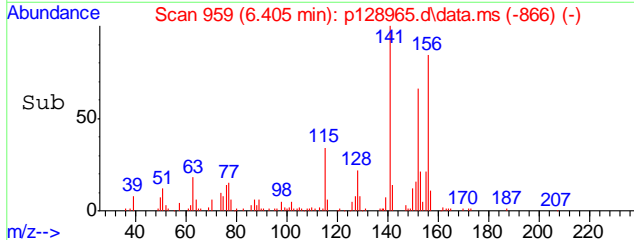
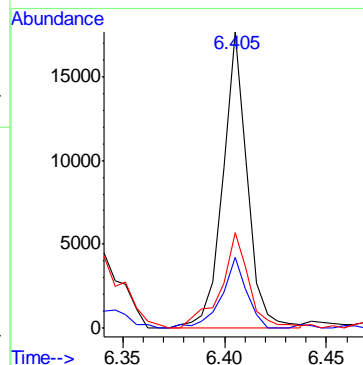
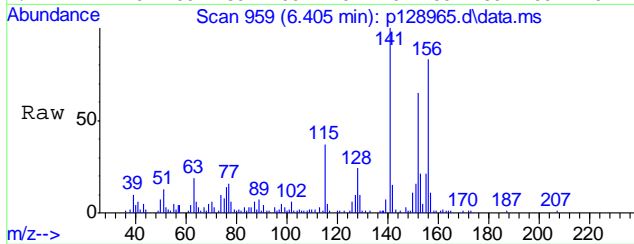
#53
 Biphenyl
 Concen: 0.82 ppm
 RT: 6.058 min Scan# 894
 Delta R.T. -0.011 min
 Lab File: p128965.d
 Acq: 11 Apr 2019 9:56 pm

Tgt Ion	Resp	Lower	Upper
154	10581		
153	44.5	8.8	68.8
155	15.5	0.0	42.9

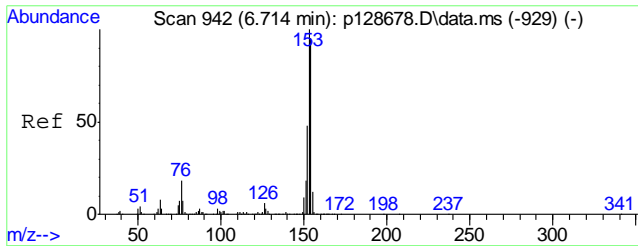


#56
 Acenaphthylene
 Concen: 0.94 ppm
 RT: 6.405 min Scan# 959
 Delta R.T. -0.005 min
 Lab File: p128965.d
 Acq: 11 Apr 2019 9:56 pm

Tgt Ion	Resp	Lower	Upper
152	14809		
151	23.6	0.0	50.0
153	32.1	0.0	43.3

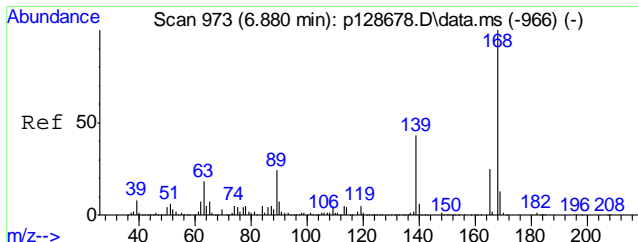
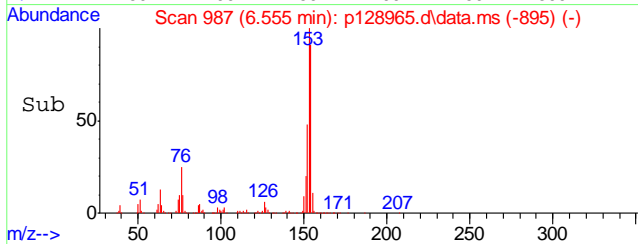
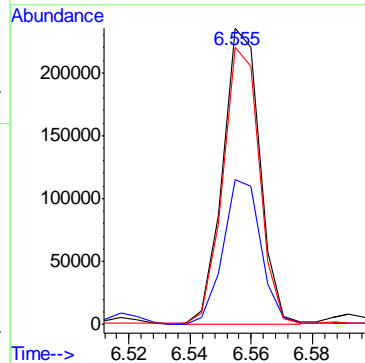
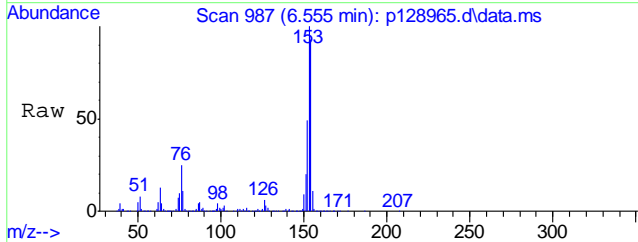


9.1.6
 9



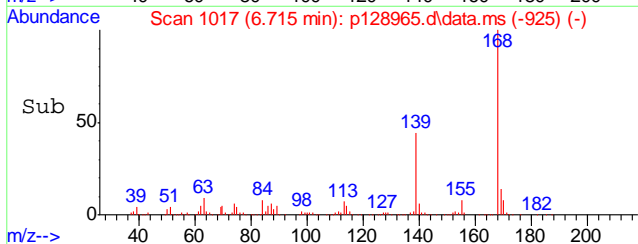
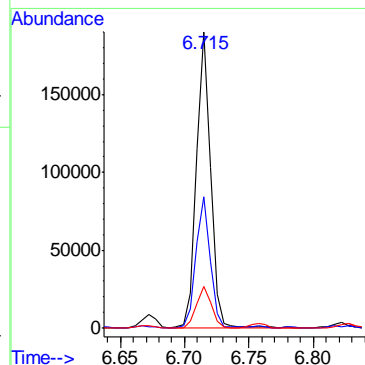
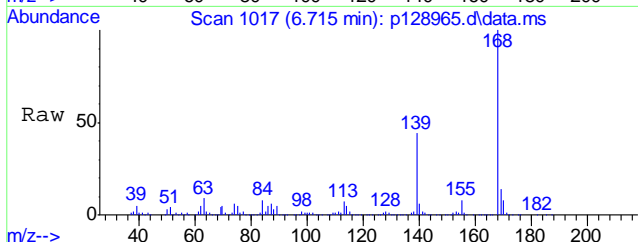
#59
 Acenaphthene
 Concen: 20.69 ppm
 RT: 6.555 min Scan# 987
 Delta R.T. -0.011 min
 Lab File: p128965.d
 Acq: 11 Apr 2019 9:56 pm

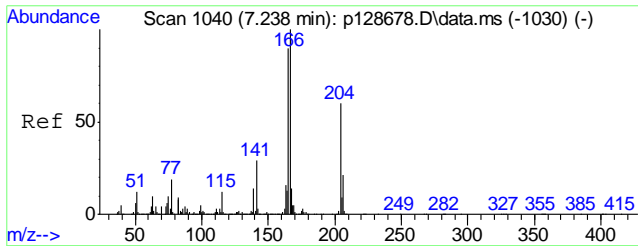
Tgt Ion	Resp	Lower	Upper
153	198272		
152	48.7	18.1	78.1
154	93.4	58.5	118.5



#62
 Dibenzofuran
 Concen: 10.48 ppm
 RT: 6.715 min Scan# 1017
 Delta R.T. -0.011 min
 Lab File: p128965.d
 Acq: 11 Apr 2019 9:56 pm

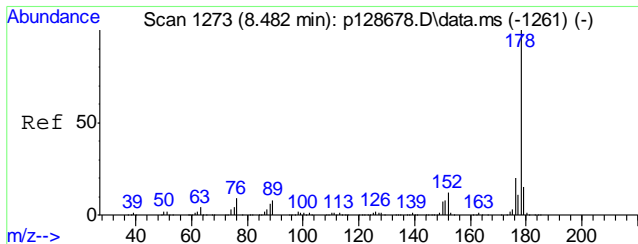
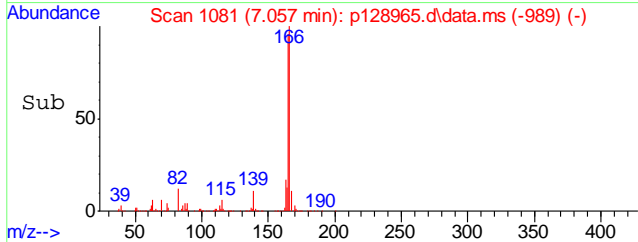
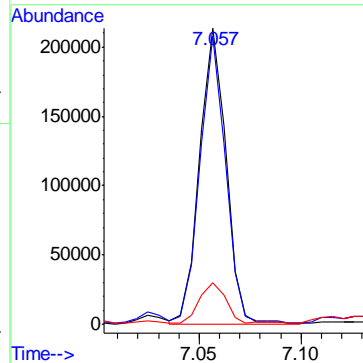
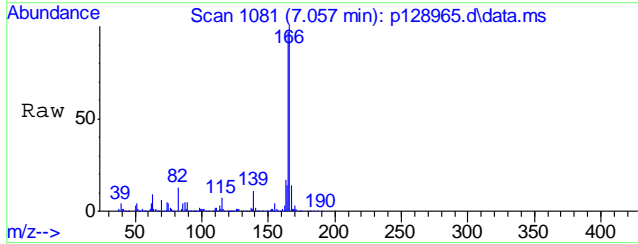
Tgt Ion	Resp	Lower	Upper
168	147714		
139	44.1	17.8	77.8
169	14.1	0.0	43.3





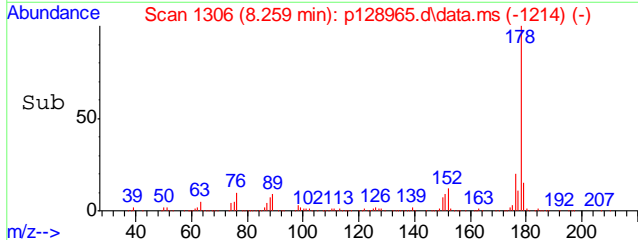
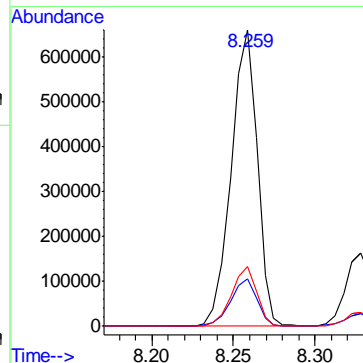
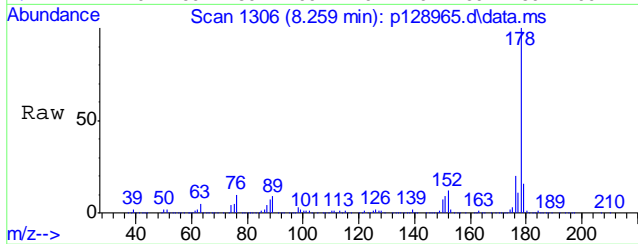
#66
 Fluorene
 Concen: 16.17 ppm
 RT: 7.057 min Scan# 1081
 Delta R.T. -0.011 min
 Lab File: p128965.d
 Acq: 11 Apr 2019 9:56 pm

Tgt Ion	Resp	Lower	Upper
166	191976	100	
165	97.2	61.4	121.4
167	14.0	0.0	43.8

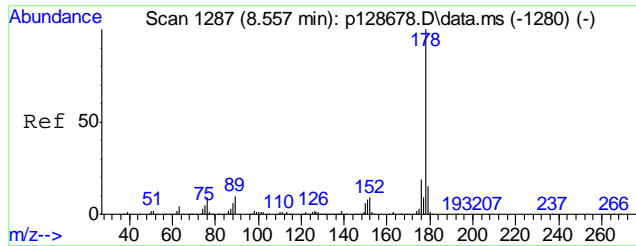


#77
 Phenanthrene
 Concen: 48.36 ppm
 RT: 8.259 min Scan# 1306
 Delta R.T. -0.011 min
 Lab File: p128965.d
 Acq: 11 Apr 2019 9:56 pm

Tgt Ion	Resp	Lower	Upper
178	735923	100	
179	15.9	0.0	45.2
176	20.0	0.0	49.5

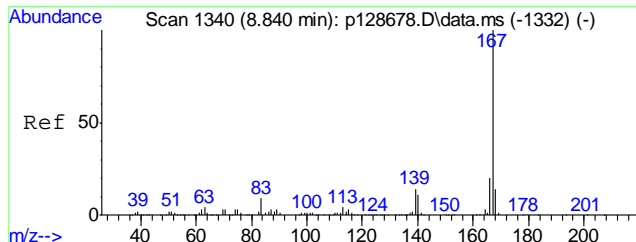
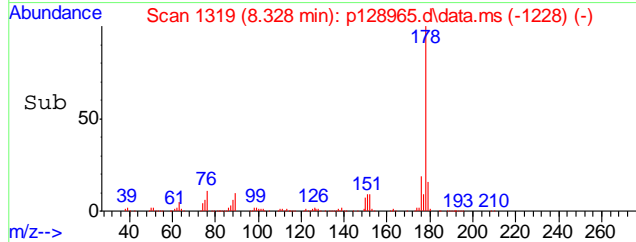
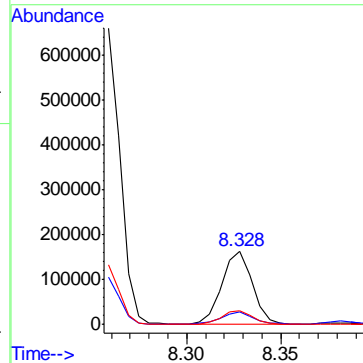
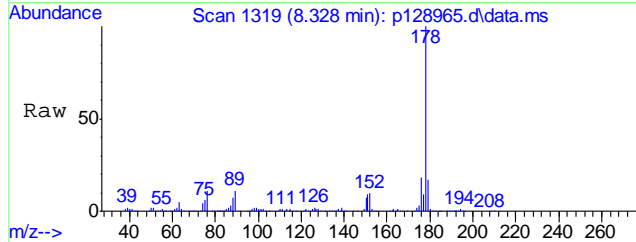


9.1.6
 9



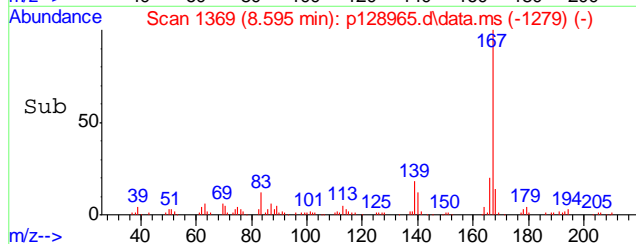
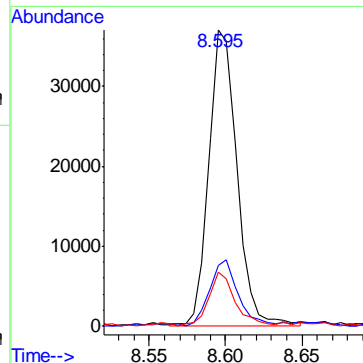
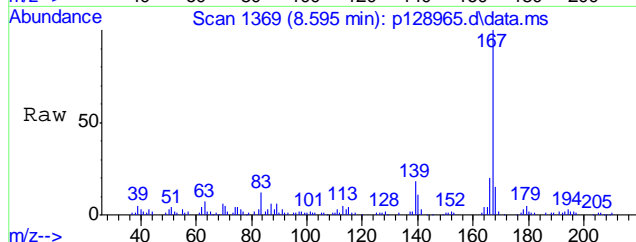
#78
 Anthracene
 Concen: 11.37 ppm
 RT: 8.328 min Scan# 1319
 Delta R.T. -0.016 min
 Lab File: p128965.d
 Acq: 11 Apr 2019 9:56 pm

Tgt Ion	Resp	Lower	Upper
178	184232	100	
179	16.3	0.0	45.7
176	18.4	0.0	49.0

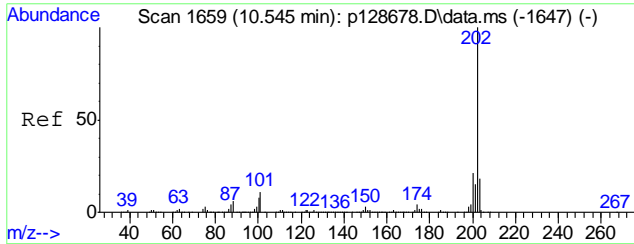


#79
 Carbazole
 Concen: 3.17 ppm
 RT: 8.595 min Scan# 1369
 Delta R.T. -0.021 min
 Lab File: p128965.d
 Acq: 11 Apr 2019 9:56 pm

Tgt Ion	Resp	Lower	Upper
167	47532	100	
166	19.2	0.0	50.6
139	17.1	0.0	44.7

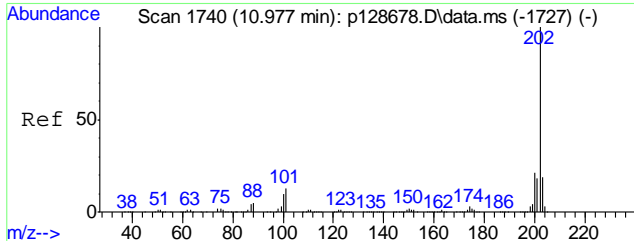
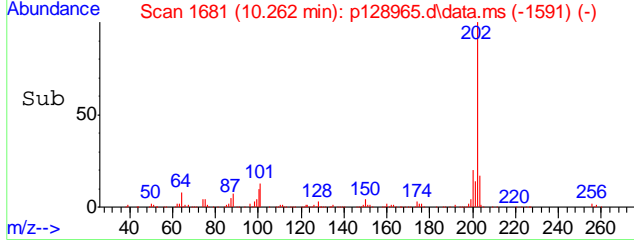
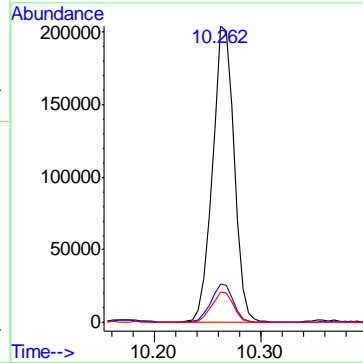
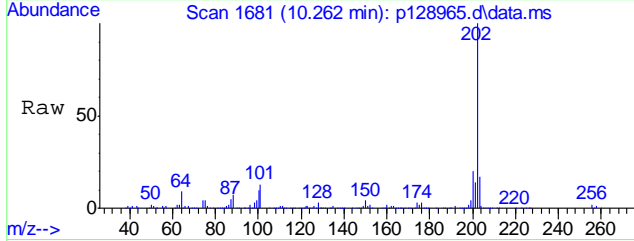


9.1.6
 9



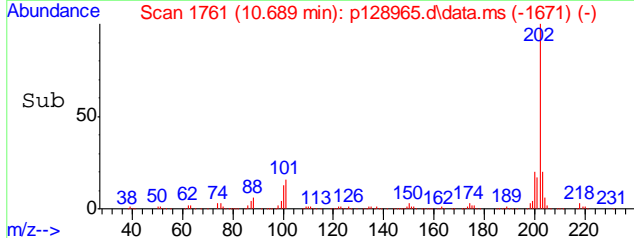
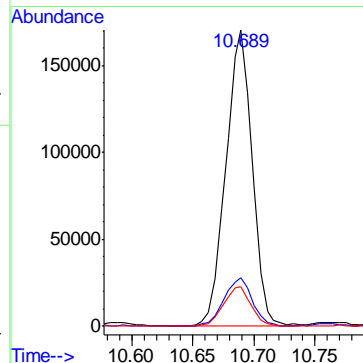
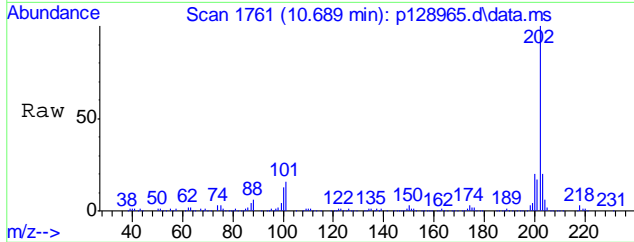
#81
 Fluoranthene
 Concen: 15.87 ppm
 RT: 10.262 min Scan# 1681
 Delta R.T. -0.021 min
 Lab File: p128965.d
 Acq: 11 Apr 2019 9:56 pm

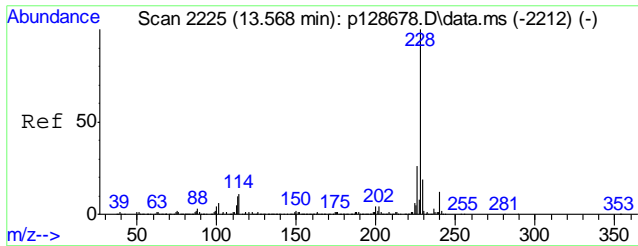
Tgt Ion	Ratio	Lower	Upper
202	100		
101	12.7	0.0	41.4
100	10.2	0.0	38.5



#84
 Pyrene
 Concen: 14.71 ppm
 RT: 10.689 min Scan# 1761
 Delta R.T. -0.021 min
 Lab File: p128965.d
 Acq: 11 Apr 2019 9:56 pm

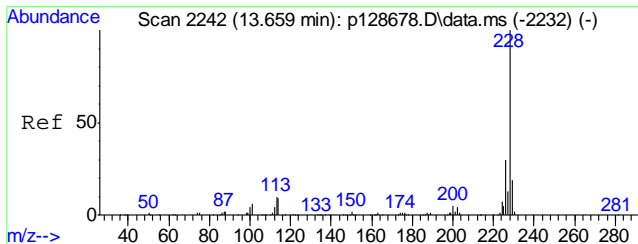
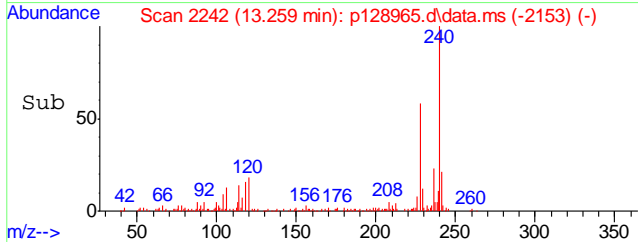
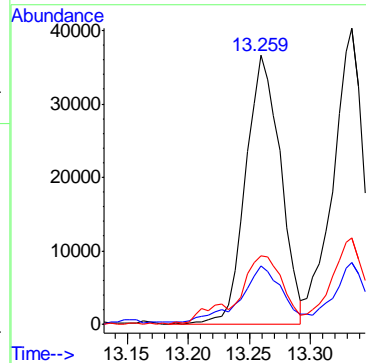
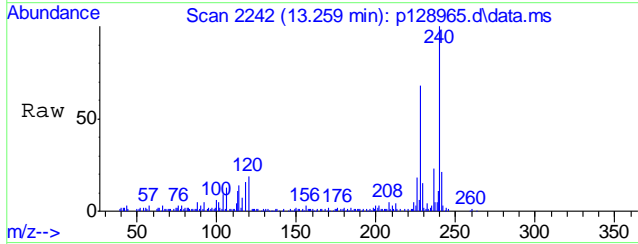
Tgt Ion	Ratio	Lower	Upper
202	100		
101	16.3	0.0	43.4
100	13.4	0.0	40.1





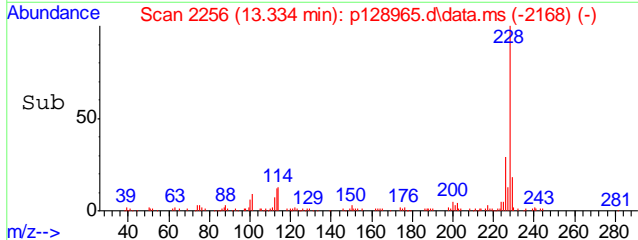
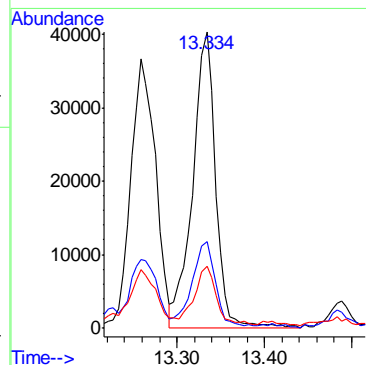
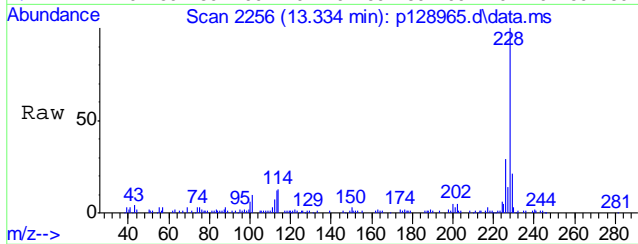
#87
 Benzo[a]anthracene
 Concen: 4.54 ppm
 RT: 13.259 min Scan# 2242
 Delta R.T. -0.027 min
 Lab File: p128965.d
 Acq: 11 Apr 2019 9:56 pm

Tgt Ion	Ratio	Lower	Upper
228	100		
229	20.4	0.0	49.6
226	25.2	0.0	57.1

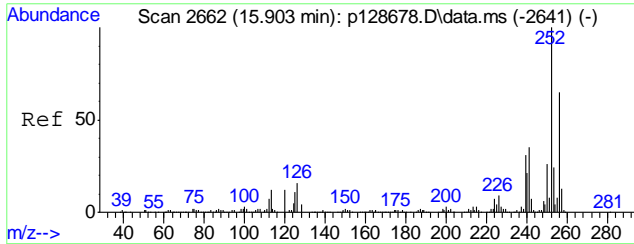


#89
 Chrysene
 Concen: 5.17 ppm
 RT: 13.334 min Scan# 2256
 Delta R.T. -0.032 min
 Lab File: p128965.d
 Acq: 11 Apr 2019 9:56 pm

Tgt Ion	Ratio	Lower	Upper
228	100		
226	28.9	0.0	59.9
229	19.4	0.0	49.2

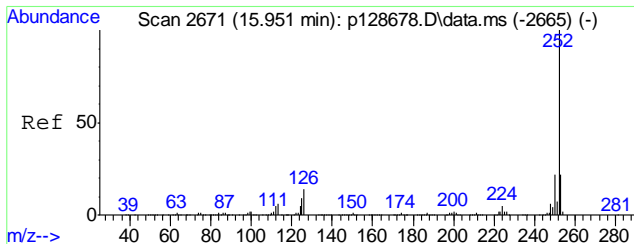
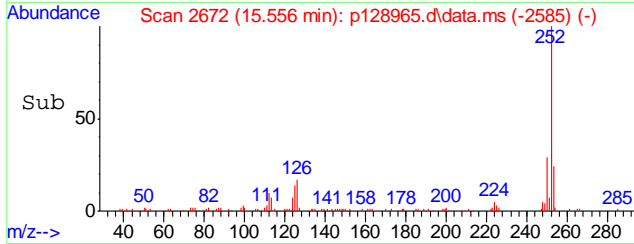
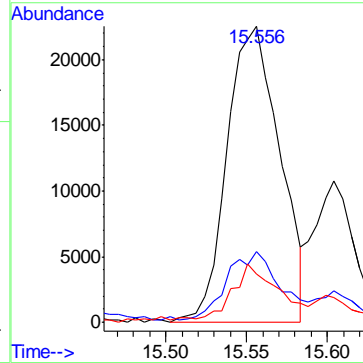
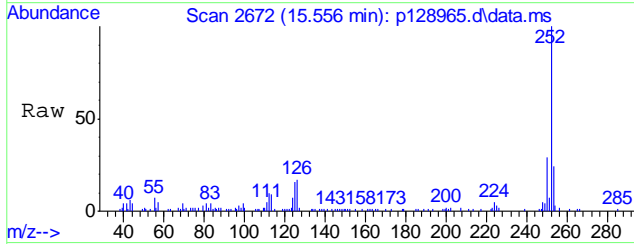


9.1.6
 9



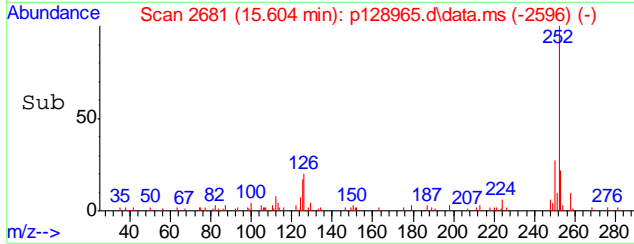
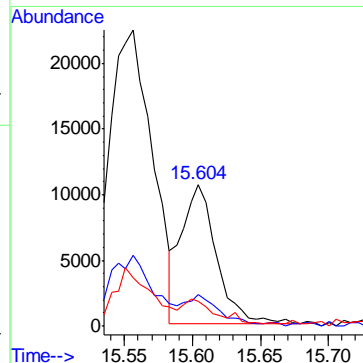
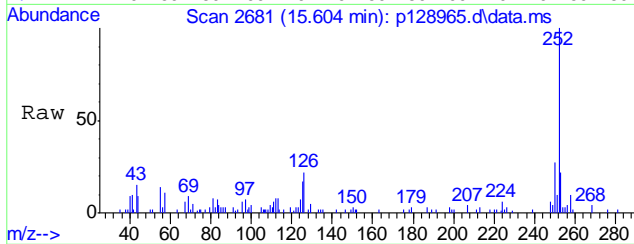
#93
 Benzo[b]fluoranthene
 Concen: 2.95 ppm
 RT: 15.556 min Scan# 2672
 Delta R.T. -0.037 min
 Lab File: p128965.d
 Acq: 11 Apr 2019 9:56 pm

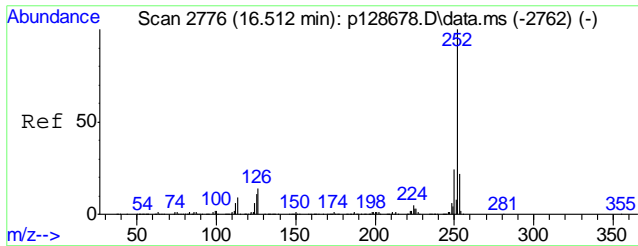
Tgt Ion	Resp	Lower	Upper
252	100		
253	23.7	0.0	53.9
125	16.3	0.0	41.5



#94
 Benzo[k]fluoranthene
 Concen: 1.29 ppm
 RT: 15.604 min Scan# 2681
 Delta R.T. -0.048 min
 Lab File: p128965.d
 Acq: 11 Apr 2019 9:56 pm

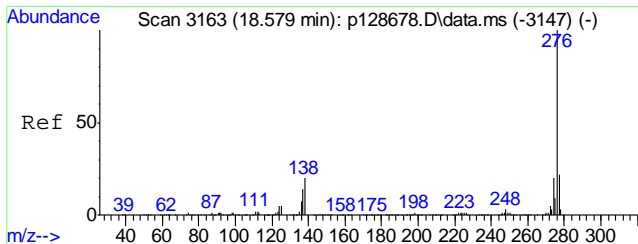
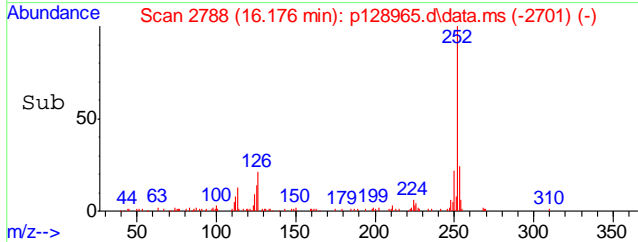
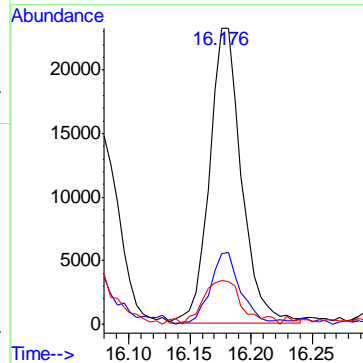
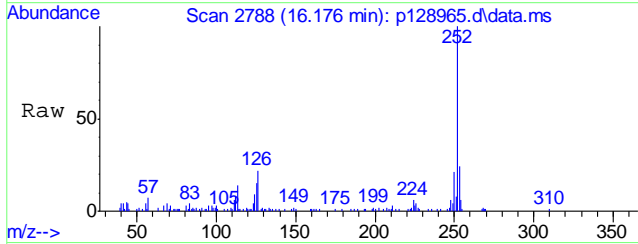
Tgt Ion	Resp	Lower	Upper
252	100		
253	18.4	0.0	53.1
125	13.3	0.0	39.4





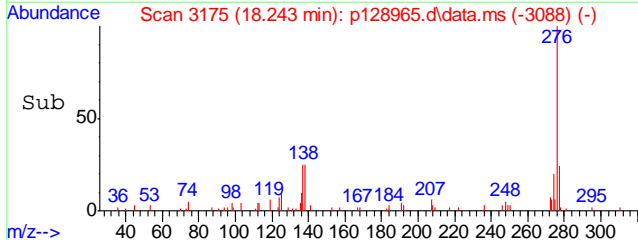
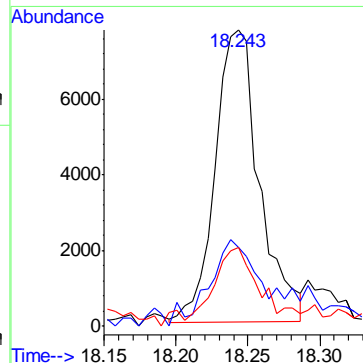
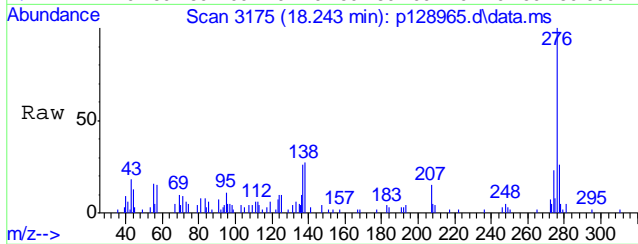
#95
 Benzo[a]pyrene
 Concen: 2.88 ppm
 RT: 16.176 min Scan# 2788
 Delta R.T. -0.038 min
 Lab File: p128965.d
 Acq: 11 Apr 2019 9:56 pm

Tgt Ion	Ratio	Lower	Upper
252	100		
253	22.7	0.0	51.1
125	13.5	0.0	40.8

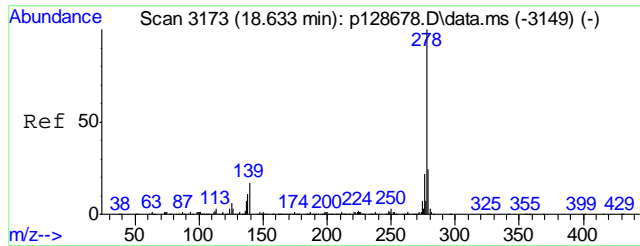


#96
 Indeno[1,2,3-cd]pyrene
 Concen: 1.25 ppm
 RT: 18.243 min Scan# 3175
 Delta R.T. -0.037 min
 Lab File: p128965.d
 Acq: 11 Apr 2019 9:56 pm

Tgt Ion	Ratio	Lower	Upper
276	100		
138	24.0	0.0	48.9
137	23.5	0.0	44.2

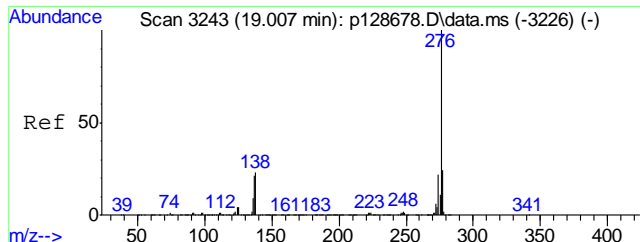
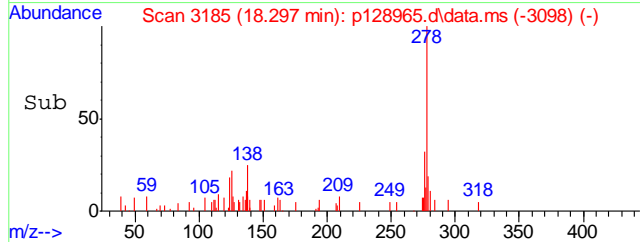
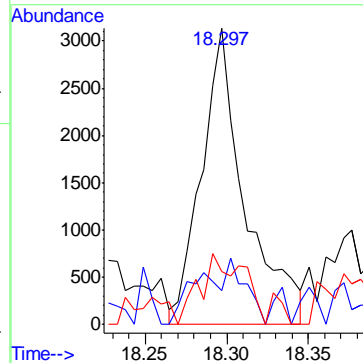
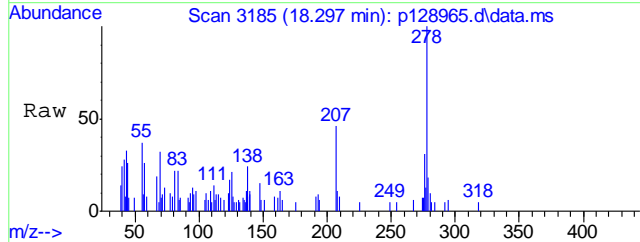


9.1.6
 9



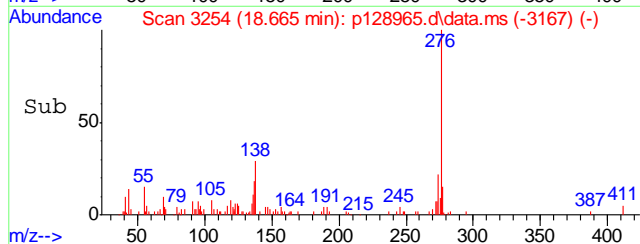
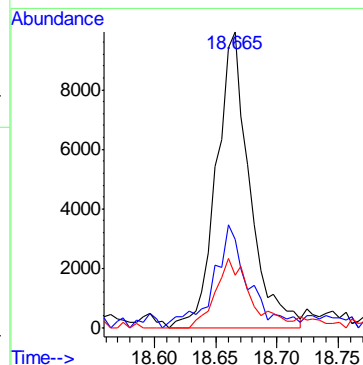
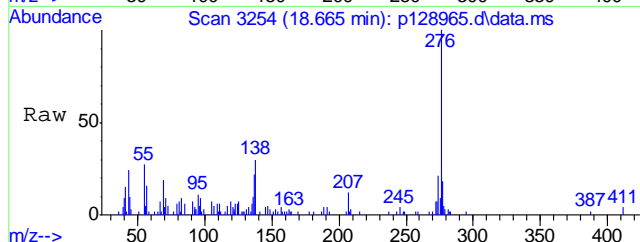
#98
 Dibenz[a,h]anthracene
 Concen: 0.43 ppm
 RT: 18.297 min Scan# 3185
 Delta R.T. -0.037 min
 Lab File: p128965.d
 Acq: 11 Apr 2019 9:56 pm

Tgt Ion	Resp	Lower	Upper
278	5772	100	
139	18.4	0.0	47.0
279	15.2	0.0	54.3



#100
 Benzo[g,h,i]perylene
 Concen: 1.46 ppm
 RT: 18.665 min Scan# 3254
 Delta R.T. -0.038 min
 Lab File: p128965.d
 Acq: 11 Apr 2019 9:56 pm

Tgt Ion	Resp	Lower	Upper
276	18824	100	
138	28.3	0.0	53.9
277	16.2	0.0	54.5



Manual Integration Approval Summary

Sample Number: JC86043-5 Method: SW846 8270D
Lab FileID: P128965.D Analyst approved: 04/15/19 00:19 Michelle Co
Injection Time: 04/11/19 21:56 Supervisor approved: 04/22/19 12:55 Kristi Schollenberger

Parameter	CAS	Sig#	R.T. (min.)	Reason
Benzo(b)fluoranthene	205-99-2		15.56	Poor instrument integration

9.1.6.1

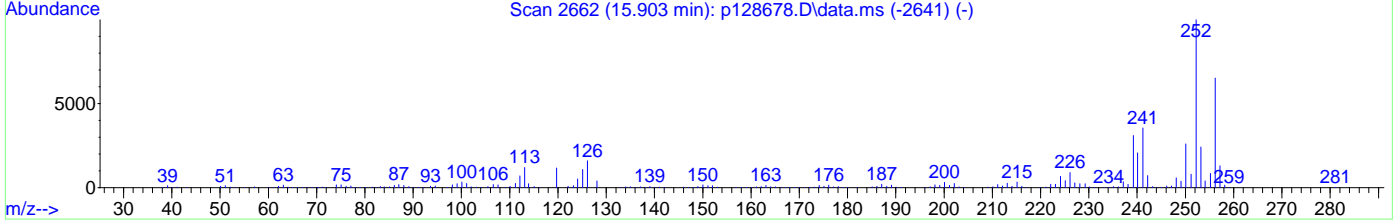
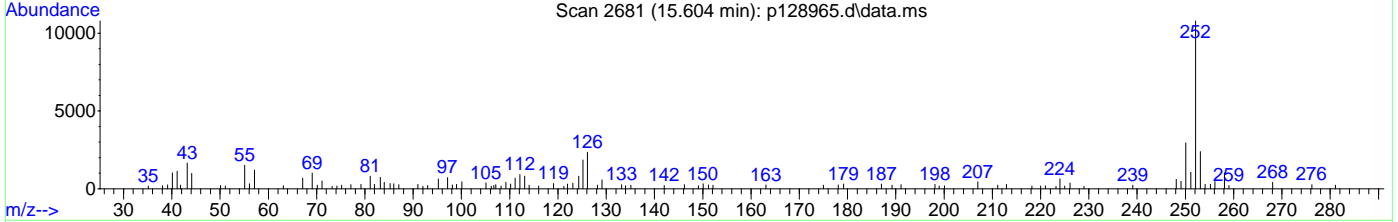
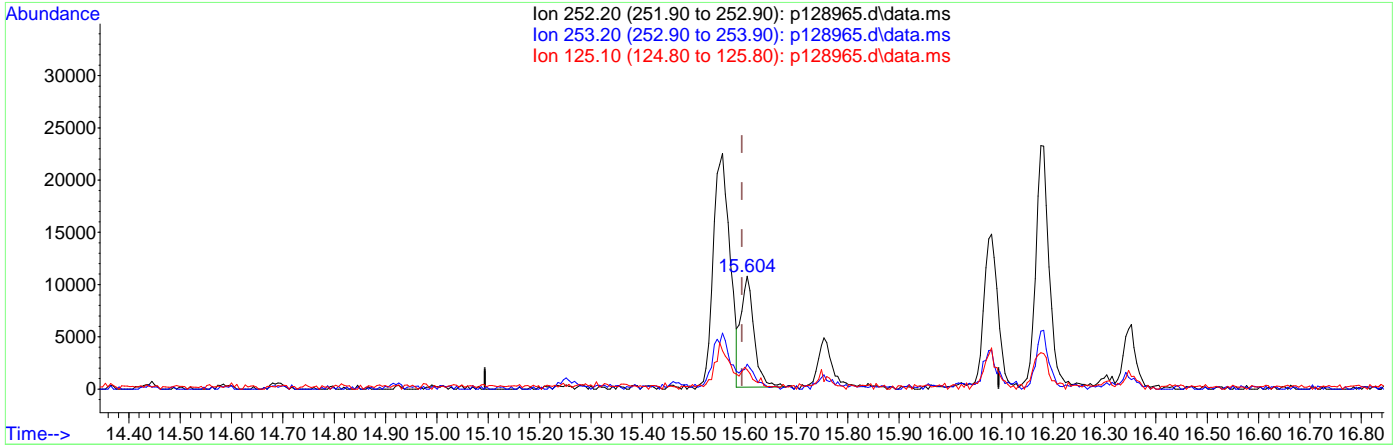
9

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\michellc\ep5836\
 Data File : p128965.d
 Acq On : 11 Apr 2019 9:56 pm
 Operator : christc2
 Sample : jc86043-5
 Misc : op19673,ep5836,32.0,,,1,50
 ALS Vial : 16 Sample Multiplier: 1

Inst : MSVOAMSP

Quant Method : C:\MSDCHEM\1\METHODS\MP5819.M
 Quant Results File: MP5819.RES
 Quant Time: Apr 14 23:28:40 2019
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Sun Apr 14 23:26:36 2019
 Response via : Initial Calibration



TIC: p128965.d\data.ms

(93) Benzo[b]fluoranthene (t)		
15.604min (+0.011) 1.09ppm		
response 18913		
Ion	Exp%	Act%
252.20	100	100
253.20	23.90	18.42
125.10	11.50	13.28
0.00	0.00	0.00

9.1.6.2
9



Quantitation Report (QT/LSC Reviewed)

Data Path : C:\msdchem\1\DATA\EP5835\
 Data File : p128929.D
 Acq On : 11 Apr 2019 2:30 am
 Operator : chriss2
 Sample : op19673-mb1
 Misc : op19673,ep5835,30.0,,,1,1
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Apr 11 11:04:37 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MP5819.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Tue Apr 09 07:59:45 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.279	152	184222	40.00	ppm	-0.11
24) Naphthalene-d8	5.214	136	713763	40.00	ppm	-0.11
47) Acenaphthene-d10	6.544	164	409968	40.00	ppm	-0.13
69) Phenanthrene-d10	8.237	188	692688	40.00	ppm	-0.20
83) Chrysene-d12	13.307	240	560249	40.00	ppm	-0.27
91) Perylene-d12	16.331	264	600376	40.00	ppm	-0.29
101) 1,4-Dichlorobenzene-d4b	4.279	152	184222	40.00	ppm	-0.10
103) Phenanthrene-d10b	8.237	188	692688	40.00	ppm	-0.18
105) Chrysene-d12b	13.307	240	560249	40.00	ppm	-0.24
107) Naphthalene-d8b	5.214	136	713763	40.00	ppm	-0.10
109) Acenaphthene-d10b	6.544	164	409968	40.00	ppm	-0.12
System Monitoring Compounds						
5) 2-Fluorophenol	3.317	112	239344	34.68	ppm	-0.13
Spiked Amount	50.000		Recovery	=	69.36%	
8) Phenol-d5	4.065	99	337893	36.53	ppm	-0.13
Spiked Amount	50.000		Recovery	=	73.06%	
25) Nitrobenzene-d5	4.695	82	418738	44.93	ppm	-0.11
Spiked Amount	50.000		Recovery	=	89.86%	
51) 2-Fluorobiphenyl	5.999	172	620191	42.38	ppm	-0.11
Spiked Amount	50.000		Recovery	=	84.76%	
73) 2,4,6-Tribromophenol	7.345	330	69130	36.00	ppm	-0.17
Spiked Amount	50.000		Recovery	=	72.00%	
85) Terphenyl-d14	11.143	244	631411	45.63	ppm	-0.23
Spiked Amount	50.000		Recovery	=	91.26%	
Target Compounds						
53) Biphenyl	6.074	154	1437	0.09	ppm	87

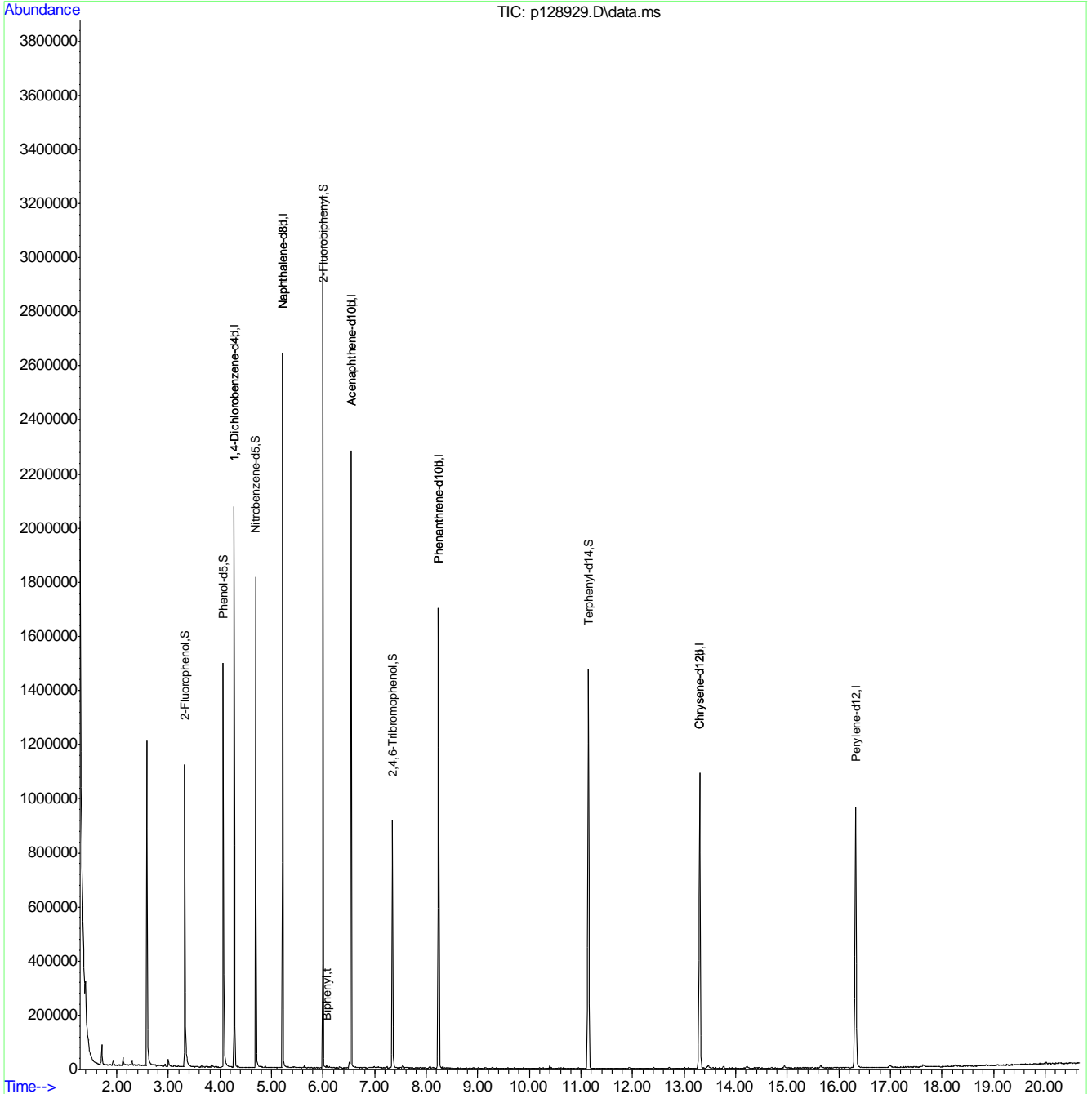
(#) = qualifier out of range (m) = manual integration (+) = signals summed

9.2.1
9

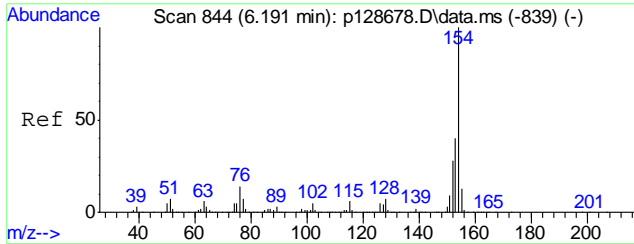
Quantitation Report (QT/LSC Reviewed)

Data Path : C:\msdchem\1\DATA\EP5835\
 Data File : p128929.D
 Acq On : 11 Apr 2019 2:30 am
 Operator : chriss2
 Sample : op19673-mb1
 Misc : op19673,ep5835,30.0,,,1,1
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Apr 11 11:04:37 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MP5819.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Tue Apr 09 07:59:45 2019
 Response via : Initial Calibration

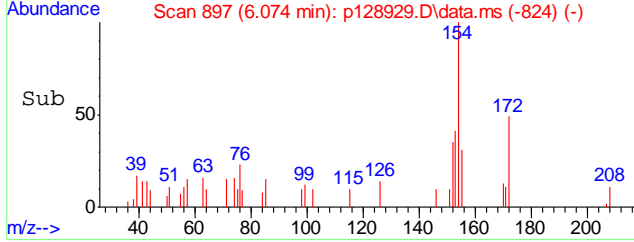
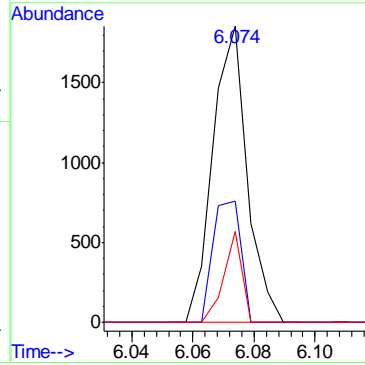
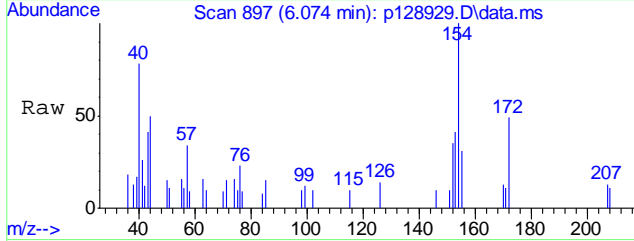


9.2.1
9



#53
 Biphenyl
 Concen: 0.09 ppm
 RT: 6.074 min Scan# 897
 Delta R.T. -0.112 min
 Lab File: p128929.D
 Acq: 11 Apr 2019 2:30 am

Tgt Ion	Resp	Lower	Upper
154	1437		
153	40.8	9.5	69.5
155	30.6	0.0	43.2



9.2.1
 9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3822\
 Data File : 2p86455.D
 Acq On : 11 Apr 2019 5:05 am
 Operator : chriss2
 Sample : op19672-mb1
 Misc : op19672,e2p3822,30.0,,,1,1
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Apr 11 10:25:48 2019
 Quant Method : C:\MSDCHEM\1\METHODS\M2P3816.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Fri Apr 05 14:12:48 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.734	152	629264	40.00	ppm	-0.10
24) Naphthalene-d8	5.766	136	2287196	40.00	ppm	-0.11
47) Acenaphthene-d10	7.205	164	1148033	40.00	ppm	-0.11
69) Phenanthrene-d10	8.478	188	1917396	40.00	ppm	-0.13
83) Chrysene-d12	11.714	240	1503339	40.00	ppm	-0.18
91) Perylene-d12	13.698	264	1514445	40.00	ppm	-0.20
101) 1,4-Dichlorobenzene-d4a	4.734	152	629264	40.00	ppm	-0.10
103) Naphthalene-d8a	5.766	136	2287196	40.00	ppm	#-0.11
105) Acenaphthene-d10a	7.205	164	1148033	40.00	ppm	-0.11
108) Chrysene-d12a	11.714	240	1503339	40.00	ppm	-0.18
110) Phenanthrene-d10a	8.478	188	1917396	40.00	ppm	-0.13
System Monitoring Compounds						
5) 2-Fluorophenol	3.696	112	1089710	34.41	ppm	-0.09
Spiked Amount	50.000	Range	11 - 58	Recovery	=	68.82%#
8) Phenol-d5	4.483	99	1373390	39.57	ppm	-0.10
Spiked Amount	50.000	Range	10 - 59	Recovery	=	79.14%#
25) Nitrobenzene-d5	5.189	82	1388460	45.16	ppm	-0.10
Spiked Amount	50.000	Range	19 - 61	Recovery	=	90.32%#
51) 2-Fluorobiphenyl	6.654	172	1910148	48.07	ppm	-0.11
Spiked Amount	50.000	Range	21 - 58	Recovery	=	96.14%#
73) 2,4,6-Tribromophenol	7.852	330	238992	35.54	ppm	-0.12
Spiked Amount	50.000	Range	12 - 68	Recovery	=	71.08%#
85) Terphenyl-d14	10.297	244	1861562	49.76	ppm	-0.16
Spiked Amount	50.000	Range	16 - 65	Recovery	=	99.52%#
111) 1-Chlorooctadecane	0.000	57	0d	0.00	ppm	
Spiked Amount	50.000	Range	20 - 70	Recovery	=	0.00%#
112) o-terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount	50.000	Range	20 - 70	Recovery	=	0.00%#
Target Compounds						
53) Biphenyl	6.734	154	4228	0.09	ppm	Qvalue 93

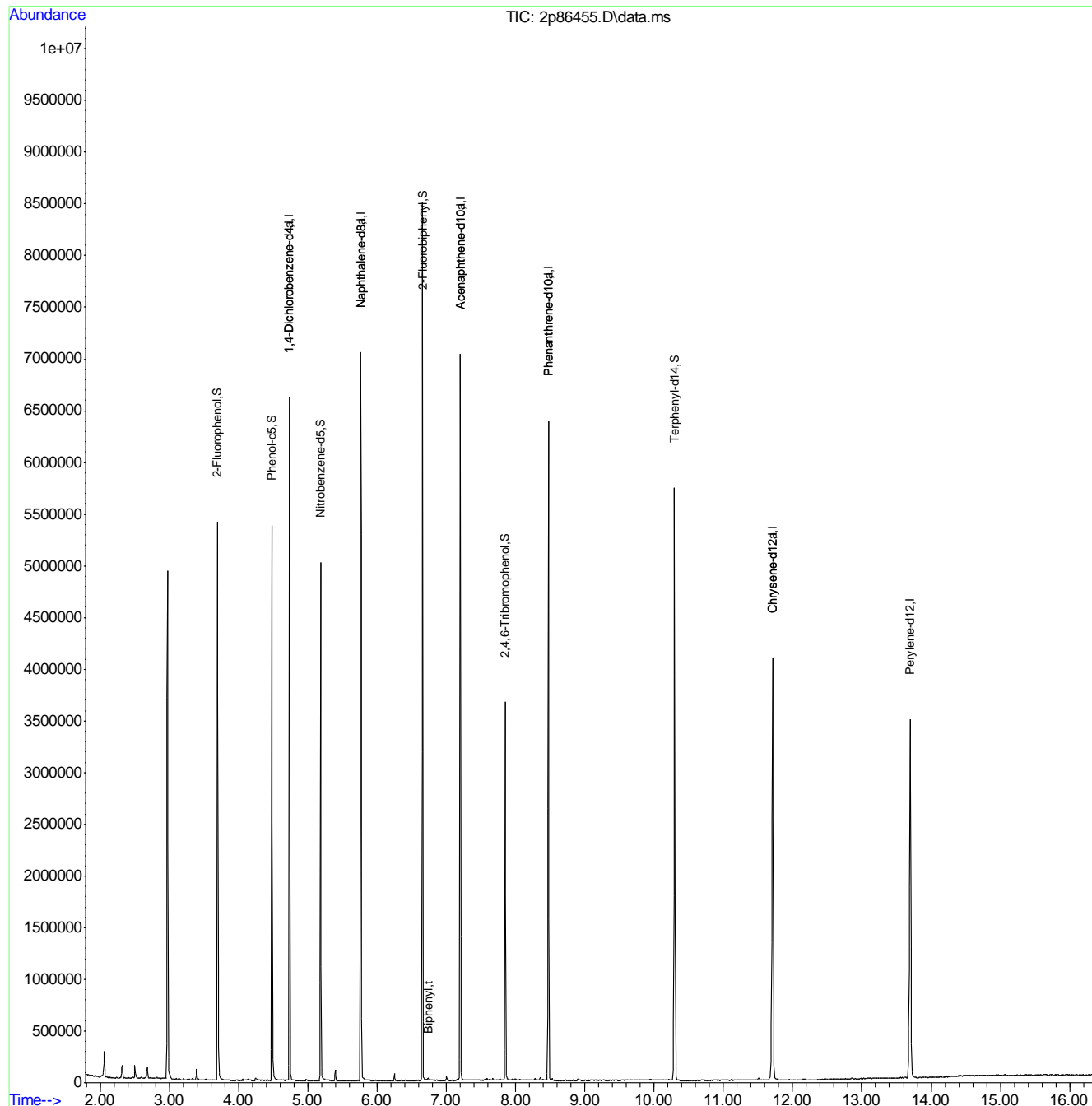
(#) = qualifier out of range (m) = manual integration (+) = signals summed

9.22
9

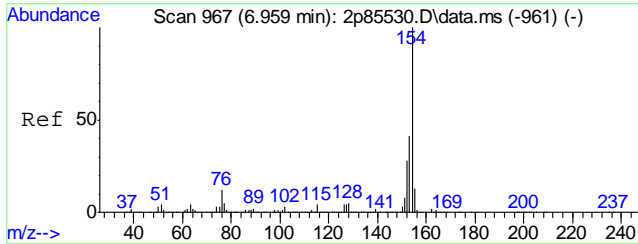
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3822\
 Data File : 2p86455.D
 Acq On : 11 Apr 2019 5:05 am
 Operator : chriss2
 Sample : op19672-mb1
 Misc : op19672,e2p3822,30.0,,,1,1
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Apr 11 10:25:48 2019
 Quant Method : C:\MSDCHEM\1\METHODS\M2P3816.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Fri Apr 05 14:12:48 2019
 Response via : Initial Calibration

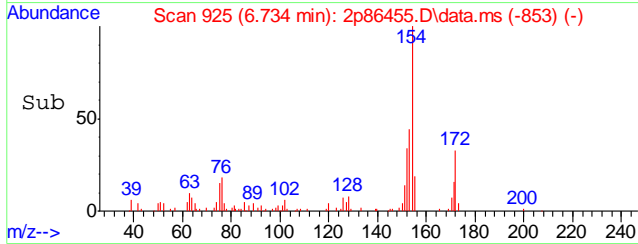
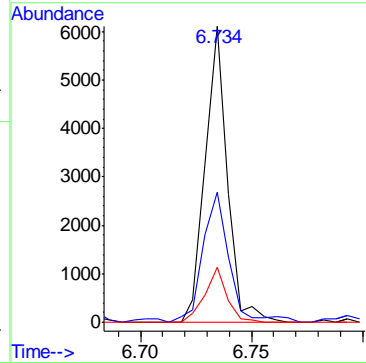
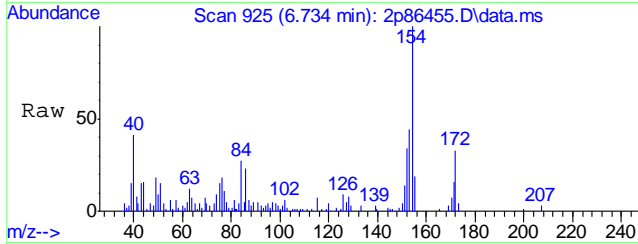


9.2.2
9



#53
 Biphenyl
 Concen: 0.09 ppm
 RT: 6.734 min Scan# 925
 Delta R.T. -0.113 min
 Lab File: 2p86455.D
 Acq: 11 Apr 2019 5:05 am

Tgt Ion	Resp	Lower	Upper
154	4228		
153	44.0	11.1	71.1
155	18.6	0.0	43.4



9.2.2
9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5835\
 Data File : p128930.D
 Acq On : 11 Apr 2019 2:56 am
 Operator : chriss2
 Sample : op19673-bs1
 Misc : op19673,ep5835,30.0,,,1,1
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Apr 11 11:07:36 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MP5819.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Thu Apr 11 11:05:43 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
Internal Standards							
1) 1,4-Dichlorobenzene-d4	4.279	152	156860	40.00	ppm	-0.11	
24) Naphthalene-d8	5.219	136	577430	40.00	ppm	-0.10	
47) Acenaphthene-d10	6.544	164	346953	40.00	ppm	-0.13	
69) Phenanthrene-d10	8.243	188	568259	40.00	ppm	-0.20	
83) Chrysene-d12	13.318	240	499410	40.00	ppm	-0.26	
91) Perylene-d12	16.331	264	534698	40.00	ppm	-0.29	
101) 1,4-Dichlorobenzene-d4b	4.279	152	156860	40.00	ppm	-0.10	
103) Phenanthrene-d10b	8.243	188	568259	40.00	ppm	-0.18	
105) Chrysene-d12b	13.318	240	499410	40.00	ppm	-0.23	
107) Naphthalene-d8b	5.219	136	577430	40.00	ppm	-0.10	
109) Acenaphthene-d10b	6.544	164	346953	40.00	ppm	-0.12	
System Monitoring Compounds							
5) 2-Fluorophenol	3.317	112	228279	38.85	ppm	-0.13	
Spiked Amount	50.000		Recovery	=	77.70%		
8) Phenol-d5	4.071	99	293315	37.24	ppm	-0.12	
Spiked Amount	50.000		Recovery	=	74.48%		
25) Nitrobenzene-d5	4.701	82	337237	44.73	ppm	-0.10	
Spiked Amount	50.000		Recovery	=	89.46%		
51) 2-Fluorobiphenyl	5.999	172	488729	39.46	ppm	-0.11	
Spiked Amount	50.000		Recovery	=	78.92%		
73) 2,4,6-Tribromophenol	7.351	330	58609	37.21	ppm	-0.16	
Spiked Amount	50.000		Recovery	=	74.42%		
85) Terphenyl-d14	11.144	244	518131	42.01	ppm	-0.23	
Spiked Amount	50.000		Recovery	=	84.02%		
Target Compounds							
2) 1,4-Dioxane	1.731	88	72923	25.65	ppm		Qvalue 97
3) Pyridine	2.040	79	232174	32.36	ppm		95
4) N-Nitrosodimethylamine	2.024	42	169386	43.04	ppm		79
6) Indene	4.471	116	381097	39.31	ppm		98
7) Cumene	3.670	105	617496	37.78	ppm		98
9) Phenol	4.081	94	314692	36.71	ppm		90
10) Aniline	4.044	93	230340	24.78	ppm		87
11) bis(2-Chloroethyl)ether	4.092	93	232256	35.69	ppm		90
12) 2-Chlorophenol	4.140	128	214606	37.17	ppm		89
13) Decane	4.172	43	258194	42.74	ppm		90
14) 1,3-Dichlorobenzene	4.236	146	231653	35.32	ppm		98
15) 1,4-Dichlorobenzene	4.295	146	232209	36.01	ppm		99
16) Benzyl alcohol	4.407	108	153314	39.58	ppm		90
17) 1,2-Dichlorobenzene	4.407	146	232302	36.20	ppm		100
18) Acetophenone	4.589	105	337389	36.43	ppm		99
19) 2-Methylphenol	4.514	108	204419	36.56	ppm		96
20) 2,2'-oxybis(1-Chloropr...	4.493	121	66768	41.29	ppm	#	77
21) 3&4-Methylphenol	4.626	108	221970	36.80	ppm		100
22) n-Nitroso-di-n-propyla...	4.599	70	184734	38.11	ppm		92
23) Hexachloroethane	4.653	201	82841	35.97	ppm		94
26) Nitrobenzene	4.712	77	318606	40.23	ppm		93
27) Quinoline	5.481	129	429967	37.83	ppm		99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5835\
 Data File : p128930.D
 Acq On : 11 Apr 2019 2:56 am
 Operator : chriss2
 Sample : op19673-bs1
 Misc : op19673,ep5835,30.0,,,1,1
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Apr 11 11:07:36 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MP5819.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Thu Apr 11 11:05:43 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
28) Isophorone	4.888	82	561109	41.22	ppm	95
29) 2-Nitrophenol	4.947	139	114059	36.12	ppm #	51
30) 2,4-Dimethylphenol	5.005	107	276571	44.57	ppm	98
31) Benzoic acid	5.139	105	215657	43.73	ppm	85
32) bis(2-Chloroethoxy)met...	5.053	93	292423	40.27	ppm	98
33) 2,4-Dichlorophenol	5.139	162	181334	36.36	ppm	96
34) 2,6-Dichlorophenol	5.294	162	174391	37.10	ppm	98
36) 1,2,4-Trichlorobenzene	5.182	180	188103	36.61	ppm	98
38) Naphthalene	5.235	128	593375	38.87	ppm	99
39) 4-Chloroaniline	5.289	127	106134	16.63	ppm	85
40) 2,3-Dichloroaniline	5.940	161	183950	29.42	ppm	94
41) Caprolactam	5.566	55	135350	36.55	ppm	97
42) Hexachlorobutadiene	5.326	225	126270	39.18	ppm	98
43) 4-Chloro-3-methylphenol	5.662	107	231842	38.76	ppm #	39
44) 2-Methylnaphthalene	5.732	141	335979	37.17	ppm	93
45) 1-Methylnaphthalene	5.807	142	409661	35.21	ppm	96
46) Dimethylnaphthalene	6.197	156	360357	34.55	ppm	96
48) Hexachlorocyclopentadiene	5.849	237	236107	79.58	ppm	99
49) 2,4,6-Trichlorophenol	5.951	196	128789	37.09	ppm	99
50) 2,4,5-Trichlorophenol	5.994	196	136323	35.83	ppm	99
52) 2-Chloronaphthalene	6.090	162	358884	35.22	ppm	97
53) Biphenyl	6.074	154	503140	36.37	ppm	100
54) 2-Nitroaniline	6.181	65	190016	41.66	ppm	84
55) Dimethylphthalate	6.320	163	456634	35.69	ppm	99
56) Acenaphthylene	6.421	152	620432	36.73	ppm	99
57) 2,6-Dinitrotoluene	6.373	165	97051	35.68	ppm	89
58) 3-Nitroaniline	6.523	138	63326	21.31	ppm	94
59) Acenaphthene	6.576	153	381798	37.29	ppm	100
60) 2,4-Dinitrophenol	6.619	184	88675	66.09	ppm	90
61) 4-Nitrophenol	6.726	109	102246	42.39	ppm #	64
62) Dibenzofuran	6.736	168	527262	35.00	ppm	95
63) 2,4-Dinitrotoluene	6.736	165	135143	34.34	ppm	75
64) 2,3,4,6-Tetrachlorophenol	6.870	232	103488	34.70	ppm	96
65) Diethylphthalate	6.971	149	491708	36.14	ppm	99
66) Fluorene	7.078	166	477928	37.67	ppm	97
67) 4-Chlorophenyl-phenyle...	7.078	204	233673	36.55	ppm	81
68) 4-Nitroaniline	7.132	138	98158	35.62	ppm	91
70) 4,6-Dinitro-2-methylph...	7.158	198	68762	38.19	ppm	77
71) n-Nitrosodiphenylamine	7.217	169	312969	39.60	ppm	99
72) 1,2-Diphenylhydrazine	7.254	77	690364	45.91	ppm	94
74) 4-Bromophenyl-phenylether	7.644	248	130434	39.27	ppm	88
75) Hexachlorobenzene	7.730	284	128697	37.47	ppm	95
76) Pentachlorophenol	8.013	266	77531	41.96	ppm	95
77) Phenanthrene	8.280	178	620353	39.33	ppm	99
78) Anthracene	8.355	178	649258	38.66	ppm	99
79) Carbazole	8.627	167	614746	39.50	ppm	99
80) Di-n-butylphthalate	9.285	149	882504	38.33	ppm	99
81) Fluoranthene	10.294	202	754977	39.65	ppm	96
82) Octadecane	8.168	57	396975	44.31	ppm	90
84) Pyrene	10.716	202	752532	40.31	ppm	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5835\
 Data File : p128930.D
 Acq On : 11 Apr 2019 2:56 am
 Operator : chriss2
 Sample : op19673-bs1
 Misc : op19673,ep5835,30.0,,,1,1
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Apr 11 11:07:36 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MP5819.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Thu Apr 11 11:05:43 2019
 Response via : Initial Calibration

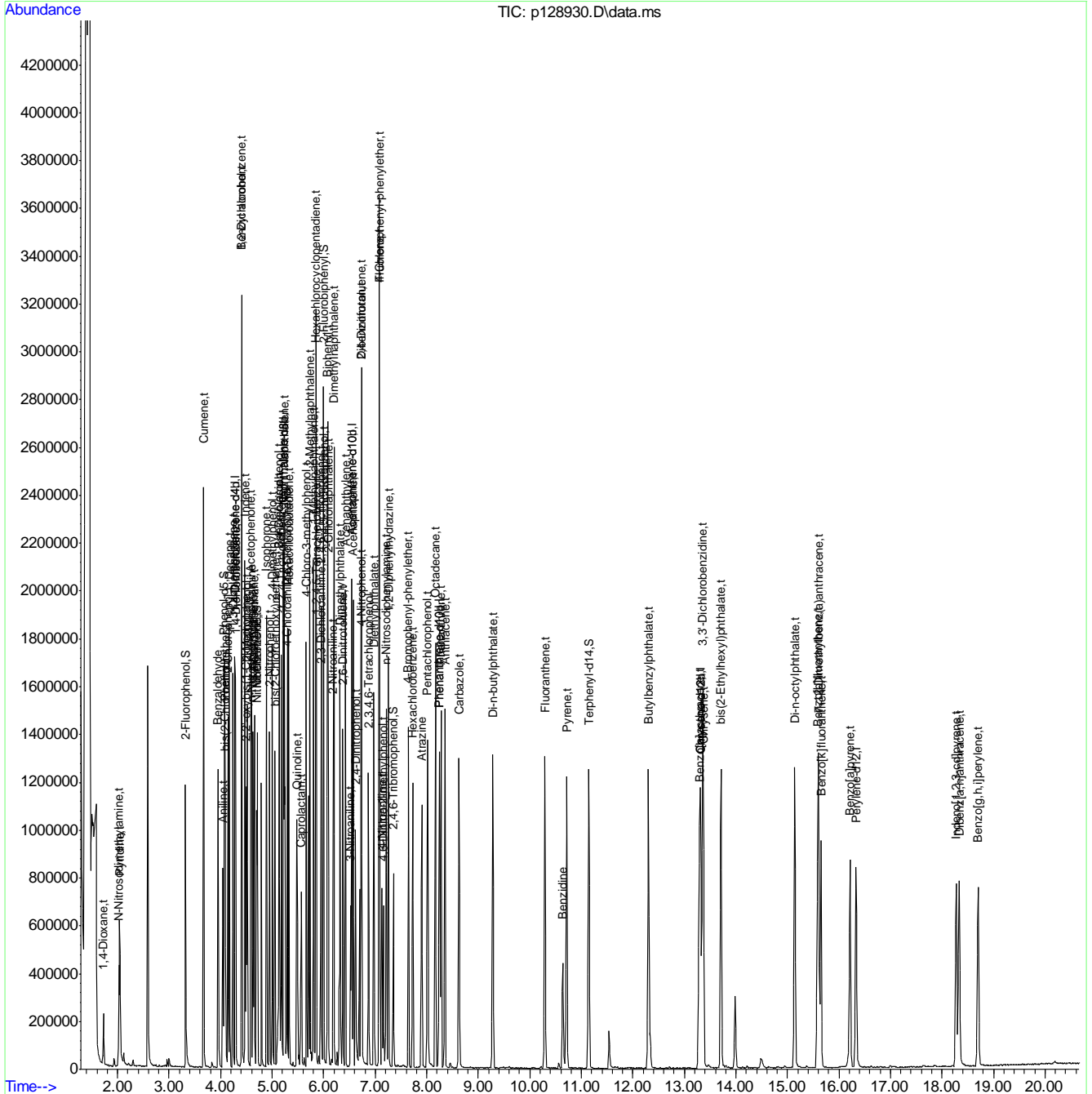
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
86) Butylbenzylphthalate	12.303	149	401726	39.99	ppm	96
87) Benzo[a]anthracene	13.291	228	665803	38.74	ppm	100
88) 3,3'-Dichlorobenzidine	13.355	252	315041	58.10	ppm	96
89) Chrysene	13.371	228	588111	38.61	ppm	98
90) bis(2-Ethylhexyl)phtha...	13.708	149	535107	38.67	ppm	94
92) Di-n-octylphthalate	15.140	149	940494	36.96	ppm	94
93) Benzo[b]fluoranthene	15.594	252	639654	36.02	ppm	97
94) Benzo[k]fluoranthene	15.652	252	581487	38.57	ppm	99
95) Benzo[a]pyrene	16.213	252	579234	38.75	ppm	98
96) Indeno[1,2,3-cd]pyrene	18.276	276	545896	40.30	ppm	89
98) Dibenz[a,h]anthracene	18.334	278	524619	37.94	ppm	98
99) 7,12-Dimethylbenz(a)an...	15.604	256	273088	37.41	ppm	96
100) Benzo[g,h,i]perylene	18.703	276	539442	41.05	ppm	97
102) Benzaldehyde	3.948	105	167373	33.27	ppm	92
104) Atrazine	7.906	200	137907	42.26	ppm	99
106) Benzidine	10.641	184	245981	21.00	ppm	99
110) 1,2,4,5-Tetrachloroben...	5.860	216	196358	40.07	ppm	98

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5835\
Data File : p128930.D
Acq On : 11 Apr 2019 2:56 am
Operator : chriss2
Sample : op19673-bs1
Misc : op19673,ep5835,30.0,,,1,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Apr 11 11:07:36 2019
Quant Method : C:\MSDCHEM\1\METHODS\MP5819.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Thu Apr 11 11:05:43 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5835\
 Data File : p128931.D
 Acq On : 11 Apr 2019 3:23 am
 Operator : chriss2
 Sample : op19673-bsd
 Misc : op19673,ep5835,30.0,,,1,1
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Apr 11 11:10:54 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MP5819.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Thu Apr 11 11:09:38 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.279	152	167399	40.00	ppm	-0.11
24) Naphthalene-d8	5.219	136	630923	40.00	ppm	-0.10
47) Acenaphthene-d10	6.544	164	381544	40.00	ppm	-0.13
69) Phenanthrene-d10	8.243	188	642084	40.00	ppm	-0.20
83) Chrysene-d12	13.318	240	567478	40.00	ppm	-0.26
91) Perylene-d12	16.336	264	606442	40.00	ppm	-0.28
101) 1,4-Dichlorobenzene-d4b	4.279	152	167399	40.00	ppm	-0.10
103) Phenanthrene-d10b	8.243	188	642084	40.00	ppm	-0.18
105) Chrysene-d12b	13.318	240	567478	40.00	ppm	-0.23
107) Naphthalene-d8b	5.219	136	630923	40.00	ppm	-0.10
109) Acenaphthene-d10b	6.544	164	381544	40.00	ppm	-0.12
System Monitoring Compounds						
5) 2-Fluorophenol	3.317	112	240676	38.38	ppm	-0.13
Spiked Amount	50.000		Recovery	=	76.76%	
8) Phenol-d5	4.071	99	317920	37.82	ppm	-0.12
Spiked Amount	50.000		Recovery	=	75.64%	
25) Nitrobenzene-d5	4.701	82	357542	43.40	ppm	-0.10
Spiked Amount	50.000		Recovery	=	86.80%	
51) 2-Fluorobiphenyl	5.999	172	528679	38.81	ppm	-0.11
Spiked Amount	50.000		Recovery	=	77.62%	
73) 2,4,6-Tribromophenol	7.351	330	65310	36.70	ppm	-0.16
Spiked Amount	50.000		Recovery	=	73.40%	
85) Terphenyl-d14	11.149	244	576230	41.11	ppm	-0.22
Spiked Amount	50.000		Recovery	=	82.22%	
Target Compounds						
2) 1,4-Dioxane	1.720	88	76903	25.35	ppm	Qvalue 100
3) Pyridine	2.030	79	225777	29.48	ppm	94
4) N-Nitrosodimethylamine	2.014	42	179394	42.71	ppm	82
6) Indene	4.471	116	405016	39.15	ppm	99
7) Cumene	3.670	105	648370	37.17	ppm	99
9) Phenol	4.076	94	337994	36.95	ppm	87
10) Aniline	4.044	93	157821	15.91	ppm	67
11) bis(2-Chloroethyl)ether	4.092	93	247034	35.57	ppm	91
12) 2-Chlorophenol	4.140	128	228905	37.15	ppm	93
13) Decane	4.172	43	263979	40.52	ppm	92
14) 1,3-Dichlorobenzene	4.236	146	246579	35.23	ppm	98
15) 1,4-Dichlorobenzene	4.295	146	250217	36.36	ppm	98
16) Benzyl alcohol	4.407	108	155274	37.56	ppm	95
17) 1,2-Dichlorobenzene	4.407	146	249844	36.48	ppm	100
18) Acetophenone	4.589	105	360589	36.48	ppm	99
19) 2-Methylphenol	4.514	108	222716	37.33	ppm	99
20) 2,2'-oxybis(1-Chloropr...	4.493	121	72648	42.09	ppm	# 79
21) 3&4-Methylphenol	4.626	108	239689	37.23	ppm	99
22) n-Nitroso-di-n-propyla...	4.599	70	198509	38.37	ppm	93
23) Hexachloroethane	4.653	201	86433	35.17	ppm	98
26) Nitrobenzene	4.712	77	339010	39.18	ppm	93
27) Quinoline	5.476	129	465895	37.51	ppm	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5835\
 Data File : p128931.D
 Acq On : 11 Apr 2019 3:23 am
 Operator : chriss2
 Sample : op19673-bsd
 Misc : op19673,ep5835,30.0,,,1,1
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Apr 11 11:10:54 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MP5819.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Thu Apr 11 11:09:38 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
28) Isophorone	4.888	82	605766	40.72	ppm	95
29) 2-Nitrophenol	4.947	139	124125	35.98	ppm	# 50
30) 2,4-Dimethylphenol	5.005	107	297542	43.89	ppm	97
31) Benzoic acid	5.139	105	227831	42.28	ppm	83
32) bis(2-Chloroethoxy)met...	5.053	93	311707	39.29	ppm	97
33) 2,4-Dichlorophenol	5.139	162	199566	36.62	ppm	99
34) 2,6-Dichlorophenol	5.294	162	194199	37.81	ppm	99
36) 1,2,4-Trichlorobenzene	5.182	180	205554	36.61	ppm	98
38) Naphthalene	5.235	128	638780	38.30	ppm	99
39) 4-Chloroaniline	5.289	127	75734	10.86	ppm	84
40) 2,3-Dichloroaniline	5.940	161	184394	26.99	ppm	94
41) Caprolactam	5.566	55	147735	36.51	ppm	96
42) Hexachlorobutadiene	5.326	225	136565	38.78	ppm	98
43) 4-Chloro-3-methylphenol	5.662	107	253159	38.74	ppm	# 37
44) 2-Methylnaphthalene	5.732	141	359861	36.44	ppm	95
45) 1-Methylnaphthalene	5.801	142	440109	34.62	ppm	94
46) Dimethylnaphthalene	6.197	156	397723	34.90	ppm	98
48) Hexachlorocyclopentadiene	5.849	237	259425	79.52	ppm	97
49) 2,4,6-Trichlorophenol	5.951	196	143547	37.59	ppm	97
50) 2,4,5-Trichlorophenol	5.994	196	153883	36.78	ppm	96
52) 2-Chloronaphthalene	6.090	162	401996	35.88	ppm	98
53) Biphenyl	6.074	154	554843	36.47	ppm	99
54) 2-Nitroaniline	6.181	65	201624	40.19	ppm	89
55) Dimethylphthalate	6.320	163	507053	36.04	ppm	100
56) Acenaphthylene	6.421	152	675977	36.39	ppm	99
57) 2,6-Dinitrotoluene	6.373	165	107429	35.92	ppm	85
58) 3-Nitroaniline	6.523	138	43143	13.20	ppm	98
59) Acenaphthene	6.576	153	421202	37.41	ppm	100
60) 2,4-Dinitrophenol	6.619	184	96927	65.73	ppm	93
61) 4-Nitrophenol	6.726	109	109701	41.36	ppm	# 52
62) Dibenzofuran	6.731	168	573223	34.60	ppm	86
63) 2,4-Dinitrotoluene	6.736	165	147961	34.19	ppm	79
64) 2,3,4,6-Tetrachlorophenol	6.870	232	117844	35.94	ppm	97
65) Diethylphthalate	6.971	149	552008	36.89	ppm	99
66) Fluorene	7.078	166	531781	38.11	ppm	99
67) 4-Chlorophenyl-phenyle...	7.078	204	260038	36.99	ppm	85
68) 4-Nitroaniline	7.132	138	105298	34.75	ppm	93
70) 4,6-Dinitro-2-methylph...	7.158	198	75512	37.12	ppm	# 70
71) n-Nitrosodiphenylamine	7.217	169	346353	38.78	ppm	99
72) 1,2-Diphenylhydrazine	7.254	77	754360	44.39	ppm	95
74) 4-Bromophenyl-phenylether	7.644	248	145454	38.75	ppm	88
75) Hexachlorobenzene	7.730	284	142402	36.69	ppm	94
76) Pentachlorophenol	8.013	266	86442	41.47	ppm	95
77) Phenanthrene	8.280	178	693102	38.89	ppm	98
78) Anthracene	8.355	178	723446	38.12	ppm	100
79) Carbazole	8.627	167	670590	38.13	ppm	100
80) Di-n-butylphthalate	9.279	149	989421	38.04	ppm	98
81) Fluoranthene	10.294	202	844929	39.27	ppm	97
82) Octadecane	8.168	57	428394	42.32	ppm	91
84) Pyrene	10.722	202	841086	39.65	ppm	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5835\
 Data File : p128931.D
 Acq On : 11 Apr 2019 3:23 am
 Operator : chriss2
 Sample : op19673-bsd
 Misc : op19673,ep5835,30.0,,,1,1
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Apr 11 11:10:54 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MP5819.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Thu Apr 11 11:09:38 2019
 Response via : Initial Calibration

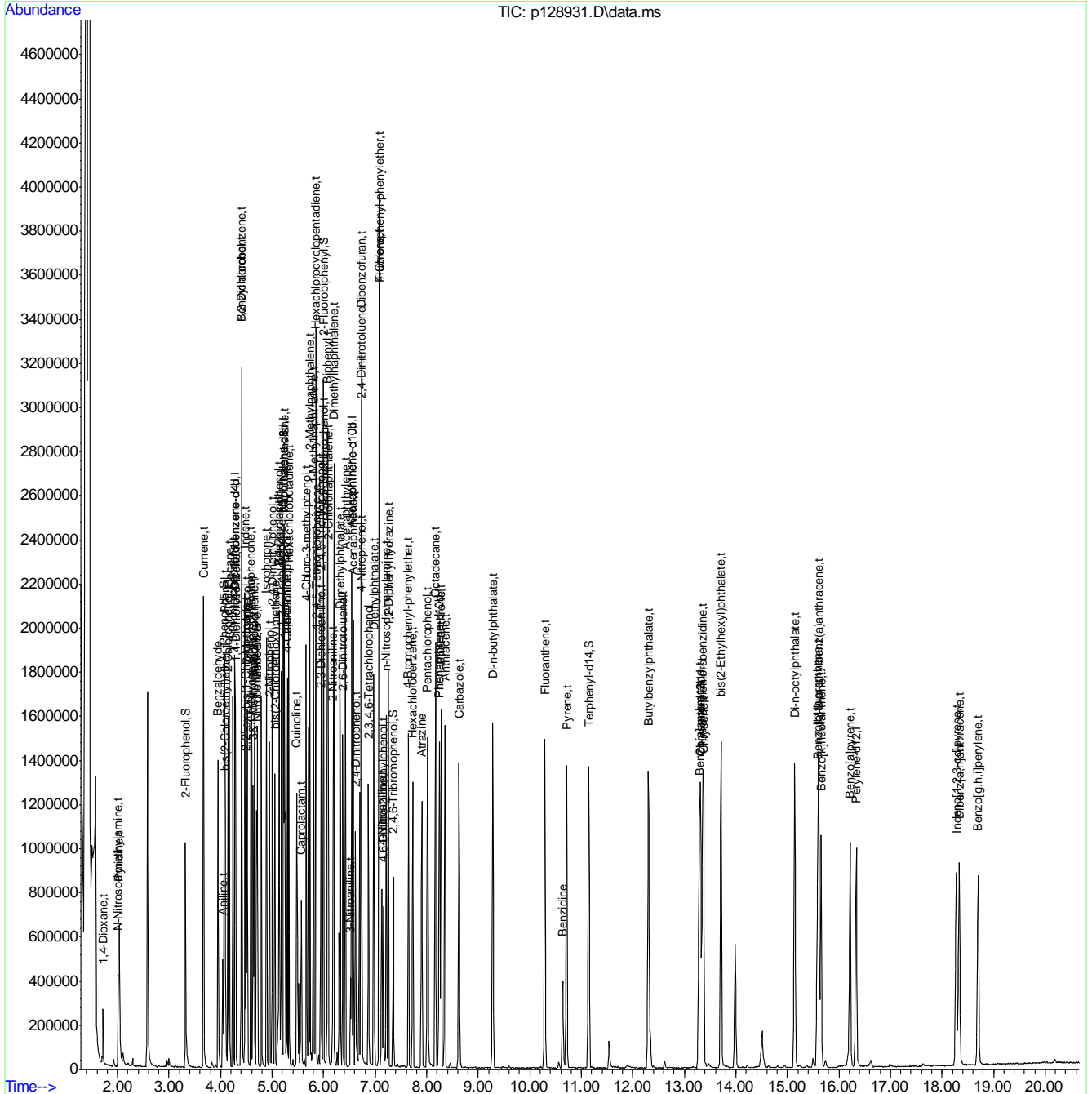
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
86) Butylbenzylphthalate	12.303	149	453278	39.71	ppm	94
87) Benzo[a]anthracene	13.291	228	749119	38.36	ppm	99
88) 3,3'-Dichlorobenzidine	13.355	252	259510	42.12	ppm	96
89) Chrysene	13.371	228	670662	38.74	ppm	98
90) bis(2-Ethylhexyl)phtha...	13.713	149	619544	39.40	ppm	97
92) Di-n-octylphthalate	15.140	149	1065843	36.93	ppm	95
93) Benzo[b]fluoranthene	15.594	252	727550	36.13	ppm	99
94) Benzo[k]fluoranthene	15.658	252	647710	37.88	ppm	98
95) Benzo[a]pyrene	16.219	252	654305	38.59	ppm	98
96) Indeno[1,2,3-cd]pyrene	18.281	276	617906	40.22	ppm	93
98) Dibenz[a,h]anthracene	18.334	278	579357	36.94	ppm	97
99) 7,12-Dimethylbenz(a)an...	15.610	256	303418	36.65	ppm	96
100) Benzo[g,h,i]perylene	18.703	276	615507	41.30	ppm	98
102) Benzaldehyde	3.948	105	179780	33.49	ppm	94
104) Atrazine	7.906	200	150836	40.90	ppm	99
106) Benzidine	10.636	184	213267	16.03	ppm	99
110) 1,2,4,5-Tetrachloroben...	5.860	216	215825	40.05	ppm	98

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5835\
Data File : pl28931.D
Acq On : 11 Apr 2019 3:23 am
Operator : chriss2
Sample : op19673-bsd
Misc : op19673,ep5835,30.0,,,1,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Apr 11 11:10:54 2019
Quant Method : C:\MSDCHEM\1\METHODS\MP5819.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Thu Apr 11 11:09:38 2019
Response via : Initial Calibration



9.3.2
9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3822\
 Data File : 2p86456.D
 Acq On : 11 Apr 2019 5:26 am
 Operator : chriss2
 Sample : op19672-bs1
 Misc : op19672,e2p3822,30.0,,,1,1
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Apr 11 10:27:54 2019
 Quant Method : C:\MSDCHEM\1\METHODS\M2P3816.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Fri Apr 05 14:12:48 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.739	152	417966	40.00	ppm	-0.10
24) Naphthalene-d8	5.772	136	1422705	40.00	ppm	-0.10
47) Acenaphthene-d10	7.205	164	764613	40.00	ppm	-0.11
69) Phenanthrene-d10	8.478	188	1258621	40.00	ppm	-0.13
83) Chrysene-d12	11.719	240	1209595	40.00	ppm	-0.18
91) Perylene-d12	13.704	264	1145831	40.00	ppm	-0.19
101) 1,4-Dichlorobenzene-d4a	4.739	152	417966	40.00	ppm	-0.10
103) Naphthalene-d8a	5.772	136	1422705	40.00	ppm	#-0.10
105) Acenaphthene-d10a	7.205	164	764613	40.00	ppm	-0.11
108) Chrysene-d12a	11.719	240	1209595	40.00	ppm	-0.18
110) Phenanthrene-d10a	8.478	188	1258621	40.00	ppm	-0.13

System Monitoring Compounds

5) 2-Fluorophenol	3.696	112	825322	39.24	ppm	-0.09
Spiked Amount	50.000	Range	11 - 58	Recovery	=	78.48%#
8) Phenol-d5	4.488	99	926139	40.18	ppm	-0.09
Spiked Amount	50.000	Range	10 - 59	Recovery	=	80.36%#
25) Nitrobenzene-d5	5.189	82	810718	42.40	ppm	-0.10
Spiked Amount	50.000	Range	19 - 61	Recovery	=	84.80%#
51) 2-Fluorobiphenyl	6.660	172	1084657	40.98	ppm	-0.11
Spiked Amount	50.000	Range	21 - 58	Recovery	=	81.96%#
73) 2,4,6-Tribromophenol	7.858	330	173189	39.23	ppm	-0.12
Spiked Amount	50.000	Range	12 - 68	Recovery	=	78.46%#
85) Terphenyl-d14	10.297	244	1340996	44.55	ppm	-0.16
Spiked Amount	50.000	Range	16 - 65	Recovery	=	89.10%#
111) 1-Chlorooctadecane	0.000	57	0d	0.00	ppm	
Spiked Amount	50.000	Range	20 - 70	Recovery	=	0.00%#
112) o-terphenyl	0.000	230	0d	0.00	ppm	
Spiked Amount	50.000	Range	20 - 70	Recovery	=	0.00%#

Target Compounds

Qvalue

2) 1,4-Dioxane	2.065	88	276055	23.68	ppm	98
3) Pyridine	2.413	79	854138	29.73	ppm	98
4) N-Nitrosodimethylamine	2.397	74	617490	34.32	ppm	99
6) Indene	4.943	116	983495	43.76	ppm	97
7) Cumene	4.087	105	1918267	36.13	ppm	97
9) Phenol	4.499	94	955623	39.73	ppm	97
10) Aniline	4.477	93	886269	33.16	ppm	98
11) bis(2-Chloroethyl)ether	4.531	93	672186	39.10	ppm	97
12) 2-Chlorophenol	4.579	128	612890	39.68	ppm	99
13) Decane	4.627	57	498716	34.08	ppm	95
14) 1,3-Dichlorobenzene	4.691	146	611660	35.89	ppm	98
15) 1,4-Dichlorobenzene	4.750	146	603237	39.60	ppm	99
16) Benzyl alcohol	4.868	108	394443	46.70	ppm	99
17) 1,2-Dichlorobenzene	4.873	146	572325	39.08	ppm	98
18) Acetophenone	5.071	105	850160	40.35	ppm	96
19) 2-Methylphenol	4.975	108	526388	42.89	ppm	97
20) 2,2'-oxybis(1-Chloropr...	4.969	121	163760	46.14	ppm	94
21) 3&4-Methylphenol	5.098	108	550824	44.29	ppm	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3822\
 Data File : 2p86456.D
 Acq On : 11 Apr 2019 5:26 am
 Operator : chriss2
 Sample : op19672-bs1
 Misc : op19672,e2p3822,30.0,,,1,1
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Apr 11 10:27:54 2019
 Quant Method : C:\MSDCHEM\1\METHODS\M2P3816.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Fri Apr 05 14:12:48 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
22) n-Nitroso-di-n-propyla...	5.082	70	475859	42.81	ppm	97
23) Hexachloroethane	5.146	201	186435	36.17	ppm	98
26) Nitrobenzene	5.205	77	713569	38.10	ppm	98
27) Quinoline	6.066	129	1045678	41.56	ppm	97
28) Isophorone	5.403	82	1341758	40.78	ppm	96
29) 2-Nitrophenol	5.467	139	305172	39.91	ppm	88
30) 2,4-Dimethylphenol	5.520	107	677827	50.02	ppm	98
31) Benzoic acid	5.670	105	590050m	49.46	ppm	
32) bis(2-Chloroethoxy)met...	5.584	93	750630	40.99	ppm	99
33) 2,4-Dichlorophenol	5.675	162	439539	41.11	ppm	99
34) 2,6-Dichlorophenol	5.852	162	401486	41.85	ppm	98
36) 1,2,4-Trichlorobenzene	5.729	180	443067	37.20	ppm	99
38) Naphthalene	5.788	128	1411337	41.47	ppm	99
39) 4-Chloroaniline	5.841	127	262162	18.77	ppm	89
40) 2,3-Dichloroaniline	6.590	161	403569	30.02	ppm	99
41) Caprolactam	6.162	113	177806	40.52	ppm	92
42) Hexachlorobutadiene	5.900	225	269311	39.43	ppm	99
43) 4-Chloro-3-methylphenol	6.269	107	609542	44.03	ppm	80
44) 2-Methylnaphthalene	6.355	141	844719	39.03	ppm	98
45) 1-Methylnaphthalene	6.435	141	882088	37.20	ppm	98
46) Dimethylnaphthalene	6.868	156	839789	38.39	ppm	96
48) Hexachlorocyclopentadiene	6.488	237	597865	80.52	ppm	99
49) 2,4,6-Trichlorophenol	6.601	196	299152	41.80	ppm	98
50) 2,4,5-Trichlorophenol	6.638	196	304083	40.82	ppm	99
52) 2-Chloronaphthalene	6.750	162	796970	36.35	ppm	99
53) Biphenyl	6.740	154	1155741	37.72	ppm	99
54) 2-Nitroaniline	6.847	65	385466	40.95	ppm	92
55) Dimethylphthalate	6.997	163	1041589	38.38	ppm	99
56) Acenaphthylene	7.087	152	1413777	37.80	ppm	99
57) 2,6-Dinitrotoluene	7.045	165	236027	39.67	ppm	89
58) 3-Nitroaniline	7.178	138	158732	23.64	ppm	91
59) Acenaphthene	7.232	153	900232	41.01	ppm	99
60) 2,4-Dinitrophenol	7.275	184	275591	85.47	ppm #	74
61) 4-Nitrophenol	7.349	109	219928	44.47	ppm	82
62) Dibenzofuran	7.376	168	1229779	40.62	ppm	99
63) 2,4-Dinitrotoluene	7.376	165	326101	42.62	ppm	99
64) 2,3,4,6-Tetrachlorophenol	7.489	232	260168	37.58	ppm	98
65) Diethylphthalate	7.574	149	1166507	41.37	ppm	98
66) Fluorene	7.654	166	1154573	44.47	ppm	100
67) 4-Chlorophenyl-phenyle...	7.654	204	547510	43.89	ppm	91
68) 4-Nitroaniline	7.692	138	234328	40.48	ppm	95
70) 4,6-Dinitro-2-methylph...	7.719	198	174461	46.42	ppm	83
71) n-Nitrosodiphenylamine	7.761	169	724451	42.63	ppm	99
72) 1,2-Diphenylhydrazine	7.788	77	1441664	43.51	ppm	98
74) 4-Bromophenyl-phenylether	8.066	248	323695	43.02	ppm	85
75) Hexachlorobenzene	8.130	284	348897	41.88	ppm	90
76) Pentachlorophenol	8.318	266	253933	44.38	ppm	96
77) Phenanthrene	8.505	178	1408673	44.93	ppm	99
78) Anthracene	8.553	178	1413294	44.33	ppm	99
79) Carbazole	8.719	167	1436941	43.59	ppm	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3822\
 Data File : 2p86456.D
 Acq On : 11 Apr 2019 5:26 am
 Operator : chriss2
 Sample : op19672-bs1
 Misc : op19672,e2p3822,30.0,,,1,1
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Apr 11 10:27:54 2019
 Quant Method : C:\MSDCHEM\1\METHODS\M2P3816.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Fri Apr 05 14:12:48 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
80) Di-n-butylphthalate	9.104	149	2424360	48.47	ppm	99
81) Fluoranthene	9.794	202	2042622	45.84	ppm	98
82) Octadecane	8.398	43	435254	41.99	ppm	96
84) Pyrene	10.072	202	1914543	40.68	ppm	99
86) Butylbenzylphthalate	10.992	149	1150380	43.59	ppm	92
87) Benzo[a]anthracene	11.703	228	1910450	42.05	ppm	99
88) 3,3'-Dichlorobenzidine	11.709	252	949412	50.49	ppm	97
89) Chrysene	11.757	228	1315662	40.82	ppm	98
90) bis(2-Ethylhexyl)phtha...	11.864	149	1225750	45.12	ppm	98
92) Di-n-octylphthalate	12.800	149	2598093	47.44	ppm	99
93) Benzo[b]fluoranthene	13.212	252	1640059	43.68	ppm	97
94) Benzo[k]fluoranthene	13.249	252	1328811	43.28	ppm	97
95) Benzo[a]pyrene	13.629	252	1351037	42.82	ppm	98
96) Indeno[1,2,3-cd]pyrene	15.052	276	1527585m	42.48	ppm	#
98) Dibenz[a,h]anthracene	15.089	278	1192939	42.59	ppm	99
99) 7,12-Dimethylbenz(a)an...	13.212	256	769155	45.03	ppm	98
100) Benzo[g,h,i]perylene	15.421	276	1183596	41.58	ppm	99
102) Benzaldehyde	4.381	105	513363	33.97	ppm	93
106) Atrazine	8.237	215	153427	46.69	ppm	#
107) 1,2,4,5-Tetrachloroben...	6.499	216	447563	39.10	ppm	98
109) Benzidine	9.976	184	690160m	39.79	ppm	
113) Pentachloronitrobenzene	8.328	295	60333	42.47	ppm	94

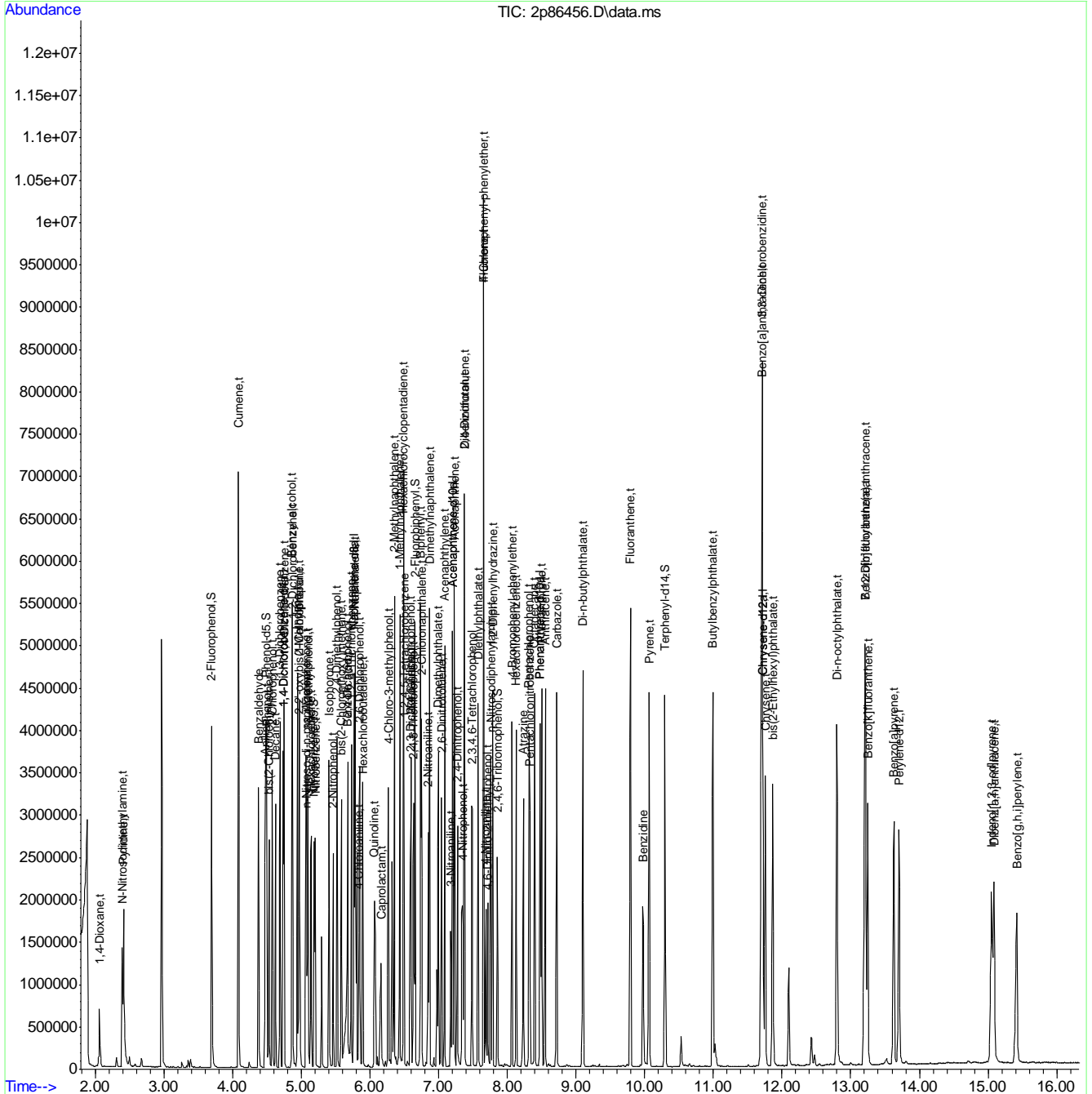
(#) = qualifier out of range (m) = manual integration (+) = signals summed

9.3.3
9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3822\
Data File : 2p86456.D
Acq On : 11 Apr 2019 5:26 am
Operator : chriss2
Sample : op19672-bs1
Misc : op19672,e2p3822,30.0,,,1,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Apr 11 10:27:54 2019
Quant Method : C:\MSDCHEM\1\METHODS\M2P3816.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Apr 05 14:12:48 2019
Response via : Initial Calibration



9.3.3
9

Manual Integration Approval Summary

Sample Number: OP19672-BS1 Method: SW846 8270D
Lab FileID: 2P86456.D Analyst approved: 04/11/19 11:17 Kristi Schollenberger
Injection Time: 04/11/19 05:26 Supervisor approved: 04/11/19 12:24 Nina Pandya

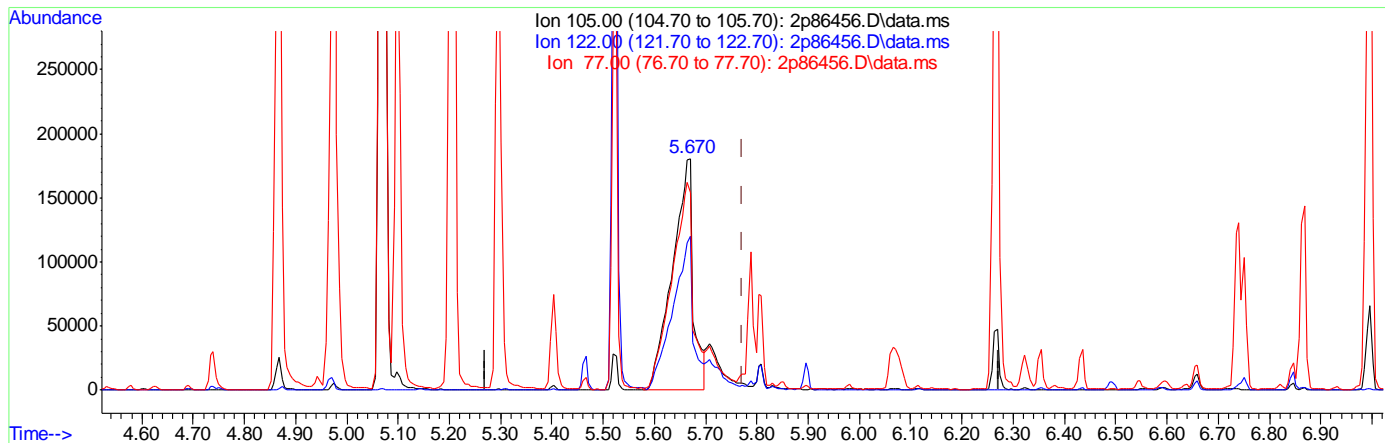
Parameter	CAS	Sig#	R.T. (min.)	Reason
Benzoic acid	65-85-0		5.67	Split peak
Benzidine	92-87-5		9.98	Poor instrument integration
Indeno(1,2,3-cd)pyrene	193-39-5		15.05	Poor instrument integration

9.3.3.1
9

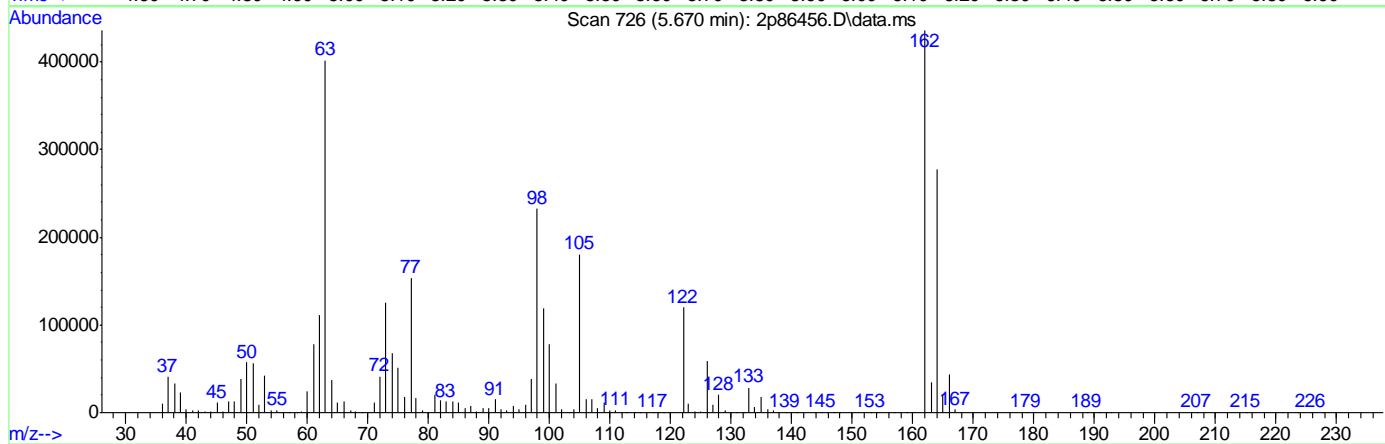
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2P3822\
 Data File : 2p86456.D
 Acq On : 11 Apr 2019 5:26 am
 Operator : chriss2
 Sample : op19672-bs1
 Misc : op19672,e2p3822,30.0,,,1,1
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Apr 11 05:40:50 2019
 Quant Method : C:\MSDCHEM\1\METHODS\M2P3816.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Fri Apr 05 14:12:48 2019
 Response via : Initial Calibration



9.3.32
9



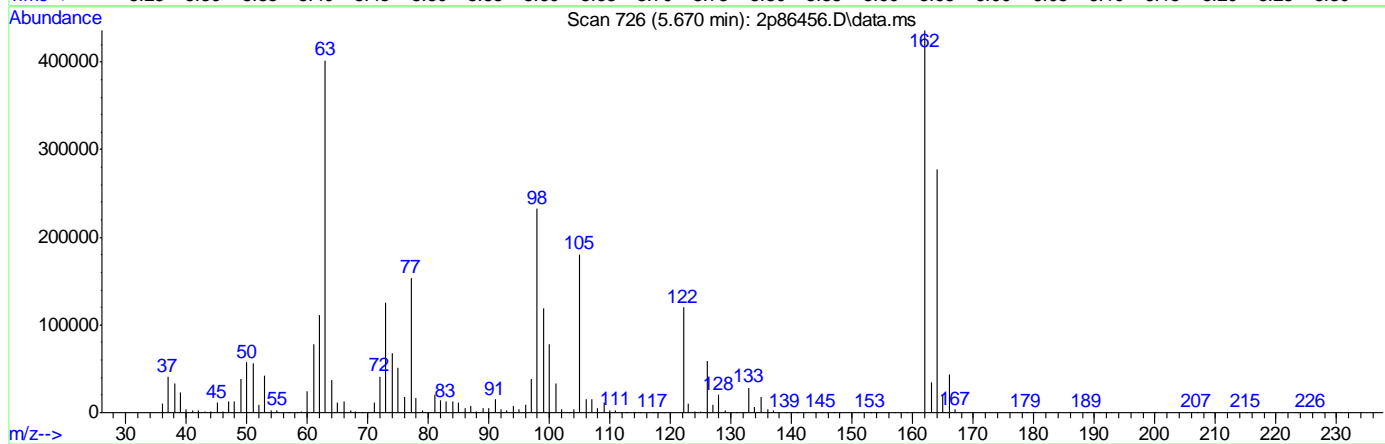
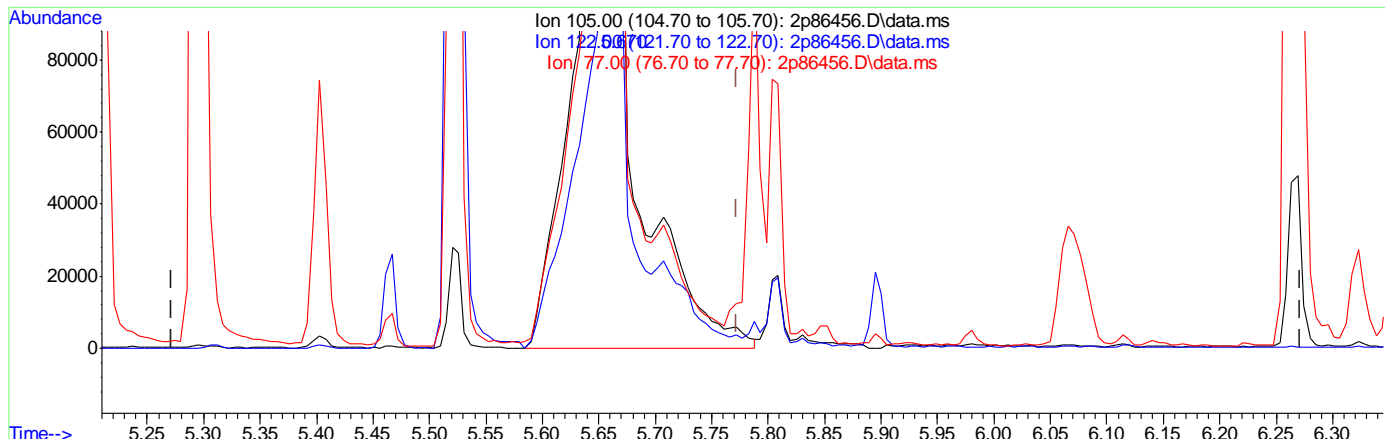
(31) Benzoic acid (t)
 5.670min (-0.102) 42.85ppm
 response 511172

Ion	Exp%	Act%
105.00	100	100
122.00	68.60	65.61
77.00	83.90	83.81
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2P3822\
 Data File : 2p86456.D
 Acq On : 11 Apr 2019 5:26 am
 Operator : chriss2
 Sample : op19672-bs1
 Misc : op19672,e2p3822,30.0,,,1,1
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Apr 11 05:40:50 2019
 Quant Method : C:\MSDCHEM\1\METHODS\M2P3816.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Fri Apr 05 14:12:48 2019
 Response via : Initial Calibration



(31) Benzoic acid (t)
 5.670min (-0.102) 49.46ppm m
 response 590050

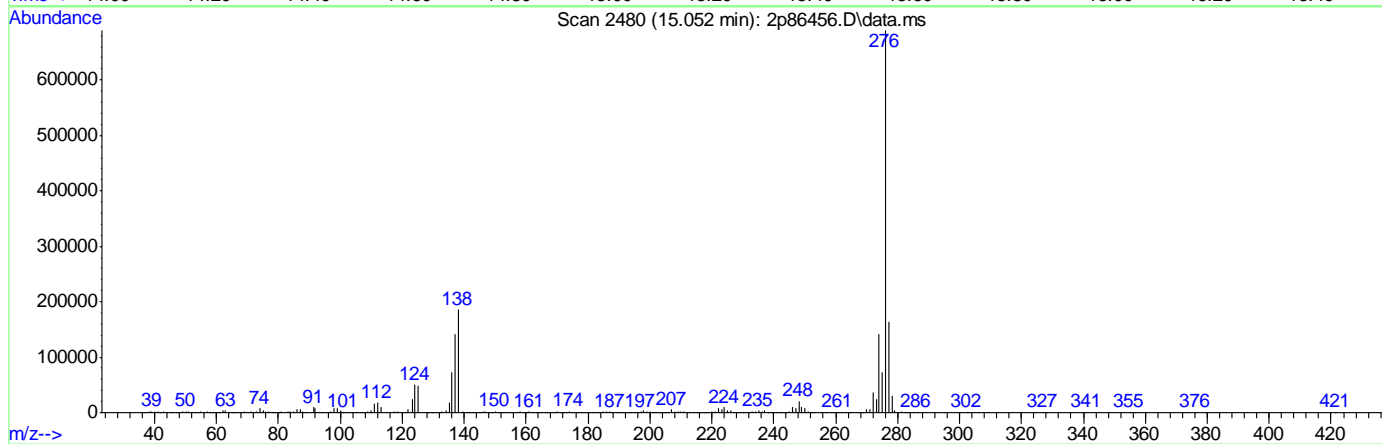
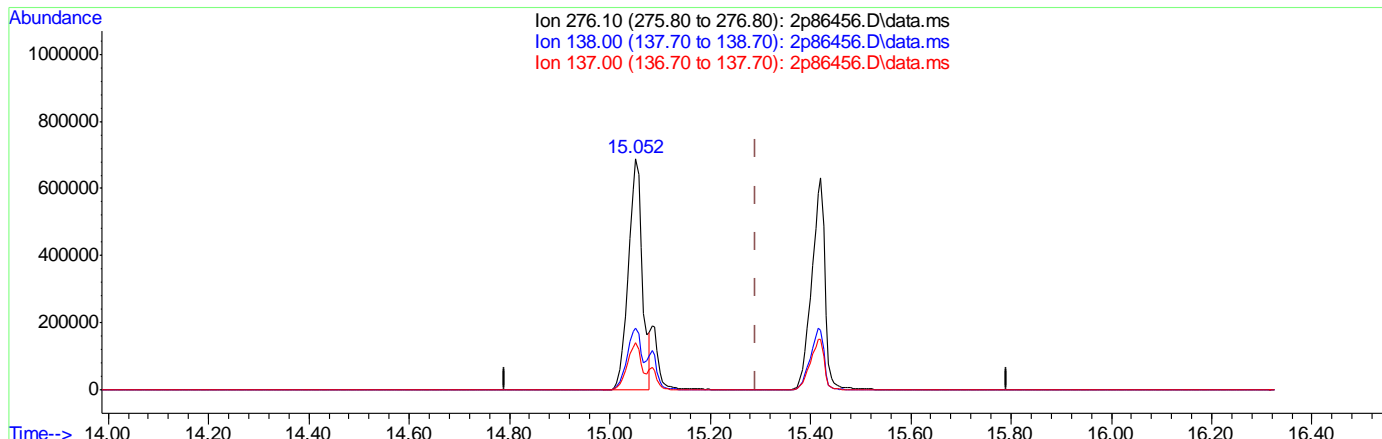
Ion	Exp%	Act%
105.00	100	100
122.00	68.60	66.23
77.00	83.90	85.19
0.00	0.00	0.00

9.3.3.3
 9

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2P3822\
 Data File : 2p86456.D
 Acq On : 11 Apr 2019 5:26 am
 Operator : chriss2
 Sample : op19672-bs1
 Misc : op19672,e2p3822,30.0,,,1,1
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Apr 11 05:40:50 2019
 Quant Method : C:\MSDCHEM\1\METHODS\M2P3816.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Fri Apr 05 14:12:48 2019
 Response via : Initial Calibration



(96) Indeno[1,2,3-cd]pyrene (t)

15.052min (-0.240) 36.79ppm

response 1323007

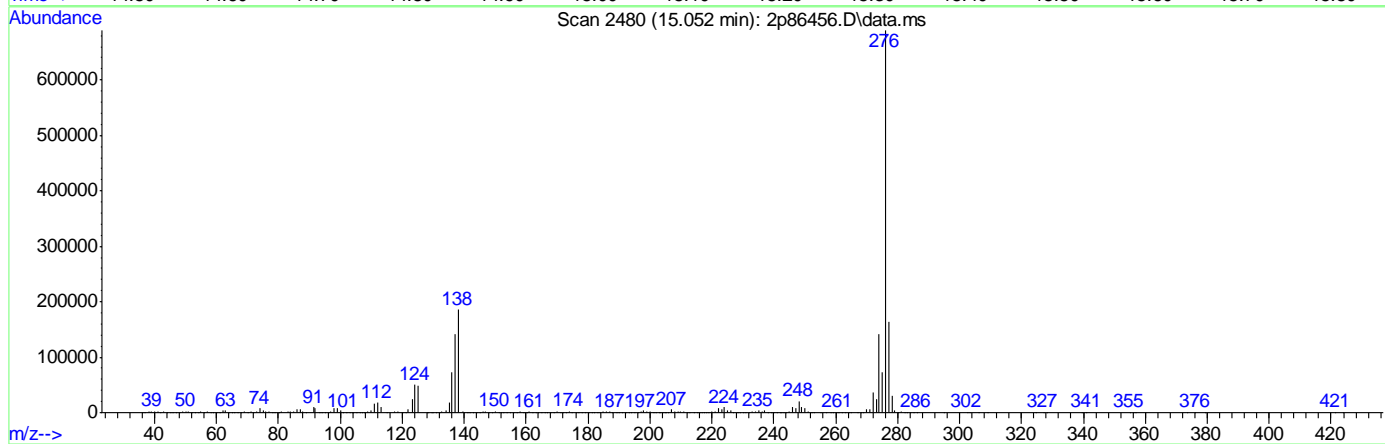
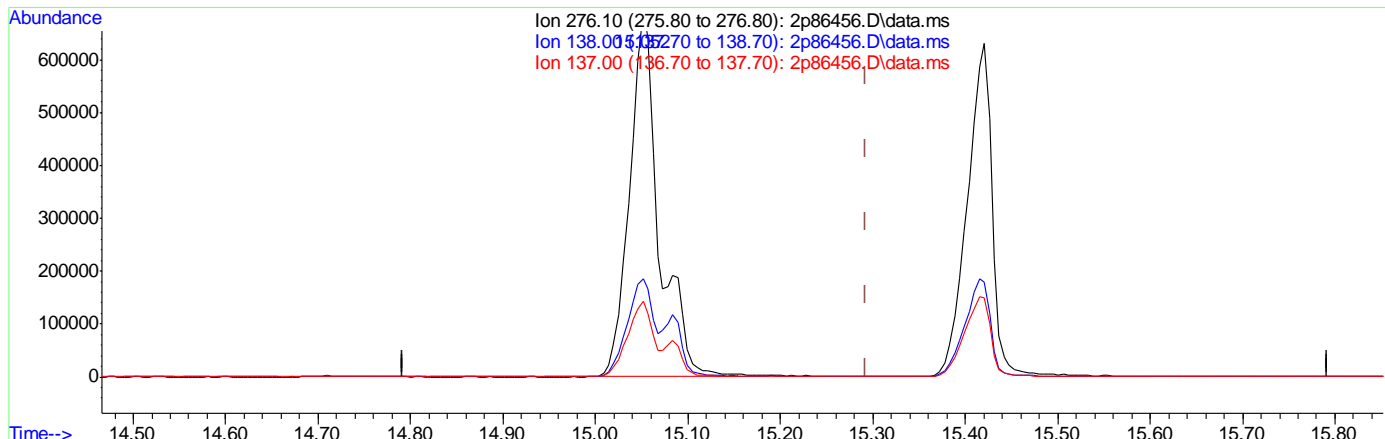
Ion	Exp%	Act%
276.10	100	100
138.00	25.30	22.33
137.00	18.50	18.56
0.00	0.00	0.00

9.3.3.4
9

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2P3822\
 Data File : 2p86456.D
 Acq On : 11 Apr 2019 5:26 am
 Operator : chriss2
 Sample : op19672-bs1
 Misc : op19672,e2p3822,30.0,,,1,1
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Apr 11 05:40:50 2019
 Quant Method : C:\MSDCHEM\1\METHODS\M2P3816.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Fri Apr 05 14:12:48 2019
 Response via : Initial Calibration



(96) Indeno[1,2,3-cd]pyrene (t)

15.052min (-0.240) 42.48ppm m

response 1527585

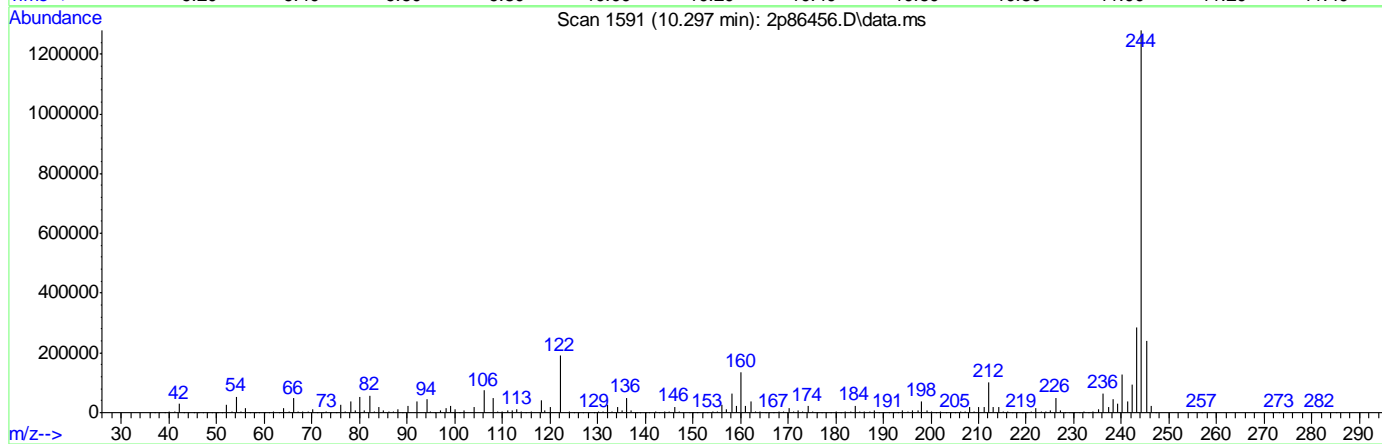
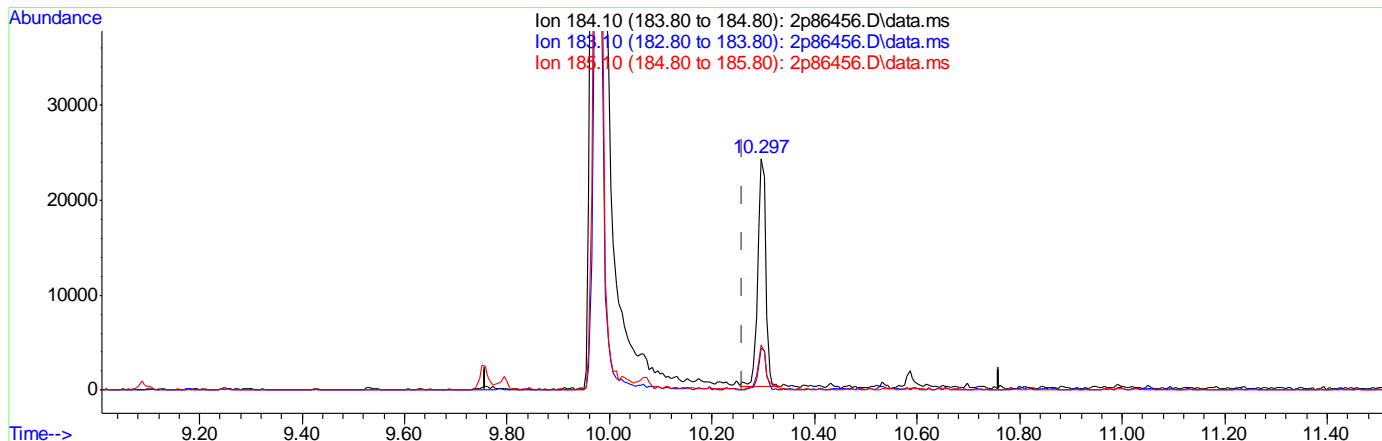
Ion	Exp%	Act%
276.10	100	100
138.00	25.30	26.95
137.00	18.50	20.66
0.00	0.00	0.00

9.3.3.5
9

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2P3822\
 Data File : 2p86456.D
 Acq On : 11 Apr 2019 5:26 am
 Operator : chriss2
 Sample : op19672-bs1
 Misc : op19672,e2p3822,30.0,,,1,1
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Apr 11 05:40:50 2019
 Quant Method : C:\MSDCHEM\1\METHODS\M2P3816.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Fri Apr 05 14:12:48 2019
 Response via : Initial Calibration



(109) Benzidine

10.297min (+0.037) 7.40ppm

response 26413

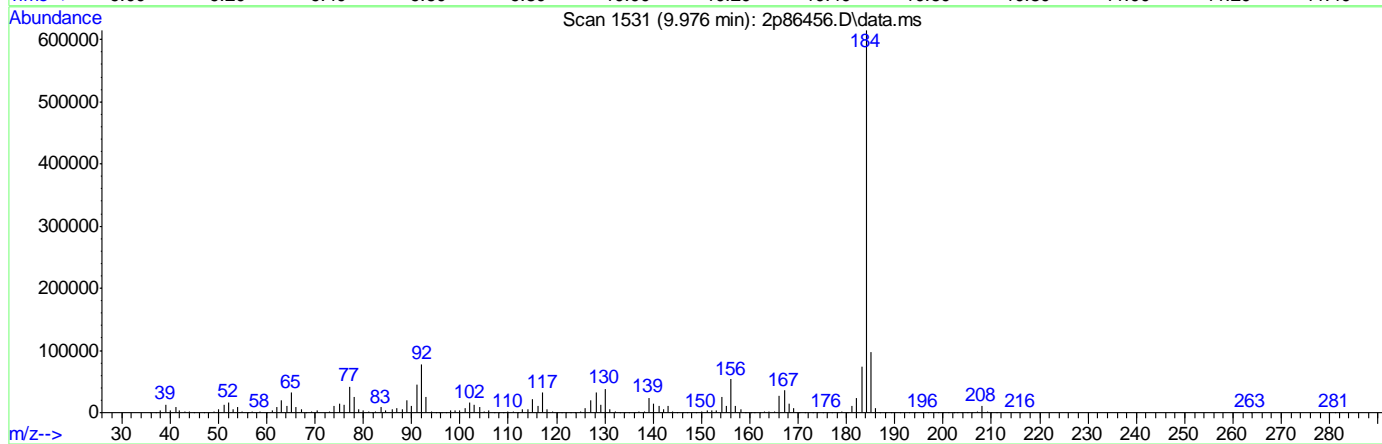
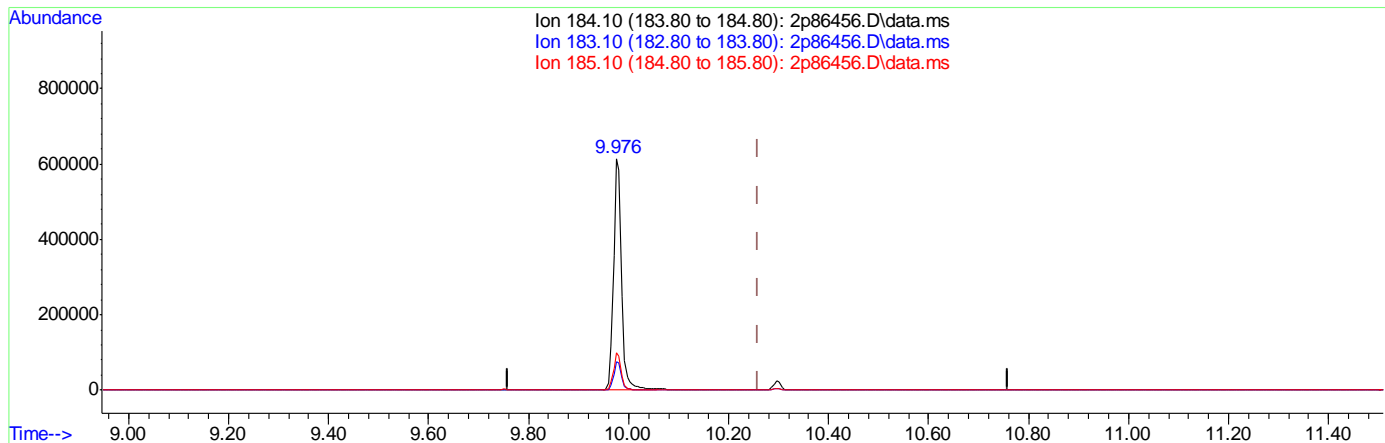
Ion	Exp%	Act%
184.10	100	100
183.10	12.00	18.02
185.10	21.20	19.02
0.00	0.00	0.00

9.3.3.6
9

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2P3822\
 Data File : 2p86456.D
 Acq On : 11 Apr 2019 5:26 am
 Operator : chriss2
 Sample : op19672-bs1
 Misc : op19672,e2p3822,30.0,,,1,1
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Apr 11 05:40:50 2019
 Quant Method : C:\MSDCHEM\1\METHODS\M2P3816.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Fri Apr 05 14:12:48 2019
 Response via : Initial Calibration



(109) Benzidine

9.976min (-0.284) 39.79ppm m

response 690160

Ion	Exp%	Act%
184.10	100	100
183.10	12.00	12.11
185.10	21.20	15.92
0.00	0.00	0.00

9.3.3.7
9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5835\
 Data File : p128943.D
 Acq On : 11 Apr 2019 8:41 am
 Operator : chriss2
 Sample : op19673-ms
 Misc : op19673,ep5835,30.4,,,1,5
 ALS Vial : 19 Sample Multiplier: 1

Quant Time: Apr 12 13:02:52 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MP5819.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Fri Apr 12 13:01:31 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
Internal Standards							
1) 1,4-Dichlorobenzene-d4	4.273	152	175683	40.00	ppm	-0.11	
24) Naphthalene-d8	5.214	136	666850	40.00	ppm	-0.11	
47) Acenaphthene-d10	6.539	164	385274	40.00	ppm	-0.14	
69) Phenanthrene-d10	8.237	188	644023	40.00	ppm	-0.20	
83) Chrysene-d12	13.307	240	546510	40.00	ppm	-0.27	
91) Perylene-d12	16.331	264	610669	40.00	ppm	-0.29	
101) 1,4-Dichlorobenzene-d4b	4.273	152	175683	40.00	ppm	-0.10	
103) Phenanthrene-d10b	8.237	188	644023	40.00	ppm	-0.18	
105) Chrysene-d12b	13.307	240	546510	40.00	ppm	-0.24	
107) Naphthalene-d8b	5.214	136	666850	40.00	ppm	-0.10	
109) Acenaphthene-d10b	6.539	164	385274	40.00	ppm	-0.13	
System Monitoring Compounds							
5) 2-Fluorophenol	3.312	112	48021	7.30	ppm	-0.13	
Spiked Amount	50.000		Recovery	=	14.60%		
8) Phenol-d5	4.065	99	69103	7.83	ppm	-0.13	
Spiked Amount	50.000		Recovery	=	15.66%		
25) Nitrobenzene-d5	4.690	82	82619	9.49	ppm	-0.11	
Spiked Amount	50.000		Recovery	=	18.98%		
51) 2-Fluorobiphenyl	5.994	172	117940	8.58	ppm	-0.11	
Spiked Amount	50.000		Recovery	=	17.16%		
73) 2,4,6-Tribromophenol	7.340	330	13071	7.32	ppm	-0.17	
Spiked Amount	50.000		Recovery	=	14.64%		
85) Terphenyl-d14	11.133	244	121774	9.02	ppm	-0.24	
Spiked Amount	50.000		Recovery	=	18.04%		
Target Compounds							
							Qvalue
2) 1,4-Dioxane	1.704	88	15746	4.95	ppm		92
3) Pyridine	2.024	79	48417	6.02	ppm		96
4) N-Nitrosodimethylamine	2.008	42	29018	6.58	ppm		83
6) Indene	4.466	116	91802	8.46	ppm		99
7) Cumene	3.659	105	135011	7.37	ppm		98
9) Phenol	4.076	94	77346	8.06	ppm		89
10) Aniline	4.038	93	44651	4.29	ppm		88
11) bis(2-Chloroethyl)ether	4.086	93	60299	8.27	ppm		87
12) 2-Chlorophenol	4.140	128	51665	7.99	ppm		96
13) Decane	4.167	43	71432	8.71	ppm		83
14) 1,3-Dichlorobenzene	4.231	146	55386	7.54	ppm		98
15) 1,4-Dichlorobenzene	4.290	146	54770	7.58	ppm		97
16) Benzyl alcohol	4.402	108	33818	7.79	ppm		75
17) 1,2-Dichlorobenzene	4.402	146	52413	7.29	ppm		98
18) Acetophenone	4.583	105	79428	7.66	ppm		95
19) 2-Methylphenol	4.509	108	50320	8.04	ppm		98
20) 2,2'-oxybis(1-Chloropr...	4.492	121	16143	8.91	ppm	#	58
21) 3&4-Methylphenol	4.621	108	53783	7.96	ppm		97
22) n-Nitroso-di-n-propyla...	4.589	70	45064	8.30	ppm		85
23) Hexachloroethane	4.647	201	19222	7.45	ppm		94
26) Nitrobenzene	4.706	77	79444	8.69	ppm		96
27) Quinoline	5.470	129	102676	7.82	ppm		96

9.4.1
 9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5835\
 Data File : p128943.D
 Acq On : 11 Apr 2019 8:41 am
 Operator : chriss2
 Sample : op19673-ms
 Misc : op19673,ep5835,30.4,,,1,5
 ALS Vial : 19 Sample Multiplier: 1

Quant Time: Apr 12 13:02:52 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MP5819.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Fri Apr 12 13:01:31 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
28) Isophorone	4.882	82	134683	8.57	ppm	95
29) 2-Nitrophenol	4.941	139	24120	6.61	ppm #	45
30) 2,4-Dimethylphenol	4.995	107	66451	9.27	ppm	98
31) Benzoic acid	5.112	105	4152	0.73	ppm	93
32) bis(2-Chloroethoxy)met...	5.043	93	72077	8.60	ppm	97
33) 2,4-Dichlorophenol	5.139	162	43109	7.49	ppm	93
34) 2,6-Dichlorophenol	5.289	162	37910	6.98	ppm	97
36) 1,2,4-Trichlorobenzene	5.176	180	44935	7.57	ppm	98
38) Naphthalene	5.230	128	149492	8.48	ppm	99
39) 4-Chloroaniline	5.283	127	33715	4.57	ppm	86
40) 2,3-Dichloroaniline	5.940	161	49647	6.88	ppm	96
41) Caprolactam	5.518	55	32598	7.62	ppm	96
42) Hexachlorobutadiene	5.326	225	26867	7.22	ppm	93
43) 4-Chloro-3-methylphenol	5.652	107	54440	7.88	ppm	99
44) 2-Methylnaphthalene	5.727	141	87341	8.37	ppm	95
45) 1-Methylnaphthalene	5.796	142	101811	7.58	ppm	94
46) Dimethylnaphthalene	6.191	156	90807	7.54	ppm	95
48) Hexachlorocyclopentadiene	5.844	237	24622	13.50	ppm	94
49) 2,4,6-Trichlorophenol	5.946	196	27236	7.06	ppm	99
50) 2,4,5-Trichlorophenol	5.983	196	31760	7.52	ppm	93
52) 2-Chloronaphthalene	6.084	162	91097	8.05	ppm	97
53) Biphenyl	6.068	154	124289	8.09	ppm	99
54) 2-Nitroaniline	6.170	65	45973	9.08	ppm	88
55) Dimethylphthalate	6.314	163	114283	8.04	ppm	99
56) Acenaphthylene	6.416	152	163905	8.74	ppm	99
57) 2,6-Dinitrotoluene	6.362	165	24406	8.08	ppm	83
58) 3-Nitroaniline	6.517	138	23506	7.12	ppm	97
59) Acenaphthene	6.565	153	97830	8.60	ppm	94
60) 2,4-Dinitrophenol	6.629	184	1916	7.16	ppm #	21
61) 4-Nitrophenol	6.726	109	16546	6.18	ppm #	1
62) Dibenzofuran	6.726	168	139913	8.36	ppm	89
63) 2,4-Dinitrotoluene	6.539	165	50591	11.58	ppm #	18
64) 2,3,4,6-Tetrachlorophenol	6.864	232	18706	5.65	ppm	92
65) Diethylphthalate	6.961	149	123681	8.19	ppm	98
66) Fluorene	7.067	166	122868	8.72	ppm	96
67) 4-Chlorophenyl-phenyle...	7.073	204	52075	7.34	ppm	84
68) 4-Nitroaniline	7.110	138	24953	8.15	ppm	93
70) 4,6-Dinitro-2-methylph...	7.153	198	5215	2.56	ppm	70
71) n-Nitrosodiphenylamine	7.206	169	81254	9.07	ppm	100
72) 1,2-Diphenylhydrazine	7.244	77	177662	10.42	ppm	94
74) 4-Bromophenyl-phenylether	7.639	248	29880	7.94	ppm	95
75) Hexachlorobenzene	7.719	284	30475	7.83	ppm	95
76) Pentachlorophenol	8.002	266	10094	7.78	ppm	91
77) Phenanthrene	8.269	178	289564	16.20	ppm	98
78) Anthracene	8.339	178	197460	10.37	ppm	99
79) Carbazole	8.611	167	168252	9.54	ppm	99
80) Di-n-butylphthalate	9.274	149	215187	8.25	ppm	99
81) Fluoranthene	10.284	202	450057	20.86	ppm	95
82) Octadecane	8.163	57	104061	10.25	ppm	85
84) Pyrene	10.706	202	417890	20.46	ppm	95

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5835\
 Data File : p128943.D
 Acq On : 11 Apr 2019 8:41 am
 Operator : chriss2
 Sample : op19673-ms
 Misc : op19673,ep5835,30.4,,,1,5
 ALS Vial : 19 Sample Multiplier: 1

Quant Time: Apr 12 13:02:52 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MP5819.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Fri Apr 12 13:01:31 2019
 Response via : Initial Calibration

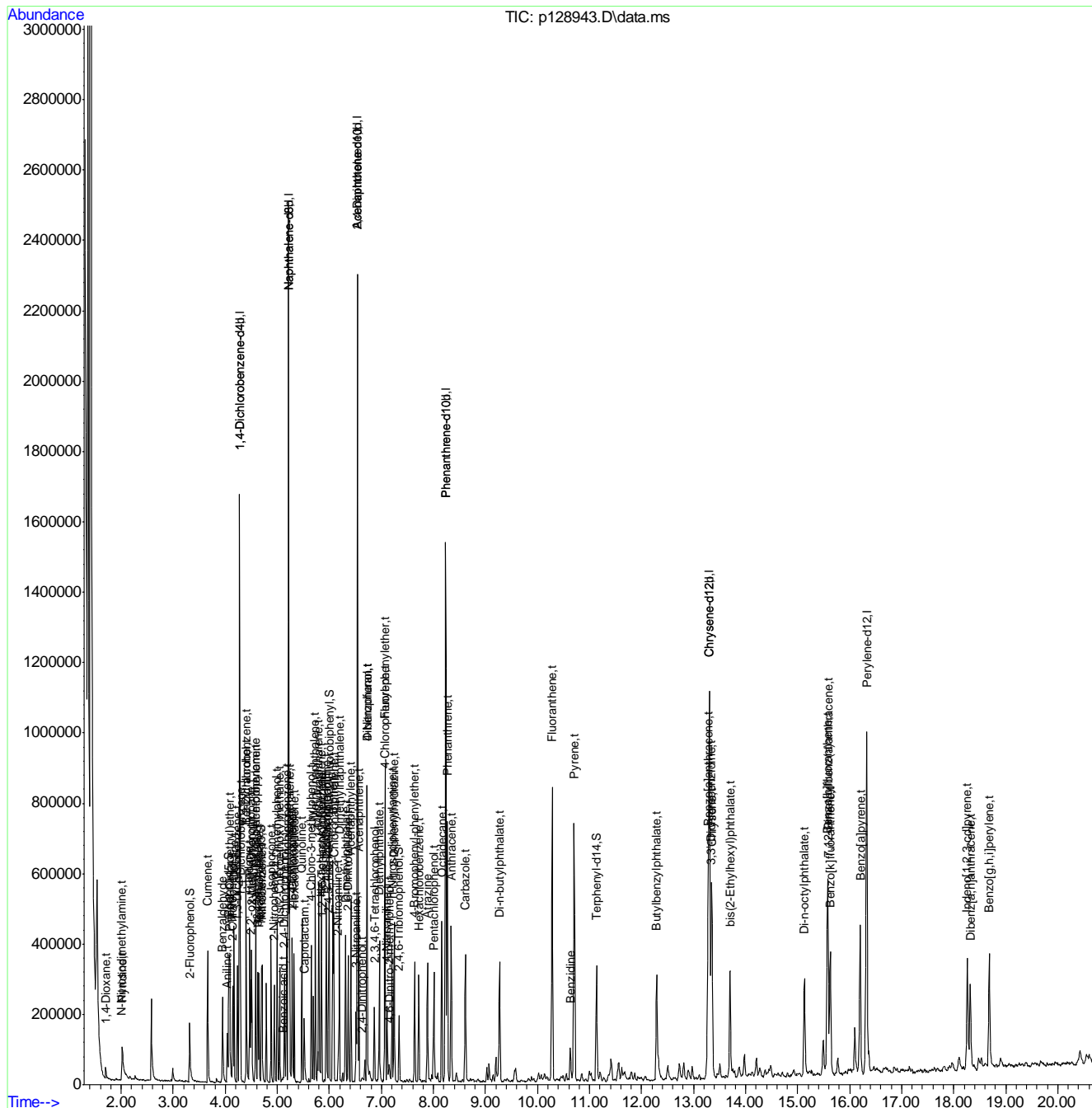
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
86) Butylbenzylphthalate	12.287	149	97011	8.83	ppm	93
87) Benzo[a]anthracene	13.280	228	290762	15.46	ppm	99
88) 3,3'-Dichlorobenzidine	13.339	252	77459	13.05	ppm	96
89) Chrysene	13.355	228	262535	15.75	ppm	98
90) bis(2-Ethylhexyl)phtha...	13.703	149	131188m	8.66	ppm	
92) Di-n-octylphthalate	15.129	149	220918	7.60	ppm	91
93) Benzo[b]fluoranthene	15.578	252	300254	14.81	ppm	94
94) Benzo[k]fluoranthene	15.626	252	204502	11.88	ppm	98
95) Benzo[a]pyrene	16.203	252	255667	14.97	ppm	96
96) Indeno[1,2,3-cd]pyrene	18.259	276	205874	13.31	ppm	87
98) Dibenz[a,h]anthracene	18.318	278	145036	9.18	ppm	97
99) 7,12-Dimethylbenz(a)an...	15.583	256	50717	6.08	ppm	94
100) Benzo[g,h,i]perylene	18.687	276	211170	14.07	ppm	96
102) Benzaldehyde	3.948	105	41389	7.35	ppm	97
104) Atrazine	7.885	200	32865	8.89	ppm	84
106) Benzidine	10.631	184	52098	4.07	ppm	99
110) 1,2,4,5-Tetrachloroben...	5.855	216	44322	8.14	ppm	96

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5835\
 Data File : p128943.D
 Acq On : 11 Apr 2019 8:41 am
 Operator : chriss2
 Sample : op19673-ms
 Misc : op19673,ep5835,30.4,,,1,5
 ALS Vial : 19 Sample Multiplier: 1

Quant Time: Apr 12 13:02:52 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MP5819.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Fri Apr 12 13:01:31 2019
 Response via : Initial Calibration



9.4.1
9

Manual Integration Approval Summary

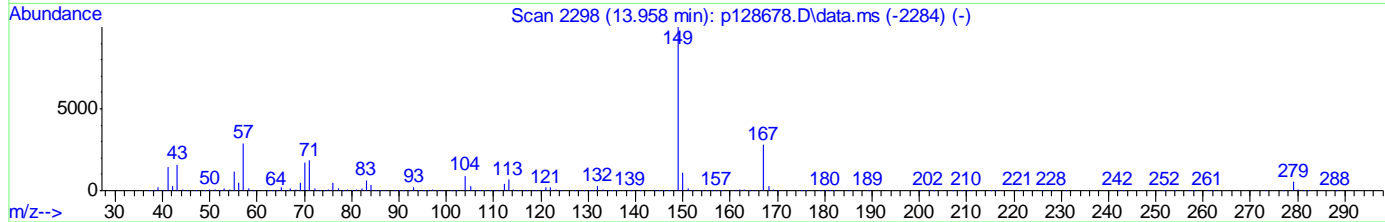
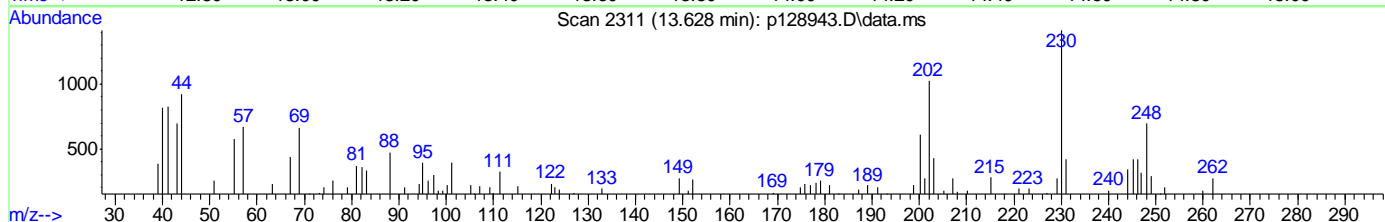
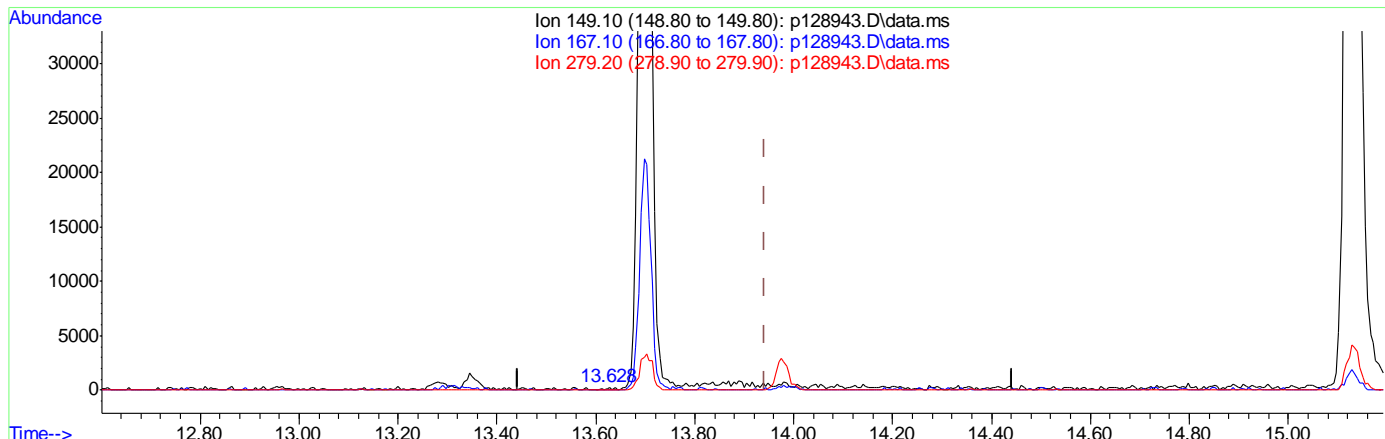
Sample Number: OP19673-MS Method: SW846 8270D
Lab FileID: P128943.D Analyst approved: 04/12/19 14:05 Dipa Patel
Injection Time: 04/11/19 08:41 Supervisor approved: 04/18/19 13:31 Nancy Ma

Parameter	CAS	Sig#	R.T. (min.)	Reason
bis(2-Ethylhexyl)phthalate	117-81-7		13.70	Poor instrument integration

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EP5835\
 Data File : p128943.D
 Acq On : 11 Apr 2019 8:41 am
 Operator : chriss2
 Sample : op19673-ms
 Misc : op19673,ep5835,30.4,,,1,5
 ALS Vial : 19 Sample Multiplier: 1

Quant Time: Apr 12 13:01:34 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MP5819.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Fri Apr 12 13:01:31 2019
 Response via : Initial Calibration



TIC: p128943.D\data.ms

(90) bis(2-Ethylhexyl)phthalate (t)

13.628min (-0.315) 0.02ppm

response 265

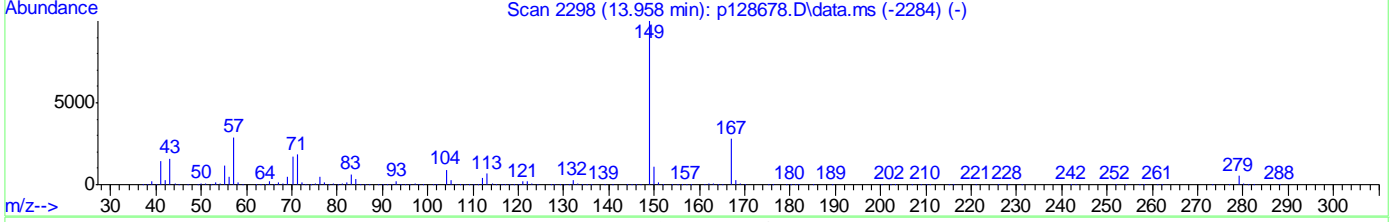
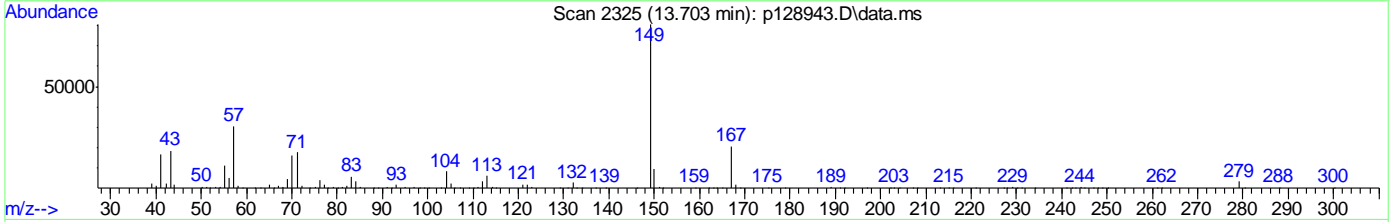
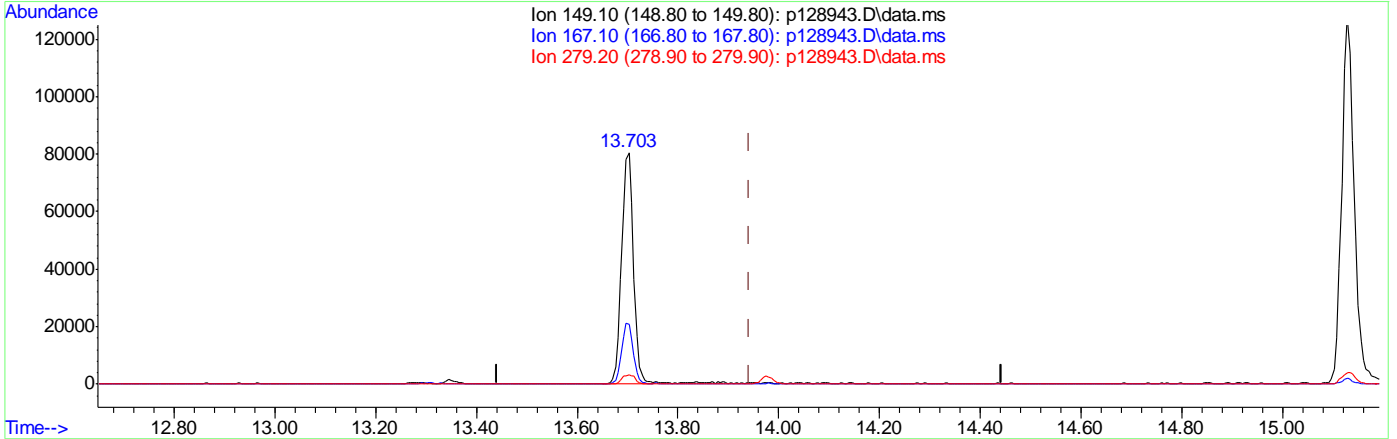
Ion	Exp%	Act%
149.10	100	100
167.10	27.90	0.00
279.20	5.40	0.00
0.00	0.00	0.00

9.4.1.2
9

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EP5835\
 Data File : p128943.D
 Acq On : 11 Apr 2019 8:41 am
 Operator : chriss2
 Sample : op19673-ms
 Misc : op19673,ep5835,30.4,,,1,5
 ALS Vial : 19 Sample Multiplier: 1

Quant Time: Apr 12 13:01:34 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MP5819.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Fri Apr 12 13:01:31 2019
 Response via : Initial Calibration



TIC: p128943.D\data.ms

(90) bis(2-Ethylhexyl)phthalate (t)
 13.703min (-0.240) 8.66ppm m
 response 131188

Ion	Exp%	Act%
149.10	100	100
167.10	27.90	25.75
279.20	5.40	4.17
0.00	0.00	0.00

9.4.1.3
9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5835\
 Data File : p128944.D
 Acq On : 11 Apr 2019 9:08 am
 Operator : chriss2
 Sample : op19673-msd
 Misc : op19673,ep5835,30.4,,,1,5
 ALS Vial : 20 Sample Multiplier: 1

Quant Time: Apr 12 13:44:16 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MP5819.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Fri Apr 12 13:38:36 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
Internal Standards							
1) 1,4-Dichlorobenzene-d4	4.273	152	178156	40.00	ppm	0.00	
24) Naphthalene-d8	5.214	136	673266	40.00	ppm	0.00	
47) Acenaphthene-d10	6.538	164	389036	40.00	ppm	0.00	
69) Phenanthrene-d10	8.237	188	658326	40.00	ppm	0.00	
83) Chrysene-d12	13.307	240	539845	40.00	ppm	0.00	
91) Perylene-d12	16.331	264	565791	40.00	ppm	0.00	
101) 1,4-Dichlorobenzene-d4b	4.273	152	178156	40.00	ppm	0.00	
103) Phenanthrene-d10b	8.237	188	658326	40.00	ppm	0.00	
105) Chrysene-d12b	13.307	240	539845	40.00	ppm	0.00	
107) Naphthalene-d8b	5.214	136	673266	40.00	ppm	0.00	
109) Acenaphthene-d10b	6.538	164	389036	40.00	ppm	0.00	
System Monitoring Compounds							
5) 2-Fluorophenol	3.312	112	45596	6.83	ppm	-0.05	
Spiked Amount	50.000		Recovery	=	13.66%		
8) Phenol-d5	4.065	99	67585	7.56	ppm	-0.02	
Spiked Amount	50.000		Recovery	=	15.12%		
25) Nitrobenzene-d5	4.690	82	78444	8.92	ppm	-0.02	
Spiked Amount	50.000		Recovery	=	17.84%		
51) 2-Fluorobiphenyl	5.994	172	116987	8.42	ppm	0.01	
Spiked Amount	50.000		Recovery	=	16.84%		
73) 2,4,6-Tribromophenol	7.340	330	13053	7.15	ppm	0.00	
Spiked Amount	50.000		Recovery	=	14.30%		
85) Terphenyl-d14	11.133	244	120850	9.06	ppm	-0.01	
Spiked Amount	50.000		Recovery	=	18.12%		
Target Compounds							
							Qvalue
2) 1,4-Dioxane	1.698	88	15311	4.74	ppm		94
3) Pyridine	2.024	79	40158	4.93	ppm		93
4) N-Nitrosodimethylamine	2.008	42	29696	6.64	ppm		82
6) Indene	4.466	116	86672	7.87	ppm		95
7) Cumene	3.664	105	129011	6.95	ppm		99
9) Phenol	4.076	94	75218	7.73	ppm		88
10) Aniline	4.044	93	40532	3.84	ppm	#	49
11) bis(2-Chloroethyl)ether	4.086	93	55107	7.46	ppm		81
12) 2-Chlorophenol	4.140	128	50363	7.68	ppm		94
13) Decane	4.167	43	69283	8.29	ppm		81
14) 1,3-Dichlorobenzene	4.231	146	52962	7.11	ppm		98
15) 1,4-Dichlorobenzene	4.289	146	50035	6.83	ppm		98
16) Benzyl alcohol	4.402	108	32195	7.32	ppm		80
17) 1,2-Dichlorobenzene	4.402	146	48692	6.68	ppm		95
18) Acetophenone	4.583	105	77112	7.33	ppm		97
19) 2-Methylphenol	4.508	108	50448	7.94	ppm		99
20) 2,2'-oxybis(1-Chloropr...	4.492	121	15443	8.41	ppm	#	57
21) 3&4-Methylphenol	4.626	108	55673	8.13	ppm		96
22) n-Nitroso-di-n-propyla...	4.589	70	44128	8.02	ppm		93
23) Hexachloroethane	4.647	201	17467	6.68	ppm		87
26) Nitrobenzene	4.706	77	76913	8.33	ppm		97
27) Quinoline	5.470	129	98331	7.42	ppm		98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5835\
 Data File : p128944.D
 Acq On : 11 Apr 2019 9:08 am
 Operator : chriss2
 Sample : op19673-msd
 Misc : op19673,ep5835,30.4,,,1,5
 ALS Vial : 20 Sample Multiplier: 1

Quant Time: Apr 12 13:44:16 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MP5819.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Fri Apr 12 13:38:36 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
28) Isophorone	4.882	82	130393	8.21	ppm	96
29) 2-Nitrophenol	4.941	139	24859	6.75	ppm #	48
30) 2,4-Dimethylphenol	4.995	107	64671	8.94	ppm	97
31) Benzoic acid	5.080	105	9065m	1.58	ppm	
32) bis(2-Chloroethoxy)met...	5.043	93	68603	8.10	ppm	98
33) 2,4-Dichlorophenol	5.139	162	42222	7.26	ppm	98
34) 2,6-Dichlorophenol	5.288	162	38265	6.98	ppm	99
36) 1,2,4-Trichlorobenzene	5.176	180	42600	7.11	ppm	97
38) Naphthalene	5.230	128	162790	9.15	ppm	98
39) 4-Chloroaniline	5.283	127	32623	4.38	ppm	88
40) 2,3-Dichloroaniline	5.935	161	49116	6.74	ppm	92
41) Caprolactam	5.518	55	32712	7.58	ppm	87
42) Hexachlorobutadiene	5.326	225	26932	7.17	ppm	92
43) 4-Chloro-3-methylphenol	5.652	107	53934	7.73	ppm	100
44) 2-Methylnaphthalene	5.726	141	89097	8.45	ppm	94
45) 1-Methylnaphthalene	5.796	142	102244	7.54	ppm	92
46) Dimethylnaphthalene	6.191	156	88831	7.31	ppm	97
48) Hexachlorocyclopentadiene	5.844	237	19924	12.07	ppm	97
49) 2,4,6-Trichlorophenol	5.945	196	28509	7.32	ppm	92
50) 2,4,5-Trichlorophenol	5.983	196	32762	7.68	ppm	88
52) 2-Chloronaphthalene	6.084	162	88501	7.75	ppm	96
53) Biphenyl	6.068	154	120820	7.79	ppm	100
54) 2-Nitroaniline	6.170	65	46825	9.15	ppm	82
55) Dimethylphthalate	6.309	163	111799	7.79	ppm	99
56) Acenaphthylene	6.416	152	165233	8.72	ppm	98
57) 2,6-Dinitrotoluene	6.362	165	24279	7.96	ppm	91
58) 3-Nitroaniline	6.517	138	22208	6.66	ppm	96
59) Acenaphthene	6.565	153	101014	8.80	ppm	96
60) 2,4-Dinitrophenol	6.624	184	1792	7.07	ppm #	73
61) 4-Nitrophenol	6.725	109	17892	6.62	ppm #	1
62) Dibenzofuran	6.725	168	145465	8.61	ppm	91
63) 2,4-Dinitrotoluene	6.725	165	32715m	7.41	ppm	
64) 2,3,4,6-Tetrachlorophenol	6.864	232	21287	6.37	ppm	93
65) Diethylphthalate	6.960	149	120672	7.91	ppm	99
66) Fluorene	7.067	166	130773	9.19	ppm	98
67) 4-Chlorophenyl-phenyle...	7.073	204	50614	7.06	ppm	83
68) 4-Nitroaniline	7.110	138	24857	8.04	ppm	94
70) 4,6-Dinitro-2-methylph...	7.147	198	4614	2.21	ppm #	75
71) n-Nitrosodiphenylamine	7.206	169	80474	8.79	ppm	96
72) 1,2-Diphenylhydrazine	7.244	77	172974	9.93	ppm	95
74) 4-Bromophenyl-phenylether	7.639	248	29607	7.69	ppm	90
75) Hexachlorobenzene	7.719	284	29313	7.37	ppm	95
76) Pentachlorophenol	8.002	266	10113	7.68	ppm	85
77) Phenanthrene	8.269	178	384858	21.06	ppm	98
78) Anthracene	8.339	178	213590	10.98	ppm	99
79) Carbazole	8.611	167	180840	10.03	ppm	99
80) Di-n-butylphthalate	9.274	149	210443	7.89	ppm	99
81) Fluoranthene	10.283	202	543493	24.64	ppm	94
82) Octadecane	8.157	57	103794	10.00	ppm	85
84) Pyrene	10.705	202	497442	24.65	ppm	94

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5835\
 Data File : p128944.D
 Acq On : 11 Apr 2019 9:08 am
 Operator : chriss2
 Sample : op19673-msd
 Misc : op19673,ep5835,30.4,,,1,5
 ALS Vial : 20 Sample Multiplier: 1

Quant Time: Apr 12 13:44:16 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MP5819.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Fri Apr 12 13:38:36 2019
 Response via : Initial Calibration

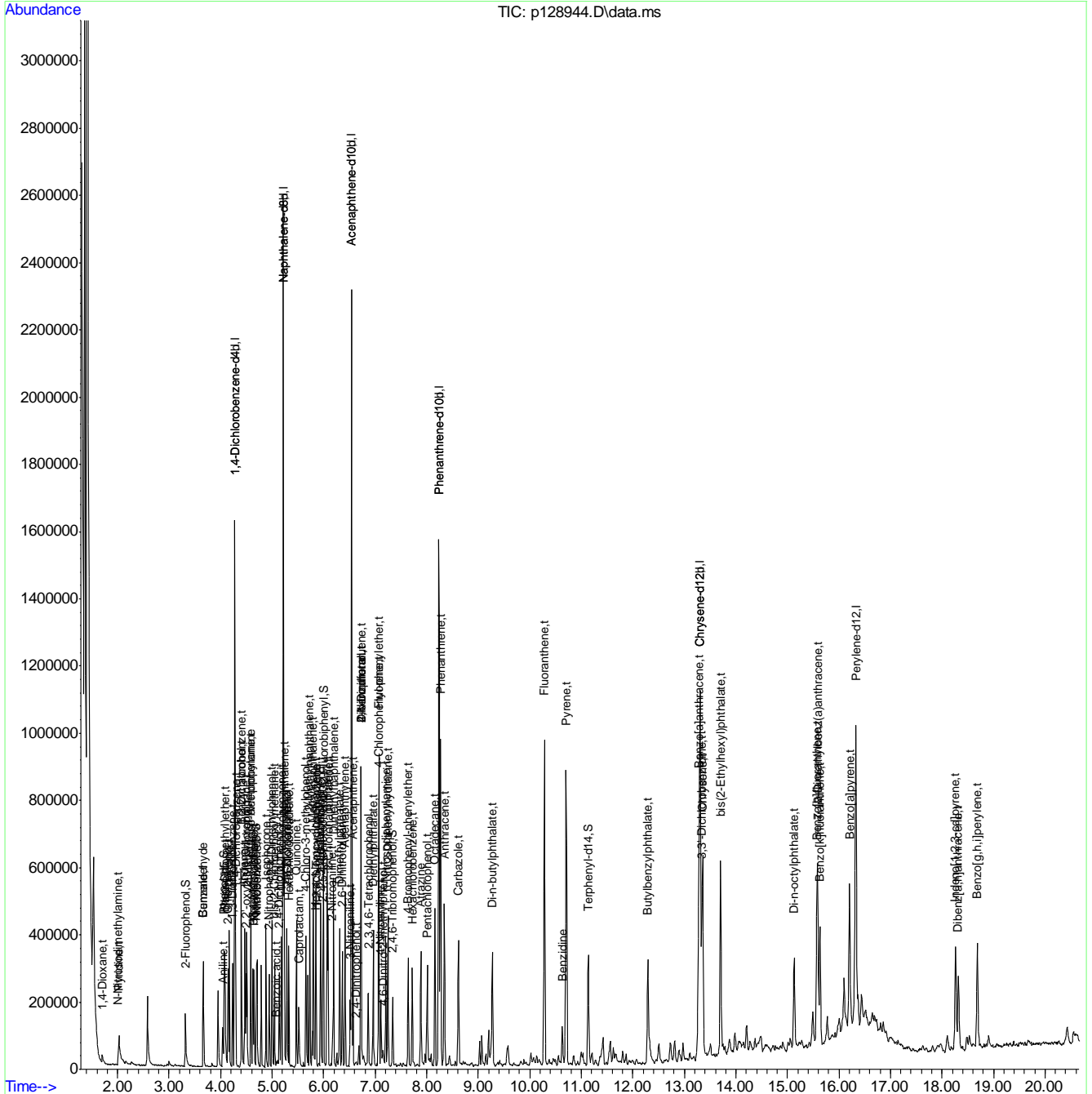
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
86) Butylbenzylphthalate	12.292	149	96048	8.85	ppm	94
87) Benzo[a]anthracene	13.286	228	324011	17.44	ppm	99
88) 3,3'-Dichlorobenzidine	13.339	252	80952	13.81	ppm	97
89) Chrysene	13.355	228	289524	17.58	ppm	99
90) bis(2-Ethylhexyl)phtha...	13.702	149	238162	15.92	ppm	96
92) Di-n-octylphthalate	15.129	149	216234	8.03	ppm	95
93) Benzo[b]fluoranthene	15.572	252	322804	17.18	ppm	94
94) Benzo[k]fluoranthene	15.631	252	197389	12.37	ppm	99
95) Benzo[a]pyrene	16.208	252	258637	16.35	ppm	99
96) Indeno[1,2,3-cd]pyrene	18.259	276	211420	14.75	ppm	86
98) Dibenz[a,h]anthracene	18.313	278	134827	9.21	ppm	92
99) 7,12-Dimethylbenz(a)an...	15.583	256	46977m	6.08	ppm	
100) Benzo[g,h,i]perylene	18.687	276	206314	14.84	ppm	92
102) Benzaldehyde	3.664	105	129011	22.58	ppm #	13
104) Atrazine	7.885	200	33329	8.82	ppm	91
106) Benzidine	10.631	184	60301	4.76	ppm	98
110) 1,2,4,5-Tetrachloroben...	5.855	216	43118	7.85	ppm	100

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5835\
Data File : p128944.D
Acq On : 11 Apr 2019 9:08 am
Operator : chriss2
Sample : op19673-msd
Misc : op19673,ep5835,30.4,,,1,5
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Apr 12 13:44:16 2019
Quant Method : C:\MSDCHEM\1\METHODS\MP5819.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Apr 12 13:38:36 2019
Response via : Initial Calibration



Manual Integration Approval Summary

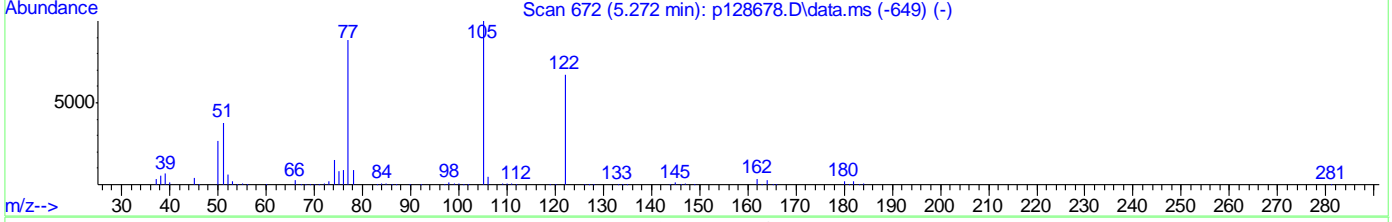
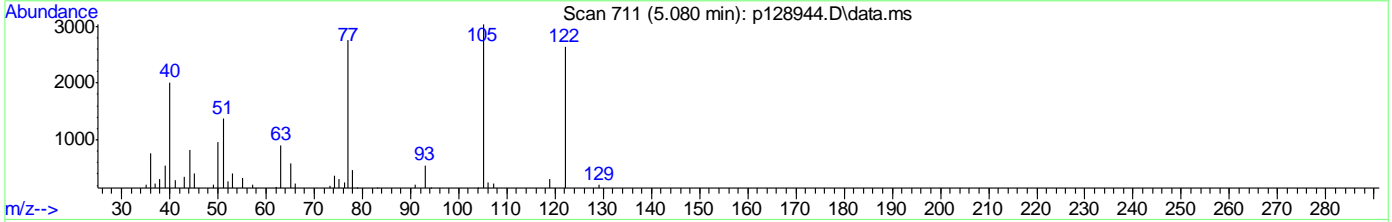
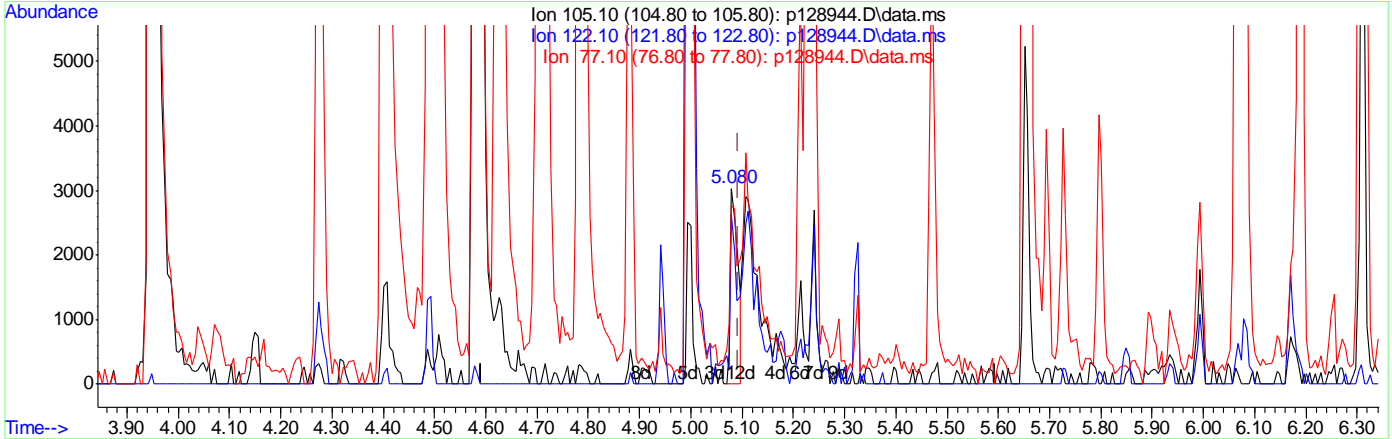
Sample Number: OP19673-MSD Method: SW846 8270D
Lab FileID: P128944.D Analyst approved: 04/12/19 14:05 Dipa Patel
Injection Time: 04/11/19 09:08 Supervisor approved: 04/18/19 13:31 Nancy Ma

Parameter	CAS	Sig#	R.T. (min.)	Reason
Benzoic acid	65-85-0		5.08	Poor instrument integration
2,4-Dinitrotoluene	121-14-2		6.73	Poor instrument integration
7,12-Dimethylbenz(a)anthracene	57-97-6		15.58	Poor instrument integration

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EP5835\
 Data File : p128944.D
 Acq On : 11 Apr 2019 9:08 am
 Operator : chriss2
 Sample : op19673-msd
 Misc : op19673,ep5835,30.4,,,1,5
 ALS Vial : 20 Sample Multiplier: 1

Quant Time: Apr 12 13:38:39 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MP5819.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Fri Apr 12 13:38:36 2019
 Response via : Initial Calibration



TIC: p128944.D\data.ms

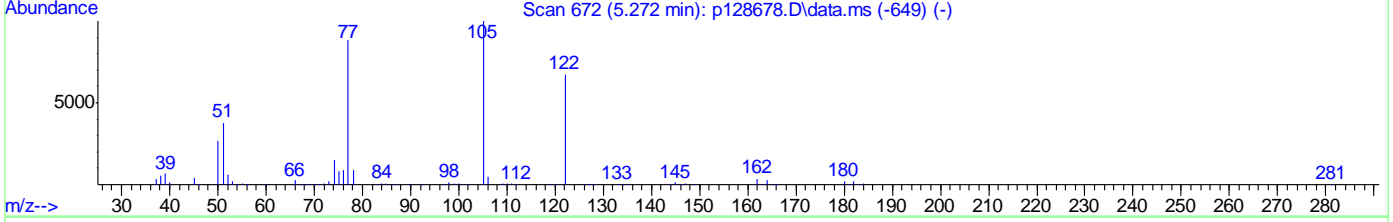
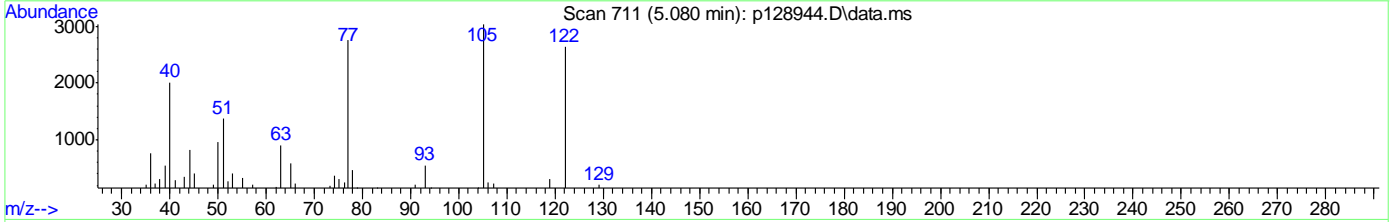
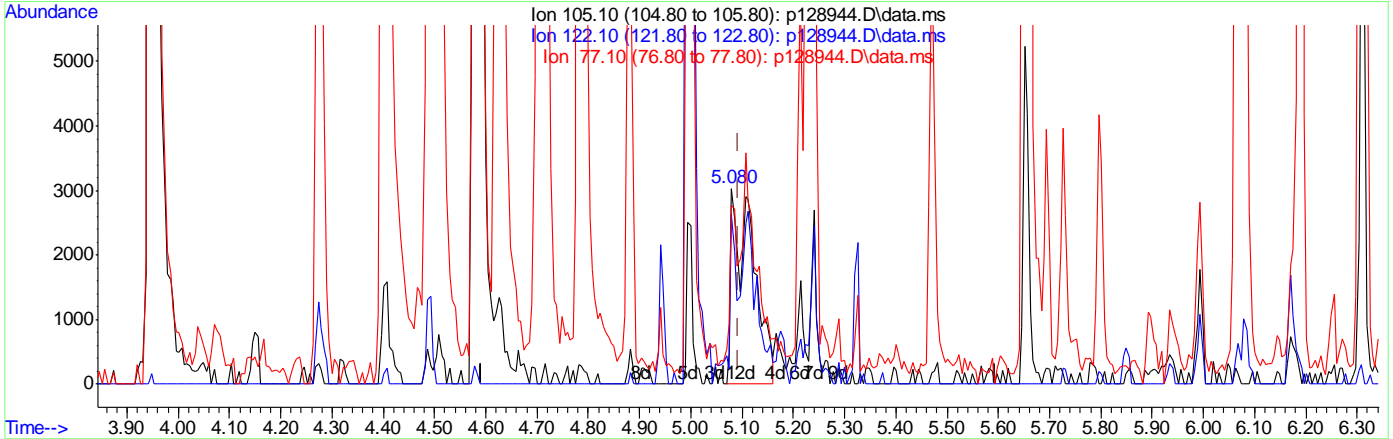
(31) Benzoic acid (t)		
5.080min (-0.013)	0.54ppm	
response	3086	
Ion	Exp%	Act%
105.10	100	100
122.10	66.60	74.74
77.10	88.20	65.69
0.00	0.00	0.00

9.4.2.2
9

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EP5835\
 Data File : p128944.D
 Acq On : 11 Apr 2019 9:08 am
 Operator : chriss2
 Sample : op19673-msd
 Misc : op19673,ep5835,30.4,,,1,5
 ALS Vial : 20 Sample Multiplier: 1

Quant Time: Apr 12 13:38:39 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MP5819.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Fri Apr 12 13:38:36 2019
 Response via : Initial Calibration



TIC: p128944.D\data.ms

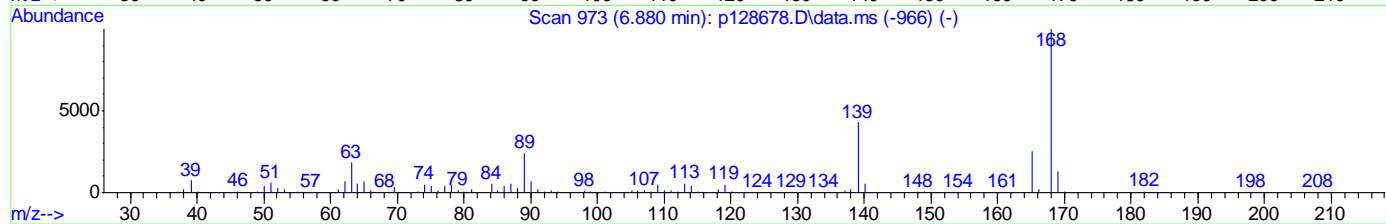
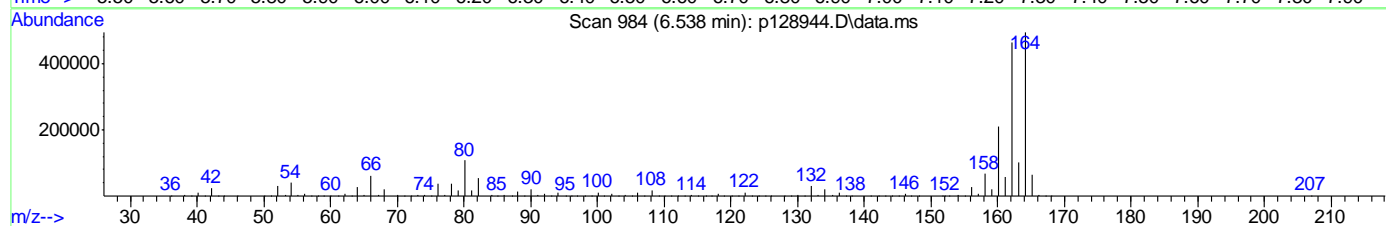
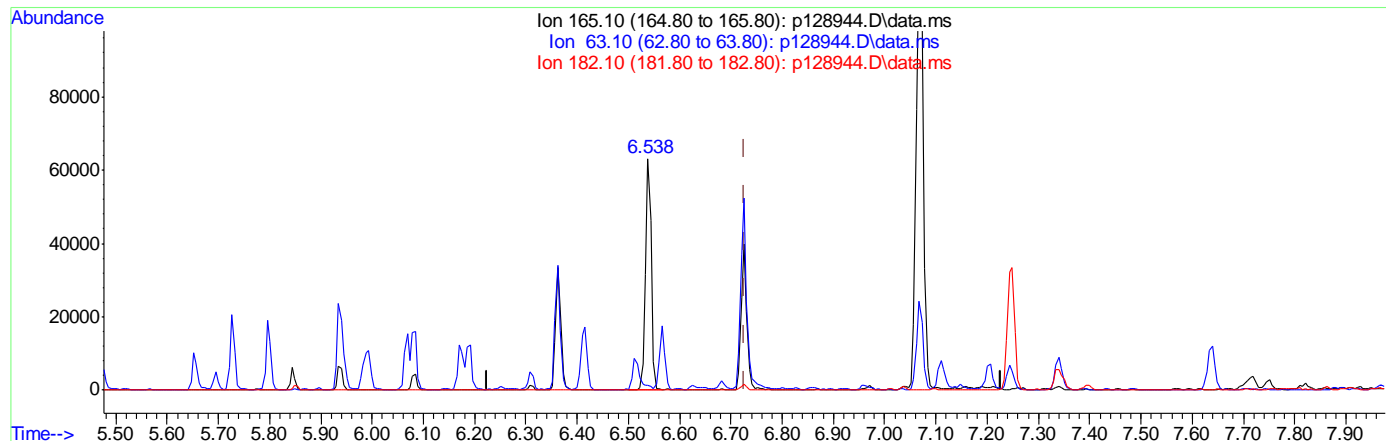
(31) Benzoic acid (t)		
5.080min (-0.013)	1.58ppm	m
response	9065	
Ion	Exp%	Act%
105.10	100	100
122.10	66.60	86.94
77.10	88.20	91.13
0.00	0.00	0.00

9.4.2.3
9

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EP5835\
 Data File : p128944.D
 Acq On : 11 Apr 2019 9:08 am
 Operator : chriss2
 Sample : op19673-msd
 Misc : op19673,ep5835,30.4,,,1,5
 ALS Vial : 20 Sample Multiplier: 1

Quant Time: Apr 12 13:38:39 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MP5819.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Fri Apr 12 13:38:36 2019
 Response via : Initial Calibration



TIC: p128944.D\data.ms

(63) 2,4-Dinitrotoluene (t)

6.538min (-0.188) 11.46ppm

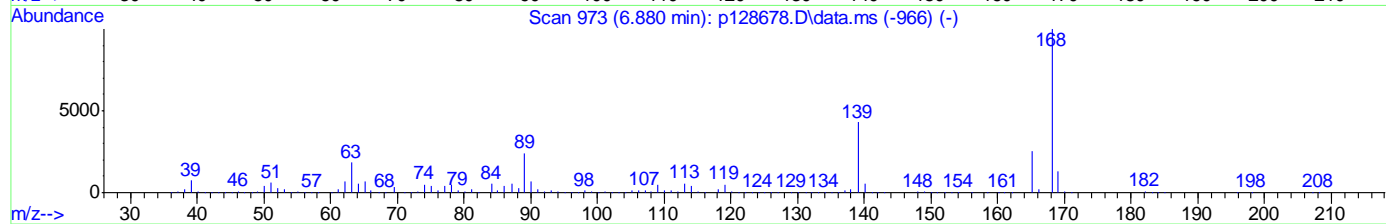
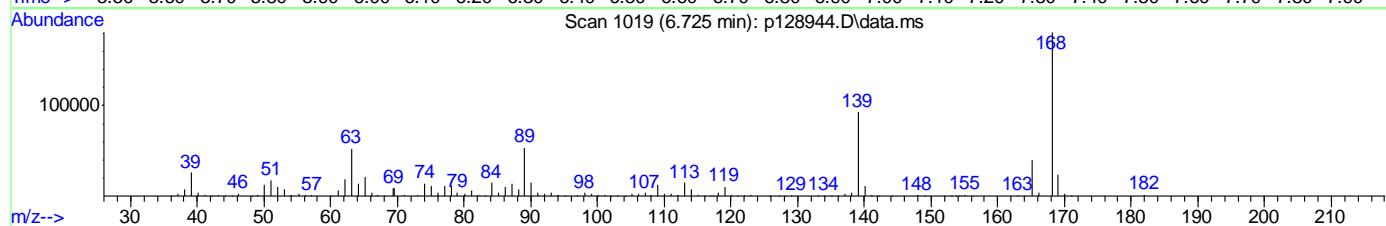
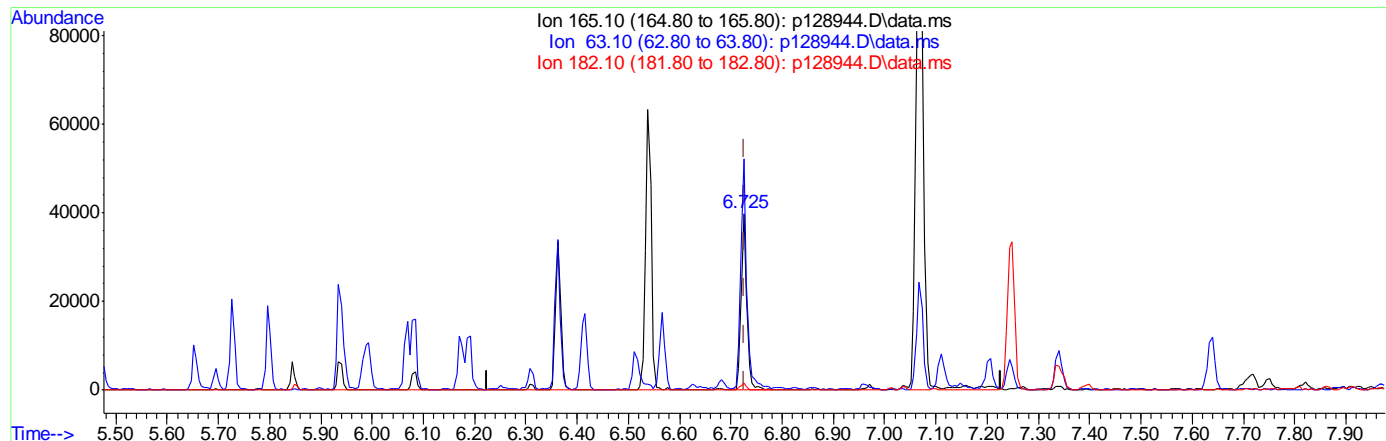
response 50556

Ion	Exp%	Act%
165.10	100	100
63.10	71.70	0.00#
182.10	4.10	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EP5835\
 Data File : p128944.D
 Acq On : 11 Apr 2019 9:08 am
 Operator : chriss2
 Sample : op19673-msd
 Misc : op19673,ep5835,30.4,,,1,5
 ALS Vial : 20 Sample Multiplier: 1

Quant Time: Apr 12 13:38:39 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MP5819.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Fri Apr 12 13:38:36 2019
 Response via : Initial Calibration



TIC: p128944.D\data.ms

(63) 2,4-Dinitrotoluene (t)

6.725min (-0.001) 7.41ppm m

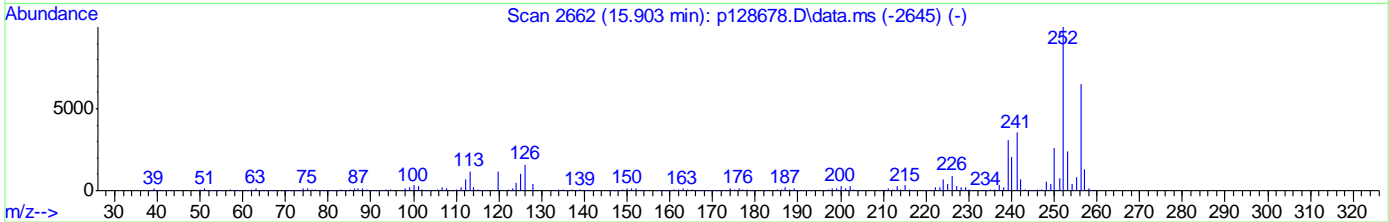
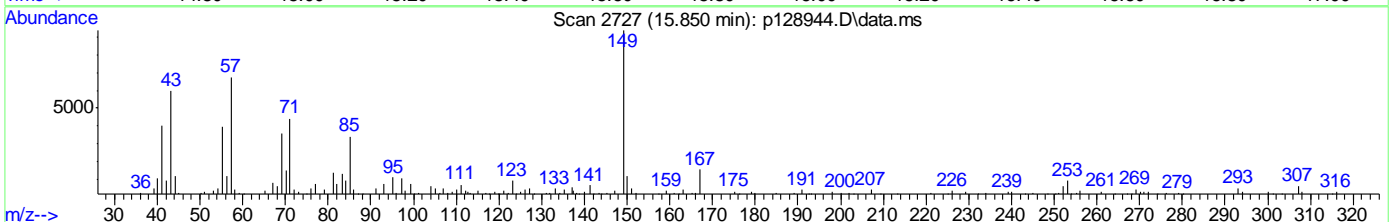
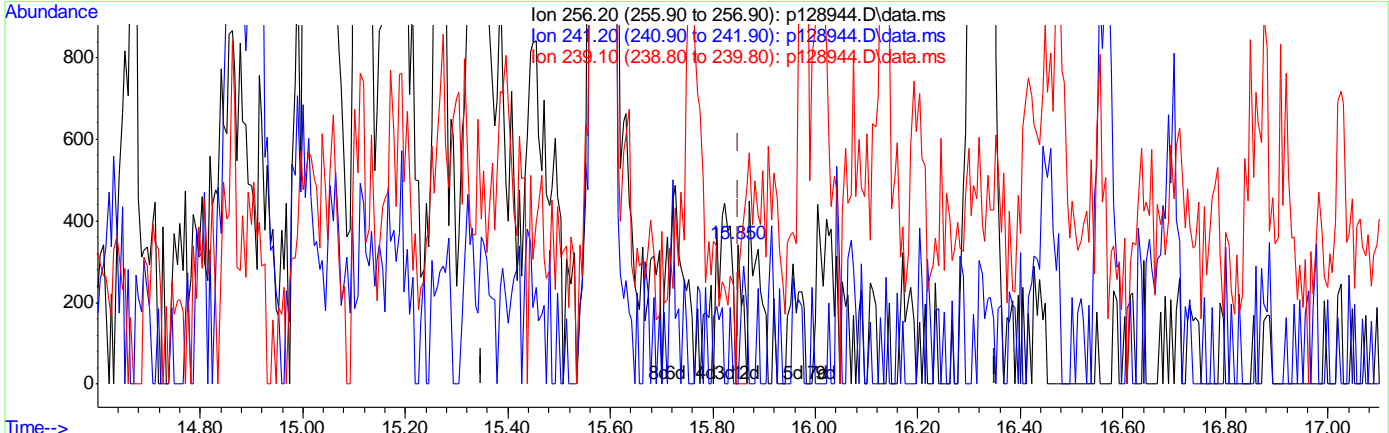
response 32715

Ion	Exp%	Act%
165.10	100	100
63.10	71.70	131.34#
182.10	4.10	3.81
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EP5835\
 Data File : p128944.D
 Acq On : 11 Apr 2019 9:08 am
 Operator : chriss2
 Sample : op19673-msd
 Misc : op19673,ep5835,30.4,,,1,5
 ALS Vial : 20 Sample Multiplier: 1

Quant Time: Apr 12 13:38:39 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MP5819.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Fri Apr 12 13:38:36 2019
 Response via : Initial Calibration



TIC: p128944.D\data.ms

(99) 7,12-Dimethylbenz(a)anthracene (t)

15.850min (-0.000) 0.03ppm

response 241

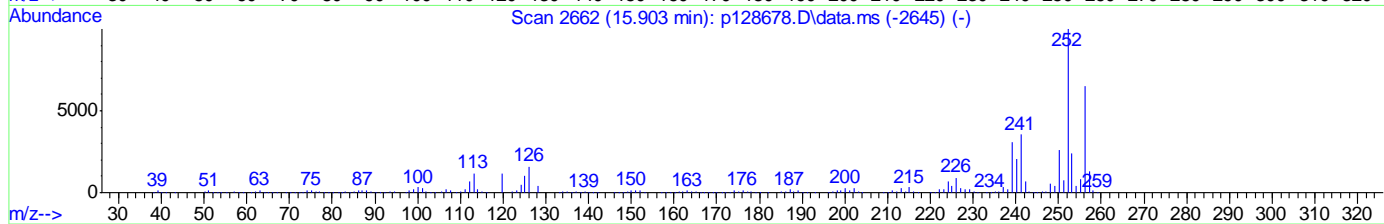
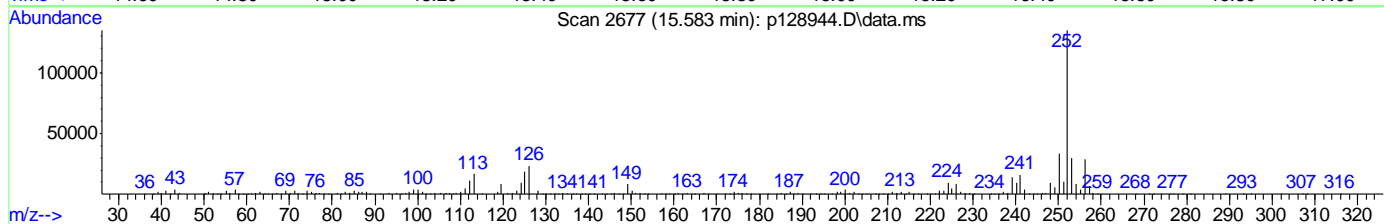
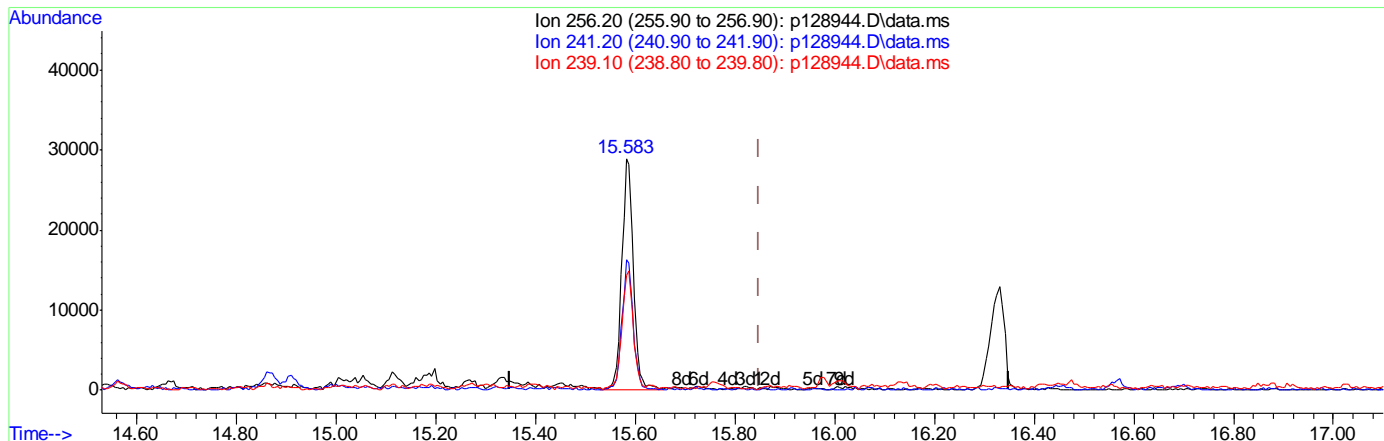
Ion	Exp%	Act%
256.20	100	100
241.20	54.30	0.00#
239.10	47.40	3.22#
0.00	0.00	0.00

9.4.2.6
9

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EP5835\
 Data File : p128944.D
 Acq On : 11 Apr 2019 9:08 am
 Operator : chriss2
 Sample : op19673-msd
 Misc : op19673,ep5835,30.4,,,1,5
 ALS Vial : 20 Sample Multiplier: 1

Quant Time: Apr 12 13:38:39 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MP5819.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Fri Apr 12 13:38:36 2019
 Response via : Initial Calibration



TIC: p128944.D\data.ms

(99) 7,12-Dimethylbenz(a)anthracene (t)

15.583min (-0.267) 6.08ppm m

response 46977

Ion	Exp%	Act%
256.20	100	100
241.20	54.30	56.36
239.10	47.40	49.66
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3822\
 Data File : 2p86467.D
 Acq On : 11 Apr 2019 9:16 am
 Operator : chriss2
 Sample : op19672-ms
 Misc : op19672,e2p3822,3l.2,,,1,1
 ALS Vial : 18 Sample Multiplier: 1

Quant Time: Apr 11 10:50:18 2019
 Quant Method : C:\MSDCHEM\1\METHODS\M2P3816.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Fri Apr 05 14:12:48 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.734	152	450381	40.00	ppm	-0.10
24) Naphthalene-d8	5.772	136	1562625	40.00	ppm	-0.10
47) Acenaphthene-d10	7.205	164	832987	40.00	ppm	-0.11
69) Phenanthrene-d10	8.478	188	1274826	40.00	ppm	-0.13
83) Chrysene-d12	11.725	240	1125075	40.00	ppm	-0.17
91) Perylene-d12	13.709	264	1077121	40.00	ppm	-0.19
101) 1,4-Dichlorobenzene-d4a	4.734	152	450381	40.00	ppm	-0.10
103) Naphthalene-d8a	5.772	136	1562865	40.00	ppm	-0.10
105) Acenaphthene-d10a	7.205	164	832987	40.00	ppm	-0.11
108) Chrysene-d12a	11.725	240	1125455	40.00	ppm	-0.17
110) Phenanthrene-d10a	8.478	188	1274826	40.00	ppm	-0.13

System Monitoring Compounds						
5) 2-Fluorophenol	3.696	112	755463	33.33	ppm	-0.09
Spiked Amount	50.000	Range	11 - 58	Recovery	=	66.66%#
8) Phenol-d5	4.483	99	904899	36.43	ppm	-0.10
Spiked Amount	50.000	Range	10 - 59	Recovery	=	72.86%#
25) Nitrobenzene-d5	5.189	82	778016	37.04	ppm	-0.10
Spiked Amount	50.000	Range	19 - 61	Recovery	=	74.08%#
51) 2-Fluorobiphenyl	6.660	172	1136703	39.42	ppm	-0.11
Spiked Amount	50.000	Range	21 - 58	Recovery	=	78.84%#
73) 2,4,6-Tribromophenol	7.858	330	179888	40.23	ppm	-0.12
Spiked Amount	50.000	Range	12 - 68	Recovery	=	80.46%#
85) Terphenyl-d14	10.302	244	1109222	39.62	ppm	-0.16
Spiked Amount	50.000	Range	16 - 65	Recovery	=	79.24%#
111) 1-Chlorooctadecane	0.000	57	0d	0.00	ppm	
Spiked Amount	50.000	Range	20 - 70	Recovery	=	0.00%#
112) o-terphenyl	0.000	230	0d	0.00	ppm	
Spiked Amount	50.000	Range	20 - 70	Recovery	=	0.00%#

Target Compounds						Qvalue
2) 1,4-Dioxane	2.070	88	260140	21.13	ppm	97
3) Pyridine	2.418	79	800145	25.84	ppm	97
4) N-Nitrosodimethylamine	2.397	74	537913	27.74	ppm	98
6) Indene	4.943	116	987256	40.77	ppm	99
7) Cumene	4.087	105	1872558	32.73	ppm	98
9) Phenol	4.493	94	901470	34.78	ppm	97
10) Aniline	4.472	93	540423	18.77	ppm	97
11) bis(2-Chloroethyl)ether	4.531	93	660727	35.67	ppm	98
12) 2-Chlorophenol	4.579	128	609372	36.61	ppm	97
13) Decane	4.622	57	501457	31.80	ppm	98
14) 1,3-Dichlorobenzene	4.691	146	621853	33.86	ppm	100
15) 1,4-Dichlorobenzene	4.750	146	626494	38.16	ppm	98
16) Benzyl alcohol	4.868	108	396833	43.60	ppm	95
17) 1,2-Dichlorobenzene	4.873	146	592085	37.52	ppm	99
18) Acetophenone	5.066	105	845913	37.26	ppm	92
19) 2-Methylphenol	4.975	108	528316	39.95	ppm	98
20) 2,2'-oxybis(1-Chloropr...	4.969	121	166537	43.55	ppm	# 87
21) 3&4-Methylphenol	5.098	108	545249	40.69	ppm	100

9.4.3
 9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3822\
 Data File : 2p86467.D
 Acq On : 11 Apr 2019 9:16 am
 Operator : chriss2
 Sample : op19672-ms
 Misc : op19672,e2p3822,3l.2,,,1,1
 ALS Vial : 18 Sample Multiplier: 1

Quant Time: Apr 11 10:50:18 2019
 Quant Method : C:\MSDCHEM\1\METHODS\M2P3816.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Fri Apr 05 14:12:48 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
22) n-Nitroso-di-n-propyla...	5.082	70	469846	39.23	ppm	97
23) Hexachloroethane	5.146	201	198918	35.82	ppm	96
26) Nitrobenzene	5.205	77	690570	33.57	ppm	98
27) Quinoline	6.061	129	1044351	37.79	ppm	99
28) Isophorone	5.403	82	1319998	36.53	ppm	98
29) 2-Nitrophenol	5.467	139	296940	35.35	ppm	89
30) 2,4-Dimethylphenol	5.520	107	679896	45.68	ppm	97
31) Benzoic acid	5.617	105	36864m	2.81	ppm	
32) bis(2-Chloroethoxy)met...	5.584	93	746035	37.09	ppm	99
33) 2,4-Dichlorophenol	5.675	162	455461	38.78	ppm	99
34) 2,6-Dichlorophenol	5.852	162	399985	37.96	ppm	99
36) 1,2,4-Trichlorobenzene	5.729	180	479836	36.68	ppm	98
38) Naphthalene	5.788	128	1698286	45.43	ppm	99
39) 4-Chloroaniline	5.841	127	188017	12.26	ppm	89
40) 2,3-Dichloroaniline	6.590	161	441935	29.93	ppm	96
41) Caprolactam	6.141	113	150061	31.13	ppm	91
42) Hexachlorobutadiene	5.895	225	292310	38.97	ppm	98
43) 4-Chloro-3-methylphenol	6.264	107	592083	38.94	ppm	77
44) 2-Methylnaphthalene	6.355	141	944930	39.75	ppm	97
45) 1-Methylnaphthalene	6.435	141	968641	37.19	ppm	98
46) Dimethylnaphthalene	6.868	156	891346	37.09	ppm	99
48) Hexachlorocyclopentadiene	6.488	237	456020	57.90	ppm	99
49) 2,4,6-Trichlorophenol	6.601	196	305782	39.21	ppm	98
50) 2,4,5-Trichlorophenol	6.638	196	307332	37.87	ppm	99
52) 2-Chloronaphthalene	6.750	162	818248	34.26	ppm	98
53) Biphenyl	6.740	154	1233721	36.96	ppm	100
54) 2-Nitroaniline	6.841	65	357061	34.82	ppm	84
55) Dimethylphthalate	6.997	163	1027890	34.77	ppm	99
56) Acenaphthylene	7.087	152	1443640	35.43	ppm	99
57) 2,6-Dinitrotoluene	7.045	165	227491	35.09	ppm	95
58) 3-Nitroaniline	7.178	138	126104	17.24	ppm	92
59) Acenaphthene	7.232	153	1236426	51.70	ppm	97
60) 2,4-Dinitrophenol	7.269	184	22127	11.46	ppm #	42
61) 4-Nitrophenol	7.350	109	202167	37.52	ppm	86
62) Dibenzofuran	7.371	168	1609235	48.79	ppm	96
63) 2,4-Dinitrotoluene	7.376	165	329342	39.51	ppm	91
64) 2,3,4,6-Tetrachlorophenol	7.489	232	252312	33.45	ppm	95
65) Diethylphthalate	7.574	149	1105753	36.00	ppm	99
66) Fluorene	7.654	166	1584157	56.01	ppm	99
67) 4-Chlorophenyl-phenyle...	7.654	204	567932	41.79	ppm	97
68) 4-Nitroaniline	7.686	138	176791	28.04	ppm	93
70) 4,6-Dinitro-2-methylph...	7.713	198	74038	19.45	ppm	81
71) n-Nitrosodiphenylamine	7.756	169	713206	41.43	ppm	98
72) 1,2-Diphenylhydrazine	7.788	77	1308568	38.99	ppm	92
74) 4-Bromophenyl-phenylether	8.066	248	314895	41.32	ppm	92
75) Hexachlorobenzene	8.130	284	347813	41.22	ppm	98
76) Pentachlorophenol	8.318	266	214616	37.84	ppm	96
77) Phenanthrene	8.510	178	5046859	158.92	ppm	99
78) Anthracene	8.558	178	2181942	67.57	ppm	100
79) Carbazole	8.724	167	1727930	51.75	ppm	98

9.4.3
9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3822\
 Data File : 2p86467.D
 Acq On : 11 Apr 2019 9:16 am
 Operator : chriss2
 Sample : op19672-ms
 Misc : op19672,e2p3822,31.2,,,1,1
 ALS Vial : 18 Sample Multiplier: 1

Quant Time: Apr 11 10:50:18 2019
 Quant Method : C:\MSDCHEM\1\METHODS\M2P3816.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Fri Apr 05 14:12:48 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
80) Di-n-butylphthalate	9.104	149	1807884	35.69	ppm	99
81) Fluoranthene	9.826	202	4848004	107.42	ppm	98
82) Octadecane	8.398	43	390932	37.23	ppm	98
84) Pyrene	10.083	202	4373331	99.90	ppm	94
86) Butylbenzylphthalate	10.992	149	884509	36.03	ppm	96
87) Benzo[a]anthracene	11.714	228	2930155	69.34	ppm	99
88) 3,3'-Dichlorobenzidine	11.714	252	854110	48.87	ppm	100
89) Chrysene	11.768	228	2035966	67.91	ppm	99
90) bis(2-Ethylhexyl)phtha...	11.864	149	1082228	42.83	ppm	98
92) Di-n-octylphthalate	12.800	149	2007939	39.01	ppm	100
93) Benzo[b]fluoranthene	13.222	252	2717027	76.98	ppm	96
94) Benzo[k]fluoranthene	13.254	252	1453391	50.36	ppm	100
95) Benzo[a]pyrene	13.640	252	2101561	70.85	ppm	99
96) Indeno[1,2,3-cd]pyrene	15.068	276	2006006	59.34	ppm	97
98) Dibenz[a,h]anthracene	15.094	278	1180237	44.82	ppm	99
99) 7,12-Dimethylbenz(a)an...	13.212	256	458849	28.57	ppm	100
100) Benzo[g,h,i]perylene	15.437	276	1678755	62.73	ppm	97
102) Benzaldehyde	4.376	105	510330	31.34	ppm	89
106) Atrazine	8.237	215	139383	38.98	ppm	92
107) 1,2,4,5-Tetrachloroben...	6.494	216	466509	37.41	ppm	97
109) Benzidine	9.981	184	378702m	27.04	ppm	
113) Pentachloronitrobenzene	8.334	295	58987	41.08	ppm	99

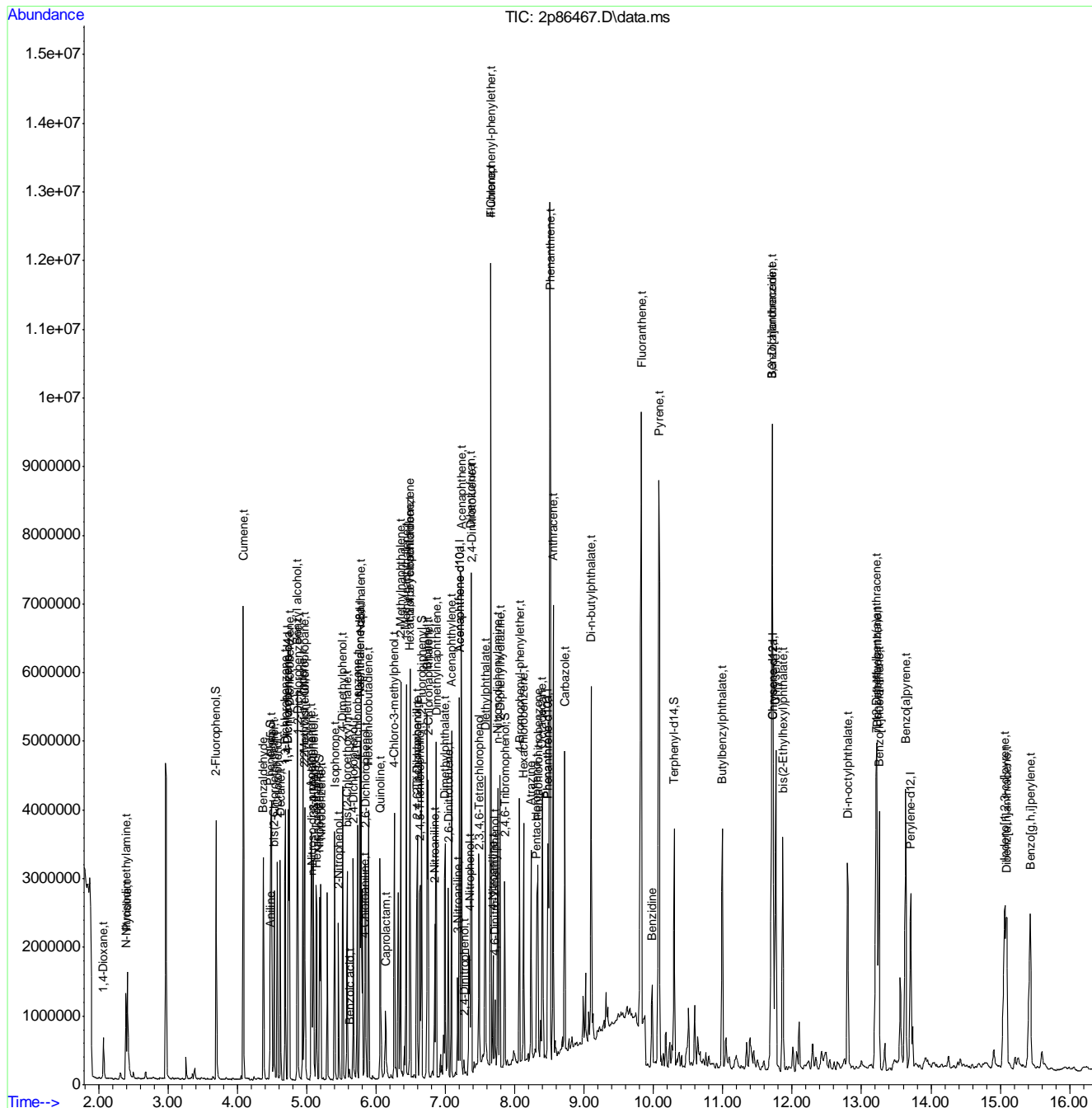
(#) = qualifier out of range (m) = manual integration (+) = signals summed

9.4.3
9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3822\
 Data File : 2p86467.D
 Acq On : 11 Apr 2019 9:16 am
 Operator : chriss2
 Sample : op19672-ms
 Misc : op19672,e2p3822,3l.2,,1,1
 ALS Vial : 18 Sample Multiplier: 1

Quant Time: Apr 11 10:50:18 2019
 Quant Method : C:\MSDCHEM\1\METHODS\M2P3816.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Fri Apr 05 14:12:48 2019
 Response via : Initial Calibration



Manual Integration Approval Summary

Sample Number: OP19672-MS Method: SW846 8270D
Lab FileID: 2P86467.D Analyst approved: 04/11/19 15:07 Ying Li
Injection Time: 04/11/19 09:16 Supervisor approved: 04/11/19 15:10 Nina Pandya

Parameter	CAS	Sig#	R.T. (min.)	Reason
Benzoic acid	65-85-0		5.62	Split peak
Benzidine	92-87-5		9.98	Poor instrument integration

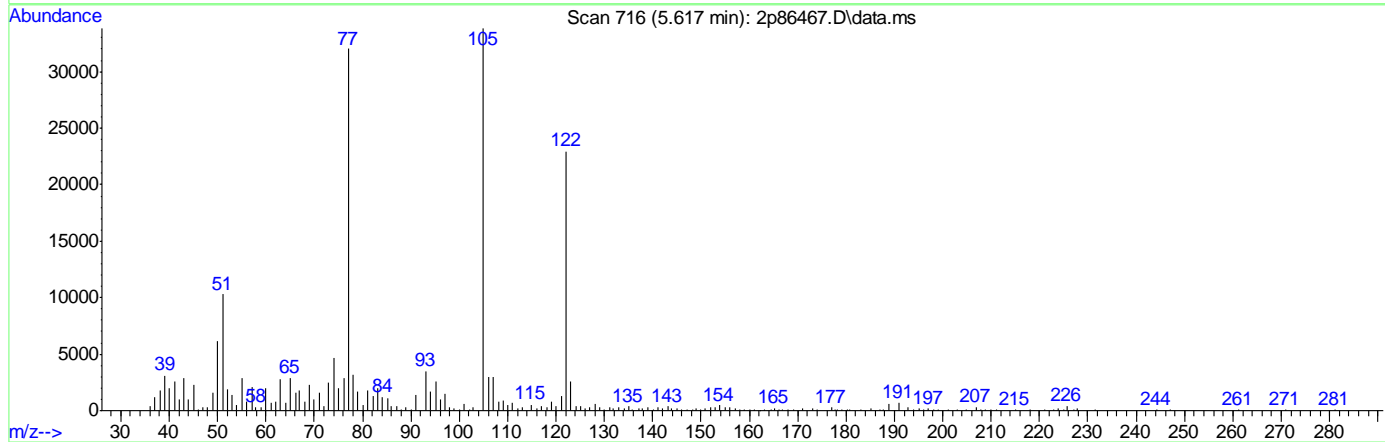
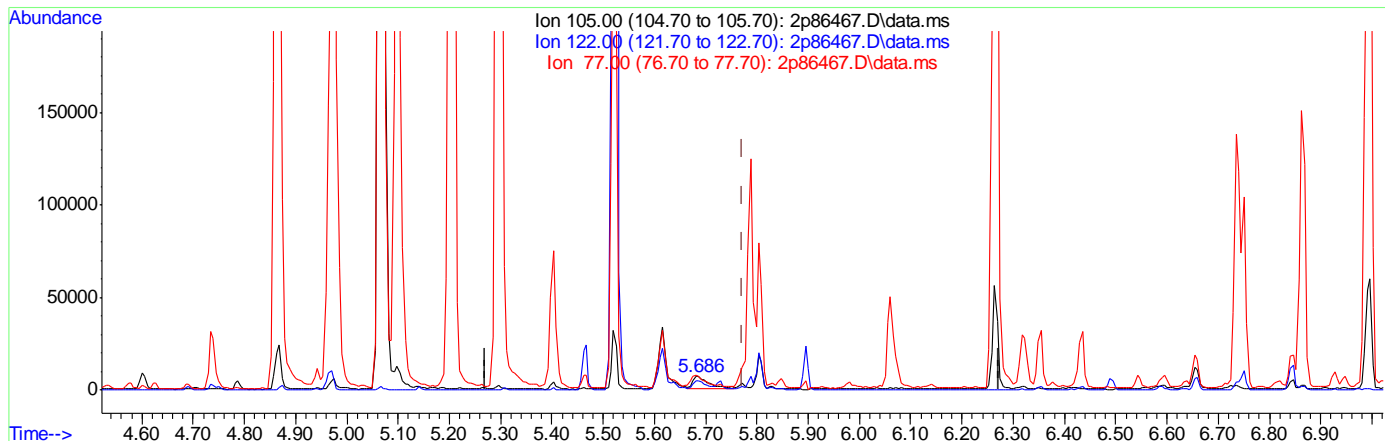
9.4.3.1

9

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2P3822\
 Data File : 2p86467.D
 Acq On : 11 Apr 2019 9:16 am
 Operator : chriss2
 Sample : op19672-ms
 Misc : op19672,e2p3822,31.2,,,1,1
 ALS Vial : 18 Sample Multiplier: 1

Quant Time: Apr 11 10:48:38 2019
 Quant Method : C:\MSDCHEM\1\METHODS\M2P3816.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Fri Apr 05 14:12:48 2019
 Response via : Initial Calibration



(31) Benzoic acid (t)
 5.686min (-0.086) 1.13ppm
 response 14866

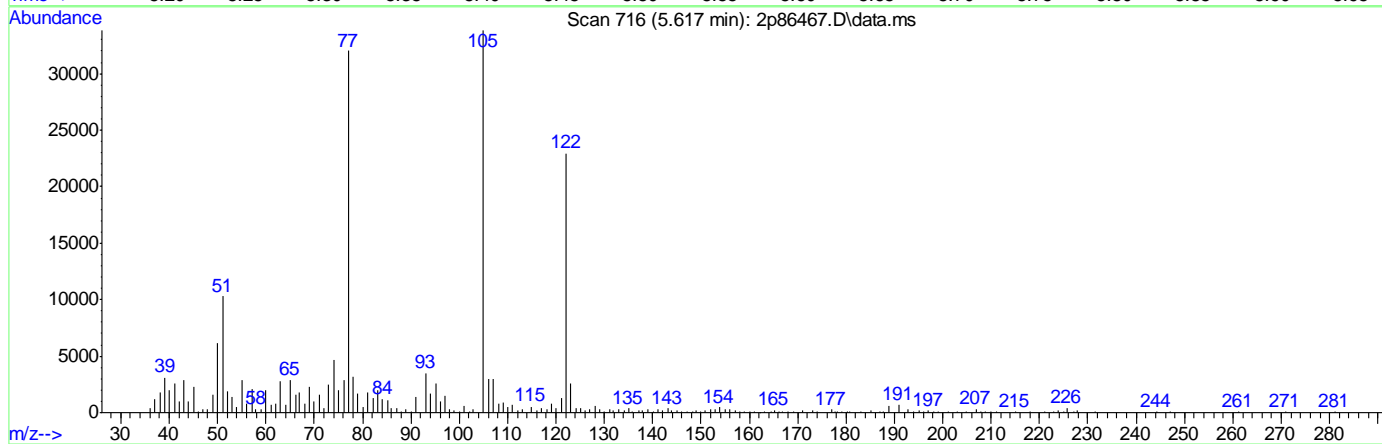
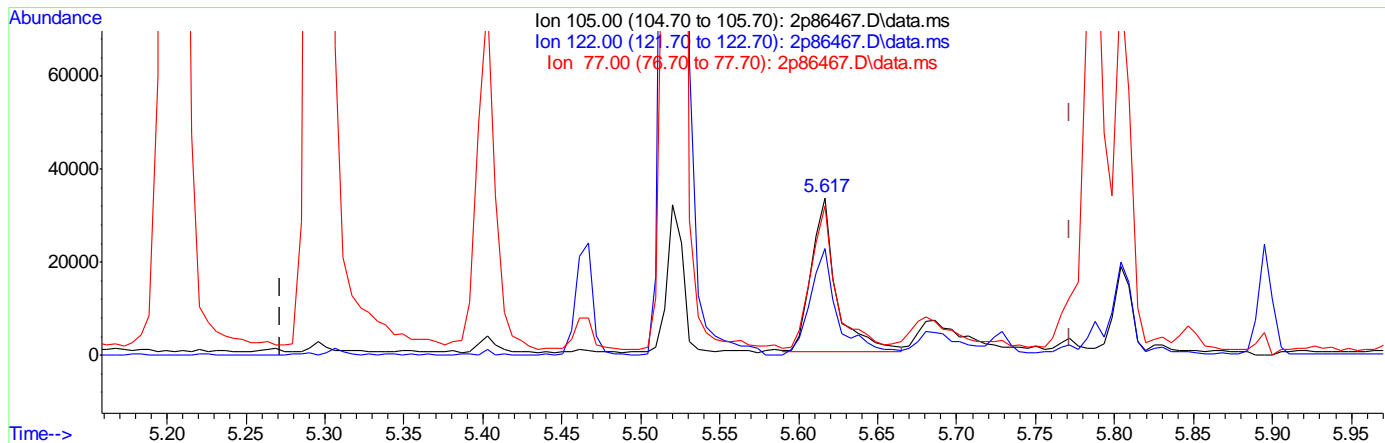
Ion	Exp%	Act%
105.00	100	100
122.00	68.60	64.55
77.00	83.90	82.08
0.00	0.00	0.00

9.4.3.2
 9

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2P3822\
 Data File : 2p86467.D
 Acq On : 11 Apr 2019 9:16 am
 Operator : chriss2
 Sample : op19672-ms
 Misc : op19672,e2p3822,31.2,,,1,1
 ALS Vial : 18 Sample Multiplier: 1

Quant Time: Apr 11 10:48:38 2019
 Quant Method : C:\MSDCHEM\1\METHODS\M2P3816.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Fri Apr 05 14:12:48 2019
 Response via : Initial Calibration



(31) Benzoic acid (t)
 5.617min (-0.155) 2.81ppm m
 response 36864

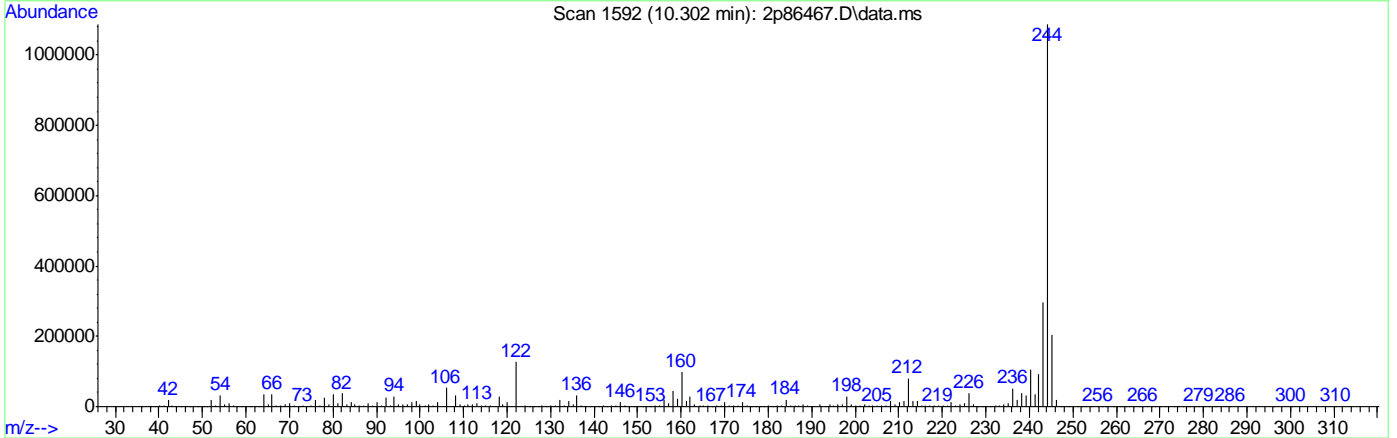
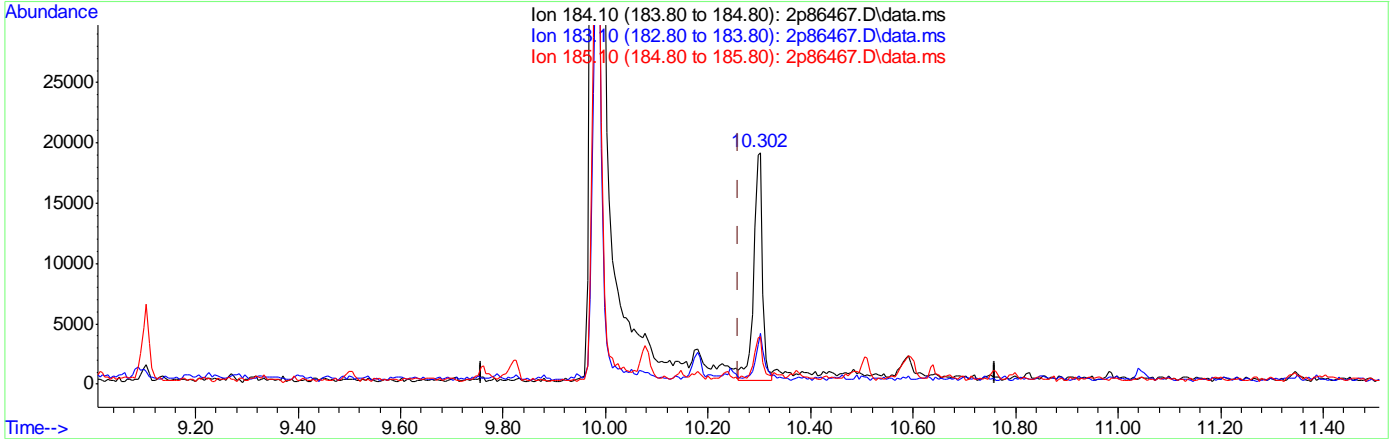
Ion	Exp%	Act%
105.00	100	100
122.00	68.60	67.77
77.00	83.90	94.87
0.00	0.00	0.00

9.4.3.3
9

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2P3822\
 Data File : 2p86467.D
 Acq On : 11 Apr 2019 9:16 am
 Operator : chriss2
 Sample : op19672-ms
 Misc : op19672,e2p3822,31.2,,,1,1
 ALS Vial : 18 Sample Multiplier: 1

Quant Time: Apr 11 10:48:38 2019
 Quant Method : C:\MSDCHEM\1\METHODS\M2P3816.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Fri Apr 05 14:12:48 2019
 Response via : Initial Calibration



(109) Benzidine
 10.302min (+0.043) 7.29ppm
 response 22844

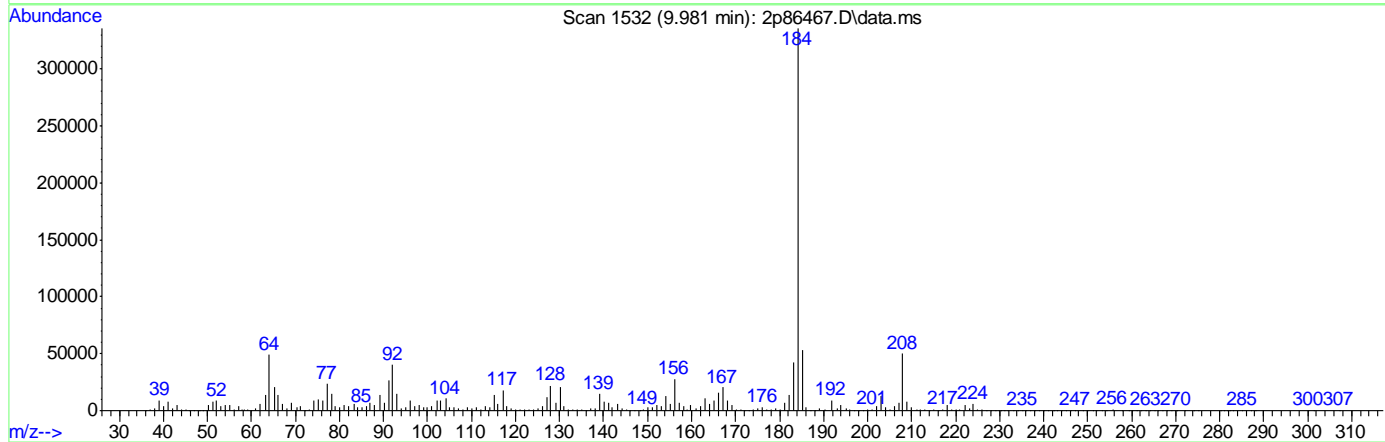
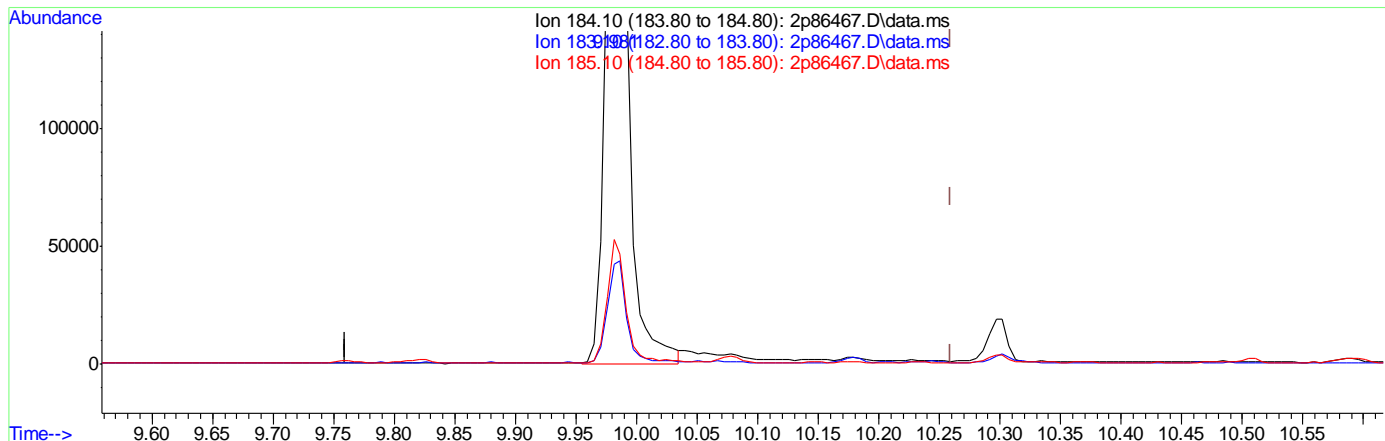
Ion	Exp%	Act%
184.10	100	100
183.10	12.00	19.47
185.10	21.20	18.84
0.00	0.00	0.00

9.4.3.4
9

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2P3822\
 Data File : 2p86467.D
 Acq On : 11 Apr 2019 9:16 am
 Operator : chriss2
 Sample : op19672-ms
 Misc : op19672,e2p3822,31.2,,,1,1
 ALS Vial : 18 Sample Multiplier: 1

Quant Time: Apr 11 10:48:38 2019
 Quant Method : C:\MSDCHEM\1\METHODS\M2P3816.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Fri Apr 05 14:12:48 2019
 Response via : Initial Calibration



TIC: 2p86467.D\data.ms

(109) Benzidine
 9.981min (-0.278) 27.04ppm m
 response 378702

Ion	Exp%	Act%
184.10	100	100
183.10	12.00	12.58
185.10	21.20	15.71
0.00	0.00	0.00

9.4.3.5
9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3822\
 Data File : 2p86468.D
 Acq On : 11 Apr 2019 9:38 am
 Operator : chriss2
 Sample : op19672-msd
 Misc : op19672,e2p3822,31.2,,,1,1
 ALS Vial : 19 Sample Multiplier: 1

Quant Time: Apr 11 10:52:01 2019
 Quant Method : C:\MSDCHEM\1\METHODS\M2P3816.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Fri Apr 05 14:12:48 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.739	152	466882	40.00	ppm	-0.10
24) Naphthalene-d8	5.772	136	1570540	40.00	ppm	-0.10
47) Acenaphthene-d10	7.205	164	835245	40.00	ppm	-0.11
69) Phenanthrene-d10	8.483	188	1259429	40.00	ppm	-0.12
83) Chrysene-d12	11.730	240	1097218	40.00	ppm	-0.17
91) Perylene-d12	13.714	264	1033087	40.00	ppm	-0.18
101) 1,4-Dichlorobenzene-d4a	4.739	152	466882	40.00	ppm	-0.10
103) Naphthalene-d8a	5.772	136	1570540	40.00	ppm	-0.10
105) Acenaphthene-d10a	7.205	164	835245	40.00	ppm	-0.11
108) Chrysene-d12a	11.730	240	1097043	40.00	ppm	-0.17
110) Phenanthrene-d10a	8.483	188	1259429	40.00	ppm	#-0.12
System Monitoring Compounds						
5) 2-Fluorophenol	3.696	112	785261	33.42	ppm	-0.09
Spiked Amount	50.000	Range	11 - 58	Recovery	=	66.84%#
8) Phenol-d5	4.488	99	945420	36.72	ppm	-0.09
Spiked Amount	50.000	Range	10 - 59	Recovery	=	73.44%#
25) Nitrobenzene-d5	5.189	82	798706	37.84	ppm	-0.10
Spiked Amount	50.000	Range	19 - 61	Recovery	=	75.68%#
51) 2-Fluorobiphenyl	6.659	172	1157335	40.03	ppm	-0.11
Spiked Amount	50.000	Range	21 - 58	Recovery	=	80.06%#
73) 2,4,6-Tribromophenol	7.858	330	182768	41.37	ppm	-0.12
Spiked Amount	50.000	Range	12 - 68	Recovery	=	82.74%#
85) Terphenyl-d14	10.302	244	1063940	38.96	ppm	-0.16
Spiked Amount	50.000	Range	16 - 65	Recovery	=	77.92%#
111) 1-Chlorooctadecane	0.000	57	0d	0.00	ppm	
Spiked Amount	50.000	Range	20 - 70	Recovery	=	0.00%#
112) o-terphenyl	0.000	230	0d	0.00	ppm	
Spiked Amount	50.000	Range	20 - 70	Recovery	=	0.00%#
Target Compounds						
2) 1,4-Dioxane	2.070	88	260504	20.51	ppm	95
3) Pyridine	2.418	79	828849	25.83	ppm	99
4) N-Nitrosodimethylamine	2.397	74	556118	27.67	ppm	100
6) Indene	4.943	116	1009257	40.21	ppm	99
7) Cumene	4.087	105	1944903	32.79	ppm	98
9) Phenol	4.499	94	943455	35.11	ppm	96
10) Aniline	4.472	93	676534	22.66	ppm	96
11) bis(2-Chloroethyl)ether	4.531	93	683334	35.58	ppm	99
12) 2-Chlorophenol	4.579	128	615728	35.68	ppm	96
13) Decane	4.627	57	515294	31.53	ppm	95
14) 1,3-Dichlorobenzene	4.691	146	634265	33.31	ppm	98
15) 1,4-Dichlorobenzene	4.750	146	621812	36.54	ppm	99
16) Benzyl alcohol	4.868	108	410580	43.52	ppm	94
17) 1,2-Dichlorobenzene	4.873	146	592467	36.21	ppm	99
18) Acetophenone	5.071	105	859704	36.52	ppm	94
19) 2-Methylphenol	4.975	108	531665	38.79	ppm	100
20) 2,2'-oxybis(1-Chloropr...	4.969	121	168267	42.45	ppm	95
21) 3&4-Methylphenol	5.098	108	561711	40.43	ppm	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3822\
 Data File : 2p86468.D
 Acq On : 11 Apr 2019 9:38 am
 Operator : chriss2
 Sample : op19672-msd
 Misc : op19672,e2p3822,3l.2,,,1,1
 ALS Vial : 19 Sample Multiplier: 1

Quant Time: Apr 11 10:52:01 2019
 Quant Method : C:\MSDCHEM\1\METHODS\M2P3816.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Fri Apr 05 14:12:48 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
22) n-Nitroso-di-n-propyla...	5.082	70	478036	38.50	ppm	98
23) Hexachloroethane	5.146	201	198071	34.40	ppm	95
26) Nitrobenzene	5.205	77	711284	34.40	ppm	98
27) Quinoline	6.060	129	1078282	38.82	ppm	98
28) Isophorone	5.403	82	1352553	37.24	ppm	97
29) 2-Nitrophenol	5.467	139	295581	35.01	ppm	88
30) 2,4-Dimethylphenol	5.526	107	699597	46.77	ppm	97
31) Benzoic acid	5.622	105	60067m	4.56	ppm	
32) bis(2-Chloroethoxy)met...	5.584	93	757719	37.48	ppm	100
33) 2,4-Dichlorophenol	5.675	162	460627	39.02	ppm	99
34) 2,6-Dichlorophenol	5.852	162	410306	38.75	ppm	100
36) 1,2,4-Trichlorobenzene	5.729	180	487777	37.10	ppm	99
38) Naphthalene	5.788	128	1816608	48.35	ppm	99
39) 4-Chloroaniline	5.846	127	243903	15.82	ppm	96
40) 2,3-Dichloroaniline	6.590	161	467405	31.50	ppm	97
41) Caprolactam	6.146	113	155269	32.05	ppm	95
42) Hexachlorobutadiene	5.895	225	292257	38.76	ppm	100
43) 4-Chloro-3-methylphenol	6.264	107	600954	39.32	ppm	92
44) 2-Methylnaphthalene	6.355	141	998473	41.79	ppm	97
45) 1-Methylnaphthalene	6.435	141	998980	38.16	ppm	98
46) Dimethylnaphthalene	6.868	156	924484	38.28	ppm	98
48) Hexachlorocyclopentadiene	6.488	237	369457	47.64	ppm	98
49) 2,4,6-Trichlorophenol	6.601	196	311043	39.78	ppm	97
50) 2,4,5-Trichlorophenol	6.638	196	312256	38.37	ppm	99
52) 2-Chloronaphthalene	6.750	162	829000	34.62	ppm	99
53) Biphenyl	6.740	154	1275623	38.11	ppm	100
54) 2-Nitroaniline	6.847	65	368379	35.82	ppm	95
55) Dimethylphthalate	6.996	163	1054569	35.58	ppm	99
56) Acenaphthylene	7.087	152	1456348	35.65	ppm	100
57) 2,6-Dinitrotoluene	7.045	165	231533	35.62	ppm	89
58) 3-Nitroaniline	7.178	138	151296	20.63	ppm	90
59) Acenaphthene	7.232	153	1425222	59.44	ppm	97
60) 2,4-Dinitrophenol	7.275	184	27712	13.04	ppm	# 29
61) 4-Nitrophenol	7.355	109	208171	38.53	ppm	92
62) Dibenzofuran	7.376	168	1788924	54.09	ppm	94
63) 2,4-Dinitrotoluene	7.376	165	330570	39.55	ppm	99
64) 2,3,4,6-Tetrachlorophenol	7.489	232	254774	33.69	ppm	96
65) Diethylphthalate	7.574	149	1103818	35.84	ppm	99
66) Fluorene	7.654	166	1845200	65.06	ppm	100
67) 4-Chlorophenyl-phenyle...	7.654	204	580937	42.63	ppm	96
68) 4-Nitroaniline	7.686	138	173550	27.45	ppm	94
70) 4,6-Dinitro-2-methylph...	7.718	198	54048	14.37	ppm	# 71
71) n-Nitrosodiphenylamine	7.756	169	713917	41.98	ppm	97
72) 1,2-Diphenylhydrazine	7.788	77	1299443	39.20	ppm	89
74) 4-Bromophenyl-phenylether	8.066	248	308412	40.96	ppm	91
75) Hexachlorobenzene	8.130	284	340677	40.87	ppm	90
76) Pentachlorophenol	8.323	266	199609	35.89	ppm	97
77) Phenanthrene	8.515	178	6956834	221.74	ppm	98
78) Anthracene	8.564	178	2757043	86.42	ppm	100
79) Carbazole	8.724	167	1902279	57.67	ppm	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3822\
 Data File : 2p86468.D
 Acq On : 11 Apr 2019 9:38 am
 Operator : chriss2
 Sample : op19672-msd
 Misc : op19672,e2p3822,31.2,,,1,1
 ALS Vial : 19 Sample Multiplier: 1

Quant Time: Apr 11 10:52:01 2019
 Quant Method : C:\MSDCHEM\1\METHODS\M2P3816.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Fri Apr 05 14:12:48 2019
 Response via : Initial Calibration

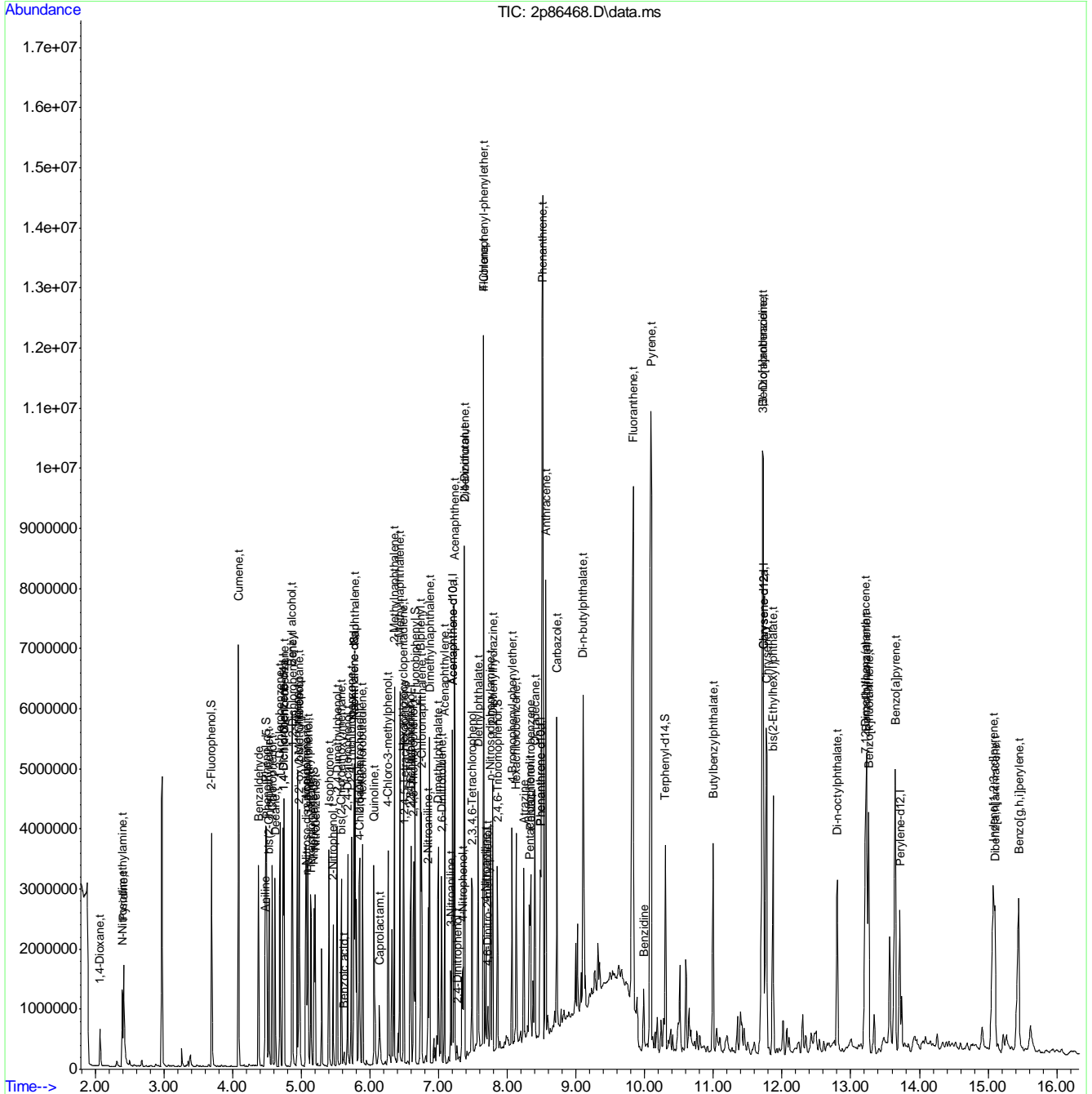
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
80) Di-n-butylphthalate	9.104	149	1731511	34.60	ppm	99
81) Fluoranthene	9.831	202	6585260	147.69	ppm	98
82) Octadecane	8.403	43	387242	37.33	ppm	99
84) Pyrene	10.093	202	5868488	137.46	ppm	91
86) Butylbenzylphthalate	10.997	149	840150	35.09	ppm	96
87) Benzo[a]anthracene	11.719	228	3676428	89.21	ppm	99
88) 3,3'-Dichlorobenzidine	11.725	252	1023005	59.78	ppm	98
89) Chrysene	11.773	228	2574725	88.07	ppm	99
90) bis(2-Ethylhexyl)phtha...	11.869	149	1279509	51.93	ppm	100
92) Di-n-octylphthalate	12.805	149	1914592	38.78	ppm	100
93) Benzo[b]fluoranthene	13.233	252	3532062	104.34	ppm	97
94) Benzo[k]fluoranthene	13.265	252	1530127	55.28	ppm	98
95) Benzo[a]pyrene	13.650	252	2665476	93.69	ppm	99
96) Indeno[1,2,3-cd]pyrene	15.078	276	2390047	73.71	ppm	98
98) Dibenz[a,h]anthracene	15.100	278	1356710	53.72	ppm	99
99) 7,12-Dimethylbenz(a)an...	13.217	256	459155	29.81	ppm	99
100) Benzo[g,h,i]perylene	15.447	276	1995435	77.75	ppm	96
102) Benzaldehyde	4.381	105	519776	30.79	ppm	95
106) Atrazine	8.243	215	134970	37.66	ppm #	86
107) 1,2,4,5-Tetrachloroben...	6.499	216	475380	38.02	ppm	99
109) Benzidine	9.992	184	259387m	21.16	ppm	
113) Pentachloronitrobenzene	8.339	295	57150	40.33	ppm	99

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3822\
Data File : 2p86468.D
Acq On : 11 Apr 2019 9:38 am
Operator : chriss2
Sample : op19672-msd
Misc : op19672,e2p3822,31.2,,,1,1
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Apr 11 10:52:01 2019
Quant Method : C:\MSDCHEM\1\METHODS\M2P3816.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Apr 05 14:12:48 2019
Response via : Initial Calibration



Manual Integration Approval Summary

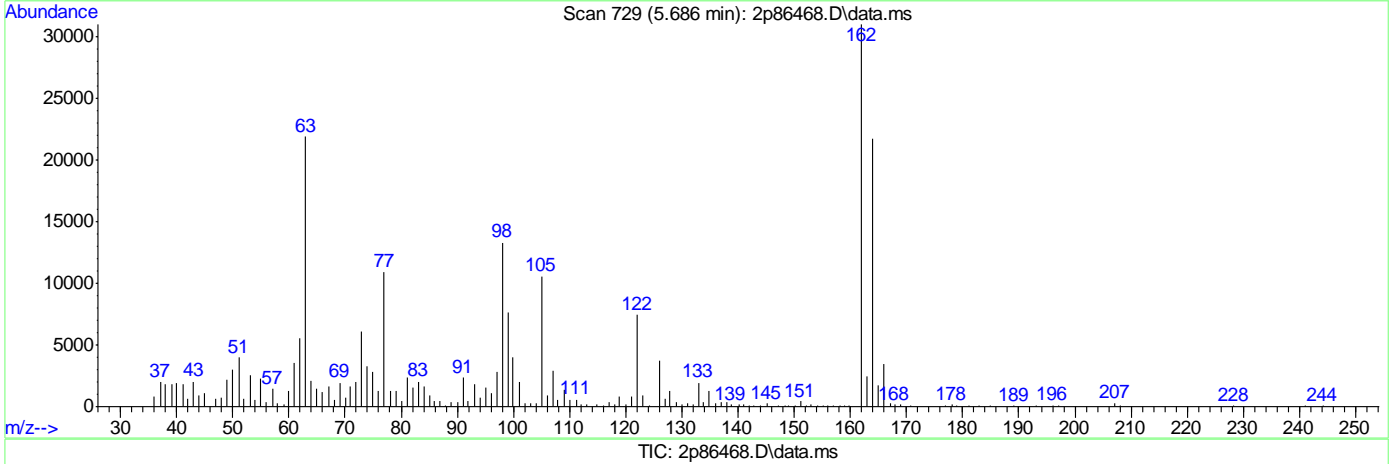
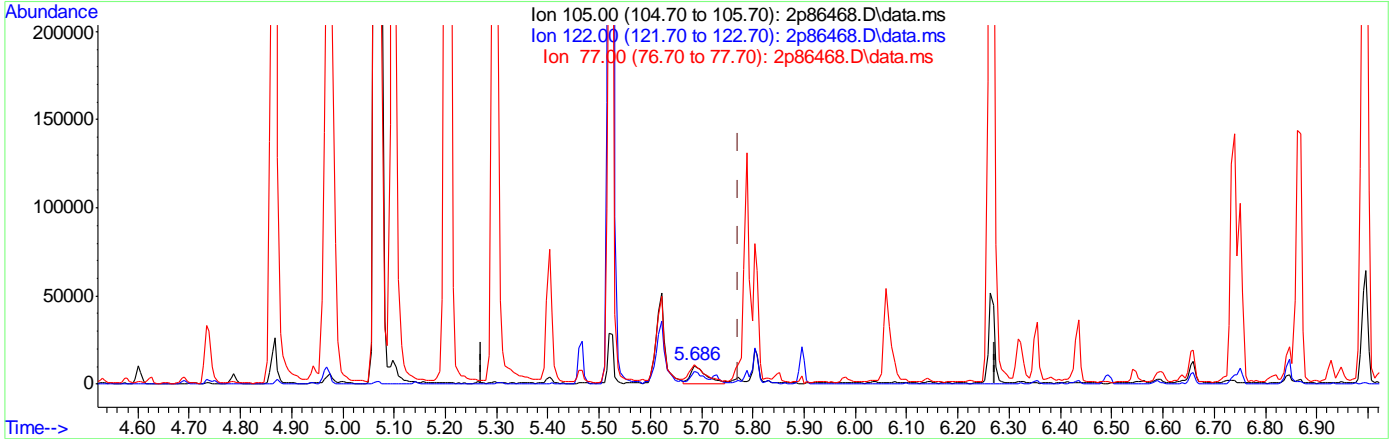
Sample Number: OP19672-MSD Method: SW846 8270D
Lab FileID: 2P86468.D Analyst approved: 04/11/19 15:07 Ying Li
Injection Time: 04/11/19 09:38 Supervisor approved: 04/11/19 15:10 Nina Pandya

Parameter	CAS	Sig#	R.T. (min.)	Reason
Benzoic acid	65-85-0		5.62	Split peak
Benzidine	92-87-5		9.99	Poor instrument integration

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2P3822\
 Data File : 2p86468.D
 Acq On : 11 Apr 2019 9:38 am
 Operator : chriss2
 Sample : op19672-msd
 Misc : op19672,e2p3822,31.2,,,1,1
 ALS Vial : 19 Sample Multiplier: 1

Quant Time: Apr 11 10:50:30 2019
 Quant Method : C:\MSDCHEM\1\METHODS\M2P3816.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Fri Apr 05 14:12:48 2019
 Response via : Initial Calibration



(31) Benzoic acid (t)

5.686min (-0.086) 1.54ppm

response 20233

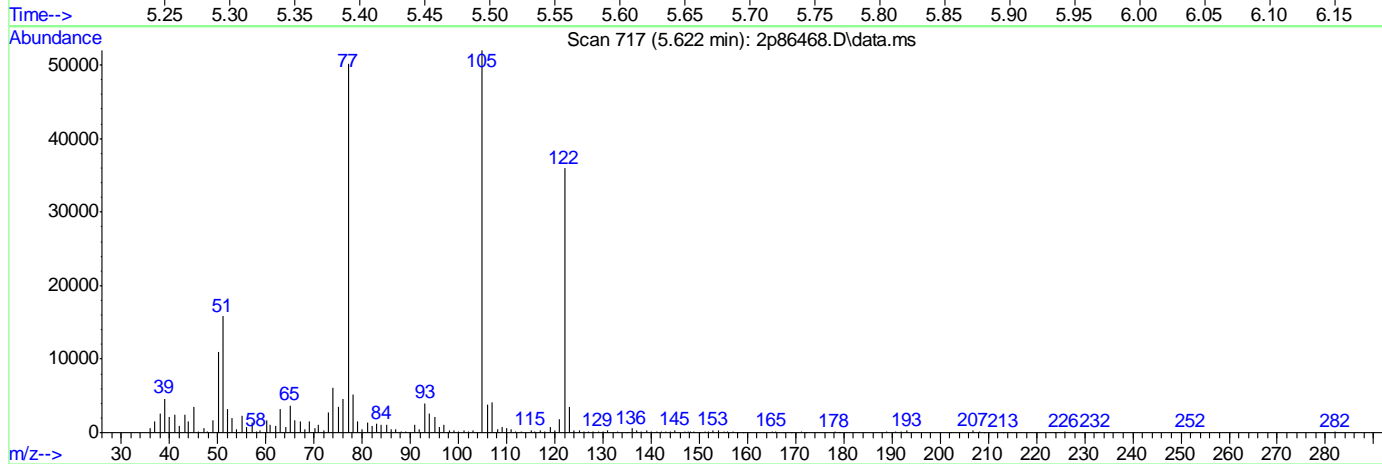
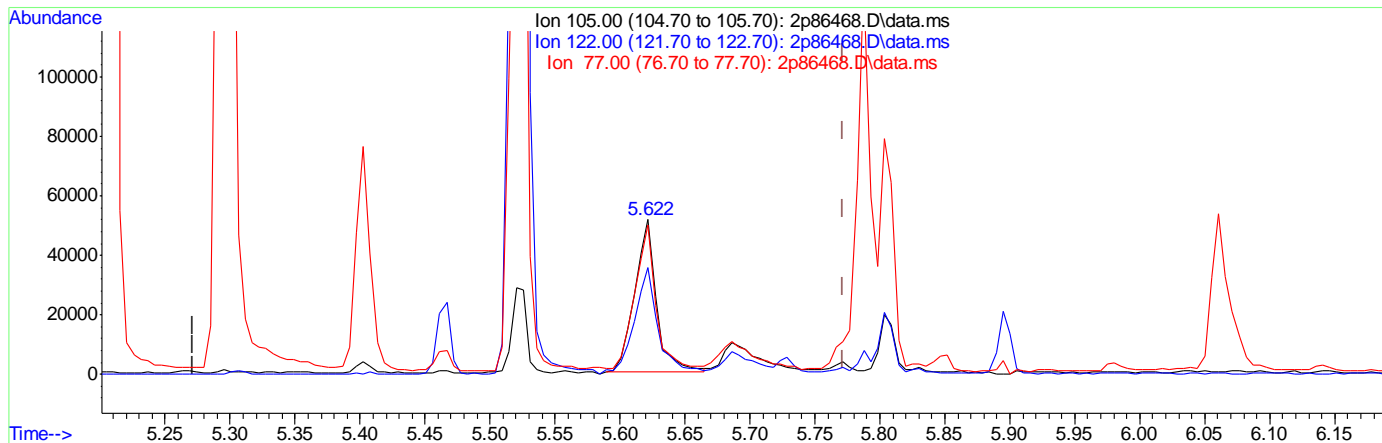
Ion	Exp%	Act%
105.00	100	100
122.00	68.60	71.26
77.00	83.90	95.93
0.00	0.00	0.00

9.4.4.2
9

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2P3822\
 Data File : 2p86468.D
 Acq On : 11 Apr 2019 9:38 am
 Operator : chriss2
 Sample : op19672-msd
 Misc : op19672,e2p3822,31.2,,,1,1
 ALS Vial : 19 Sample Multiplier: 1

Quant Time: Apr 11 10:50:30 2019
 Quant Method : C:\MSDCHEM\1\METHODS\M2P3816.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Fri Apr 05 14:12:48 2019
 Response via : Initial Calibration



(31) Benzoic acid (t)
 5.622min (-0.150) 4.56ppm m
 response 60067

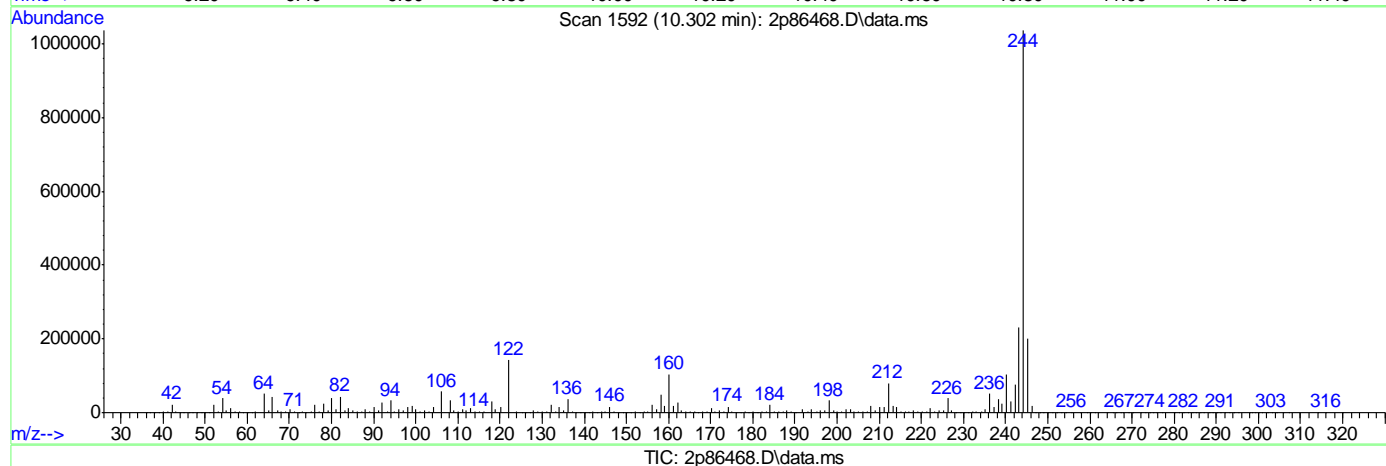
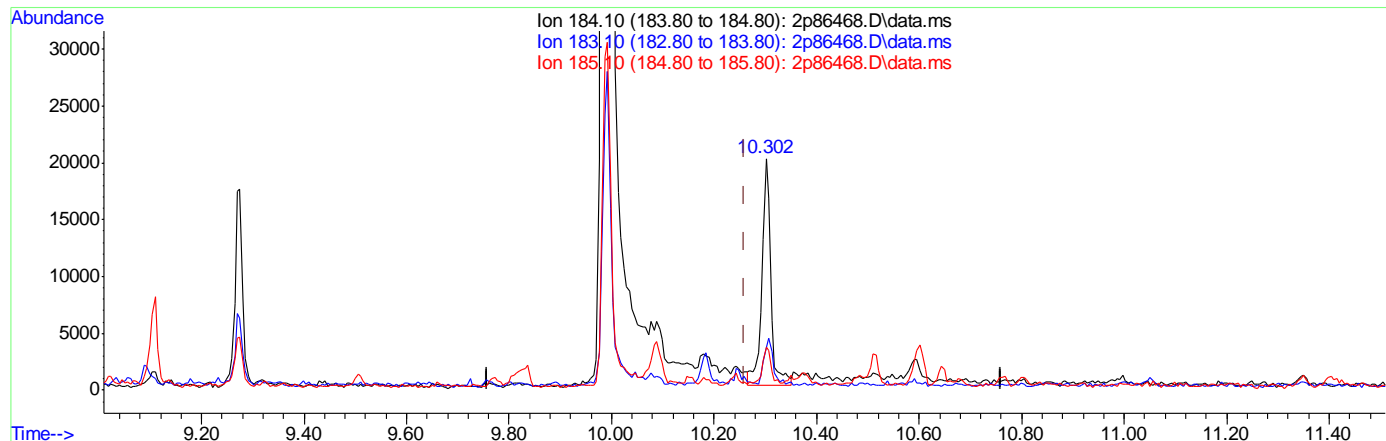
Ion	Exp%	Act%
105.00	100	100
122.00	68.60	69.12
77.00	83.90	96.38
0.00	0.00	0.00

9.4.4.3
9

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2P3822\
 Data File : 2p86468.D
 Acq On : 11 Apr 2019 9:38 am
 Operator : chriss2
 Sample : op19672-msd
 Misc : op19672,e2p3822,31.2,,,1,1
 ALS Vial : 19 Sample Multiplier: 1

Quant Time: Apr 11 10:50:30 2019
 Quant Method : C:\MSDCHEM\1\METHODS\M2P3816.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Fri Apr 05 14:12:48 2019
 Response via : Initial Calibration



(109) Benzidine

10.302min (+0.042) 7.41ppm

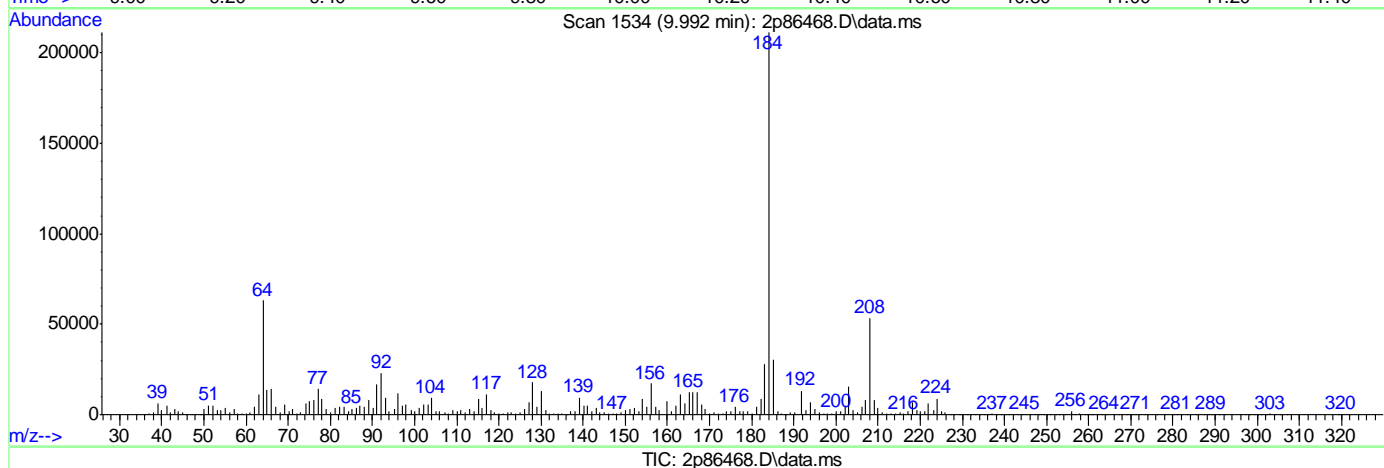
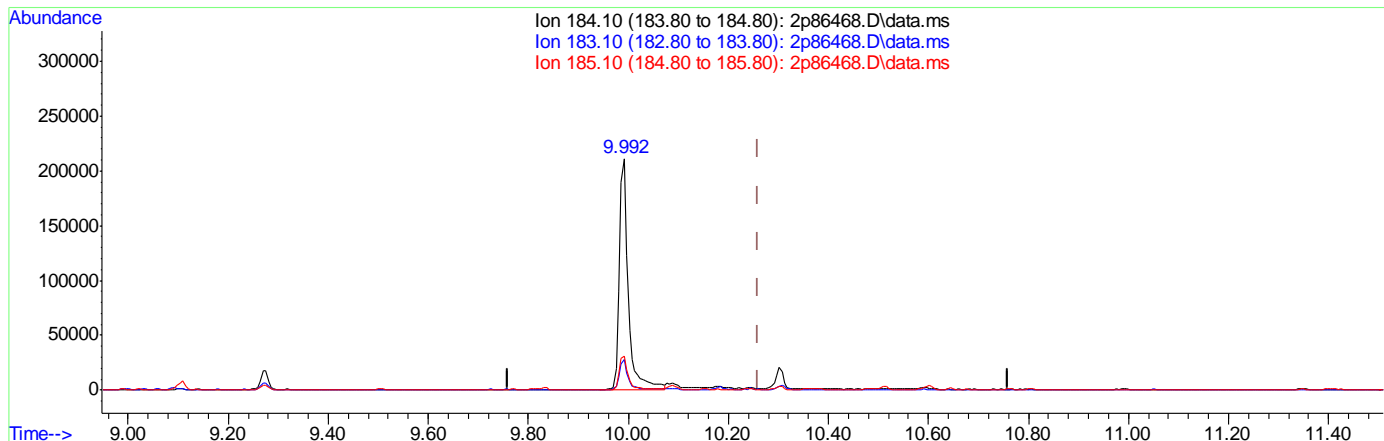
response 24172

Ion	Exp%	Act%
184.10	100	100
183.10	12.00	16.25
185.10	21.20	15.03
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2P3822\
 Data File : 2p86468.D
 Acq On : 11 Apr 2019 9:38 am
 Operator : chriss2
 Sample : op19672-msd
 Misc : op19672,e2p3822,31.2,,,1,1
 ALS Vial : 19 Sample Multiplier: 1

Quant Time: Apr 11 10:50:30 2019
 Quant Method : C:\MSDCHEM\1\METHODS\M2P3816.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Fri Apr 05 14:12:48 2019
 Response via : Initial Calibration



(109) Benzidine

9.992min (-0.268) 21.16ppm m

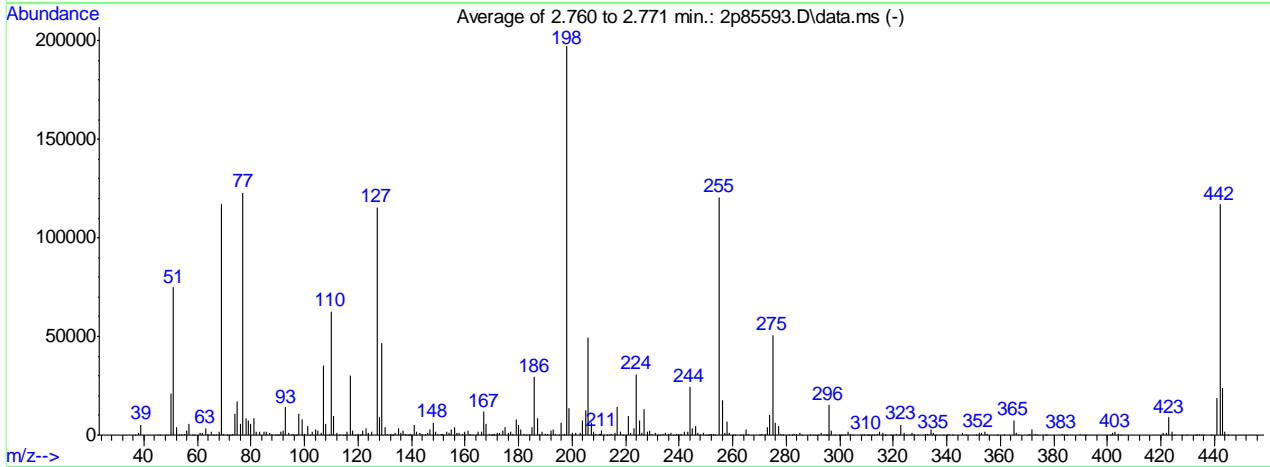
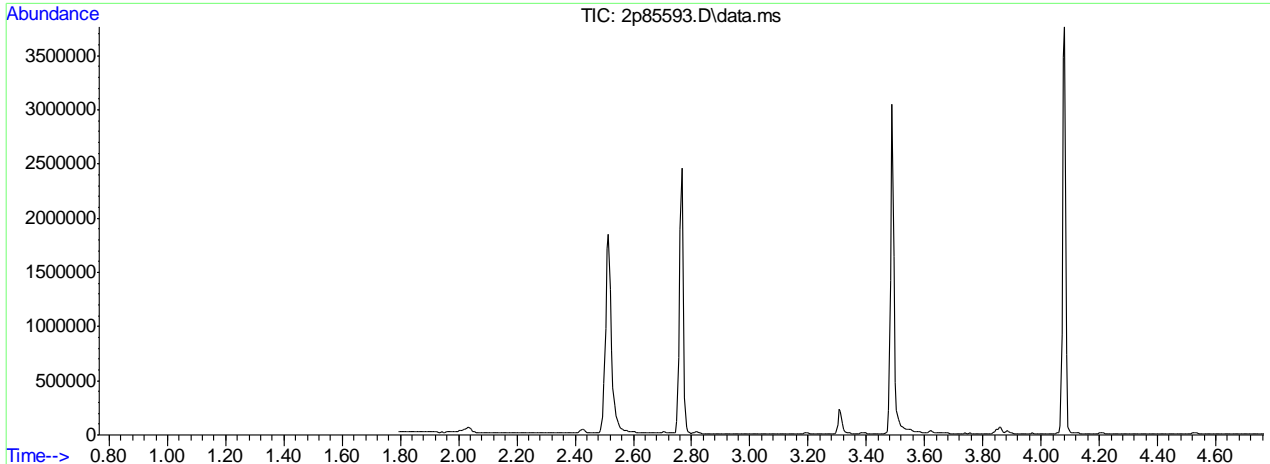
response 259387

Ion	Exp%	Act%
184.10	100	100
183.10	12.00	13.28
185.10	21.20	14.50
0.00	0.00	0.00

DFTPP

Data File : C:\msdchem\1\DATA\2P3783\2p85593.D Vial: 1
 Acq On : 8 Mar 2019 2:56 am Operator: chriss2
 Sample : dftpp Inst : MS2P
 Misc : opl3652,e2p3783,1000,,,1,1 Multiplr: 1.00
 MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\DFTPP2P.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS



AutoFind: Scans 182, 183, 184; Background Corrected with Scan 176

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result
51	198	30	60	38.0	74894	PASS
68	69	0.00	2	1.7	2003	PASS
69	198	0.00	100	59.4	117104	PASS
70	69	0.00	2	0.5	533	PASS
127	198	40	60	58.6	115552	PASS
197	198	0.00	1	0.3	606	PASS
198	198	100	100	100.0	197099	PASS
199	198	5	9	7.0	13778	PASS
275	198	10	30	25.7	50693	PASS
365	198	1	100	3.9	7602	PASS
441	443	0.10	100	79.8	18867	PASS
442	198	40	100	59.4	116992	PASS
443	442	17	23	20.2	23640	PASS

Average of 2.760 to 2.771 min.: 2p85593.D\data.ms

dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.90	173	53.95	45	65.90	96	76.95	122813
38.00	991	54.95	365	66.85	199	78.00	8425
38.95	5418	55.95	2315	67.95	2003	79.00	7662
44.90	105	56.95	5956	69.00	117104	80.00	5984
46.00	21	57.90	153	69.90	533	81.00	8800
47.90	41	58.95	81	71.00	193	81.95	1641
49.00	148	61.00	953	72.20	25	83.00	1698
49.95	20854	62.00	1405	73.05	801	84.95	1469
50.95	74894	63.00	3514	74.00	10855	85.90	1911
52.00	4044	63.90	482	75.00	16963	87.00	1234
53.00	119	65.00	1877	76.00	5898	87.90	433

Average of 2.760 to 2.771 min.: 2p85593.D\data.ms

dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
88.90	119	98.00	10687	109.00	233	119.95	463
89.80	24	99.00	7868	110.00	62576	120.90	63
90.15	69	99.95	668	111.00	9704	121.10	69
91.00	1689	101.00	4604	111.95	1136	121.90	2047
92.00	2209	101.90	291	112.95	295	123.00	3437
93.00	14092	103.00	1485	114.00	41	123.95	1369
93.95	1034	104.00	2855	114.95	137	124.90	1613
94.90	263	105.00	2470	115.95	1755	127.00	115552
95.95	576	106.05	926	116.95	30052	128.00	8909
96.80	70	107.00	35336	117.95	2128	129.00	46613
97.00	107	108.00	5637	118.95	194	129.95	3787

Average of 2.760 to 2.771 min.: 2p85593.D\data.ms

dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
130.95	720	139.00	137	149.95	412	158.95	786
132.05	456	139.95	425	151.00	540	159.95	1638
132.60	73	141.00	5244	151.40	115	161.00	2133
132.90	33	142.00	1669	151.65	355	162.00	798
133.90	1211	142.95	1276	152.00	61	162.90	180
135.00	3261	143.90	440	153.00	1620	163.85	261
135.95	1240	145.00	349	154.00	1226	164.90	1812
137.00	2063	145.95	965	155.00	2937	166.00	1520
137.80	388	147.00	2585	156.00	4183	167.00	11720
138.10	177	148.00	6435	157.00	999	168.00	5954
138.80	66	148.95	1489	157.95	977	168.95	829

Average of 2.760 to 2.771 min.: 2p85593.D\data.ms

dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
169.80	51	179.00	8192	189.90	368	201.45	1156
170.10	286	180.00	5125	191.05	871	202.95	1429
170.70	80	181.00	2712	191.95	2401	204.00	7591
170.95	321	182.05	370	193.00	3076	205.00	12595
171.95	903	182.90	224	193.90	621	206.00	49613
173.00	1245	183.95	811	194.90	236	207.00	6370
174.00	2185	185.00	4148	196.00	6373	208.00	1738
175.00	3995	186.00	29397	197.10	606	209.00	555
176.00	1420	187.00	8286	198.00	197099	210.00	834
177.00	1891	187.95	866	199.00	13778	210.50	338
178.00	691	188.95	1832	199.95	1028	211.00	2026

Average of 2.760 to 2.771 min.: 2p85593.D\data.ms

dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
211.70	131	222.95	3648	233.90	801	245.00	3417
212.85	150	224.00	30744	234.95	995	246.00	4497
214.00	71	225.00	7505	235.90	768	246.95	975
214.90	592	226.00	1000	236.95	910	247.95	224

216.05	1229	227.00	13080	237.95	201	248.95	880
217.00	14065	227.95	1745	239.00	495	249.95	189
218.00	1710	229.00	2401	239.95	317	250.80	85
218.90	127	229.95	411	240.90	762	251.10	105
220.15	254	231.00	978	242.00	1971	251.85	331
221.00	9830	231.90	230	243.05	1881	252.90	476
221.95	1292	232.90	214	244.00	24275	253.30	195

Average of 2.760 to 2.771 min.: 2p85593.D\data.ms
dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
255.00	120579	269.90	209	282.00	88	294.85	214
256.00	17482	270.95	366	282.95	510	295.20	125
257.00	1332	271.95	531	284.00	423	296.00	15313
258.00	6955	273.00	4119	285.05	876	297.00	2294
258.90	1110	274.00	10352	286.00	209	297.95	155
259.90	201	275.00	50693	288.95	165	299.90	29
261.00	227	276.00	6508	289.95	154	300.80	22
262.90	45	277.00	4775	290.95	136	300.95	105
263.90	294	277.90	614	292.00	241	302.00	230
264.95	2846	278.95	235	293.00	974	303.00	1664
265.90	735	281.05	98	293.90	222	303.95	448

Average of 2.760 to 2.771 min.: 2p85593.D\data.ms
dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
304.90	120	315.00	1693	326.00	128	341.00	552
307.90	164	316.05	1108	326.90	916	341.95	109
308.10	126	316.90	56	327.95	484	346.00	1239
308.85	156	317.05	146	329.00	108	346.95	193
309.10	57	319.00	18	332.00	386	350.90	74
310.05	195	320.05	123	332.95	574	352.00	1435
310.80	26	321.00	559	334.05	3126	353.00	972
311.20	17	322.00	248	335.00	933	354.05	1453
311.90	50	323.00	5208	335.90	84	355.05	323
312.85	154	324.05	999	338.90	79	358.85	87
314.00	602	325.00	61	340.10	104	361.30	43

Average of 2.760 to 2.771 min.: 2p85593.D\data.ms
dftpp

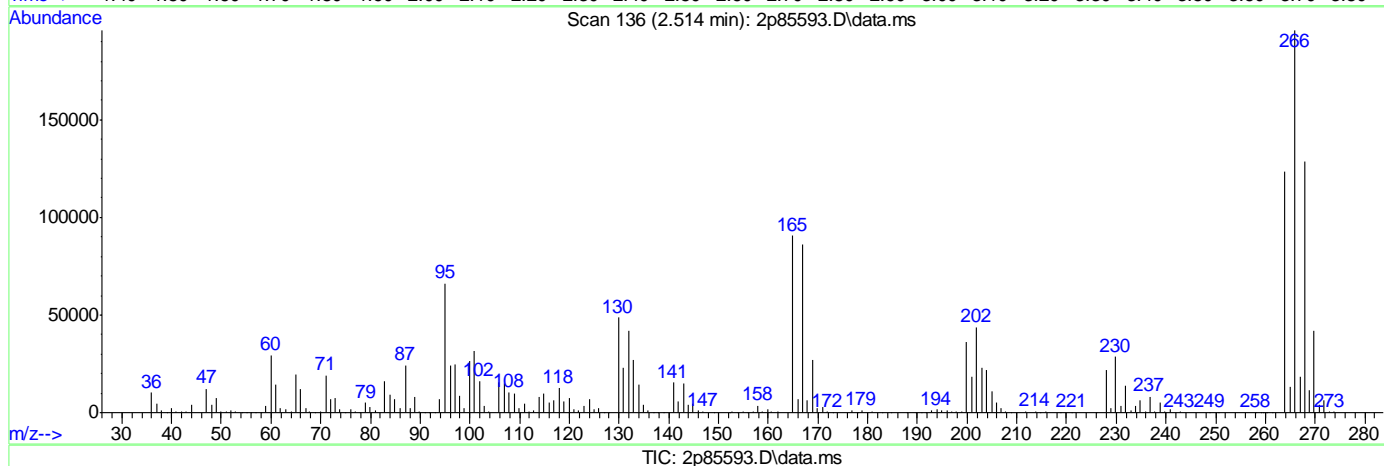
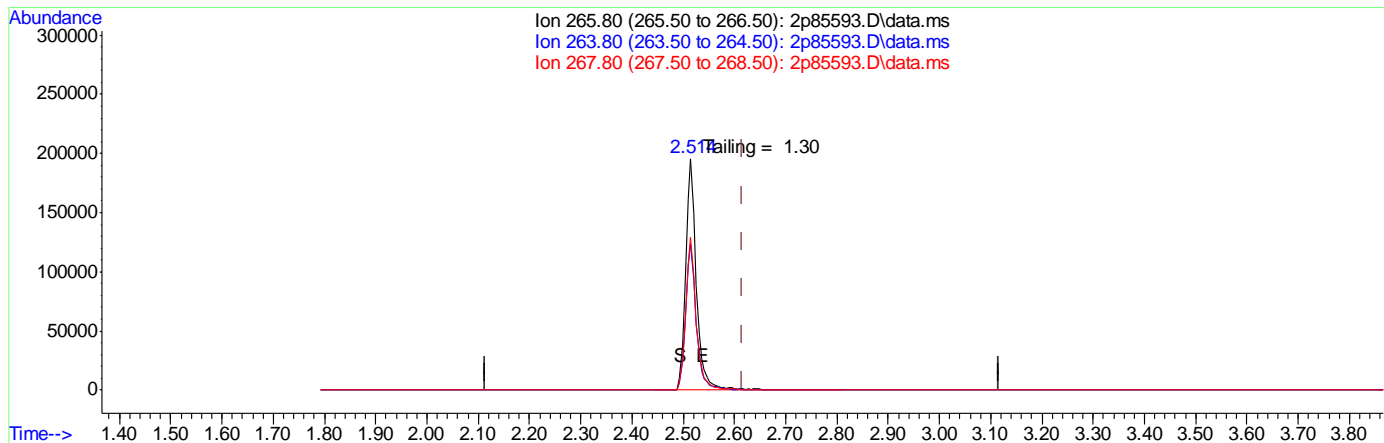
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
365.00	7602	383.90	211	422.05	1253	439.00	59
365.95	940	385.00	17	423.05	8971	441.10	18867
366.95	47	389.95	451	424.00	1635	442.00	116992
369.95	212	391.00	236	425.00	208	443.05	23640
370.95	388	391.95	193	428.10	18	444.05	1973
372.00	3050	400.95	224	429.45	39	444.95	158
373.05	670	401.95	1057	432.90	18		
373.90	45	403.00	1494	433.45	66		
376.95	56	404.05	653	434.40	57		
377.20	20	405.05	86	434.95	49		
383.00	756	421.00	1247	435.90	72		

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2P3783\
 Data File : 2p85593.D
 Acq On : 8 Mar 2019 2:56 am
 Operator : chriss2
 Sample : dftpp
 Misc : opl3652,e2p3783,1000,,,1,1
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 08 02:59:46 2019
 Quant Method : C:\MSDCHEM\1\METHODS\DFTPP2P.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Fri Dec 07 15:30:33 2018
 Response via : Initial Calibration



(1) Pentachlorophenol (t)

2.514min (-0.101) 21.71ng

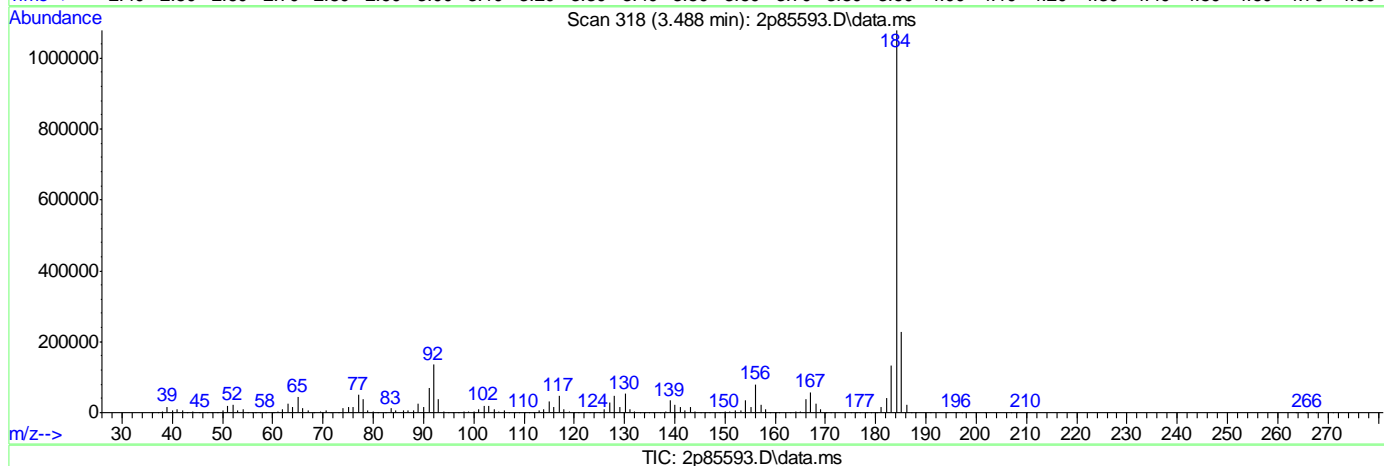
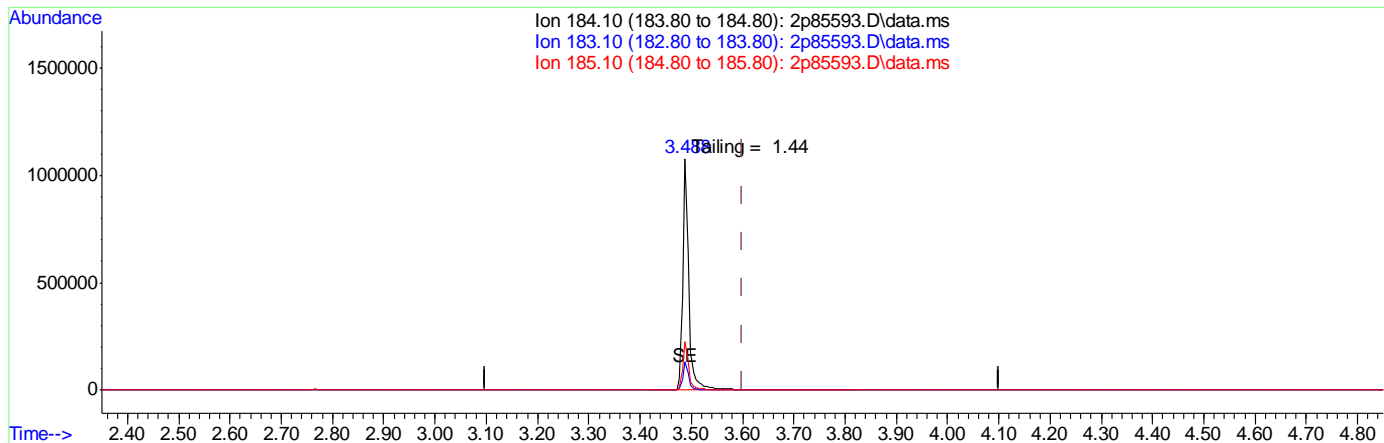
response 275982

Ion	Exp%	Act%
265.80	100	100
263.80	63.70	63.11
267.80	65.40	65.73
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2P3783\
 Data File : 2p85593.D
 Acq On : 8 Mar 2019 2:56 am
 Operator : chriss2
 Sample : dftpp
 Misc : opl3652,e2p3783,1000,,,1,1
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 08 02:59:46 2019
 Quant Method : C:\MSDCHEM\1\METHODS\DFTPP2P.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Fri Dec 07 15:30:33 2018
 Response via : Initial Calibration



(2) Benzidine

3.488min (-0.112) 13.41ng

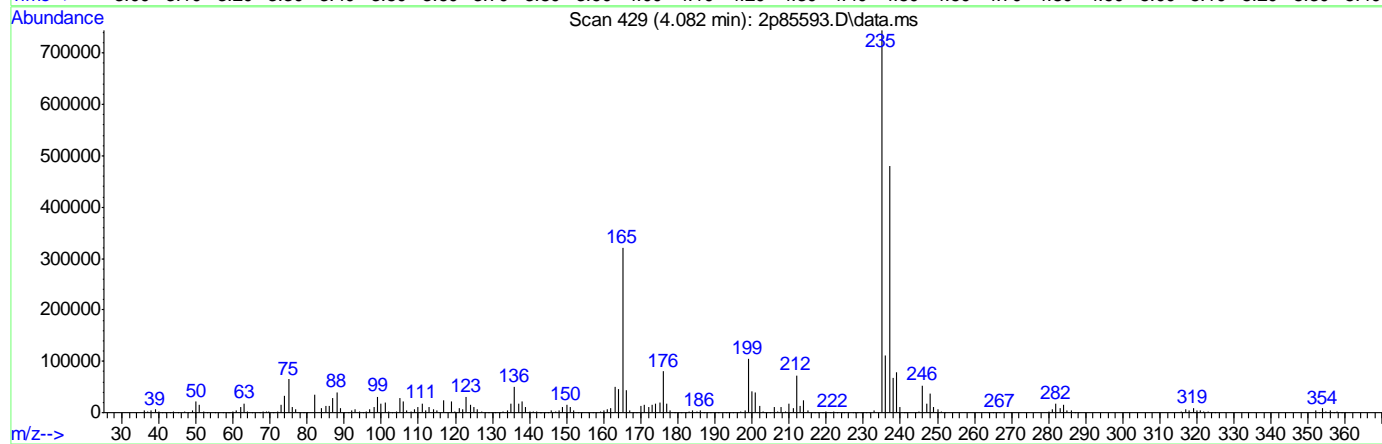
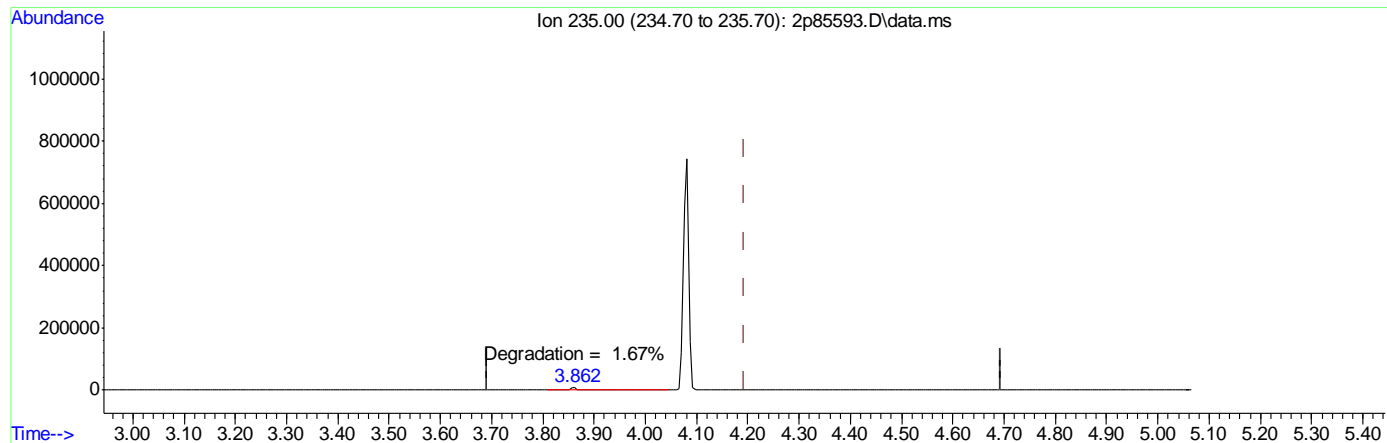
response 873642

Ion	Exp%	Act%
184.10	100	100
183.10	12.50	12.27
185.10	14.50	21.18
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2P3783\
 Data File : 2p85593.D
 Acq On : 8 Mar 2019 2:56 am
 Operator : chriss2
 Sample : dftpp
 Misc : op13652,e2p3783,1000,,,1,1
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 08 02:59:46 2019
 Quant Method : C:\MSDCHEM\1\METHODS\DFTPP2P.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Fri Dec 07 15:30:33 2018
 Response via : Initial Calibration



TIC: 2p85593.D\data.ms

(3) PP-DDT

4.082min (-0.112) 20.52ng

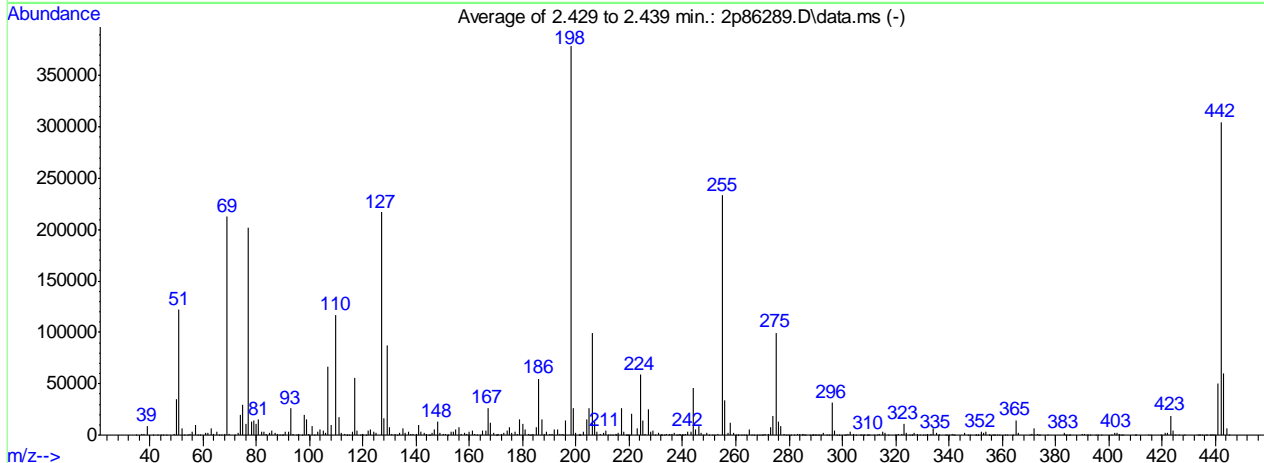
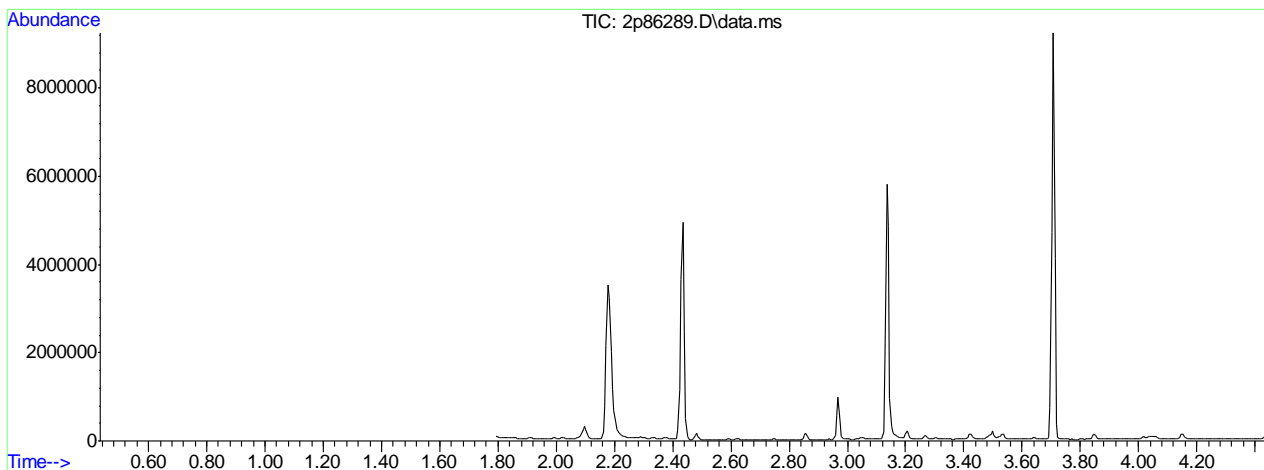
response 523511

Ion	Exp%	Act%
235.00	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

DFTPP

Data File : C:\msdchem\1\DATA\2P3816\2p86289.D Vial: 1
 Acq On : 5 Apr 2019 6:10 am Operator: chriss2
 Sample : dftpp Inst : MS2P
 Misc : op13652,e2p3816,1000,,,1,1 Multiplr: 1.00
 MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\DFTPP2P.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS



AutoFind: Scans 120, 121, 122; Background Corrected with Scan 114

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result
51	198	30	60	32.2	121770	PASS
68	69	0.00	2	0.3	662	PASS
69	198	0.00	100	56.1	212325	PASS
70	69	0.00	2	0.6	1258	PASS
127	198	40	60	57.3	216651	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	378176	PASS
199	198	5	9	7.0	26421	PASS
275	198	10	30	26.4	99683	PASS
365	198	1	100	3.8	14403	PASS
441	443	0.10	100	84.1	50053	PASS
442	198	40	100	80.6	304725	PASS
443	442	17	23	19.5	59507	PASS

Average of 2.429 to 2.439 min.: 2p86289.D\data.ms
dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
35.10	204	51.05	121770	63.05	6810	75.00	29796
37.10	876	52.10	6430	64.00	758	76.05	10984
38.00	1475	53.00	231	65.00	3123	77.05	201859
39.00	9075	54.25	101	66.20	83	78.05	13592
41.05	173	54.95	777	66.90	132	78.95	14093
43.05	298	56.00	3788	68.10	662	80.00	10664
44.00	283	57.00	9411	69.00	212325	80.95	15163
44.95	172	57.95	434	69.95	1258	82.00	3381
46.20	43	59.00	44	71.85	108	83.00	3552
49.00	723	61.05	2172	73.05	1727	83.80	1010
50.00	34738	62.00	2234	74.00	19223	85.00	2387

Average of 2.429 to 2.439 min.: 2p86289.D\data.ms
dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
86.00	4101	96.00	829	107.00	66832	117.95	4176
87.00	1970	97.10	59	108.00	10080	119.00	408
87.95	831	97.95	19478	110.00	116949	119.90	671
88.95	486	98.95	14888	110.95	17337	120.10	97
89.60	33	99.90	866	112.00	2217	120.95	234
90.00	46	101.00	8639	112.95	858	121.95	4543
91.00	3268	101.95	431	113.90	361	123.00	5875
91.95	3785	103.00	3125	114.20	34	123.95	3008
92.95	26135	104.00	5315	114.90	473	125.00	2402
93.95	1675	105.00	4481	116.00	2770	126.95	216651
95.00	372	106.00	1716	117.00	56165	128.05	16059

Average of 2.429 to 2.439 min.: 2p86289.D\data.ms
dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
128.95	87357	140.00	1572	150.00	784	160.00	3329
130.00	7300	141.00	10285	151.10	1374	160.95	4459
131.00	1332	141.95	3593	151.80	214	162.00	1597
131.90	706	143.00	2697	152.05	554	163.00	411
133.00	121	144.05	822	153.00	3400	164.00	521
133.95	2298	144.80	52	154.00	2780	164.95	3900
135.00	6331	145.05	427	155.00	5665	166.10	4324
136.00	2462	146.10	1913	156.05	8209	166.95	26330
137.00	3649	147.00	5129	157.00	1674	167.95	11902
138.05	830	147.95	12669	158.00	2002	169.05	1888
139.00	968	148.95	2447	159.05	1440	169.90	213

Average of 2.429 to 2.439 min.: 2p86289.D\data.ms
dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
170.25	397	180.95	5069	191.00	1409	201.50	1142
171.00	1024	182.00	893	192.00	5612	201.70	337
172.00	1661	182.60	133	193.00	5306	202.95	2803
173.00	2477	183.00	413	194.05	1171	204.00	15634
174.00	4255	184.05	1472	194.90	816	205.00	25850
175.10	8044	185.05	7527	195.10	138	206.05	98822
176.00	2456	186.00	54627	196.00	13754	207.05	13033
177.00	3536	187.05	15490	198.00	378176	207.95	3707
178.00	1510	188.00	1488	199.00	26421	208.90	1201
179.00	15594	188.95	3490	200.00	2060	210.15	1767
180.05	10617	190.00	599	201.30	554	211.00	4359

Average of 2.429 to 2.439 min.: 2p86289.D\data.ms
dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
212.00	197	220.20	302	231.70	82	238.90	311
212.75	245	220.95	21182	231.90	260	239.05	637
213.90	161	223.00	6669	232.20	43	239.80	290
214.80	286	224.10	58885	232.95	479	239.95	567

215.00	800	225.00	14362	233.95	1630	240.40	187
216.00	2511	226.05	1658	234.90	538	241.00	1401
217.00	26411	227.00	24843	235.05	977	242.00	3573
218.00	3353	227.95	3161	236.00	1061	243.05	3536
218.90	155	229.05	4599	237.00	1798	244.10	45859
219.10	168	229.85	509	237.90	86	245.00	5949
219.50	76	231.00	2129	238.10	306	246.00	8705

Average of 2.429 to 2.439 min.: 2p86289.D\data.ms
dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
246.95	1846	259.00	2193	268.70	88	279.00	369
247.95	474	259.95	480	269.70	84	279.90	124
248.95	2160	260.80	94	269.90	38	280.80	101
250.00	369	261.00	192	271.05	740	281.85	267
251.00	400	262.05	84	272.00	796	283.00	1262
251.95	542	263.15	79	273.00	7269	283.95	838
253.15	1348	263.95	505	274.00	18291	284.90	276
255.00	233173	265.00	5144	275.00	99683	285.10	1638
256.00	34192	265.85	357	276.00	13500	285.80	115
257.00	2604	266.85	201	277.00	8226	286.05	302
258.00	12376	267.90	579	278.05	1554	287.95	183

Average of 2.429 to 2.439 min.: 2p86289.D\data.ms
dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
288.60	72	296.00	31176	307.10	75	317.05	272
288.85	367	297.00	4435	307.90	64	319.80	105
289.20	61	297.95	394	308.10	393	320.10	193
289.80	151	298.80	136	309.05	390	321.05	917
290.00	123	300.80	339	309.60	53	322.10	626
290.70	51	301.20	158	309.95	405	323.05	10554
291.05	239	302.05	644	311.95	156	324.05	1830
291.95	479	303.10	3457	312.95	247	325.10	164
292.95	1772	304.00	1155	314.05	1675	326.00	227
293.95	579	305.15	152	314.95	3270	326.20	96
294.90	159	306.50	84	316.05	1728	326.95	2185

Average of 2.429 to 2.439 min.: 2p86289.D\data.ms
dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
327.95	1022	339.05	159	351.00	191	360.80	57
329.05	245	340.00	186	352.05	3242	361.95	35
330.10	48	341.00	1037	353.10	2286	364.00	93
331.20	26	341.80	119	354.00	3321	365.00	14403
331.95	663	342.05	310	354.90	155	365.95	2140
333.00	994	345.95	2627	355.05	563	370.05	359
334.05	6335	347.00	401	356.40	46	371.10	1021
335.10	1772	348.10	81	356.70	42	372.10	6076
335.95	275	349.90	20	357.15	65	373.00	1543
336.20	123	350.10	167	358.05	58	373.70	20
338.80	18	350.70	22	358.95	333	373.95	80

Average of 2.429 to 2.439 min.: 2p86289.D\data.ms
dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
377.00	142	394.90	39	410.20	39	433.30	39
383.10	1812	395.90	52	415.00	121	433.90	94
383.90	118	397.20	46	415.80	26	434.10	32
384.05	265	400.95	297	419.45	106	435.05	53
385.00	28	402.00	2398	421.05	2687	436.40	111
385.20	26	403.05	2619	422.10	1932	436.80	37
390.00	884	403.90	303	423.10	18927	437.85	77
391.05	605	404.05	997	424.00	4592	438.40	28
391.50	68	404.80	33	424.95	437	438.75	140
392.00	580	404.95	256	426.15	59	439.40	44
392.80	20	409.90	66	428.40	17	439.80	145

Average of 2.429 to 2.439 min.: 2p86289.D\data.ms

dftpp

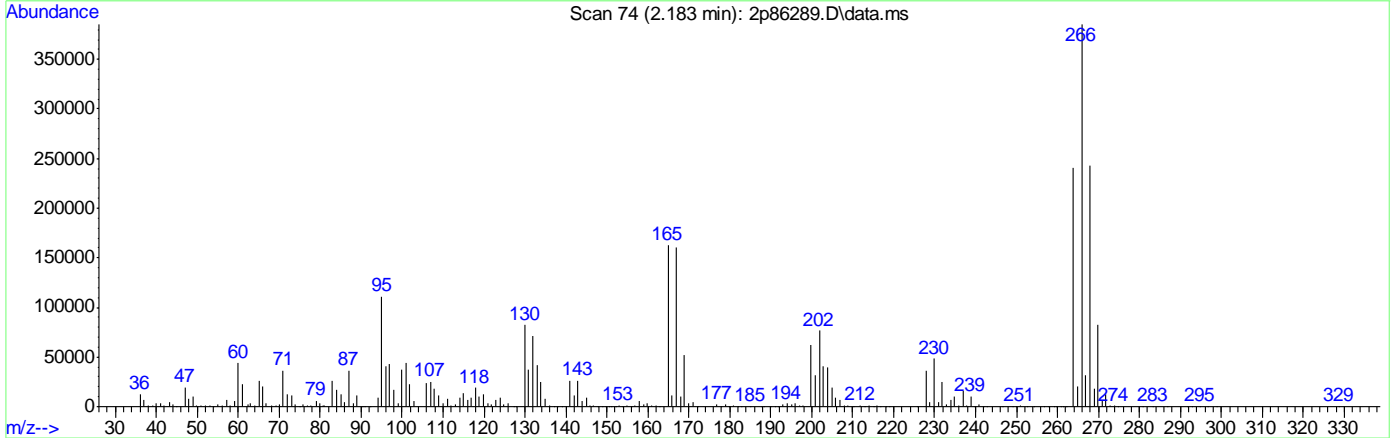
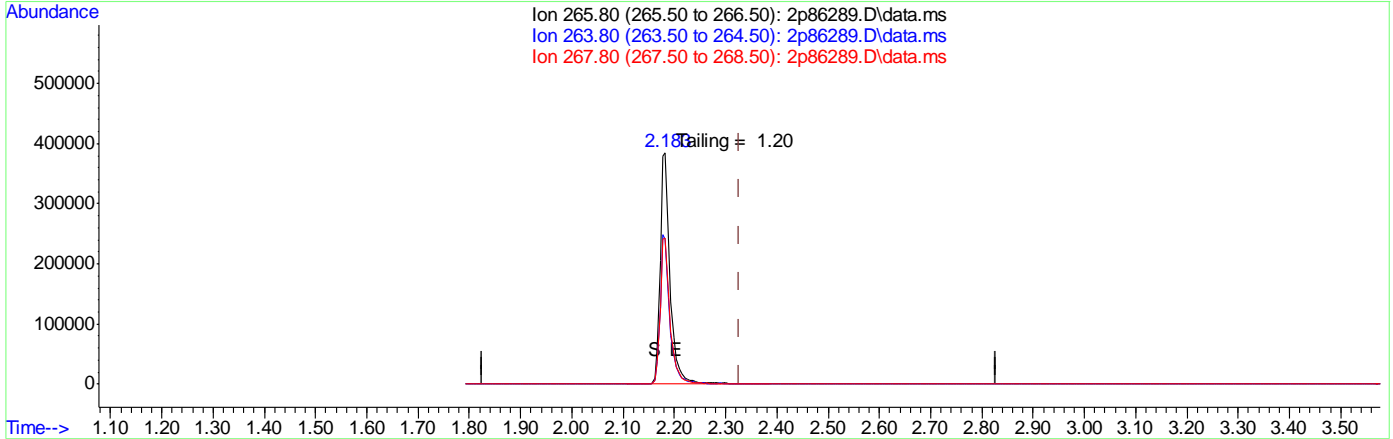
Modified: subtracted

m/z	abund.	m/z	abund.	m/z	abund.
441.10	50053				
442.10	304725				
443.10	59507				
444.10	6216				
444.95	273				

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2P3816\
 Data File : 2p86289.D
 Acq On : 5 Apr 2019 6:10 am
 Operator : chriss2
 Sample : dftpp
 Misc : op13652,e2p3816,1000,,,1,1
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 05 06:14:09 2019
 Quant Method : C:\MSDCHEM\1\METHODS\DFTPP2P.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Fri Mar 15 03:14:37 2019
 Response via : Initial Calibration



TIC: 2p86289.D\data.ms

(1) Pentachlorophenol (t)
 2.183min (-0.144) 41.34ng
 response 525624

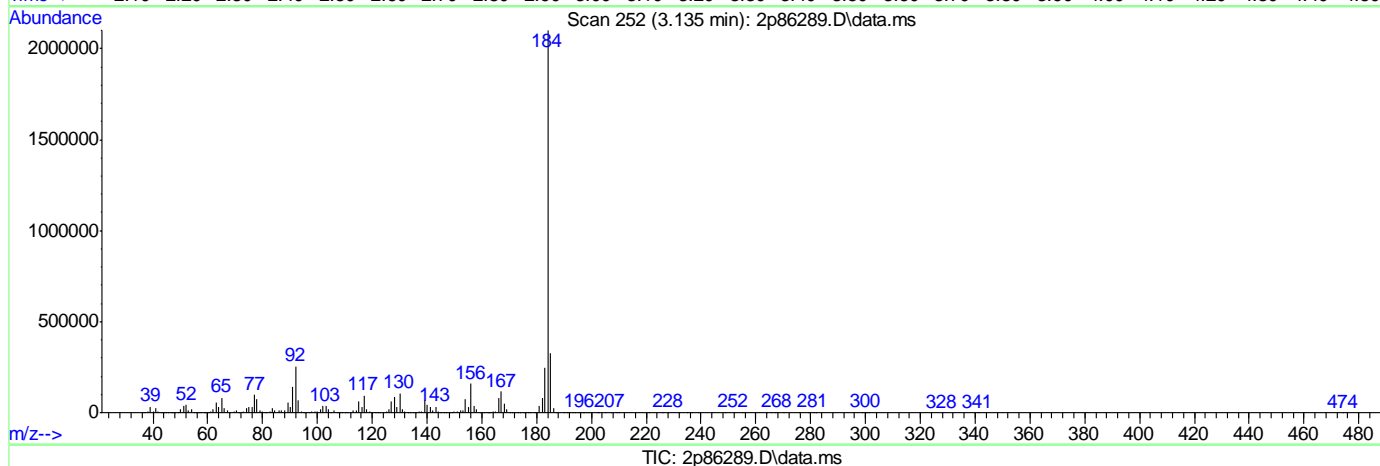
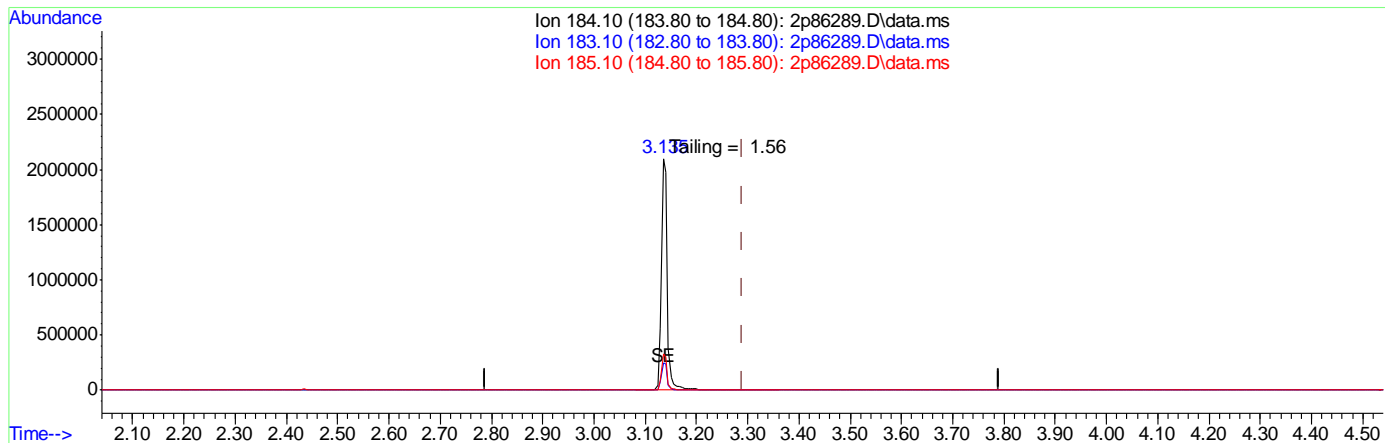
Ion	Exp%	Act%
265.80	100	100
263.80	62.50	62.21
267.80	63.10	63.09
0.00	0.00	0.00

9.5.21
9

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2P3816\
 Data File : 2p86289.D
 Acq On : 5 Apr 2019 6:10 am
 Operator : chriss2
 Sample : dftpp
 Misc : opl3652,e2p3816,1000,,,1,1
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 05 06:14:09 2019
 Quant Method : C:\MSDCHEM\1\METHODS\DFTPP2P.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Fri Mar 15 03:14:37 2019
 Response via : Initial Calibration



(2) Benzidine

3.135min (-0.155) 26.87ng

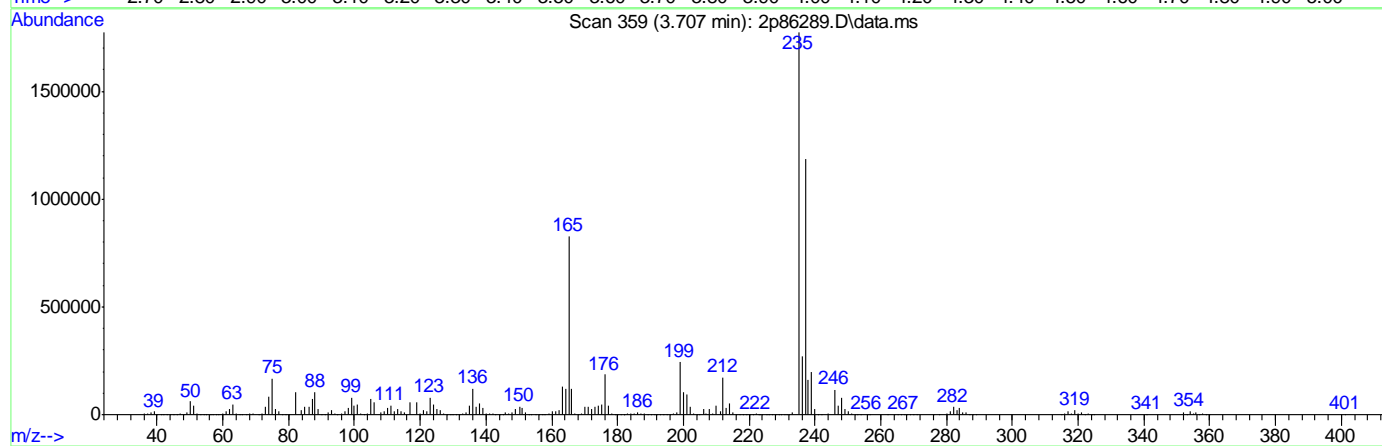
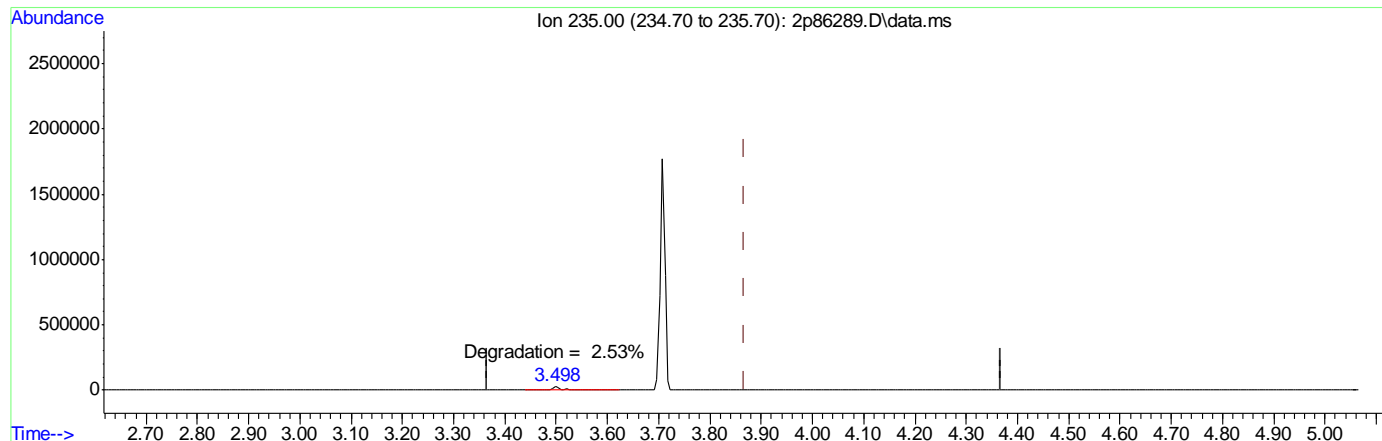
response 1750960

Ion	Exp%	Act%
184.10	100	100
183.10	11.60	11.67
185.10	15.20	15.68
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2P3816\
 Data File : 2p86289.D
 Acq On : 5 Apr 2019 6:10 am
 Operator : chriss2
 Sample : dftpp
 Misc : op13652,e2p3816,1000,,,1,1
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 05 06:14:09 2019
 Quant Method : C:\MSDCHEM\1\METHODS\DFTPP2P.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Fri Mar 15 03:14:37 2019
 Response via : Initial Calibration



TIC: 2p86289.D\data.ms

(3) PP-DDT

3.707min (-0.161) 44.63ng

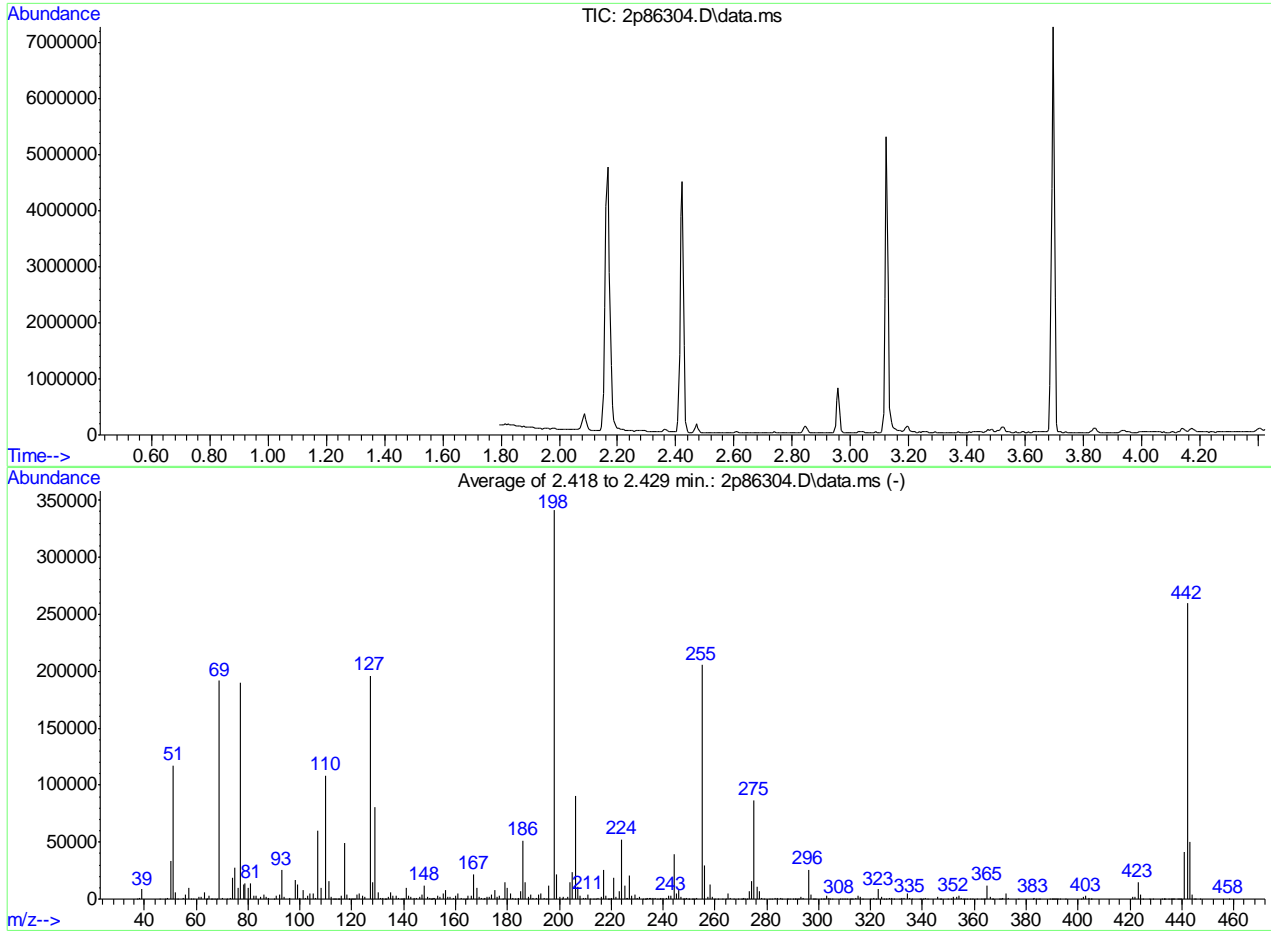
response 1138900

Ion	Exp%	Act%
235.00	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

DFTPP

Data File : C:\msdchem\1\DATA\2P3817\2p86304.D Vial: 1
 Acq On : 5 Apr 2019 3:23 pm Operator: christc2
 Sample : dftpp Inst : MS2P
 Misc : op13652,e2p3817,1000,,,1,1 Multiplr: 1.00
 MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\DFTPP2P.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS



AutoFind: Scans 118, 119, 120; Background Corrected with Scan 112

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result
51	198	30	60	34.5	117587	PASS
68	69	0.00	2	0.0	24	PASS
69	198	0.00	100	56.3	191835	PASS
70	69	0.00	2	0.3	604	PASS
127	198	40	60	57.5	196167	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	341035	PASS
199	198	5	9	6.4	21917	PASS
275	198	10	30	25.5	87024	PASS
365	198	1	100	3.6	12310	PASS
441	443	0.10	100	82.6	41056	PASS
442	198	40	100	76.1	259669	PASS
443	442	17	23	19.1	49717	PASS

Average of 2.418 to 2.429 min.: 2p86304.D\data.ms

dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
37.05	401	56.00	3848	66.10	198	78.10	12573
38.00	1413	57.00	9541	66.95	385	78.95	13366
39.05	8662	58.00	319	68.15	24	79.95	9703
46.00	80	59.00	263	69.00	191835	81.00	13807
48.15	87	60.95	1877	70.10	604	82.00	3212
49.10	1044	62.00	2081	71.70	179	83.05	3137
50.05	33554	63.05	5847	73.00	1274	85.00	2447
51.10	117587	63.90	465	74.00	18789	85.95	3988
52.05	5618	64.10	451	75.05	27924	87.05	1760
53.00	327	65.00	3229	76.05	9793	87.90	803
55.00	601	65.90	174	77.05	190374	90.00	164

Average of 2.418 to 2.429 min.: 2p86304.D\data.ms

dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
91.00	2655	103.95	4519	114.70	110	122.00	4323
92.00	3834	105.05	4724	115.20	121	123.00	4985
93.00	25396	106.00	1318	116.05	3465	123.95	2817
94.00	1773	107.00	60058	117.00	49695	125.00	2400
96.05	802	108.00	9831	117.95	3527	127.00	196167
98.00	16955	110.00	108469	118.90	282	128.05	14626
99.00	13087	111.00	15912	119.10	212	129.00	80881
99.95	911	112.00	2152	119.90	298	130.00	6357
101.05	7483	112.90	363	120.10	383	130.95	1091
101.90	559	113.10	346	120.70	144	131.90	565
103.00	2621	113.95	284	121.00	89	132.95	423

Average of 2.418 to 2.429 min.: 2p86304.D\data.ms

dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
133.20	143	142.90	1958	151.90	807	162.95	520
134.05	1992	144.00	713	153.05	3401	163.90	354
135.00	5964	145.00	739	154.00	2388	164.20	339
135.95	3052	146.05	1713	155.05	5368	164.95	3442
137.00	2666	147.05	4299	156.00	7568	165.95	2970
138.10	680	148.00	12159	157.05	1735	167.00	21927
138.85	290	149.00	2021	157.95	1650	168.00	9933
139.05	190	150.05	567	159.00	1259	169.00	1902
140.00	1037	150.40	124	160.00	3140	170.00	760
141.00	9534	150.95	497	161.05	4714	170.70	150
142.05	3071	151.25	1062	162.05	1503	171.05	649

Average of 2.418 to 2.429 min.: 2p86304.D\data.ms

dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
172.00	1623	183.10	518	194.00	1017	205.10	23307
173.10	2324	184.00	1014	194.90	460	206.05	90670
174.00	3665	185.10	6604	196.05	11832	207.10	11262
175.05	7548	186.10	51651	198.00	341035	208.05	2884
176.10	2277	187.00	15210	199.00	21917	209.05	995
177.05	2860	188.10	1664	200.05	1793	210.00	883
178.00	474	189.00	3507	200.90	438	211.05	4206
179.00	14474	189.85	689	201.60	1645	212.05	327
180.00	9710	191.05	1367	202.20	127	213.05	378
181.10	4698	192.00	4399	203.00	2492	214.00	68
182.10	903	193.05	5037	204.00	14336	215.00	876

Average of 2.418 to 2.429 min.: 2p86304.D\data.ms

dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
216.05	2177	226.00	858	234.90	760	244.10	39443
217.00	25408	226.20	793	235.05	1138	245.10	5163
218.00	3287	227.00	20442	235.95	1317	246.00	7935
218.95	290	228.00	2958	237.00	1445	247.05	1616

219.35	293	229.00	4166	238.00	88	247.60	147
220.10	611	230.00	709	238.70	177	248.00	127
221.00	18620	231.00	1777	239.10	911	248.20	37
221.95	2098	232.10	346	239.95	756	249.00	1258
223.00	6813	233.00	285	241.10	1262	249.90	317
224.10	52581	233.30	182	242.05	2649	250.10	50
225.10	12031	234.00	1517	243.15	3339	251.05	408

Average of 2.418 to 2.429 min.: 2p86304.D\data.ms
dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
251.50	18	263.95	431	274.10	16209	285.95	265
251.95	418	265.00	5288	275.05	87024	287.80	27
253.00	1190	266.00	802	276.10	10838	288.10	82
255.00	205539	267.00	63	277.00	6965	288.90	316
256.00	29091	268.90	105	278.00	1370	290.15	353
257.05	2224	270.00	303	278.95	392	290.80	84
258.05	13093	270.70	56	280.90	2	291.00	168
259.00	1866	271.05	633	281.95	159	292.00	249
259.95	406	271.70	94	283.05	762	292.20	116
260.95	378	272.15	505	283.95	579	293.05	1845
263.00	47	273.05	6996	285.15	1219	294.00	635

Average of 2.418 to 2.429 min.: 2p86304.D\data.ms
dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
296.00	25964	305.10	21	317.00	294	330.95	67
297.05	4151	308.05	514	319.80	82	332.05	622
297.80	259	308.95	260	321.00	869	333.05	1006
298.10	84	309.90	221	321.95	523	334.05	5386
298.90	184	310.90	112	323.10	8567	335.05	1350
301.00	245	312.10	98	324.05	1759	336.00	238
301.70	69	312.70	35	324.95	293	338.90	69
302.00	330	313.15	245	325.80	108	339.30	79
303.05	3139	314.10	1085	327.05	1476	340.05	144
304.00	873	315.05	3052	328.00	933	341.10	1266
304.20	149	316.00	1599	329.00	126	342.05	485

Average of 2.418 to 2.429 min.: 2p86304.D\data.ms
dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
345.95	1857	357.00	22	369.70	22	385.10	100
346.80	206	358.40	109	370.00	109	389.05	46
347.05	226	359.10	229	370.35	145	390.00	377
349.90	46	361.00	65	371.05	658	390.20	189
350.95	228	362.80	38	372.10	4965	390.90	233
352.05	2397	363.70	55	373.10	1009	391.10	138
353.10	1916	363.90	53	377.00	194	391.80	88
354.05	2529	365.00	12310	382.40	76	392.05	343
355.10	572	366.05	1928	383.00	1155	393.00	29
355.90	148	366.95	144	384.00	303	395.05	43
356.10	23	367.20	30	384.80	36	400.95	431

Average of 2.418 to 2.429 min.: 2p86304.D\data.ms
dftpp

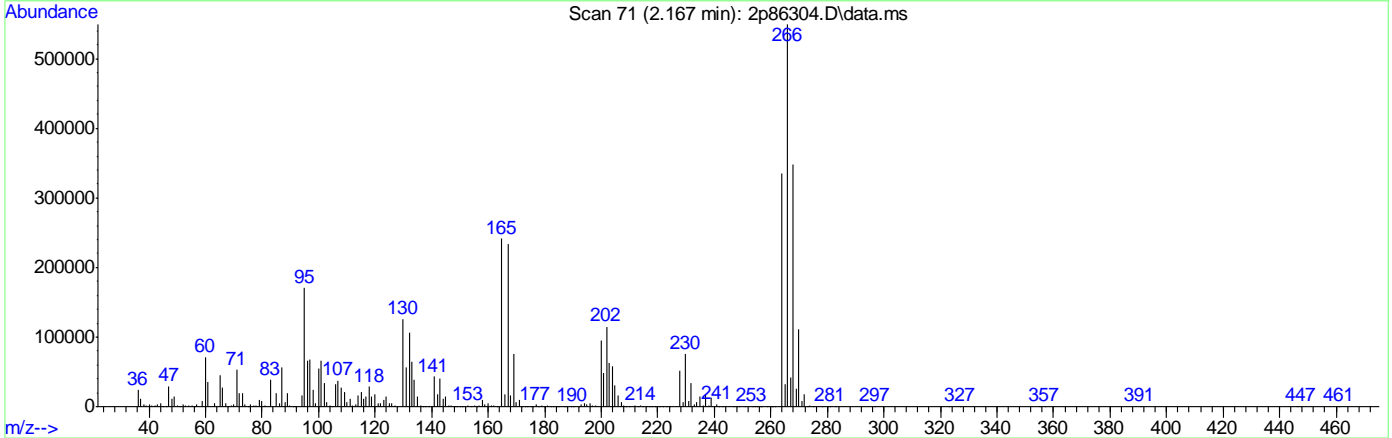
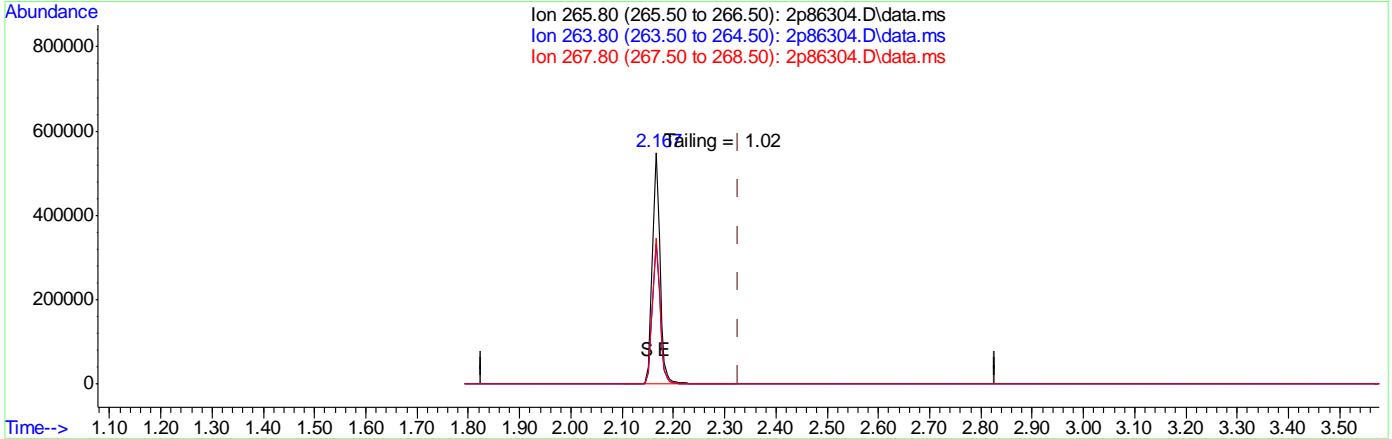
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
402.00	2101	428.90	48	438.70	100		
403.00	2746	432.20	63	439.10	48		
404.05	1119	433.00	57	439.45	52		
405.00	71	433.30	48	441.10	41056		
405.20	245	433.60	42	442.10	259669		
421.05	2142	434.90	47	443.10	49717		
422.10	2403	435.90	41	444.05	4133		
423.05	15275	436.20	33	444.90	75		
424.05	3734	436.50	62	445.15	112		
425.10	275	437.15	48	447.10	19		
427.50	33	438.20	104	458.00	51		

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2P3817\
 Data File : 2p86304.D
 Acq On : 5 Apr 2019 3:23 pm
 Operator : christc2
 Sample : dftpp
 Misc : op13652,e2p3817,1000,,,1,1
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 05 15:26:28 2019
 Quant Method : C:\MSDCHEM\1\METHODS\DFTPP2P.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Fri Mar 15 03:14:37 2019
 Response via : Initial Calibration



TIC: 2p86304.D\data.ms

(1) Pentachlorophenol (t)
 2.167min (-0.161) 45.32ng
 response 576227

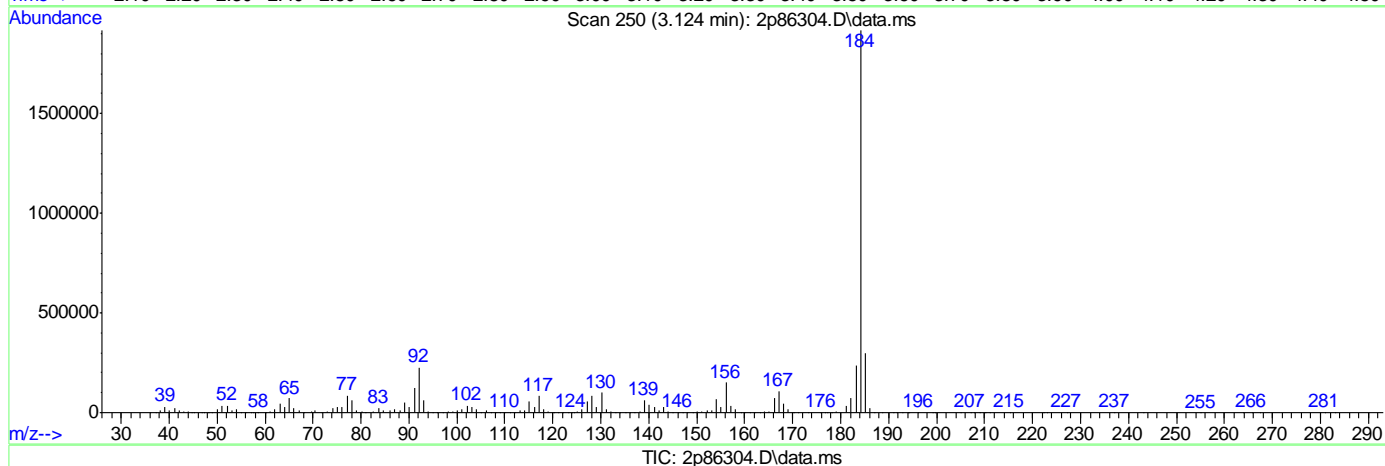
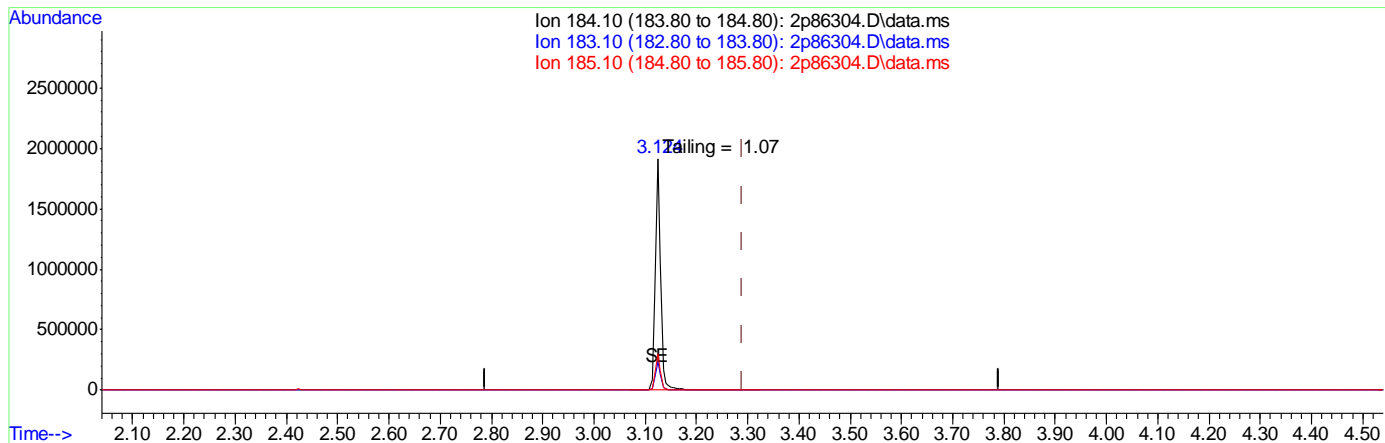
Ion	Exp%	Act%
265.80	100	100
263.80	62.50	60.84
267.80	63.10	63.25
0.00	0.00	0.00

9.5.3.1
 9

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2P3817\
 Data File : 2p86304.D
 Acq On : 5 Apr 2019 3:23 pm
 Operator : christc2
 Sample : dftpp
 Misc : op13652,e2p3817,1000,,,1,1
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 05 15:26:28 2019
 Quant Method : C:\MSDCHEM\1\METHODS\DFTPP2P.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Fri Mar 15 03:14:37 2019
 Response via : Initial Calibration



(2) Benzidine

3.124min (-0.166) 20.90ng

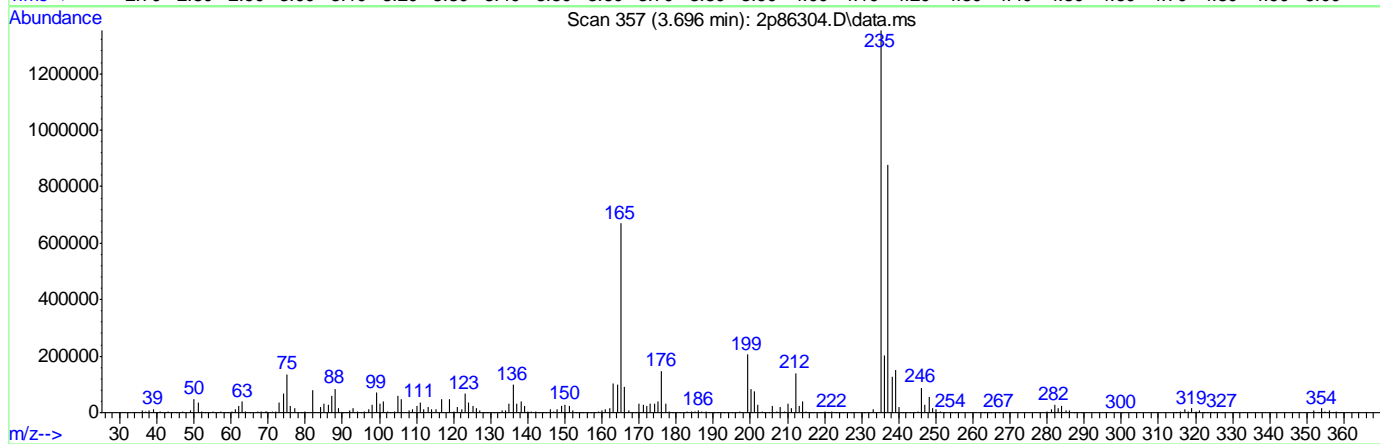
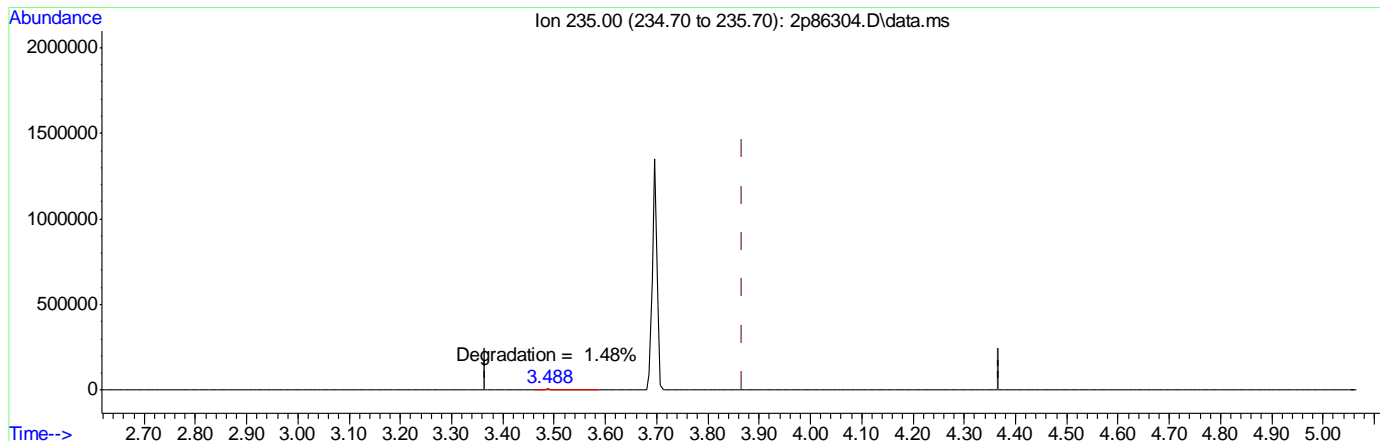
response 1361570

Ion	Exp%	Act%
184.10	100	100
183.10	11.60	12.21
185.10	15.20	15.64
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2P3817\
 Data File : 2p86304.D
 Acq On : 5 Apr 2019 3:23 pm
 Operator : christc2
 Sample : dftpp
 Misc : op13652,e2p3817,1000,,,1,1
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 05 15:26:28 2019
 Quant Method : C:\MSDCHEM\1\METHODS\DFTPP2P.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Fri Mar 15 03:14:37 2019
 Response via : Initial Calibration



TIC: 2p86304.D\data.ms

(3) PP-DDT

3.696min (-0.171) 33.02ng

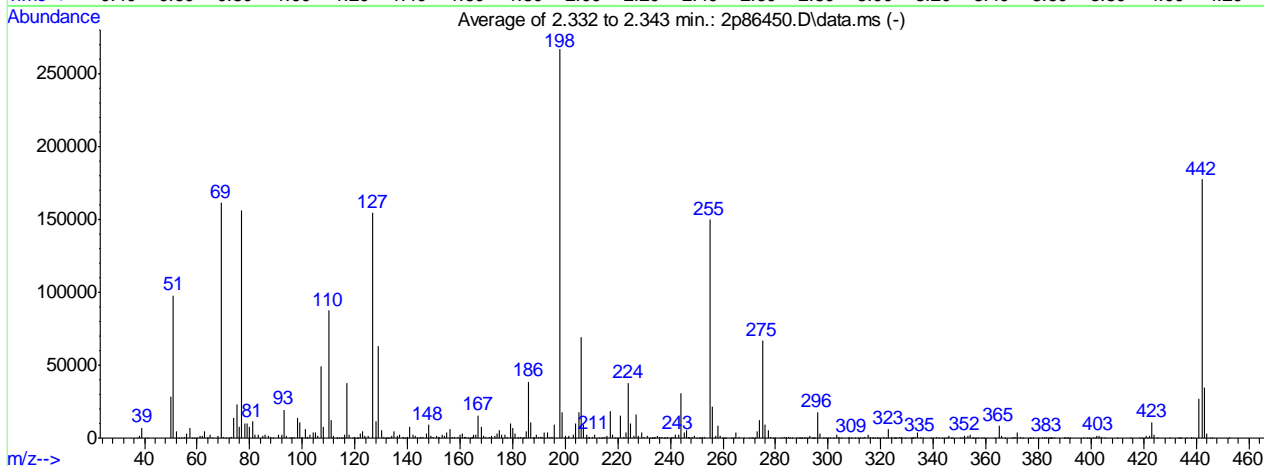
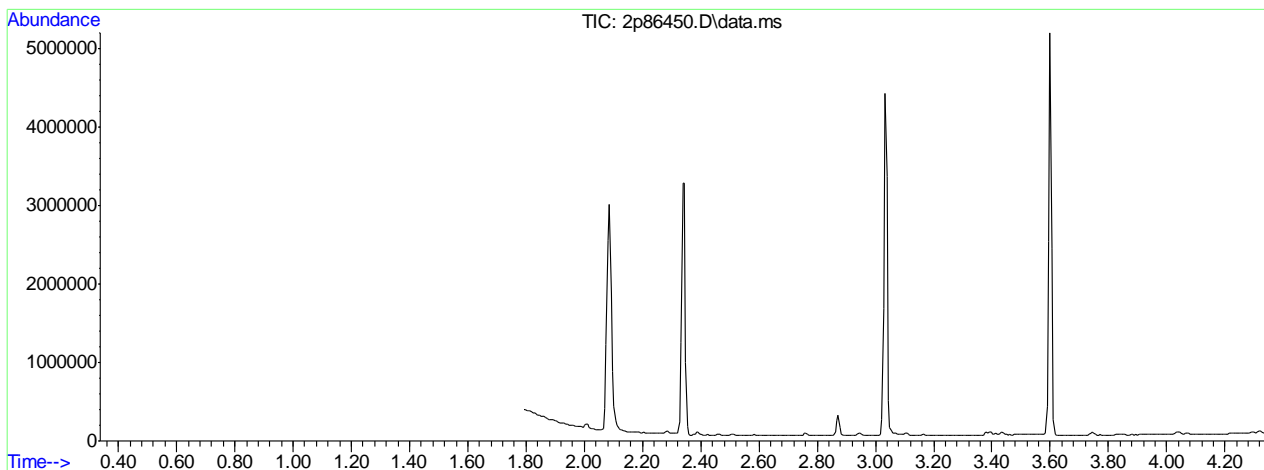
response 842650

Ion	Exp%	Act%
235.00	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

DFTPP

Data File : C:\msdchem\1\DATA\2P3822\2p86450.D Vial: 1
 Acq On : 11 Apr 2019 3:04 am Operator: chriss2
 Sample : dftpp Inst : MS2P
 Misc : op13652,e2p3822,1000,,,1,1 Multiplr: 1.00
 MS Integration Params: lscint.p

Method : C:\MSDCHEM\1\METHODS\DFTPP2P.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS



AutoFind: Scans 102, 103, 104; Background Corrected with Scan 98

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result
51	198	30	60	36.7	97931	PASS
68	69	0.00	2	0.9	1478	PASS
69	198	0.00	100	60.5	161545	PASS
70	69	0.00	2	0.4	709	PASS
127	198	40	60	58.0	154662	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	266851	PASS
199	198	5	9	6.6	17651	PASS
275	198	10	30	25.0	66757	PASS
365	198	1	100	3.2	8415	PASS
441	443	0.10	100	78.5	27190	PASS
442	198	40	100	66.6	177704	PASS
443	442	17	23	19.5	34649	PASS

Average of 2.332 to 2.343 min.: 2p86450.D\data.ms

dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
37.00	263	57.05	6911	69.00	161545	80.00	7926
38.00	1296	57.95	283	70.00	709	81.00	11418
39.05	7254	59.00	79	71.05	275	82.00	2699
41.05	60	59.90	138	72.05	8	83.05	2504
50.05	28621	60.95	1327	73.00	630	85.00	1494
51.05	97931	62.00	1620	74.00	13867	85.95	2665
52.05	4705	63.00	4639	75.00	23274	87.00	1261
53.00	119	64.05	695	76.10	7781	87.95	560
54.00	130	65.00	2307	77.05	156090	88.90	197
55.00	590	65.95	215	78.00	10353	91.00	2521
56.00	3211	68.10	1478	79.00	10068	92.05	2273

Average of 2.332 to 2.343 min.: 2p86450.D\data.ms

dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
93.00	19340	103.00	2236	113.95	240	123.00	4355
94.00	1299	104.05	3648	114.60	73	123.95	1682
95.00	244	105.00	3528	115.05	295	125.00	1566
96.05	995	106.05	1448	116.00	2449	126.95	154662
97.10	631	107.00	49226	117.00	37616	128.05	11711
98.00	13612	108.00	7419	117.95	2691	129.00	63269
99.00	10421	110.00	87436	119.00	127	130.00	5449
99.95	931	111.00	12666	119.90	429	131.00	922
100.95	5874	112.00	1730	120.60	56	131.95	261
101.80	121	113.00	231	121.00	109	132.20	160
102.00	457	113.20	225	122.05	3254	132.85	25

Average of 2.332 to 2.343 min.: 2p86450.D\data.ms

dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
133.20	166	142.95	1441	152.00	598	162.15	539
133.90	1590	143.95	540	153.00	2265	163.10	108
135.00	4467	144.80	81	154.05	1905	163.90	92
136.00	1714	144.95	582	155.00	4188	164.10	343
137.00	2244	145.95	1049	156.05	5827	164.90	604
138.05	561	147.05	3486	157.05	1147	165.00	1981
138.30	189	147.90	8904	157.95	1124	166.00	2469
139.05	355	149.00	1652	158.95	935	166.95	15803
139.95	616	149.95	519	160.00	2306	167.95	7378
141.00	7378	151.15	1209	160.95	3381	169.00	1320
142.05	2660	151.70	298	161.90	417	169.95	673

Average of 2.332 to 2.343 min.: 2p86450.D\data.ms

dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
171.00	625	182.05	684	190.90	644	201.45	1744
172.00	1270	183.00	432	191.30	542	203.05	1975
173.05	1899	183.90	269	192.00	3498	204.00	10109
174.05	2979	184.15	331	193.05	3918	205.05	17518
175.00	5721	185.00	4589	193.95	831	206.10	69439
175.90	1954	186.05	38539	195.00	586	207.05	9285
177.00	2530	187.00	11133	196.00	9291	208.00	2320
178.00	603	187.90	244	198.00	266851	208.90	122
179.00	10380	188.15	993	199.00	17651	209.10	442
180.00	6925	189.00	2341	200.00	1406	210.40	845
181.10	3485	190.05	472	200.80	56	211.00	2587

Average of 2.332 to 2.343 min.: 2p86450.D\data.ms

dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
213.00	243	223.00	4207	232.95	296	240.20	296
213.90	19	224.05	37987	233.20	146	241.05	1060
214.10	61	225.00	9855	233.70	108	241.80	218
215.00	960	226.10	1243	234.05	831	242.05	2165

216.00	1703	227.00	15888	235.05	1283	243.10	2489
217.00	18217	228.00	1924	236.00	932	244.10	30659
217.95	2069	229.00	3659	236.95	1122	245.10	4052
218.95	341	229.95	555	237.70	17	246.00	5669
219.70	176	231.00	1393	238.15	246	246.80	224
220.95	15614	231.95	254	239.05	524	247.00	1152
222.10	425	232.70	62	240.00	214	248.10	485

Average of 2.332 to 2.343 min.: 2p86450.D\data.ms
dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
249.05	1213	259.80	116	271.20	203	283.05	687
250.10	284	260.05	71	272.00	175	284.10	497
250.80	87	260.50	51	273.00	4940	285.00	896
251.10	157	261.00	387	274.05	12599	285.30	95
251.90	461	263.00	116	275.00	66757	286.05	247
253.00	844	263.85	336	276.05	9063	287.90	96
255.00	149931	264.95	3540	277.05	5647	288.90	132
256.05	21735	266.05	598	277.95	1141	289.20	64
257.05	1757	267.85	219	279.10	361	289.70	37
258.00	8364	269.90	197	279.90	90	289.90	79
259.05	1349	271.00	229	282.05	91	290.90	81

Average of 2.332 to 2.343 min.: 2p86450.D\data.ms
dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
291.10	37	299.00	28	311.30	18	319.90	40
291.95	158	300.05	84	312.20	95	321.05	731
292.20	212	300.90	280	313.05	106	322.10	186
293.10	1290	302.10	353	314.10	1002	323.05	6260
293.80	27	303.05	2413	315.00	2031	324.05	1021
294.10	359	304.00	684	316.05	1088	324.90	97
294.70	56	305.00	24	316.80	46	325.30	62
294.90	314	307.70	93	317.10	176	326.00	2
296.00	17904	308.10	212	317.90	23	327.00	1041
297.05	2720	308.95	316	318.40	42	327.60	17
298.05	166	310.00	285	319.10	94	328.00	834

Average of 2.332 to 2.343 min.: 2p86450.D\data.ms
dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
329.10	194	341.10	757	353.10	1545	367.20	139
331.30	24	342.05	343	354.10	2218	369.70	97
331.90	247	343.20	29	354.90	48	370.05	206
332.10	171	344.35	40	355.20	326	371.10	682
332.40	70	345.05	93	356.25	106	372.05	3574
333.00	740	346.00	1206	356.90	142	373.10	783
334.05	4030	346.90	158	358.20	37	373.95	179
335.05	1161	347.10	160	359.15	280	376.40	24
336.05	93	350.10	152	363.25	83	376.95	50
338.95	107	351.20	265	365.05	8415	377.90	23
339.95	121	352.05	1623	366.00	1471	380.20	18

Average of 2.332 to 2.343 min.: 2p86450.D\data.ms
dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
381.10	22	390.10	221	403.80	40	424.05	1959
382.20	17	390.90	153	404.00	740	425.15	165
383.05	970	391.20	126	405.05	132	430.00	48
383.90	44	392.15	271	410.00	136	433.30	25
384.10	152	397.20	85	415.05	95	433.55	85
384.70	18	398.30	45	418.20	64	434.00	61
384.90	133	399.30	17	419.25	57	436.20	25
385.20	46	401.05	292	420.95	1299	437.80	28
386.00	45	401.80	91	421.30	123	438.20	103
389.70	43	402.10	1192	422.05	1551	438.85	57
389.90	188	403.00	1827	423.10	11147	441.10	27190

Average of 2.332 to 2.343 min.: 2p86450.D\data.ms

dftpp

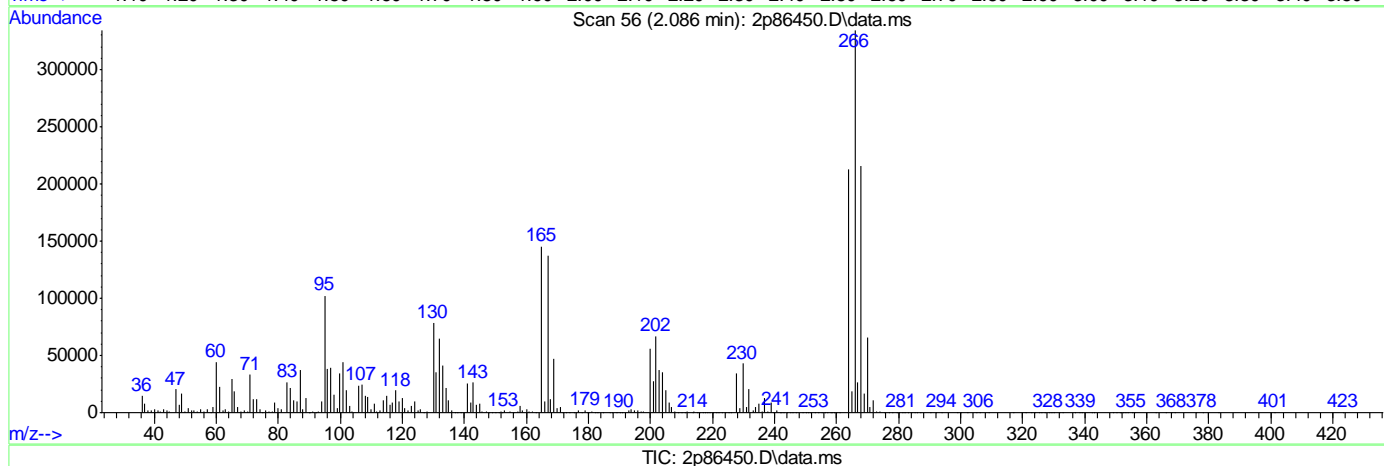
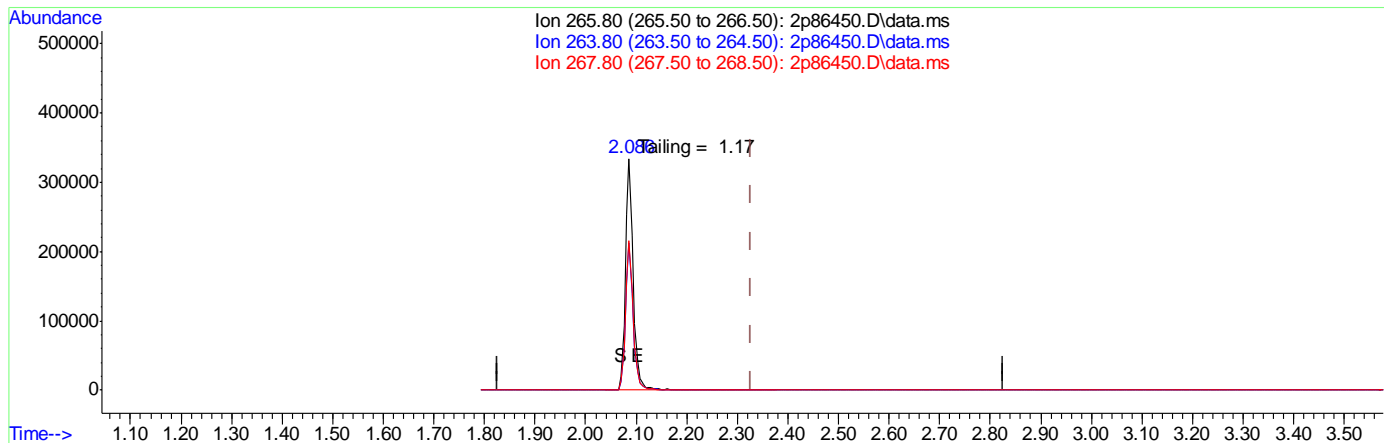
Modified: subtracted

m/z	abund.	m/z	abund.	m/z	abund.
442.10	177704				
443.10	34649				
444.15	3145				
445.05	267				
446.10	30				
452.30	17				

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2P3822\
 Data File : 2p86450.D
 Acq On : 11 Apr 2019 3:04 am
 Operator : chriss2
 Sample : dftpp
 Misc : op13652,e2p3822,1000,,,1,1
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 11 03:08:04 2019
 Quant Method : C:\MSDCHEM\1\METHODS\DFTPP2P.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Fri Mar 15 03:14:37 2019
 Response via : Initial Calibration



(1) Pentachlorophenol (t)

2.086min (-0.241) 28.00ng

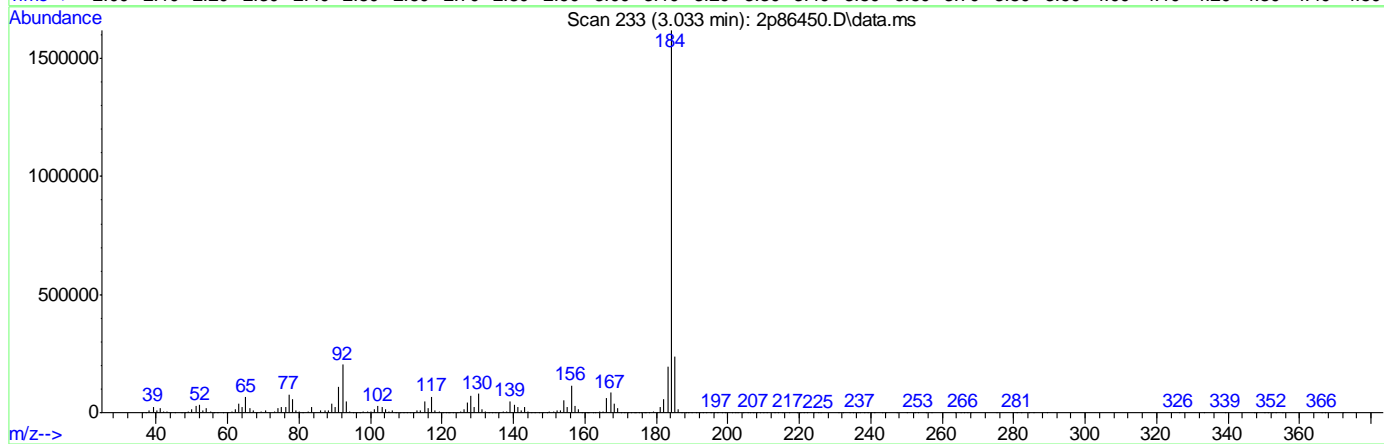
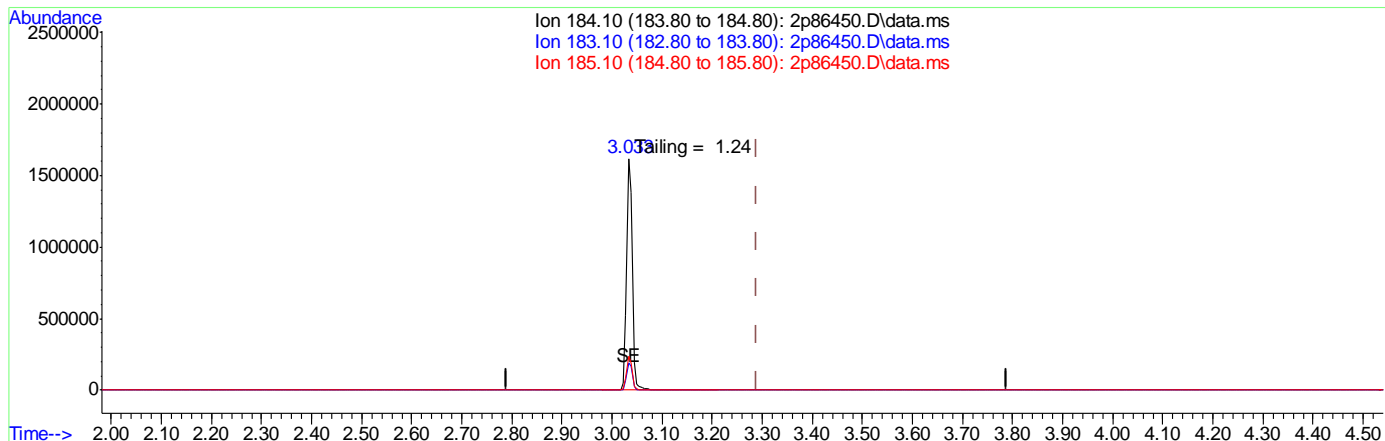
response 355974

Ion	Exp%	Act%
265.80	100	100
263.80	62.50	63.59
267.80	63.10	64.51
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2P3822\
 Data File : 2p86450.D
 Acq On : 11 Apr 2019 3:04 am
 Operator : chriss2
 Sample : dftpp
 Misc : op13652,e2p3822,1000,,,1,1
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 11 03:08:04 2019
 Quant Method : C:\MSDCHEM\1\METHODS\DFTPP2P.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Fri Mar 15 03:14:37 2019
 Response via : Initial Calibration



TIC: 2p86450.D\data.ms

(2) Benzidine

3.033min (-0.257) 19.40ng m

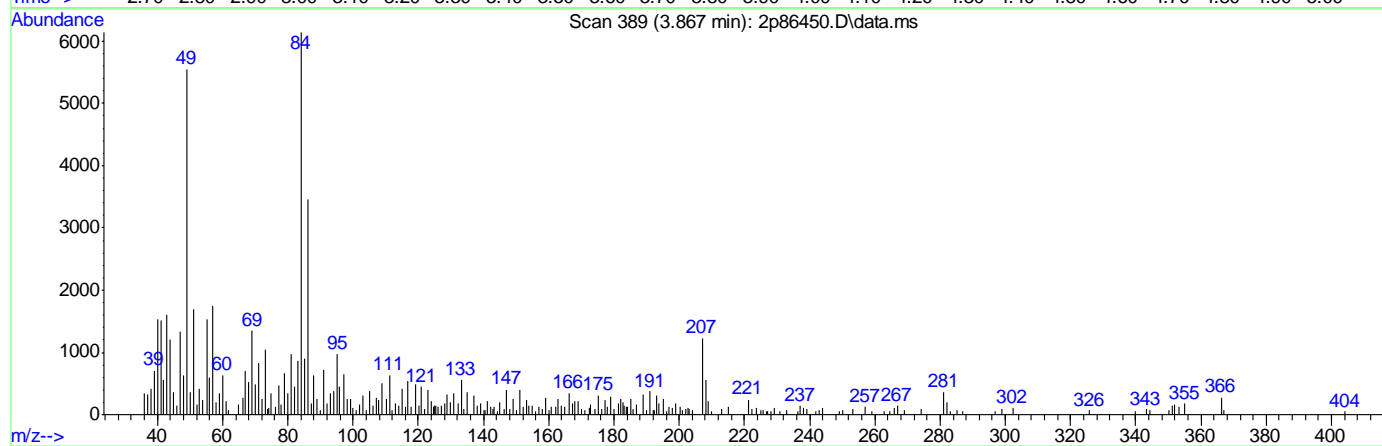
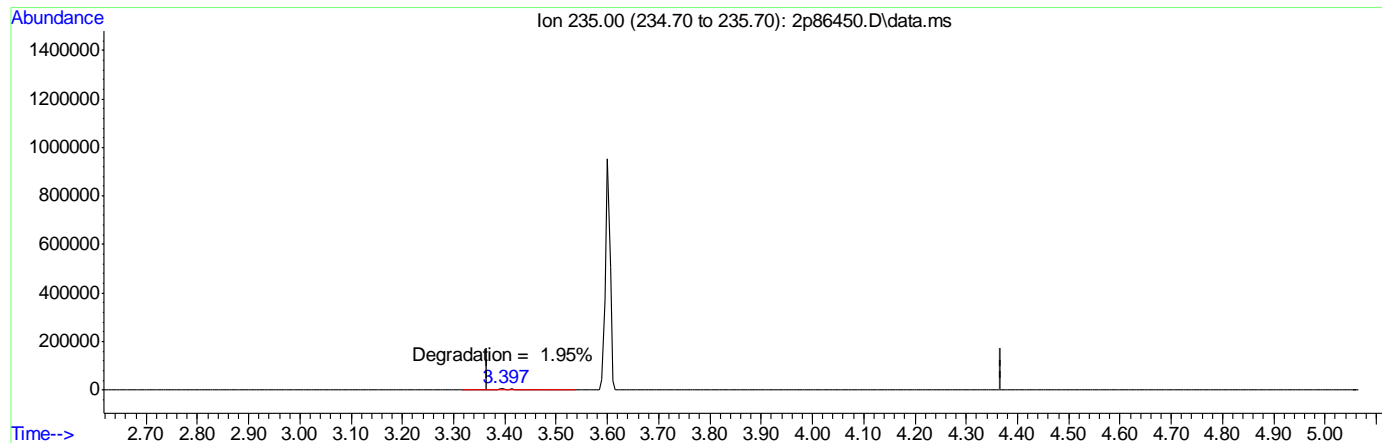
response 1264291

Ion	Exp%	Act%
184.10	100	100
183.10	11.60	12.01
185.10	15.20	14.69
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2P3822\
 Data File : 2p86450.D
 Acq On : 11 Apr 2019 3:04 am
 Operator : chriss2
 Sample : dftpp
 Misc : op13652,e2p3822,1000,,,1,1
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 11 03:08:04 2019
 Quant Method : C:\MSDCHEM\1\METHODS\DFTPP2P.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Fri Mar 15 03:14:37 2019
 Response via : Initial Calibration



TIC: 2p86450.D\data.ms

(3) PP-DDT

3.868min (-3.868) 0.00ng

response 0

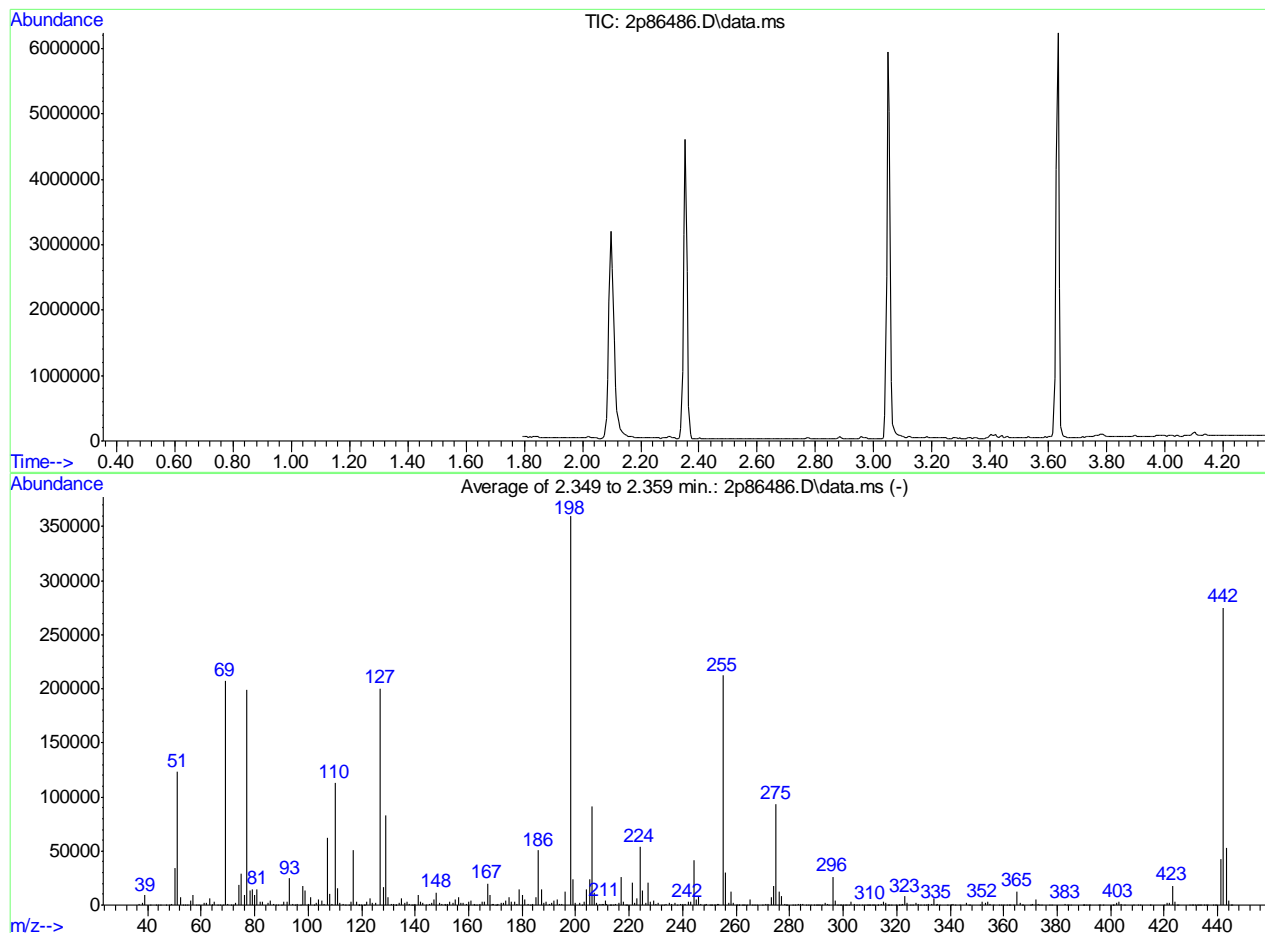
Ion	Exp%	Act%
235.00	100	0.00
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

DFTPP

Data File : C:\msdchem\1\DATA\2P3823\2p86486.D
 Acq On : 12 Apr 2019 9:11 am
 Sample : dftpp
 Misc : op13652,e2p3823,1000,,,1,1
 MS Integration Params: lscint.p

Vial: 1
 Operator: angelar
 Inst : MS2P
 Multiplr: 1.00

Method : C:\MSDCHEM\1\METHODS\DFTPP2P.M (RTE Integrator)
 Title : Semi Volatile Extractables by GC/MS



AutoFind: Scans 105, 106, 107; Background Corrected with Scan 99

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result
51	198	30	60	34.3	123146	PASS
68	69	0.00	2	0.2	446	PASS
69	198	0.00	100	57.7	207214	PASS
70	69	0.00	2	0.4	845	PASS
127	198	40	60	55.7	200114	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	359424	PASS
199	198	5	9	6.8	24297	PASS
275	198	10	30	26.0	93434	PASS
365	198	1	100	3.6	12903	PASS
441	443	0.10	100	80.0	42333	PASS
442	198	40	100	76.5	275115	PASS
443	442	17	23	19.2	52917	PASS

2p86486.D DFTPP2P.M Fri Apr 12 14:31:51 2019 RPT1

Average of 2.349 to 2.359 min.: 2p86486.D\data.ms

dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
37.00	711	51.10	123146	63.00	6118	73.00	1616
38.00	1601	52.10	6897	63.85	526	73.95	18293
39.00	9300	53.00	293	64.10	477	75.00	29526
41.00	328	53.85	79	65.00	2939	76.10	9150
43.05	68	55.00	362	66.00	41	77.10	199373
43.95	248	56.05	4358	67.10	337	78.10	13299
44.95	77	57.00	9631	68.05	446	79.00	14066
47.00	76	58.00	537	69.00	207214	79.95	9880
48.20	163	58.95	5	70.10	845	81.00	15065
49.05	1148	61.00	1947	71.00	51	82.00	3534
50.05	34154	62.05	2345	71.95	124	83.00	3003

Average of 2.349 to 2.359 min.: 2p86486.D\data.ms

dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
85.05	2391	95.95	620	107.00	62336	117.95	3522
85.95	3917	97.00	274	108.10	9904	118.80	184
87.05	1589	98.00	17916	109.05	1446	118.90	107
87.95	489	99.00	13756	110.00	112887	119.05	61
88.90	430	100.00	1511	110.95	15636	119.95	521
89.90	28	100.95	7034	112.00	2132	120.90	161
91.00	3243	102.05	249	112.95	824	121.10	91
92.00	3438	102.90	2618	114.05	186	122.00	3521
93.00	24623	103.95	5163	115.20	201	123.00	6037
94.00	1464	105.00	4402	116.10	3529	124.00	2303
95.00	68	106.10	805	117.00	50371	125.05	2425

Average of 2.349 to 2.359 min.: 2p86486.D\data.ms

dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
127.00	200114	137.05	3053	147.05	4783	157.05	1975
128.05	16243	137.95	953	148.00	11620	157.90	1710
129.00	82901	138.80	111	148.95	2352	159.00	1151
130.00	7297	139.00	218	149.95	680	160.05	2729
130.95	1209	140.00	895	151.00	1346	160.95	4456
132.00	1002	141.00	9378	151.30	378	162.00	985
132.60	270	142.00	3380	151.90	1165	162.20	279
132.95	83	143.00	2169	153.00	2871	162.95	87
134.00	1665	144.00	486	153.95	1901	164.00	619
135.00	5844	145.15	656	155.10	5450	164.95	3407
136.05	2532	146.05	1840	156.10	7663	165.90	2687

Average of 2.349 to 2.359 min.: 2p86486.D\data.ms

dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
167.00	20147	176.05	2804	187.05	14100	199.00	24297
168.00	9491	177.00	3369	188.00	1632	200.00	2259
168.90	576	178.00	1141	188.95	2933	201.55	2292
169.05	1225	178.95	14264	190.00	602	202.20	324
169.95	501	179.95	9133	190.95	1714	203.00	2808
170.35	343	181.00	4827	192.00	4398	204.00	14332
171.00	849	182.05	761	193.00	4713	205.05	24224
171.95	1869	183.05	471	194.00	1246	206.10	91776
173.00	2143	184.00	1218	194.95	740	207.00	11610
174.00	3678	185.05	6915	196.05	11983	207.95	2462
175.05	7486	186.00	50675	198.00	359424	208.95	954

Average of 2.349 to 2.359 min.: 2p86486.D\data.ms

dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
209.90	573	218.80	94	230.00	578	240.95	1269
210.20	853	219.10	26	231.00	1938	242.00	3096
211.00	3867	221.00	20695	231.95	516	243.10	3069
211.75	615	221.95	2162	233.10	361	244.10	41173

212.90	79	223.00	5752	233.90	1408	245.00	5144
213.10	243	224.05	53717	235.05	1882	246.05	8324
213.85	92	224.95	13847	236.00	1281	246.95	1528
215.00	1117	226.05	1657	237.00	1788	247.80	347
216.00	2311	227.00	21248	237.95	390	248.30	157
217.00	25532	228.00	2917	239.00	816	248.90	1503
218.00	3312	229.00	4104	239.95	707	249.95	304

Average of 2.349 to 2.359 min.: 2p86486.D\data.ms
dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
250.60	219	260.05	370	267.60	128	279.10	163
251.05	439	260.30	86	270.00	367	280.90	76
251.60	30	260.80	40	270.85	585	281.95	379
252.05	373	261.05	275	272.00	673	283.05	724
252.95	1059	262.10	79	273.05	7194	284.00	869
253.40	615	262.50	77	274.05	17254	285.05	1258
255.00	212352	263.05	150	275.00	93434	286.05	291
256.00	30515	264.05	434	276.05	12070	287.15	24
257.05	2274	265.00	5312	277.00	7963	288.00	93
258.00	12223	265.90	332	278.05	1427	288.95	522
259.00	2052	266.80	71	278.75	320	290.05	340

Average of 2.349 to 2.359 min.: 2p86486.D\data.ms
dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
290.30	90	299.00	17	308.70	27	316.00	1880
290.70	53	299.90	61	309.00	203	316.70	80
291.05	178	300.70	57	309.40	48	317.05	414
291.95	302	301.05	377	310.05	481	317.85	59
293.05	1976	302.05	554	310.80	54	319.85	171
294.00	603	303.05	3056	311.20	74	320.90	387
294.70	141	304.15	929	311.60	47	321.10	469
296.00	26256	304.95	128	312.80	70	321.60	111
297.00	3968	305.90	27	313.10	222	322.05	688
298.00	360	307.20	20	314.15	1022	323.05	8286
298.75	58	307.95	477	314.95	2850	324.05	1713

Average of 2.349 to 2.359 min.: 2p86486.D\data.ms
dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
325.00	225	335.05	1319	350.90	167	362.40	32
326.00	233	336.10	156	352.05	2982	363.70	74
327.00	1737	339.05	146	353.10	1700	365.00	12903
327.95	872	340.00	176	354.05	2996	366.00	1666
328.95	268	340.20	36	355.00	680	366.95	63
330.05	94	341.05	984	356.10	106	367.20	57
330.90	21	341.85	221	358.25	114	369.95	252
331.95	715	343.40	42	359.05	220	370.40	54
332.95	937	346.00	2080	359.85	70	370.95	919
334.05	5902	346.70	69	361.20	53	372.05	5377
334.90	293	347.20	288	361.95	68	372.95	1156

Average of 2.349 to 2.359 min.: 2p86486.D\data.ms
dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
373.20	308	391.05	552	405.10	61	424.90	153
374.05	216	391.70	131	408.70	19	425.10	312
376.90	61	392.10	278	410.00	48	429.35	38
378.10	45	395.30	56	411.10	59	430.10	79
383.05	1260	396.10	51	414.80	18	430.70	22
383.90	135	397.10	76	414.95	138	431.60	46
384.10	432	400.90	174	419.90	85	432.50	19
385.15	153	401.10	175	421.10	2041	433.00	73
389.70	88	402.05	1691	422.05	2516	433.30	32
390.00	164	403.05	2789	423.10	17788	433.80	36
390.20	229	404.05	828	424.10	3222	434.95	77

Average of 2.349 to 2.359 min.: 2p86486.D\data.ms

dftpp

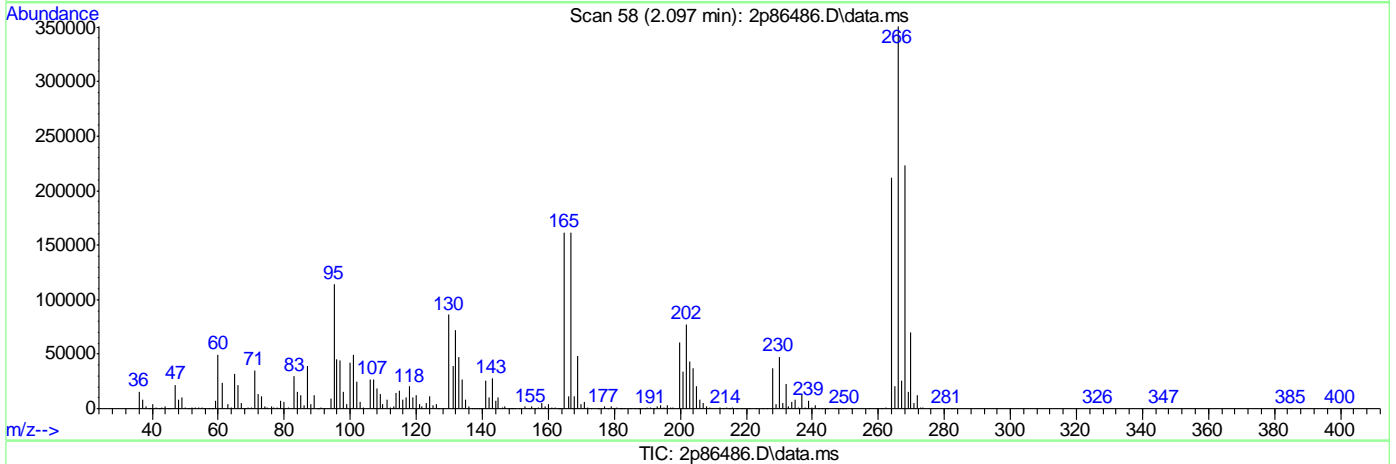
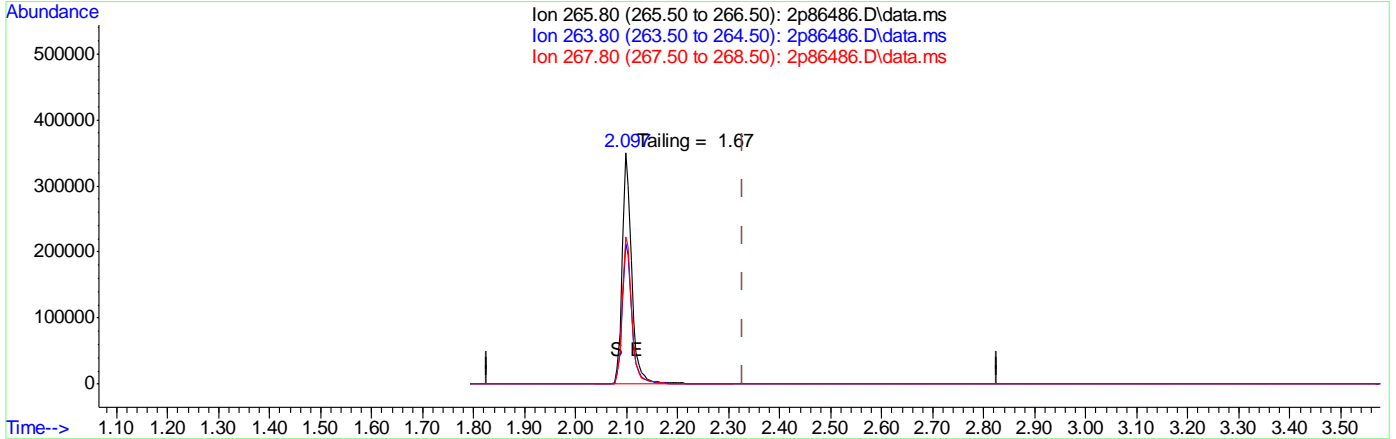
Modified: subtracted

m/z	abund.	m/z	abund.	m/z	abund.
435.70	38				
436.00	22				
438.10	78				
438.95	128				
439.60	200				
441.10	42333				
442.10	275115				
443.10	52917				
444.10	4262				
444.90	164				
445.20	102				

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2P3823\
 Data File : 2p86486.D
 Acq On : 12 Apr 2019 9:11 am
 Operator : angelar
 Sample : dftpp
 Misc : op13652,e2p3823,1000,,,1,1
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 12 09:15:20 2019
 Quant Method : C:\MSDCHEM\1\METHODS\DFTPP2P.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Fri Mar 15 03:14:37 2019
 Response via : Initial Calibration



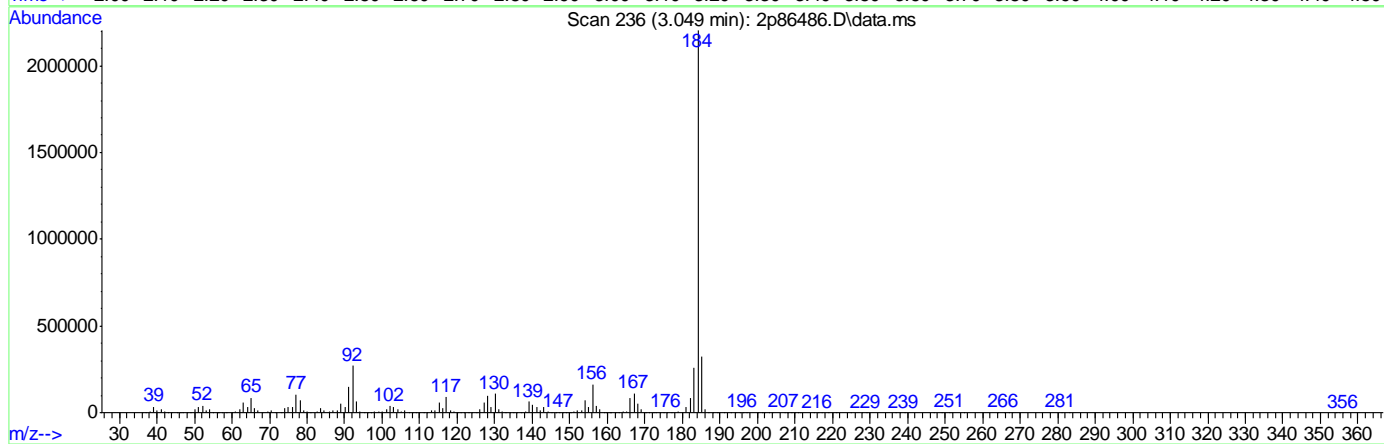
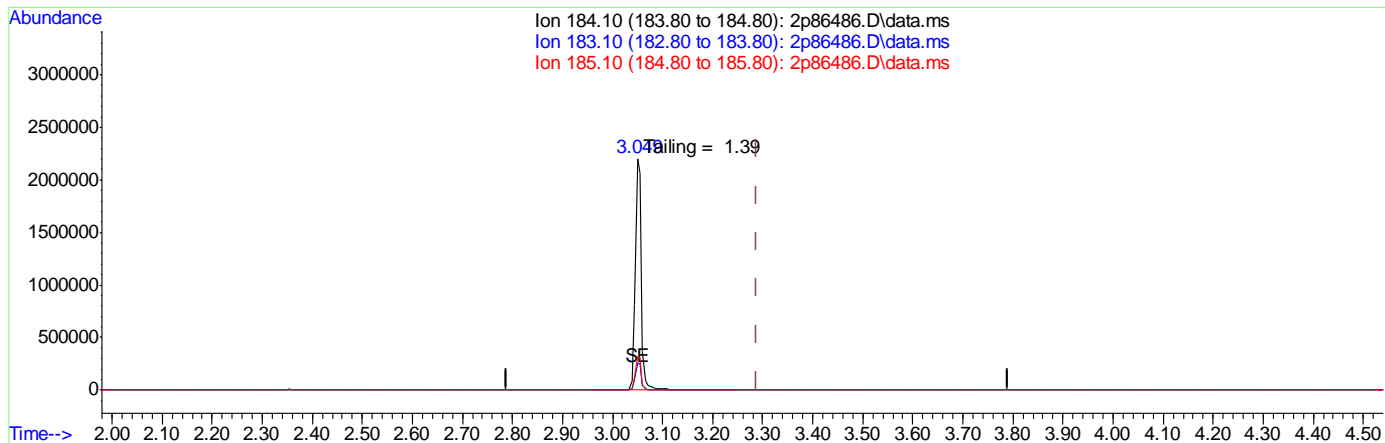
(1) Pentachlorophenol (t)
 2.097min (-0.230) 34.91ng
 response 443868

Ion	Exp%	Act%
265.80	100	100
263.80	62.50	60.45
267.80	63.10	63.53
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2P3823\
 Data File : 2p86486.D
 Acq On : 12 Apr 2019 9:11 am
 Operator : angelar
 Sample : dftpp
 Misc : op13652,e2p3823,1000,,,1,1
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 12 09:15:20 2019
 Quant Method : C:\MSDCHEM\1\METHODS\DFTPP2P.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Fri Mar 15 03:14:37 2019
 Response via : Initial Calibration



TIC: 2p86486.D\data.ms

(2) Benzidine

3.049min (-0.241) 28.96ng

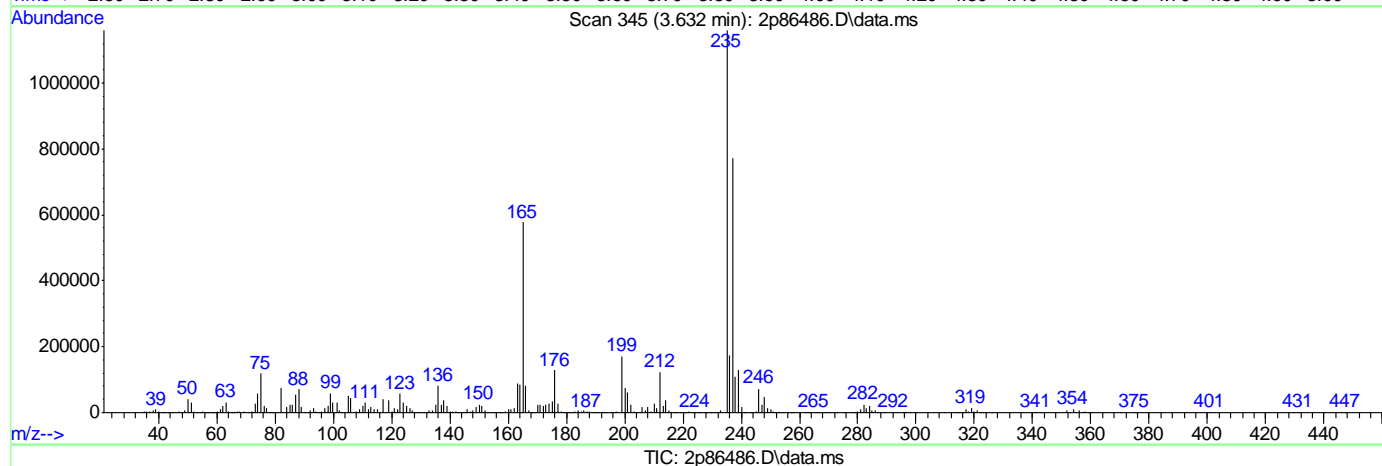
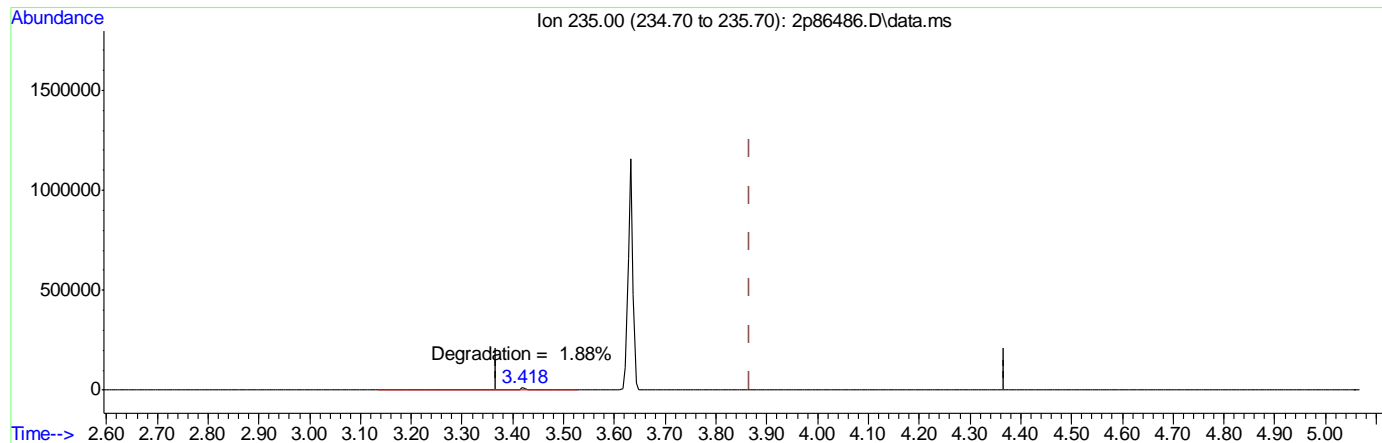
response 1887040

Ion	Exp%	Act%
184.10	100	100
183.10	11.60	11.78
185.10	15.20	14.82
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2P3823\
 Data File : 2p86486.D
 Acq On : 12 Apr 2019 9:11 am
 Operator : angelar
 Sample : dftpp
 Misc : op13652,e2p3823,1000,,,1,1
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 12 09:15:20 2019
 Quant Method : C:\MSDCHEM\1\METHODS\DFTPP2P.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Fri Mar 15 03:14:37 2019
 Response via : Initial Calibration



(3) PP-DDT

3.632min (-0.235) 30.94ng

response 789538

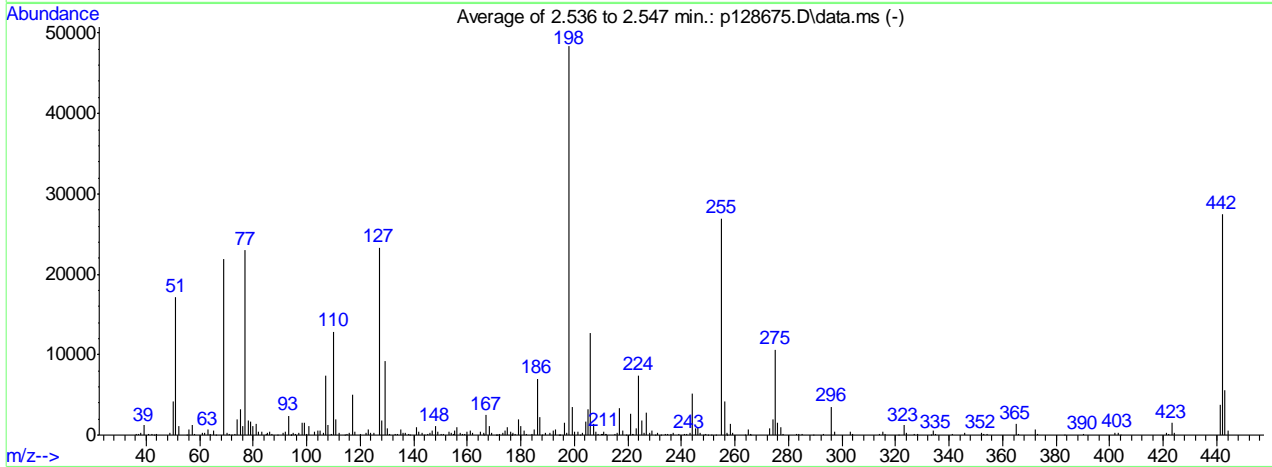
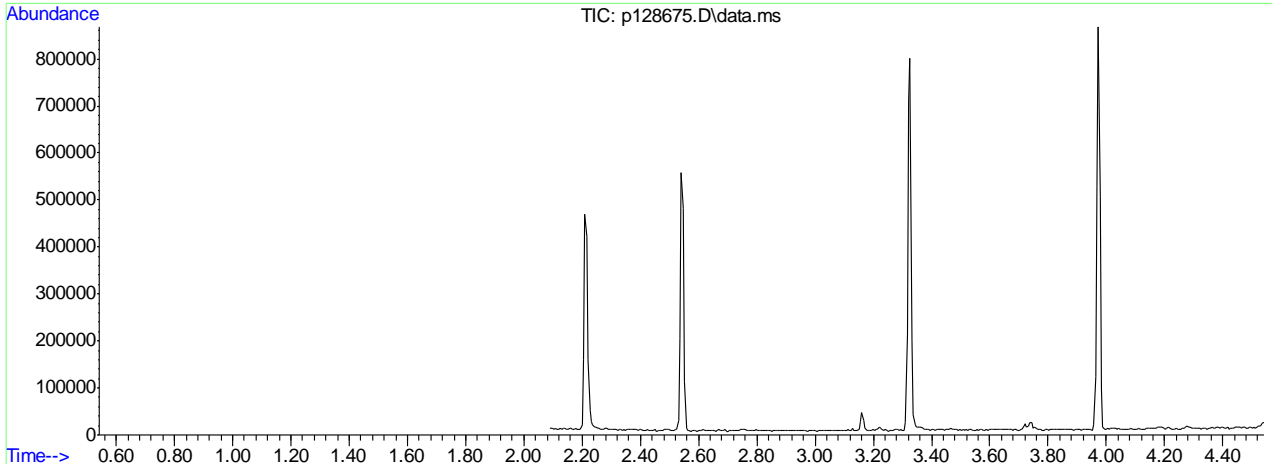
Ion	Exp%	Act%
235.00	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

DFTPP

Data File : C:\msdchem\1\DATA\EP5819\p128675.D
 Acq On : 25 Mar 2019 9:46 am
 Sample : dftpp
 Misc : op13894,ep5819,1000,,1,1
 MS Integration Params: RTEINT.P

Vial: 1
 Operator: christc2
 Inst : MSVOAMSP
 Multiplr: 1.00

Method : C:\MSDCHEM\1\METHODS\DFTPPP.M (RTE Integrator)
 Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um



AutoFind: Scans 85, 86, 87; Background Corrected with Scan 81

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result
51	198	30	60	35.5	17177	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	45.2	21850	PASS
70	69	0.00	2	1.4	297	PASS
127	198	40	60	48.3	23356	PASS
197	198	0.00	1	0.5	244	PASS
198	198	100	100	100.0	48338	PASS
199	198	5	9	7.4	3559	PASS
275	198	10	30	22.0	10614	PASS
365	198	1	100	2.9	1383	PASS
441	443	0.10	100	68.9	3804	PASS
442	198	40	100	56.9	27494	PASS
443	442	17	23	20.1	5523	PASS

Average of 2.536 to 2.547 min.: p128675.D\data.ms

dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.10	140	52.10	1060	69.00	21850	80.05	1103
37.10	107	55.10	46	70.05	297	81.10	1338
38.10	251	56.10	706	71.00	115	82.05	430
39.10	1250	57.10	1235	72.00	59	83.10	417
41.05	76	58.05	199	73.00	134	84.90	93
42.00	88	61.05	317	74.10	1895	85.15	320
43.10	64	62.05	240	75.10	3274	86.10	402
44.05	87	63.05	643	76.10	1096	87.10	149
49.05	297	64.10	79	77.10	23040	89.00	63
50.10	4145	65.15	543	78.10	1798	91.05	333
51.10	17177	66.00	51	79.10	1621	92.05	477

Average of 2.536 to 2.547 min.: p128675.D\data.ms

dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
93.10	2416	104.05	508	116.05	306	130.05	800
94.00	61	105.10	607	117.10	4972	131.05	133
94.20	73	106.05	234	118.05	430	133.05	127
95.05	222	107.10	7389	120.00	84	133.95	205
95.95	146	108.10	1270	122.05	344	135.05	707
97.05	285	109.00	92	123.05	653	136.10	306
98.10	1522	110.05	12895	124.00	330	137.00	301
99.05	1541	111.05	1967	125.05	343	138.00	127
100.10	158	112.15	254	127.10	23356	138.30	50
101.00	1091	114.00	52	128.10	1864	141.05	1028
103.05	402	115.05	114	129.10	9244	142.00	377

Average of 2.536 to 2.547 min.: p128675.D\data.ms

dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
143.00	269	154.90	127	166.30	61	176.40	51
144.10	57	155.10	613	167.05	2477	176.80	64
145.10	87	156.10	968	168.05	1092	177.05	316
145.95	260	157.15	215	169.05	236	178.05	153
147.05	603	158.05	167	170.70	56	179.00	1891
148.05	1121	159.05	170	171.10	55	180.10	1086
149.05	379	160.00	355	172.10	128	181.05	621
150.10	106	161.00	592	173.05	305	182.00	136
151.00	88	162.05	220	174.00	494	183.95	152
153.05	398	165.00	450	175.05	1005	185.05	671
154.05	255	166.05	218	176.00	356	186.10	7001

Average of 2.536 to 2.547 min.: p128675.D\data.ms

dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
187.05	2210	199.00	3559	209.95	132	221.10	2628
188.00	69	200.05	397	210.60	159	221.80	86
189.05	303	201.50	362	211.05	429	222.00	206
191.00	307	202.00	53	211.70	81	223.00	795
191.95	572	203.05	320	211.95	148	224.10	7407
193.05	736	204.05	1686	215.05	173	225.05	1749
194.00	67	205.10	3207	215.95	309	226.10	250
194.80	52	206.10	12748	217.00	3305	227.05	2861
196.10	1582	207.05	1380	218.10	559	228.05	330
197.00	244	208.05	452	219.10	55	229.10	606
198.00	48338	209.00	121	220.40	53	230.10	50

Average of 2.536 to 2.547 min.: p128675.D\data.ms

dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
231.05	255	245.10	807	257.05	259	277.00	1013
232.10	56	246.00	1047	258.05	1446	278.00	97
234.00	185	247.05	289	259.05	257	283.00	128
234.95	208	248.10	50	263.90	53	284.00	98

236.05	133	249.05	140	265.00	710	285.05	199
237.05	221	250.00	50	265.80	60	289.10	50
238.95	155	251.10	66	266.00	128	293.10	187
240.95	124	253.00	51	273.00	884	296.10	3488
242.00	179	255.10	26976	274.05	1948	297.10	432
243.10	234	256.05	4190	275.10	10614	303.10	382
244.10	5141	256.90	55	276.05	1495	304.05	133

Average of 2.536 to 2.547 min.: p128675.D\data.ms
dftpp

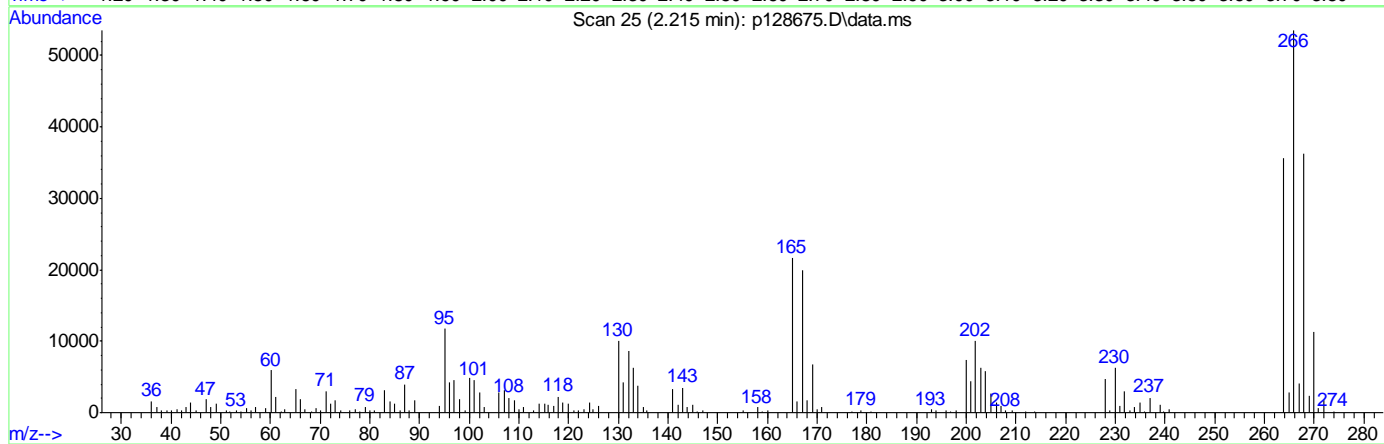
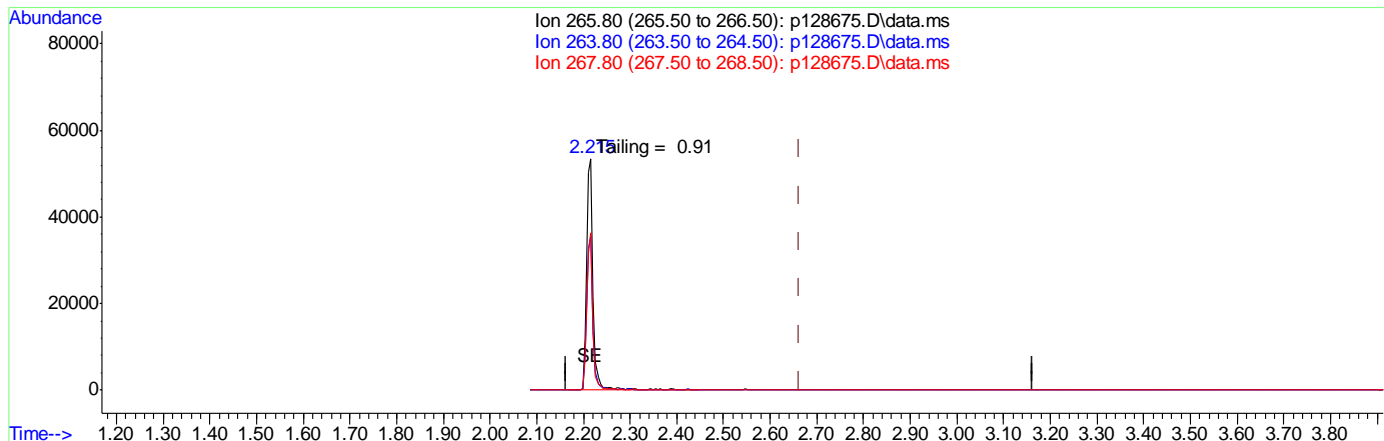
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
314.10	116	341.05	164	402.00	264		
315.00	358	345.95	242	403.00	307		
316.05	181	352.05	274	404.10	51		
321.10	54	353.10	180	421.10	264		
323.05	1242	354.05	211	422.00	111		
324.10	220	365.00	1383	423.10	1512		
326.95	163	366.00	161	424.10	306		
328.10	121	372.10	695	441.10	3804		
333.10	60	373.10	78	442.10	27494		
334.05	615	383.10	69	443.10	5523		
335.05	160	390.05	127	444.05	506		

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EP5819\
 Data File : p128675.D
 Acq On : 25 Mar 2019 9:46 am
 Operator : christc2
 Sample : dftpp
 Misc : op13894,ep5819,1000,,,1,1
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 25 09:52:29 2019
 Quant Method : C:\MSDCHEM\1\METHODS\DFTPPP.M
 Quant Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um
 QLast Update : Tue Dec 11 00:35:57 2018
 Response via : Initial Calibration



TIC: p128675.D\data.ms

(1) Pentachlorophenol (t)

2.215min (-0.448) 39.19ppb m

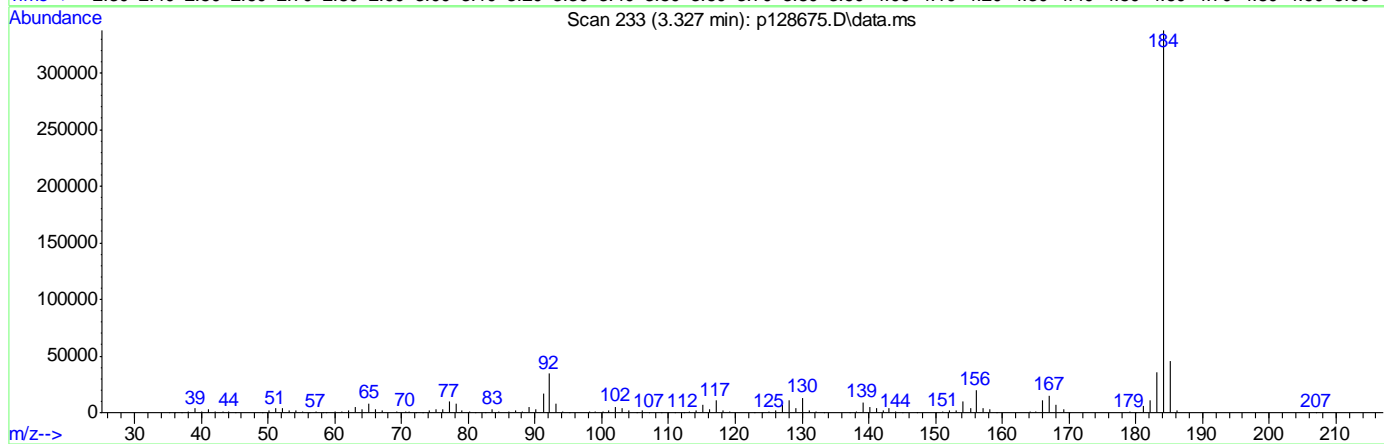
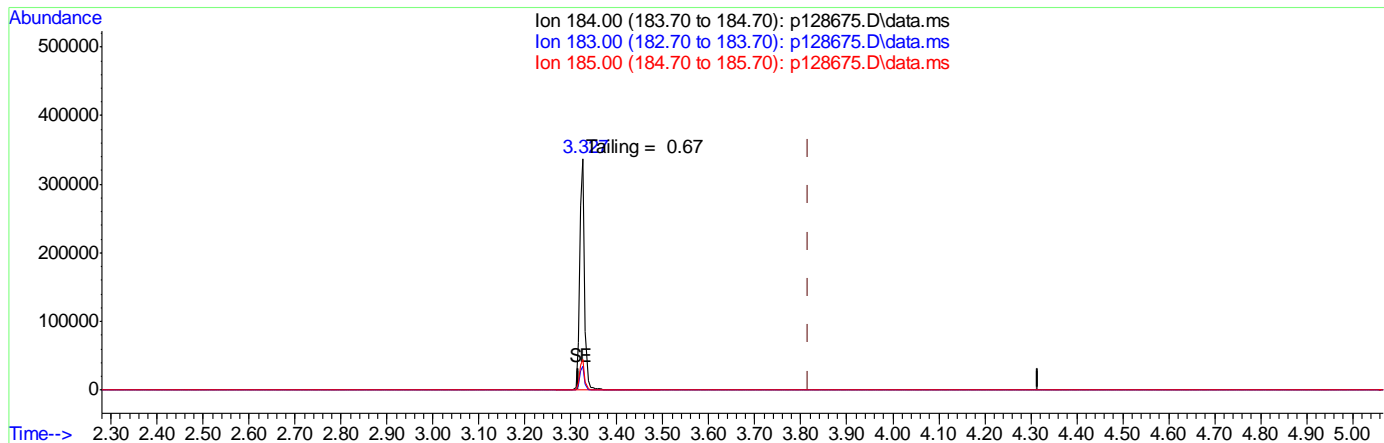
response 50141

Ion	Exp%	Act%
265.80	100	100
263.80	63.90	66.52
267.80	66.90	67.78
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EP5819\
 Data File : p128675.D
 Acq On : 25 Mar 2019 9:46 am
 Operator : christc2
 Sample : dftpp
 Misc : op13894,ep5819,1000,,,1,1
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 25 09:52:29 2019
 Quant Method : C:\MSDCHEM\1\METHODS\DFTPPP.M
 Quant Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um
 QLast Update : Tue Dec 11 00:35:57 2018
 Response via : Initial Calibration



TIC: p128675.D\data.ms

(2) Benzidine (t)

3.327min (-0.490) 15.53ppb m

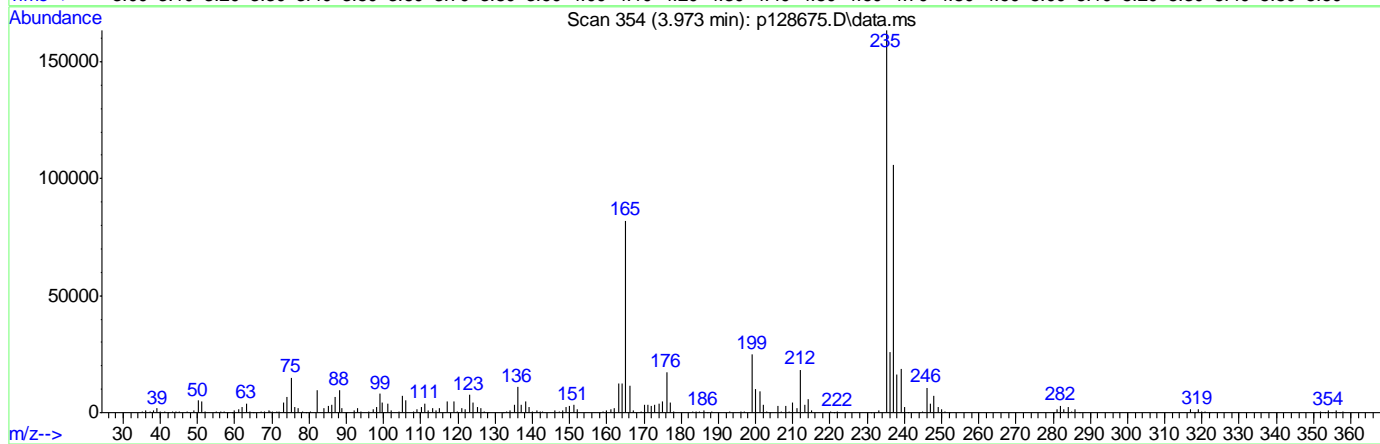
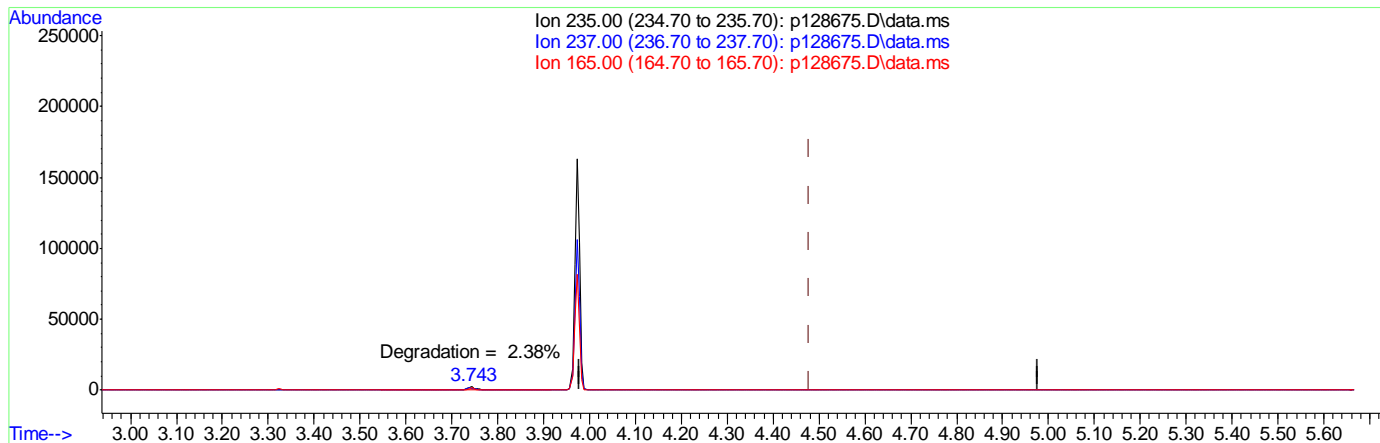
response 256762

Ion	Exp%	Act%
184.00	100	100
183.00	11.70	0.00
185.00	14.30	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EP5819\
 Data File : p128675.D
 Acq On : 25 Mar 2019 9:46 am
 Operator : christc2
 Sample : dftpp
 Misc : op13894,ep5819,1000,,,1,1
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 25 09:52:29 2019
 Quant Method : C:\MSDCHEM\1\METHODS\DFTPPP.M
 Quant Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um
 QLast Update : Tue Dec 11 00:35:57 2018
 Response via : Initial Calibration



TIC: p128675.D\data.ms

(3) ddt

3.973min (-0.506) 17.00ppb m

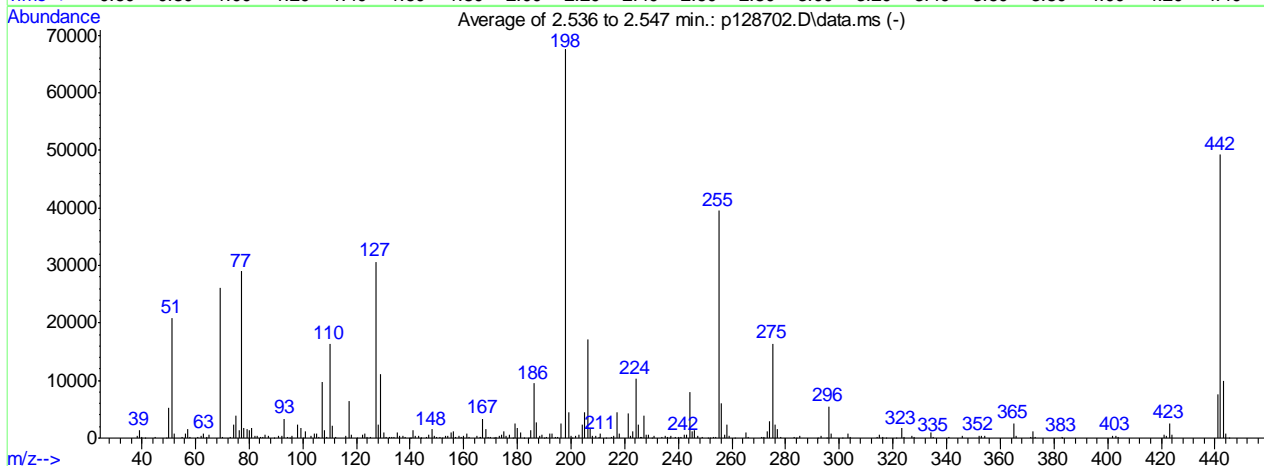
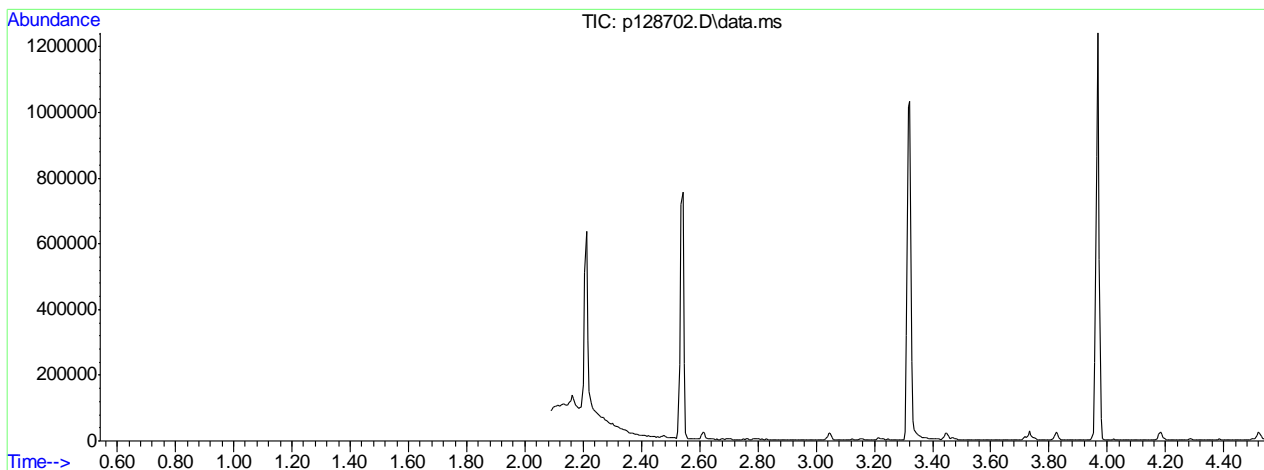
response 126034

Ion	Exp%	Act%
235.00	100	100
237.00	64.10	0.00#
165.00	38.80	0.00#
0.00	0.00	0.00

DFTPP

Data File : C:\msdchem\1\DATA\EP5821\p128702.D Vial: 1
 Acq On : 26 Mar 2019 3:16 pm Operator: christc2
 Sample : dftpp Inst : MSVOMASP
 Misc : op13894,ep5821,1000,,1,1 Multiplr: 1.00
 MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\DFTPPP.M (RTE Integrator)
 Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um



AutoFind: Scans 85, 86, 87; Background Corrected with Scan 80

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result
51	198	30	60	30.9	20856	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	38.7	26144	PASS
70	69	0.00	2	1.1	281	PASS
127	198	40	60	45.4	30640	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	67501	PASS
199	198	5	9	6.7	4503	PASS
275	198	10	30	24.2	16360	PASS
365	198	1	100	3.9	2627	PASS
441	443	0.10	100	75.4	7547	PASS
442	198	40	100	72.9	49224	PASS
443	442	17	23	20.3	10013	PASS

Average of 2.536 to 2.547 min.: p128702.D\data.ms
dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
38.10	300	57.10	1511	75.10	3885	86.05	585
39.05	1442	58.05	108	76.10	1304	87.05	330
40.10	147	61.00	214	77.10	28961	89.10	53
41.10	55	62.05	356	78.05	1843	91.05	379
45.15	111	63.10	864	79.10	1477	92.05	475
49.10	92	64.10	135	80.05	1392	93.10	3392
50.10	5209	65.10	508	81.10	1746	94.10	280
51.10	20856	69.10	26144	82.10	449	95.05	71
52.15	875	70.15	281	83.05	307	96.05	311
55.10	228	73.10	227	84.10	131	98.05	2363
56.05	743	74.10	2421	85.15	147	99.10	1836

Average of 2.536 to 2.547 min.: p128702.D\data.ms
dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
100.00	88	112.10	287	129.10	11106	140.10	99
101.05	1113	116.05	418	130.10	1053	141.05	1401
103.10	362	117.10	6342	131.10	219	142.10	421
104.10	688	118.10	546	132.10	128	143.00	399
105.05	688	120.10	86	133.05	141	144.00	78
106.00	232	122.10	577	134.00	275	144.20	58
107.10	9697	123.05	766	135.05	938	146.00	258
108.05	1404	124.00	268	136.15	312	147.05	628
109.10	160	125.00	285	137.10	426	148.05	1527
110.10	16288	127.10	30640	138.05	125	149.10	363
111.10	2088	128.10	2256	139.90	88	150.05	169

Average of 2.536 to 2.547 min.: p128702.D\data.ms
dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
151.15	292	162.15	261	174.10	557	186.10	9510
151.90	90	165.00	317	175.10	1124	187.10	2802
153.00	330	166.00	205	175.95	467	188.10	304
154.05	407	166.20	224	177.00	533	189.00	555
155.10	966	167.10	3387	178.10	69	190.00	50
156.10	1232	168.05	1593	179.00	2546	191.00	222
157.05	210	169.05	290	180.10	1730	192.05	708
158.00	356	170.00	148	181.10	884	193.00	865
159.10	183	171.10	71	182.50	55	194.05	223
160.00	339	171.95	248	184.00	74	195.00	120
161.05	764	173.05	371	185.10	1350	196.10	2499

Average of 2.536 to 2.547 min.: p128702.D\data.ms
dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
198.00	67501	209.00	404	224.10	10278	236.00	260
199.00	4503	210.40	164	225.10	2262	236.80	52
199.95	378	211.05	739	226.00	108	237.05	310
200.60	75	213.00	52	226.20	119	239.00	135
201.55	431	215.05	141	227.05	3959	240.15	114
203.00	499	216.00	415	228.00	603	241.05	202
204.10	2387	217.05	4580	229.00	666	242.05	573
205.10	4460	218.05	746	229.90	50	243.10	530
206.10	17182	221.10	4316	231.10	355	244.10	8019
207.10	1758	222.00	437	233.95	286	245.10	1085
208.10	438	223.10	1189	235.00	316	246.05	1286

Average of 2.536 to 2.547 min.: p128702.D\data.ms
dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
247.05	371	261.00	54	283.05	233	314.10	162
249.00	283	265.00	906	284.10	94	315.05	661
250.90	74	265.95	276	285.05	337	316.10	286
251.90	56	271.10	133	292.00	70	317.20	83

253.15	203	272.05	181	293.00	465	321.00	78
254.00	277	273.05	1180	295.10	55	323.10	1747
255.10	39520	274.10	2974	296.05	5517	324.05	254
256.10	6108	275.10	16360	297.05	734	327.00	373
257.05	555	276.10	2379	301.00	50	328.05	209
258.05	2280	277.05	1526	303.10	725	334.10	913
259.00	385	278.00	286	304.00	144	335.05	232

Average of 2.536 to 2.547 min.: p128702.D\data.ms
dftpp

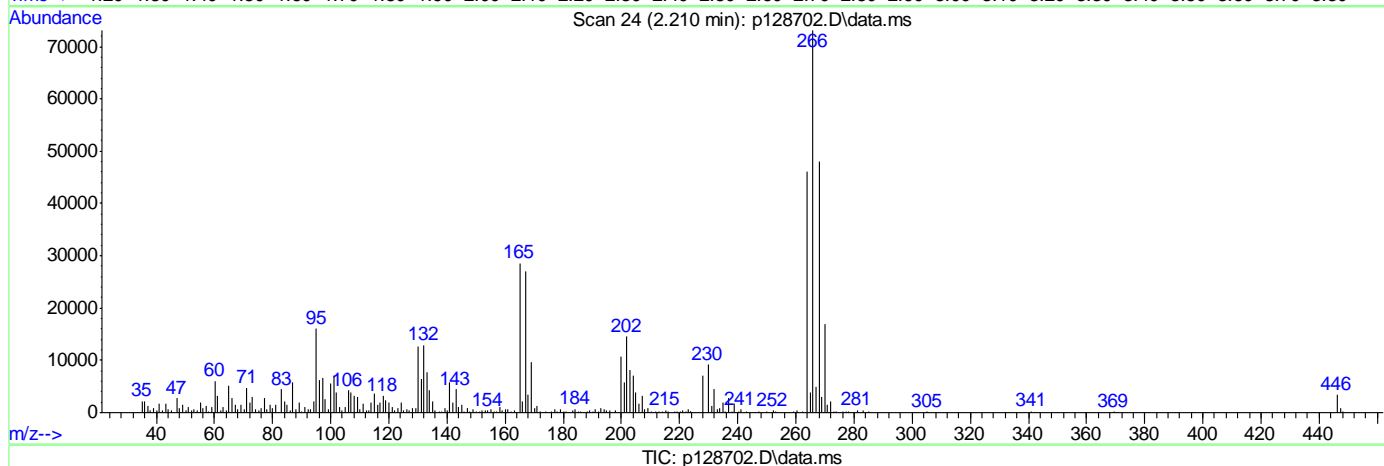
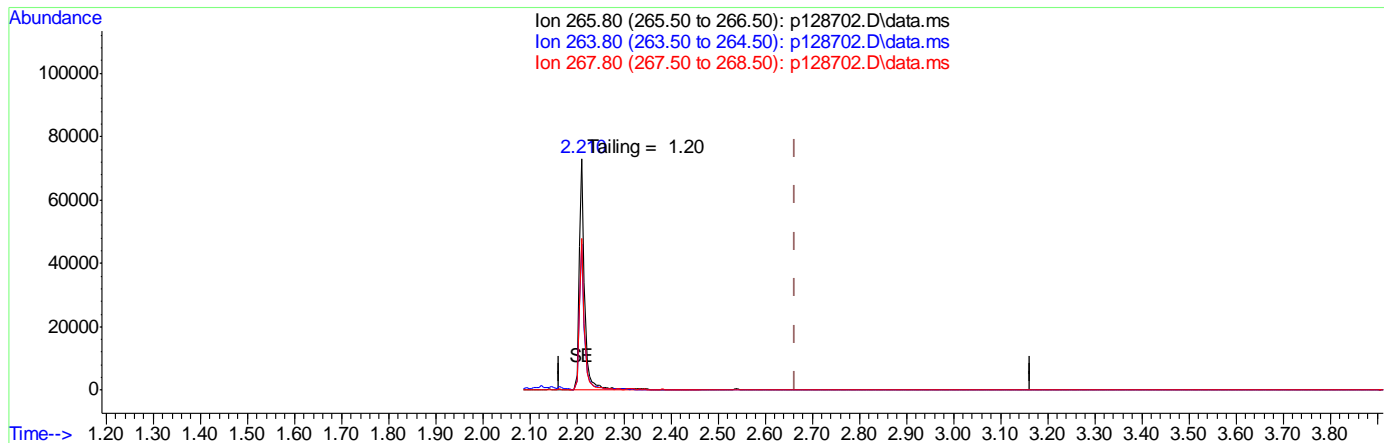
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
341.00	247	383.20	55	444.05	855		
346.00	431	401.95	387	445.10	59		
352.05	450	403.05	444				
353.05	411	403.90	219				
354.05	461	421.00	497				
365.05	2627	422.00	316				
366.00	353	423.05	2626				
371.10	185	424.05	589				
372.00	1126	441.05	7547				
373.05	237	442.10	49224				
383.00	217	443.10	10013				

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EP5821\
 Data File : p128702.D
 Acq On : 26 Mar 2019 3:16 pm
 Operator : christc2
 Sample : dftpp
 Misc : op13894,ep5821,1000,,,1,1
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 26 15:22:00 2019
 Quant Method : C:\MSDCHEM\1\METHODS\DFTPPP.M
 Quant Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um
 QLast Update : Tue Dec 11 00:35:57 2018
 Response via : Initial Calibration



(1) Pentachlorophenol (t)

2.210min (-0.453) 47.55ppb m

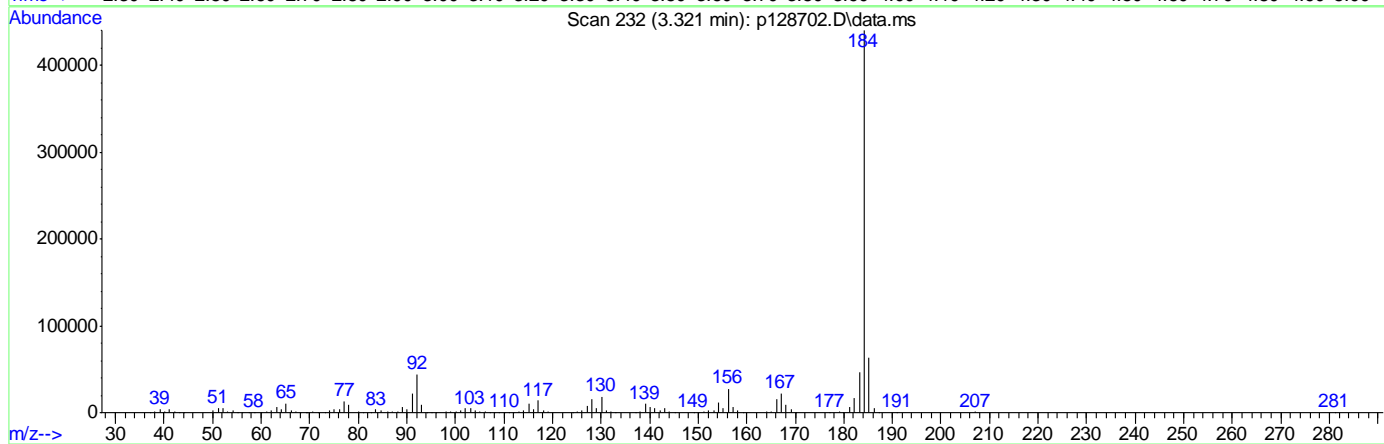
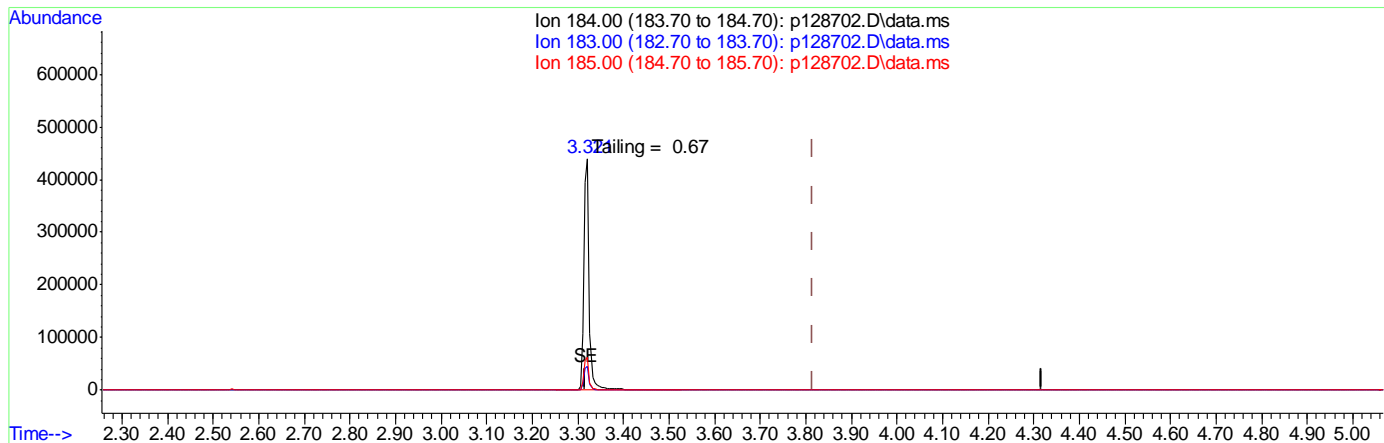
response 60841

Ion	Exp%	Act%
265.80	100	100
263.80	63.90	62.98
267.80	66.90	65.65
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EP5821\
 Data File : p128702.D
 Acq On : 26 Mar 2019 3:16 pm
 Operator : christc2
 Sample : dftpp
 Misc : op13894,ep5821,1000,,,1,1
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 26 15:22:00 2019
 Quant Method : C:\MSDCHEM\1\METHODS\DFTPPP.M
 Quant Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um
 QLast Update : Tue Dec 11 00:35:57 2018
 Response via : Initial Calibration



TIC: p128702.D\data.ms

(2) Benzidine (t)

3.321min (-0.495) 22.46ppb m

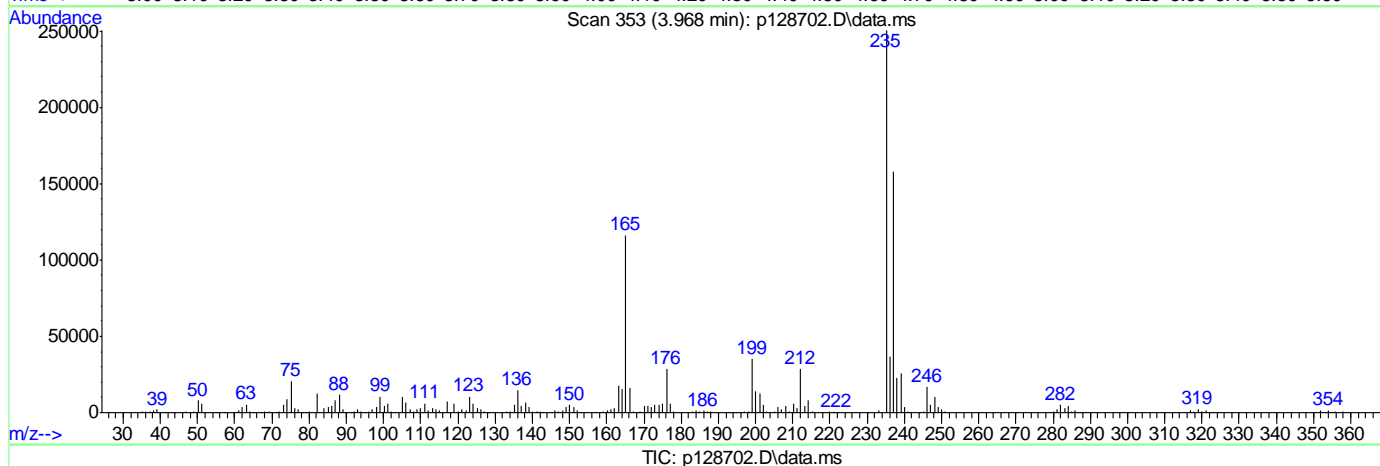
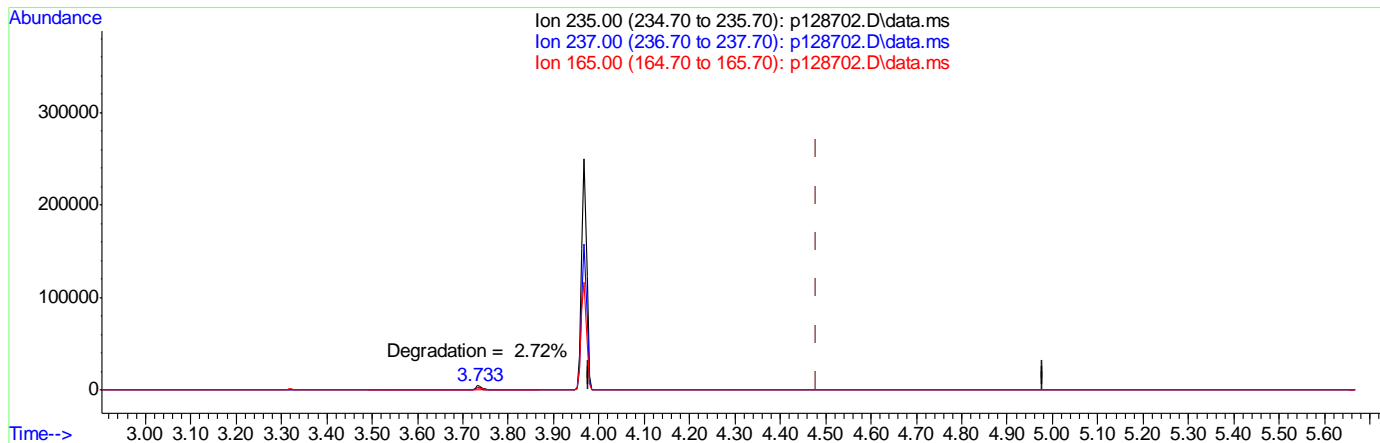
response 371368

Ion	Exp%	Act%
184.00	100	100
183.00	11.70	0.00
185.00	14.30	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EP5821\
 Data File : p128702.D
 Acq On : 26 Mar 2019 3:16 pm
 Operator : christc2
 Sample : dftpp
 Misc : op13894,ep5821,1000,,,1,1
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 26 15:22:00 2019
 Quant Method : C:\MSDCHEM\1\METHODS\DFTPPP.M
 Quant Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um
 QLast Update : Tue Dec 11 00:35:57 2018
 Response via : Initial Calibration



(3) ddt

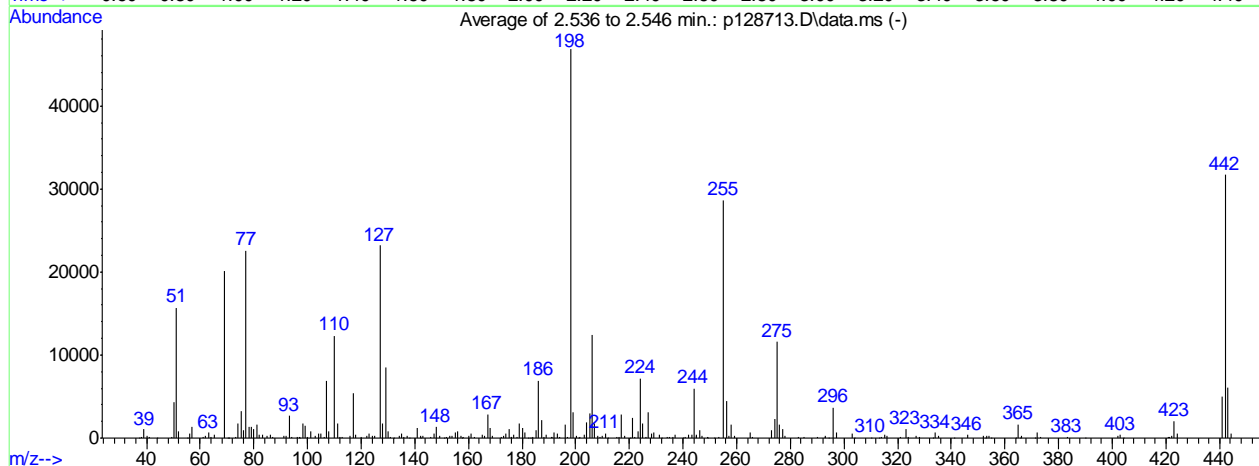
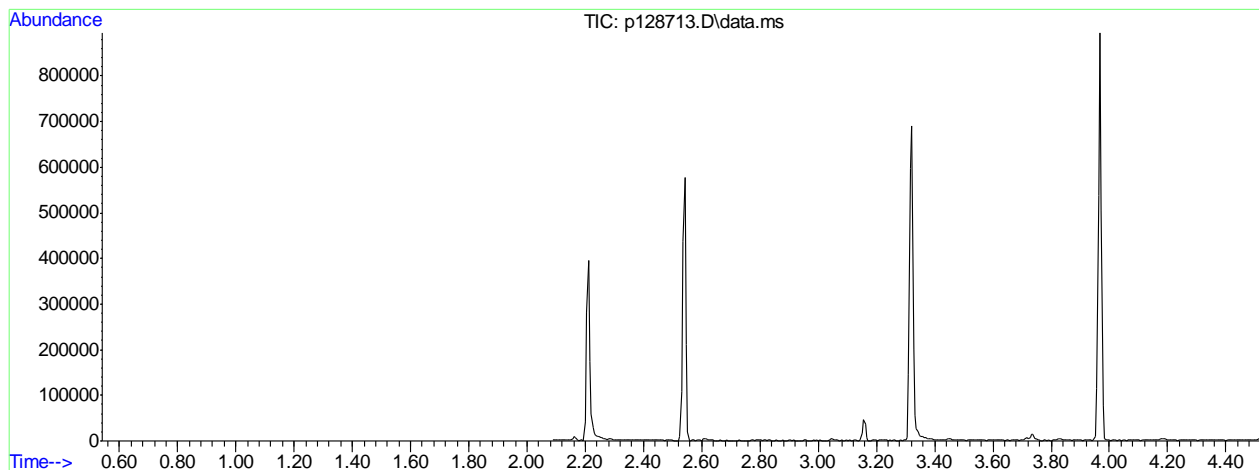
3.968min (-0.511) 25.18ppb m

response 186694

Ion	Exp%	Act%
235.00	100	100
237.00	64.10	0.00#
165.00	38.80	0.00#
0.00	0.00	0.00

DFTPP
 Data File : C:\msdchem\1\DATA\EP5822\p128713.D Vial: 1
 Acq On : 26 Mar 2019 9:40 pm Operator: christc2
 Sample : dftpp Inst : MSVOMASP
 Misc : op13894,ep5822,1000,,,1,1 Multiplr: 1.00
 MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\DFTPPP.M (RTE Integrator)
 Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um



AutoFind: Scans 85, 86, 87; Background Corrected with Scan 80

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result
51	198	30	60	33.6	15729	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	42.9	20075	PASS
70	69	0.00	2	0.3	55	PASS
127	198	40	60	49.5	23177	PASS
197	198	0.00	1	0.2	72	PASS
198	198	100	100	100.0	46794	PASS
199	198	5	9	6.7	3130	PASS
275	198	10	30	24.7	11580	PASS
365	198	1	100	3.5	1648	PASS
441	443	0.10	100	82.6	4989	PASS
442	198	40	100	67.8	31712	PASS
443	442	17	23	19.1	6043	PASS

Average of 2.536 to 2.546 min.: p128713.D\data.ms

dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
37.10	64	56.10	553	74.10	1697	86.05	463
38.15	201	57.10	1401	75.10	3228	87.10	184
39.10	1062	60.95	194	76.20	930	91.10	300
40.05	225	62.05	249	77.10	22606	92.05	327
41.10	114	63.10	645	78.10	1348	93.10	2656
44.10	70	64.10	142	79.05	1334	93.90	92
49.20	114	65.10	387	80.05	1023	96.00	204
50.10	4295	69.10	20075	81.10	1676	96.90	63
51.10	15729	70.10	55	82.05	357	97.20	104
52.10	804	70.90	62	83.10	475	98.10	1804
55.10	55	73.05	143	85.00	312	99.10	1452

Average of 2.536 to 2.546 min.: p128713.D\data.ms

dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
100.05	160	113.10	81	129.10	8501	142.20	68
101.10	862	116.00	225	130.05	822	142.95	238
103.05	322	117.10	5471	131.05	163	146.10	176
104.10	533	118.05	421	132.20	52	147.00	520
105.05	518	120.00	77	134.05	259	148.00	1338
106.10	92	122.05	301	135.00	527	149.10	238
107.10	6823	123.05	478	136.05	185	151.00	59
108.10	869	124.05	285	137.05	304	151.60	79
110.10	12295	124.95	235	138.10	58	153.05	334
111.10	1721	127.10	23177	141.10	1232	153.95	292
112.10	199	128.10	1796	142.00	325	155.10	699

Average of 2.536 to 2.546 min.: p128713.D\data.ms

dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
156.10	879	169.05	260	181.10	638	192.05	661
157.15	263	172.10	167	182.10	51	193.05	522
157.70	50	173.10	215	183.20	59	194.10	129
158.00	172	174.10	478	183.95	136	196.05	1684
160.10	244	175.10	1098	185.10	923	196.90	72
161.05	517	176.00	88	186.10	6955	198.00	46794
162.05	152	176.20	186	187.10	2162	199.05	3130
164.95	442	177.00	350	188.10	198	200.10	262
166.05	275	178.10	91	189.00	396	201.20	69
167.10	2839	179.05	1735	190.90	96	201.55	207
168.05	1271	180.10	1221	191.15	155	203.05	412

Average of 2.536 to 2.546 min.: p128713.D\data.ms

dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
204.10	1858	217.00	2865	229.05	644	244.10	6000
205.10	2983	218.10	236	231.00	345	245.00	232
206.10	12472	220.20	70	232.20	56	245.15	468
207.10	1742	221.05	2495	234.10	205	246.05	997
208.05	299	222.00	206	235.00	124	247.05	283
209.00	149	223.05	749	236.10	125	248.95	177
210.05	225	224.10	7187	237.05	364	249.20	50
211.05	588	225.10	1792	240.10	57	251.80	58
212.10	60	226.05	172	240.95	132	253.10	73
215.10	74	227.05	3066	242.00	386	255.10	28621
216.10	99	228.05	481	243.10	413	256.10	4472

Average of 2.536 to 2.546 min.: p128713.D\data.ms

dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
257.15	309	283.10	136	313.00	56	335.00	321
258.10	1681	285.00	117	314.10	187	340.90	67
259.05	221	290.00	74	315.05	437	346.05	370
265.10	700	292.80	101	316.10	292	352.05	331

266.00	164	293.10	241	321.05	135	352.90	69
273.05	930	294.10	52	323.05	1108	353.15	292
274.10	2331	296.05	3662	324.05	149	354.15	270
275.10	11580	297.05	612	327.05	292	355.00	68
276.05	1691	303.10	516	328.05	121	364.10	52
277.10	1097	304.00	52	333.10	68	365.00	1648
278.00	280	310.10	55	334.10	667	365.60	66

Average of 2.536 to 2.546 min.: p128713.D\data.ms
dftpp

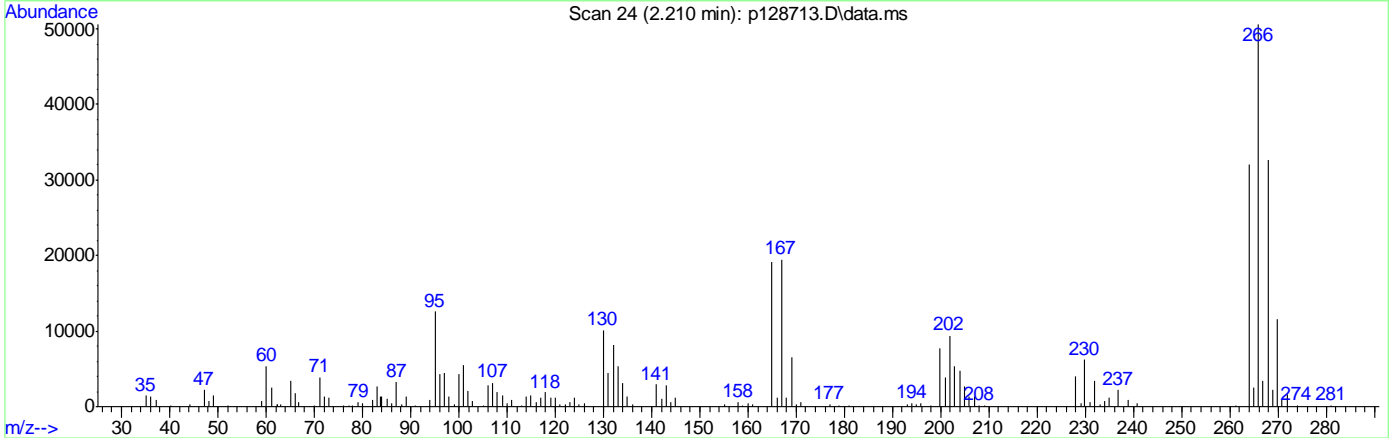
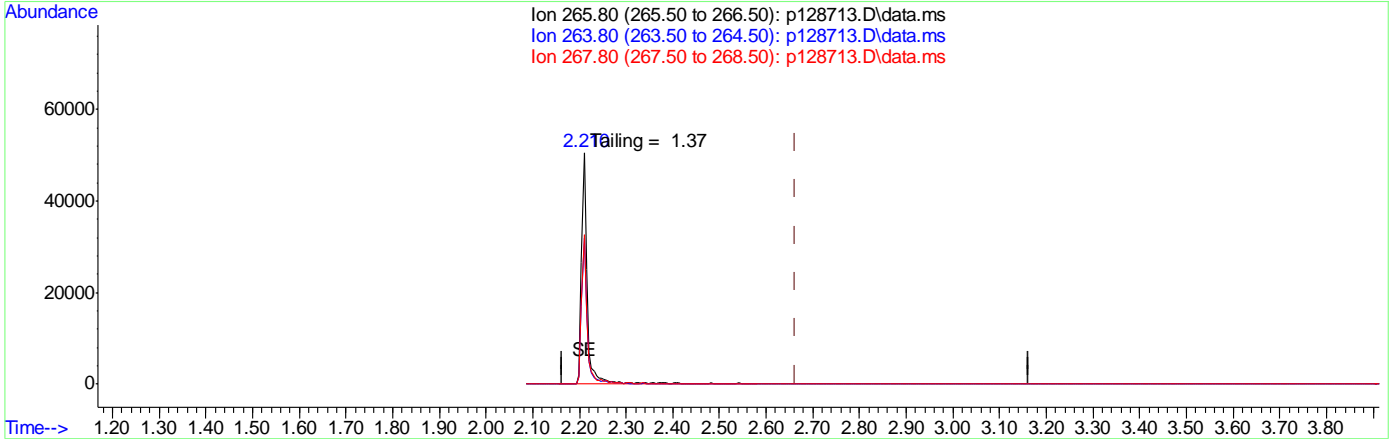
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
365.95	288	422.05	272				
371.10	55	423.15	2064				
372.05	649	424.15	478				
373.10	128	441.10	4989				
383.10	73	442.10	31712				
390.00	52	443.10	6043				
402.15	242	444.10	538				
403.00	348						
404.00	55						
420.90	127						
421.15	156						

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EP5822\
 Data File : p128713.D
 Acq On : 26 Mar 2019 9:40 pm
 Operator : christc2
 Sample : dftpp
 Misc : op13894,ep5822,1000,,,1,1
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 26 21:46:15 2019
 Quant Method : C:\MSDCHEM\1\METHODS\DFTPPP.M
 Quant Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um
 QLast Update : Tue Dec 11 00:35:57 2018
 Response via : Initial Calibration



TIC: p128713.D\data.ms

(1) Pentachlorophenol (t)
 2.210min (-0.453) 33.65ppb m
 response 43057

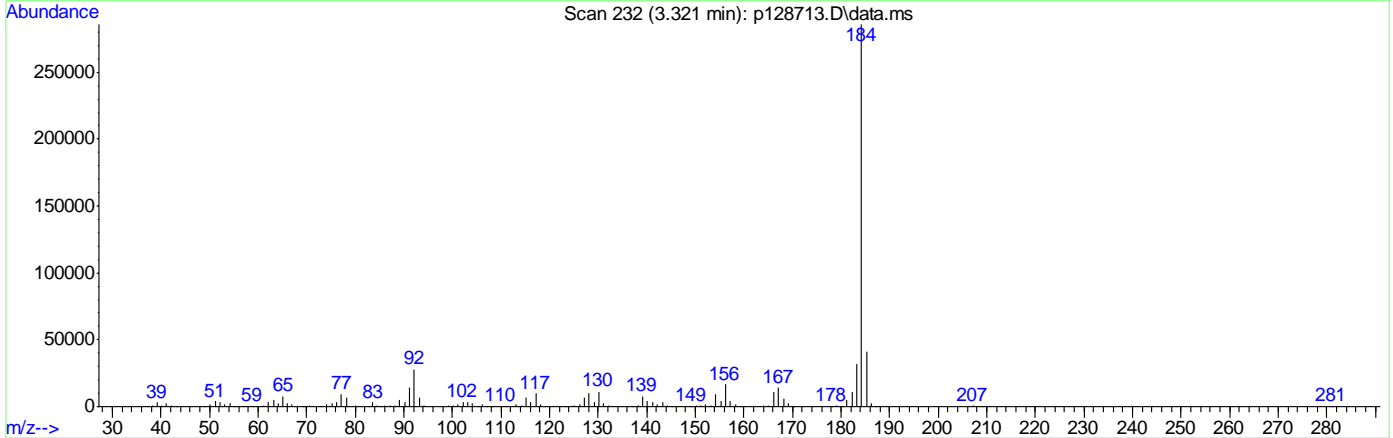
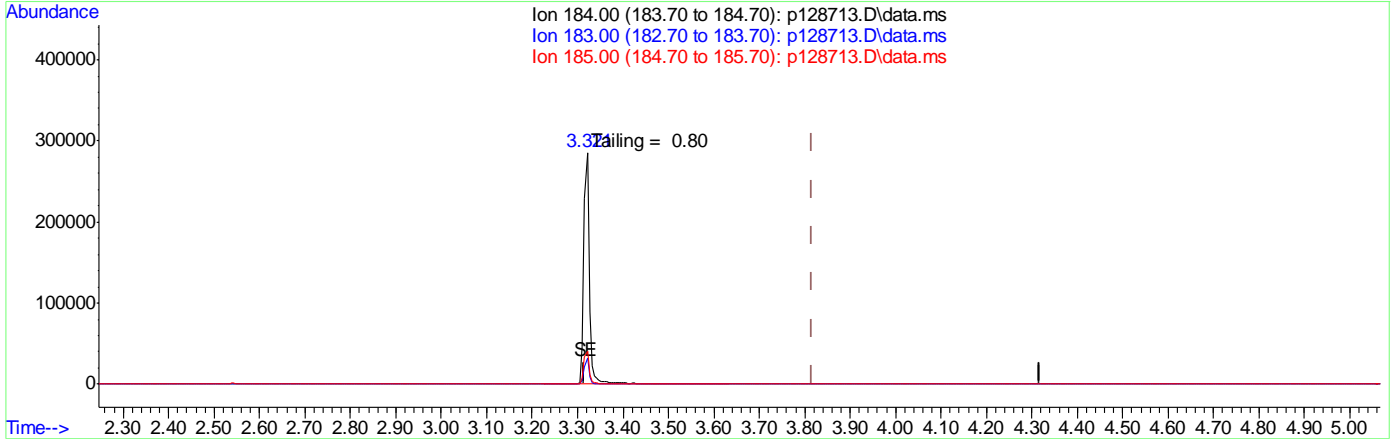
Ion	Exp%	Act%
265.80	100	100
263.80	63.90	63.23
267.80	66.90	64.51
0.00	0.00	0.00

9.5.8.1
 9

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EP5822\
 Data File : p128713.D
 Acq On : 26 Mar 2019 9:40 pm
 Operator : christc2
 Sample : dftpp
 Misc : op13894,ep5822,1000,,,1,1
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 26 21:46:15 2019
 Quant Method : C:\MSDCHEM\1\METHODS\DFTPPP.M
 Quant Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um
 QLast Update : Tue Dec 11 00:35:57 2018
 Response via : Initial Calibration



(2) Benzidine (t)
 3.321min (-0.496) 14.33ppb m
 response 236825

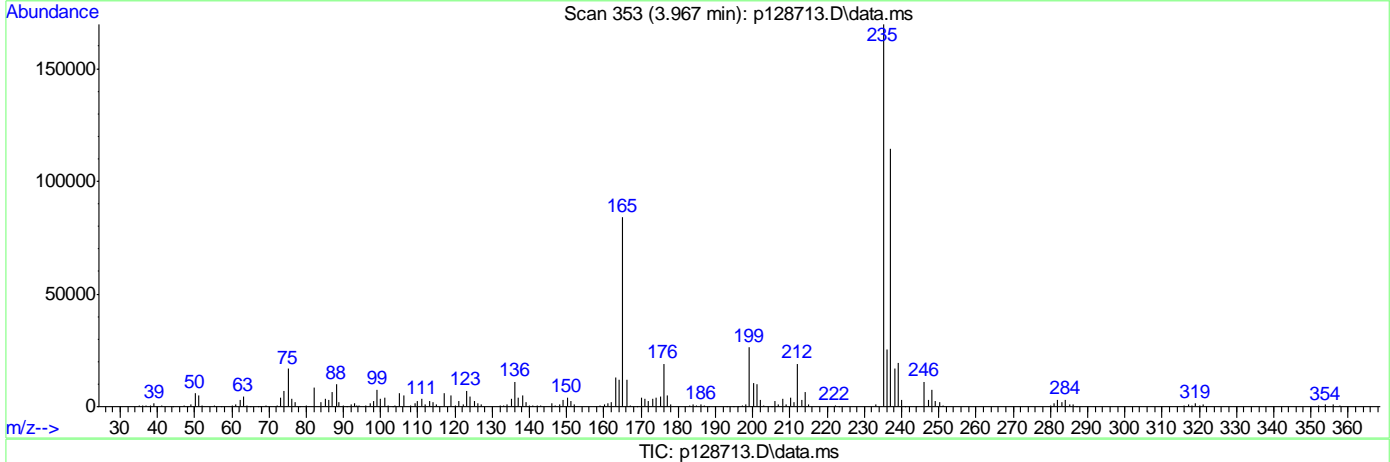
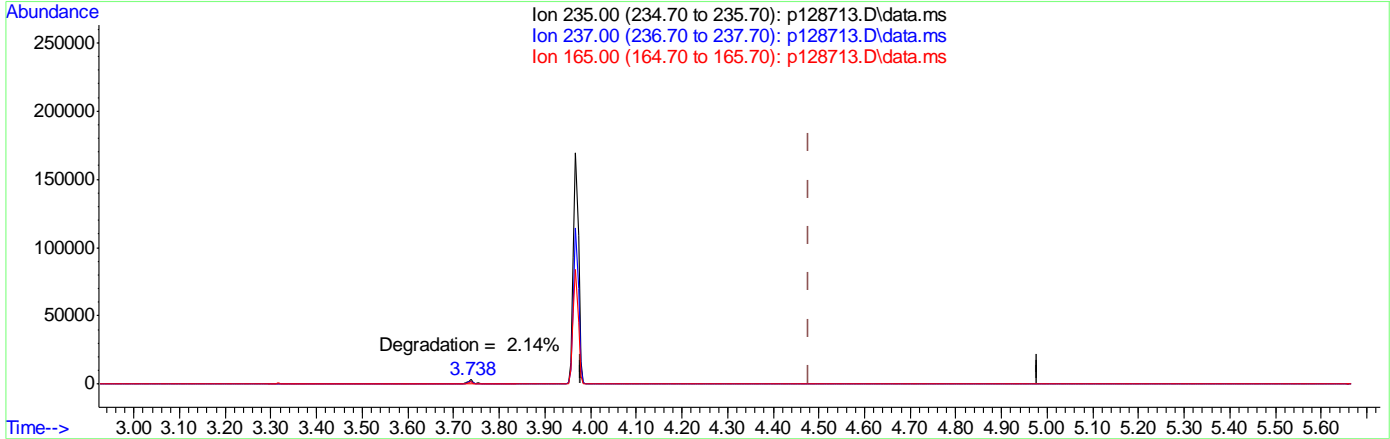
Ion	Exp%	Act%
184.00	100	100
183.00	11.70	0.00
185.00	14.30	0.00
0.00	0.00	0.00

9.5.8.2
 9

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EP5822\
 Data File : p128713.D
 Acq On : 26 Mar 2019 9:40 pm
 Operator : christc2
 Sample : dftpp
 Misc : op13894,ep5822,1000,,,1,1
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 26 21:46:15 2019
 Quant Method : C:\MSDCHEM\1\METHODS\DFTPPP.M
 Quant Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um
 QLast Update : Tue Dec 11 00:35:57 2018
 Response via : Initial Calibration



TIC: p128713.D\data.ms

(3) ddt

3.967min (-0.512) 17.59ppb m

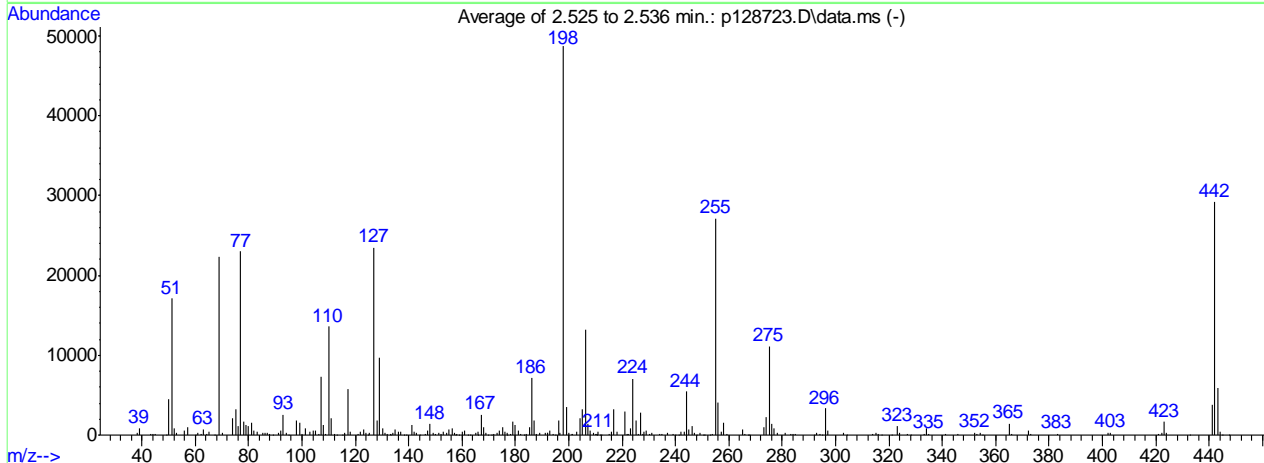
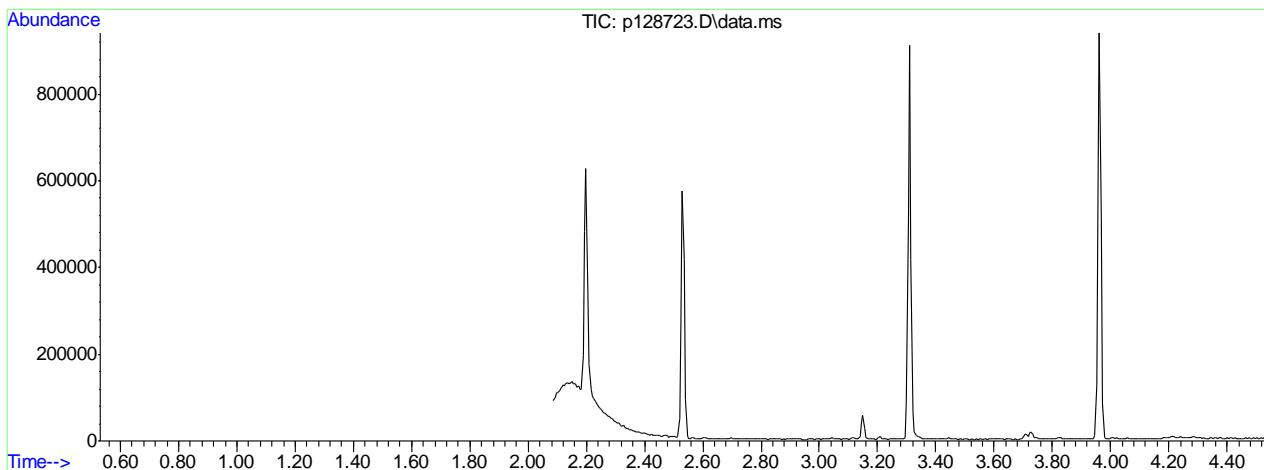
response 130409

Ion	Exp%	Act%
235.00	100	100
237.00	64.10	0.00#
165.00	38.80	0.00#
0.00	0.00	0.00

9.5.8.3
9

DFTPP
 Data File : C:\msdchem\1\DATA\EP5823\p128723.D Vial: 1
 Acq On : 27 Mar 2019 2:25 pm Operator: christc2
 Sample : dftpp Inst : MSVOAMSP
 Misc : op13894,ep5823,1000,,1,1 Multiplr: 1.00
 MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\DFTPPP.M (RTE Integrator)
 Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um



AutoFind: Scans 83, 84, 85; Background Corrected with Scan 79

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result
51	198	30	60	35.1	17092	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	45.9	22330	PASS
70	69	0.00	2	1.4	303	PASS
127	198	40	60	48.3	23525	PASS
197	198	0.00	1	0.5	224	PASS
198	198	100	100	100.0	48682	PASS
199	198	5	9	7.1	3447	PASS
275	198	10	30	22.8	11097	PASS
365	198	1	100	2.9	1430	PASS
441	443	0.10	100	64.6	3846	PASS
442	198	40	100	60.0	29188	PASS
443	442	17	23	20.4	5955	PASS

Average of 2.525 to 2.536 min.: p128723.D\data.ms

dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
38.05	271	57.10	1005	75.10	3243	87.10	259
39.10	912	60.10	58	76.10	1187	88.00	108
43.10	151	61.05	272	77.05	22990	89.20	61
44.05	138	62.15	146	78.05	1702	91.05	303
45.05	200	63.05	763	79.10	1307	92.10	555
49.10	55	64.10	89	80.05	1097	93.05	2540
50.10	4569	65.10	432	81.05	1518	94.10	251
51.10	17092	67.05	35	82.05	558	95.05	29
52.10	803	69.05	22330	83.05	386	98.00	1846
53.10	266	70.05	303	85.10	298	99.05	1561
56.10	543	74.05	2084	86.00	341	100.05	155

Average of 2.525 to 2.536 min.: p128723.D\data.ms

dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
101.10	860	113.10	72	125.10	233	136.05	363
103.10	393	115.10	22	127.10	23525	137.05	375
104.00	590	115.90	93	128.05	1781	138.20	72
105.05	549	116.15	253	129.05	9724	139.10	56
106.10	79	117.05	5801	130.10	797	141.10	1251
107.10	7343	118.10	459	131.10	243	142.10	406
108.10	1204	120.90	115	132.00	117	143.05	294
109.00	127	122.00	423	133.00	158	144.00	75
110.10	13598	123.05	662	133.20	67	146.05	173
111.05	2047	124.05	311	134.10	239	147.10	628
112.15	194	124.90	74	135.05	721	148.05	1378

Average of 2.525 to 2.536 min.: p128723.D\data.ms

dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
149.15	308	158.90	58	169.90	74	180.00	1292
150.10	139	160.05	455	171.10	60	181.05	521
151.10	270	161.05	626	172.00	121	182.10	78
152.10	160	162.10	75	173.05	343	183.00	51
153.00	425	162.90	50	174.05	498	184.05	163
154.05	326	165.05	292	175.05	1056	185.10	1013
155.05	706	165.90	64	176.05	394	186.10	7149
156.10	884	166.05	375	176.80	67	187.05	1769
157.05	240	167.10	2528	177.00	328	188.00	137
157.50	64	168.10	1053	178.05	211	189.05	260
158.00	135	169.00	273	179.05	1673	191.05	296

Average of 2.525 to 2.536 min.: p128723.D\data.ms

dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
192.00	279	201.45	187	211.05	411	224.10	7022
192.10	262	203.05	441	211.60	70	225.10	1864
193.00	554	204.10	2105	212.00	51	226.00	98
194.10	102	205.10	3232	215.00	80	227.05	2848
195.10	67	206.10	13243	216.05	377	227.90	78
196.05	1791	207.05	1424	217.00	3286	228.05	429
196.80	224	208.05	521	218.05	442	229.05	556
198.00	48682	209.05	251	221.00	3023	230.10	106
199.00	3447	210.00	155	221.80	91	231.10	301
200.05	307	210.30	52	222.10	163	234.00	99
201.30	82	210.60	125	223.05	877	235.05	166

Average of 2.525 to 2.536 min.: p128723.D\data.ms

dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
237.05	308	248.95	251	266.10	175	284.00	78
239.00	141	250.20	58	267.10	60	284.95	184
240.10	55	251.00	55	267.80	53	292.20	52
241.00	60	253.10	60	273.05	965	293.05	234

242.05	491	253.60	110	274.05	2215	294.00	108
243.10	419	255.05	27130	275.10	11097	295.00	56
244.10	5450	256.05	4058	276.05	1457	296.05	3341
245.05	657	257.00	399	277.05	895	297.05	602
246.00	1156	258.05	1619	278.10	228	303.05	289
247.00	226	259.05	201	281.05	265	304.10	63
247.90	50	265.05	683	283.00	85	314.00	198

Average of 2.525 to 2.536 min.: p128723.D\data.ms
dftpp

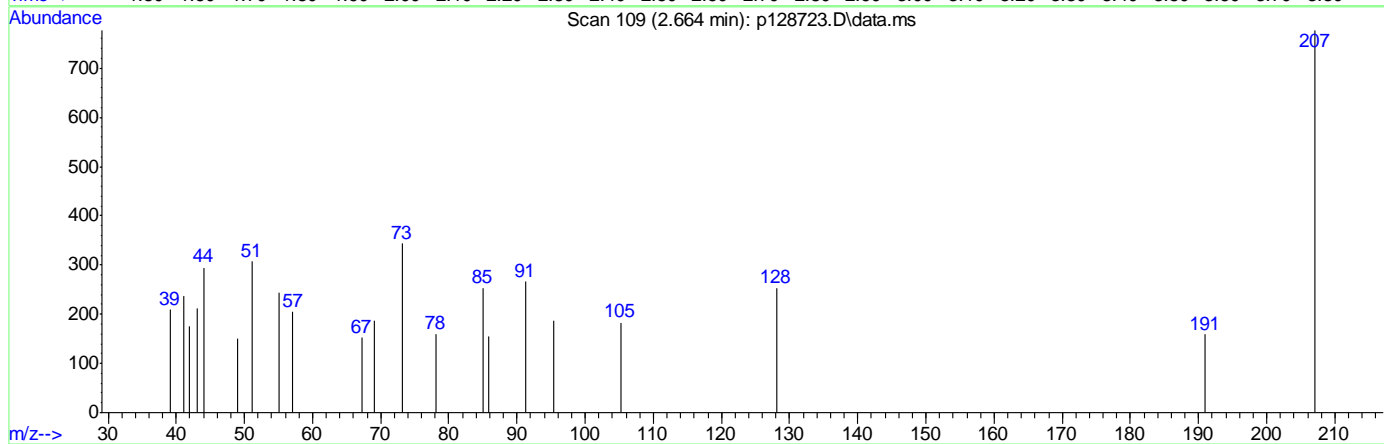
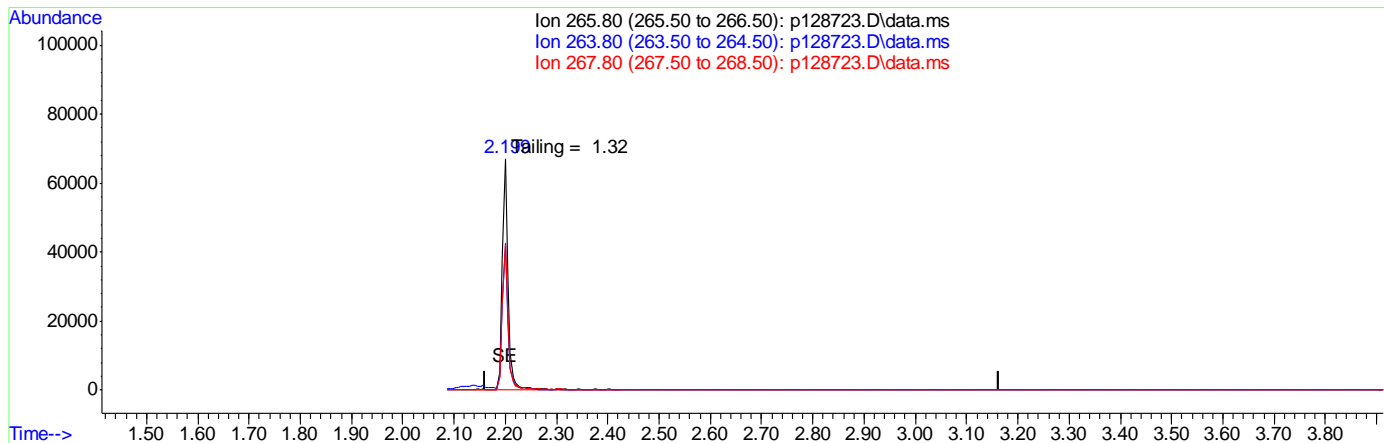
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
315.00	353	341.10	76	401.95	234	445.00	53
316.05	141	345.95	169	403.10	353	447.30	52
317.20	54	352.10	316	421.05	203		
321.00	65	353.10	77	422.10	221		
323.15	1143	354.05	332	423.10	1673		
324.05	310	355.00	64	424.10	219		
327.00	193	365.05	1430	432.80	51		
328.20	65	365.95	174	441.10	3846		
333.10	116	372.05	554	442.10	29188		
334.05	786	373.10	178	443.10	5955		
335.00	190	383.05	165	444.05	478		

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EP5823\
 Data File : p128723.D
 Acq On : 27 Mar 2019 2:25 pm
 Operator : christc2
 Sample : dftpp
 Misc : op13894,ep5823,1000,,,1,1
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 27 14:30:59 2019
 Quant Method : C:\MSDCHEM\1\METHODS\DFTPPP.M
 Quant Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um
 QLast Update : Tue Dec 11 00:35:57 2018
 Response via : Initial Calibration



TIC: p128723.D\data.ms

(1) Pentachlorophenol (t)

2.663min (-2.663) 0.00ppb

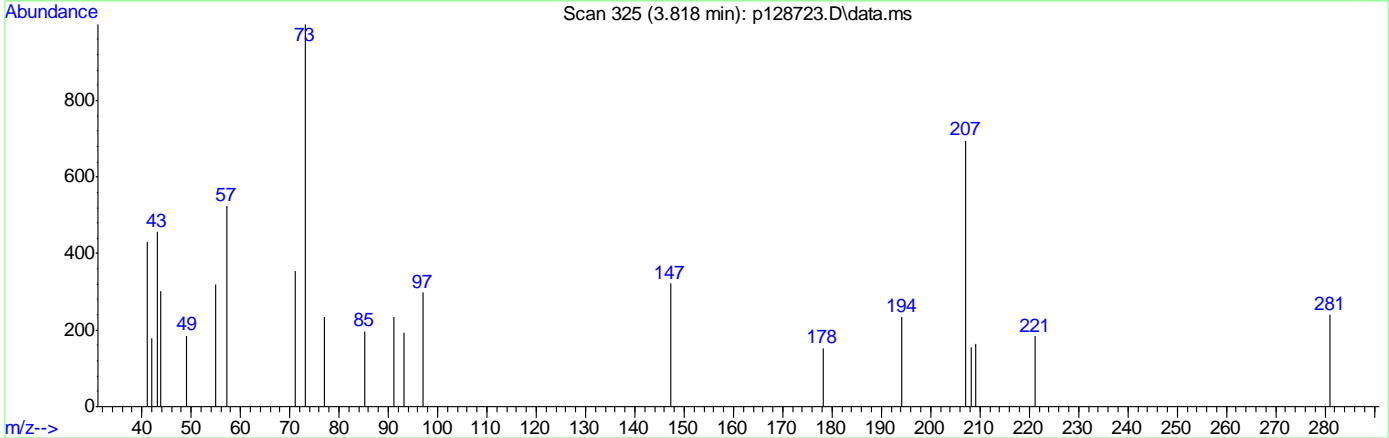
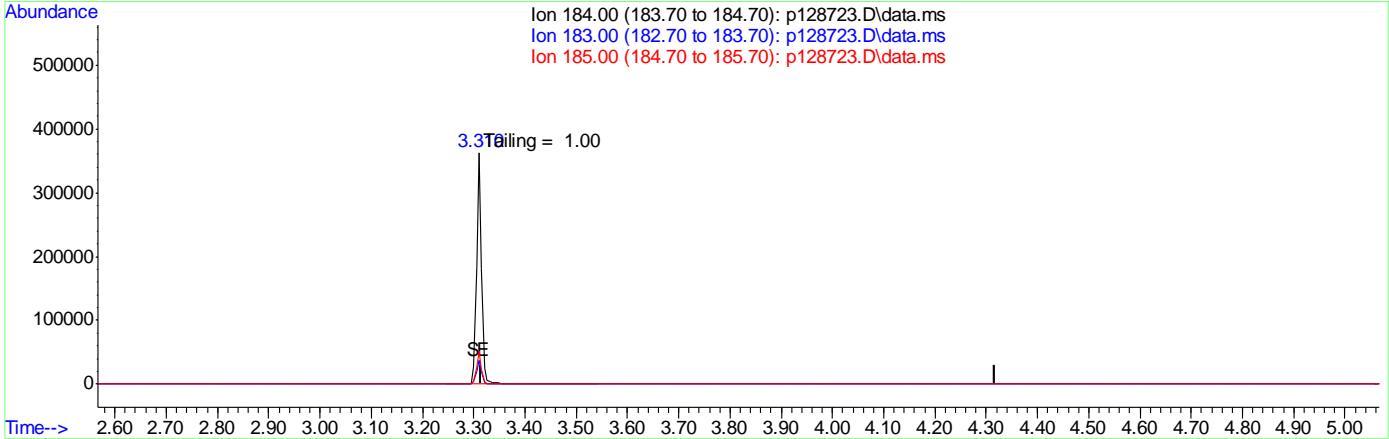
response 0

Ion	Exp%	Act%
265.80	100	0.00
263.80	63.90	0.00#
267.80	66.90	0.00#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EP5823\
 Data File : p128723.D
 Acq On : 27 Mar 2019 2:25 pm
 Operator : christc2
 Sample : dftpp
 Misc : op13894,ep5823,1000,,,1,1
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 27 14:30:59 2019
 Quant Method : C:\MSDCHEM\1\METHODS\DFTPPP.M
 Quant Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um
 QLast Update : Tue Dec 11 00:35:57 2018
 Response via : Initial Calibration



TIC: p128723.D\data.ms

(2) Benzidine (t)
 3.817min (-3.817) 0.00ppb
 response 0

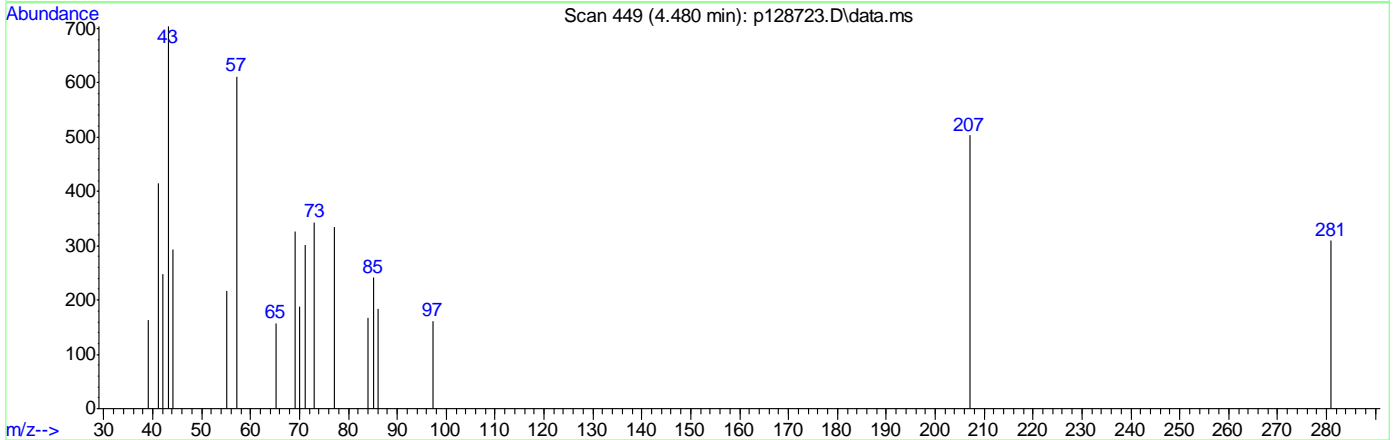
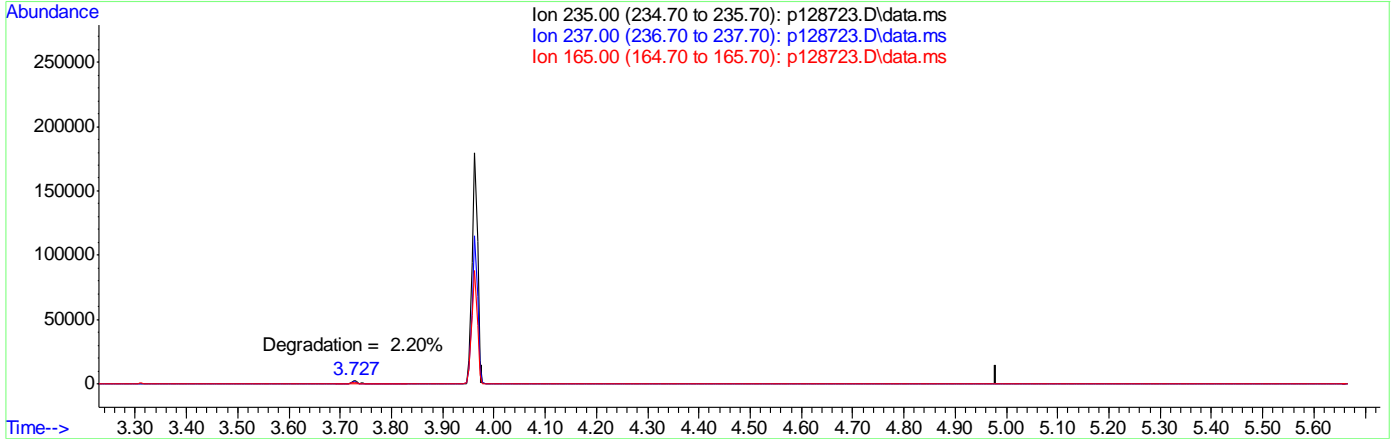
Ion	Exp%	Act%
184.00	100	0.00
183.00	11.70	0.00
185.00	14.30	0.00
0.00	0.00	0.00

9.5.9.2
9

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EP5823\
 Data File : p128723.D
 Acq On : 27 Mar 2019 2:25 pm
 Operator : christc2
 Sample : dftpp
 Misc : op13894,ep5823,1000,,,1,1
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 27 14:30:59 2019
 Quant Method : C:\MSDCHEM\1\METHODS\DFTPPP.M
 Quant Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um
 QLast Update : Tue Dec 11 00:35:57 2018
 Response via : Initial Calibration



TIC: p128723.D\data.ms

(3) ddt

4.479min (-4.479) 0.00ppb

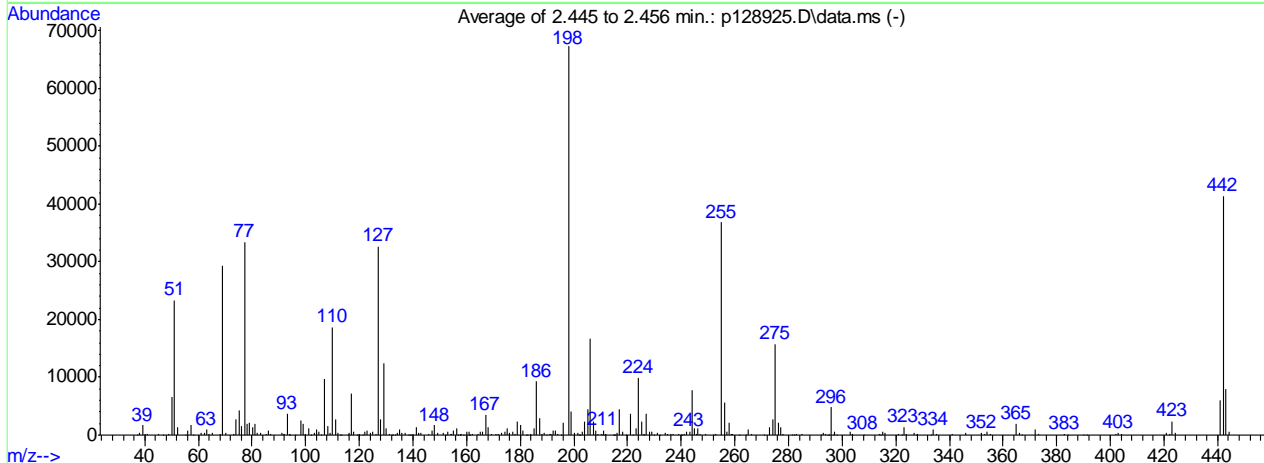
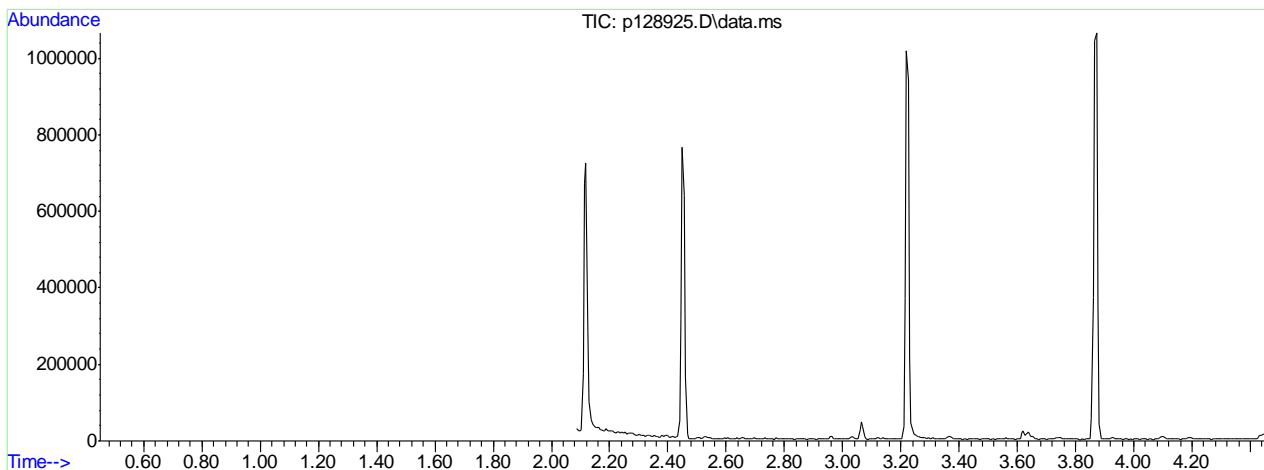
response 0

Ion	Exp%	Act%
235.00	100	0.00
237.00	64.10	0.00#
165.00	38.80	0.00#
0.00	0.00	0.00

DFTPP

Data File : C:\msdchem\1\DATA\EP5835\p128925.D Vial: 1
 Acq On : 11 Apr 2019 12:56 am Operator: chriss2
 Sample : dftpp Inst : MSVOAMSP
 Misc : op13894,ep5835,1000,,,1,1 Multiplr: 1.00
 MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\DFTPPP.M (RTE Integrator)
 Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um



AutoFind: Scans 68, 69, 70; Background Corrected with Scan 63

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result
51	198	30	60	34.8	23379	PASS
68	69	0.00	2	0.8	230	PASS
69	198	0.00	100	43.7	29371	PASS
70	69	0.00	2	1.1	322	PASS
127	198	40	60	48.6	32661	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	67269	PASS
199	198	5	9	6.2	4146	PASS
275	198	10	30	23.5	15778	PASS
365	198	1	100	2.9	1925	PASS
441	443	0.10	100	77.0	6090	PASS
442	198	40	100	61.5	41370	PASS
443	442	17	23	19.1	7905	PASS

Average of 2.445 to 2.456 min.: p128925.D\data.ms
dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
37.00	76	55.10	20	70.05	322	83.05	362
38.05	329	56.05	802	73.10	105	85.10	220
39.10	1704	57.10	1748	74.10	2636	86.10	776
40.00	141	58.00	71	75.05	4360	87.05	258
41.00	204	61.00	414	76.15	1551	91.00	444
45.05	144	62.05	356	77.10	33474	91.90	184
47.00	52	63.10	958	78.05	2002	92.05	161
49.05	231	64.00	114	79.05	2098	93.05	3662
50.10	6569	65.05	486	80.10	1399	93.90	216
51.05	23379	68.10	230	81.00	1896	94.10	82
52.10	1448	69.10	29371	82.05	435	96.00	8

Average of 2.445 to 2.456 min.: p128925.D\data.ms
dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
98.05	2461	109.10	491	119.90	59	130.05	1080
99.05	1909	110.10	18695	120.10	128	131.05	207
100.05	249	111.05	2728	121.00	58	132.00	78
101.00	1088	112.00	366	122.00	512	132.60	65
102.00	76	112.90	52	123.05	809	133.30	54
103.05	442	113.20	54	124.10	416	134.00	431
104.05	881	115.90	96	125.05	588	135.10	1037
105.00	541	116.20	472	126.00	117	136.00	436
105.90	48	117.10	7247	127.10	32661	137.05	468
107.10	9742	118.05	537	128.05	2683	138.20	57
108.05	1650	119.00	57	129.05	12435	138.90	52

Average of 2.445 to 2.456 min.: p128925.D\data.ms
dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
139.20	57	152.95	579	160.80	58	171.95	299
140.05	250	154.00	259	161.05	589	173.05	315
141.05	1416	154.20	177	161.40	59	174.10	558
142.05	458	155.10	798	162.10	144	175.05	1208
142.95	315	156.10	1188	164.20	105	176.05	416
146.00	183	156.80	56	164.95	565	177.00	581
147.05	785	157.40	73	166.10	589	178.05	166
148.05	1659	157.70	103	167.05	3417	179.00	2394
149.10	361	158.00	147	168.10	1424	180.05	1776
151.15	367	158.90	90	169.05	242	181.10	857
152.20	87	160.05	506	171.05	143	182.10	80

Average of 2.445 to 2.456 min.: p128925.D\data.ms
dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
182.70	102	193.05	690	204.05	2356	214.80	89
184.00	197	193.95	165	205.10	4472	215.00	66
185.10	1171	195.10	63	206.10	16730	215.30	50
186.05	9281	196.05	2063	207.10	2412	216.00	360
187.10	2850	198.00	67269	208.05	770	217.00	4377
188.00	204	198.95	4146	209.15	246	218.05	628
189.10	456	200.10	323	210.05	158	219.20	57
189.80	86	201.50	301	210.60	61	221.00	3627
190.95	280	201.90	58	211.05	805	221.80	91
191.20	113	202.20	51	211.60	78	223.05	1168
192.05	809	203.10	625	212.05	202	224.10	9889

Average of 2.445 to 2.456 min.: p128925.D\data.ms
dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
225.05	2383	236.00	206	246.05	1094	261.70	51
225.90	84	237.00	294	247.00	203	264.10	81
226.10	219	239.00	112	249.05	239	265.05	947
227.05	3719	239.70	64	252.00	57	266.05	266

228.00	577	240.10	81	253.05	234	271.00	78
229.00	667	241.05	141	255.10	36857	273.05	1343
229.90	72	242.05	532	256.05	5616	274.10	2758
231.15	391	243.05	613	257.00	647	275.10	15778
232.10	52	244.10	7855	258.05	2087	276.05	2159
234.10	312	245.05	1111	258.90	146	277.00	1378
235.00	293	245.90	179	259.10	173	278.00	258

Average of 2.445 to 2.456 min.: p128925.D\data.ms
dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
281.20	52	297.05	621	323.05	1422	353.10	267
282.10	54	298.10	83	324.00	235	354.10	583
283.05	200	303.10	516	327.00	348	355.05	153
285.05	245	304.00	167	327.80	66	365.00	1925
292.20	50	308.00	57	328.10	142	366.00	306
293.00	469	313.90	114	333.00	64	367.00	59
294.00	147	314.20	90	334.05	899	372.10	1047
294.80	51	314.95	529	335.10	206	373.05	185
295.10	73	316.05	361	341.10	155	383.00	119
296.05	4804	321.10	153	346.00	310	384.20	63
296.90	71	322.20	59	352.05	378	390.00	65

Average of 2.445 to 2.456 min.: p128925.D\data.ms
dftpp

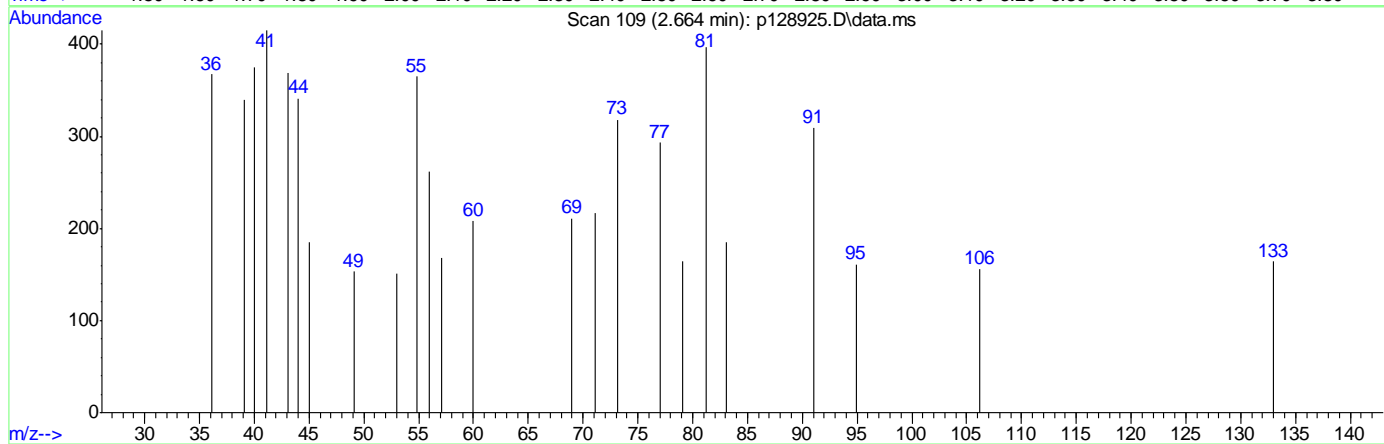
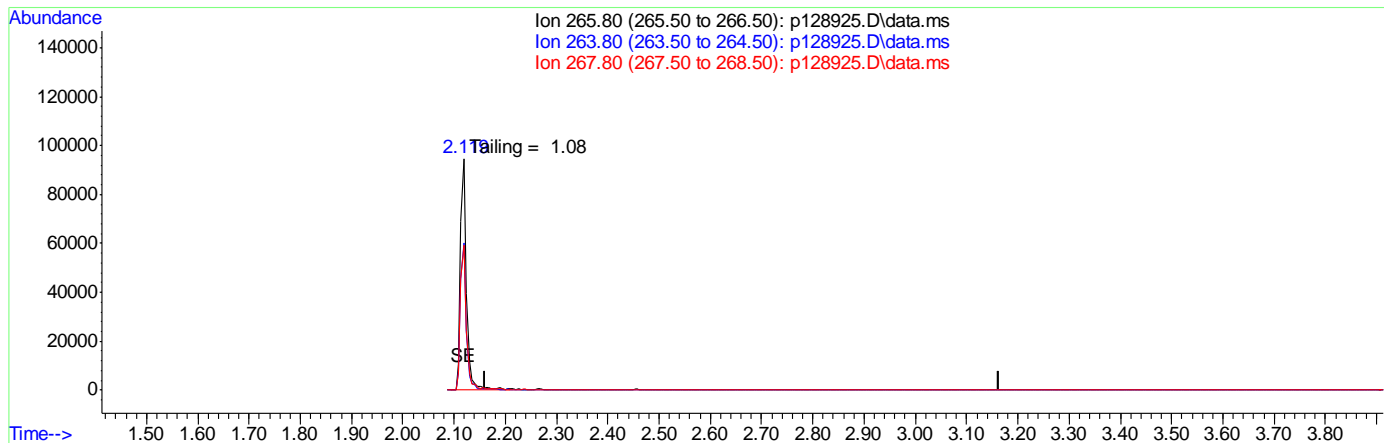
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
391.00	63	444.10	571				
402.05	240						
403.05	373						
404.05	202						
421.05	333						
422.05	263						
423.10	2393						
424.05	482						
441.10	6090						
442.10	41370						
443.10	7905						

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EP5835\
 Data File : p128925.D
 Acq On : 11 Apr 2019 12:56 am
 Operator : chriss2
 Sample : dftpp
 Misc : op13894,ep5835,1000,,,1,1
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 11 01:02:33 2019
 Quant Method : C:\MSDCHEM\1\METHODS\DFTPPP.M
 Quant Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um
 QLast Update : Tue Dec 11 00:35:57 2018
 Response via : Initial Calibration



TIC: p128925.D\data.ms

(1) Pentachlorophenol (t)

2.663min (-2.663) 0.00ppb

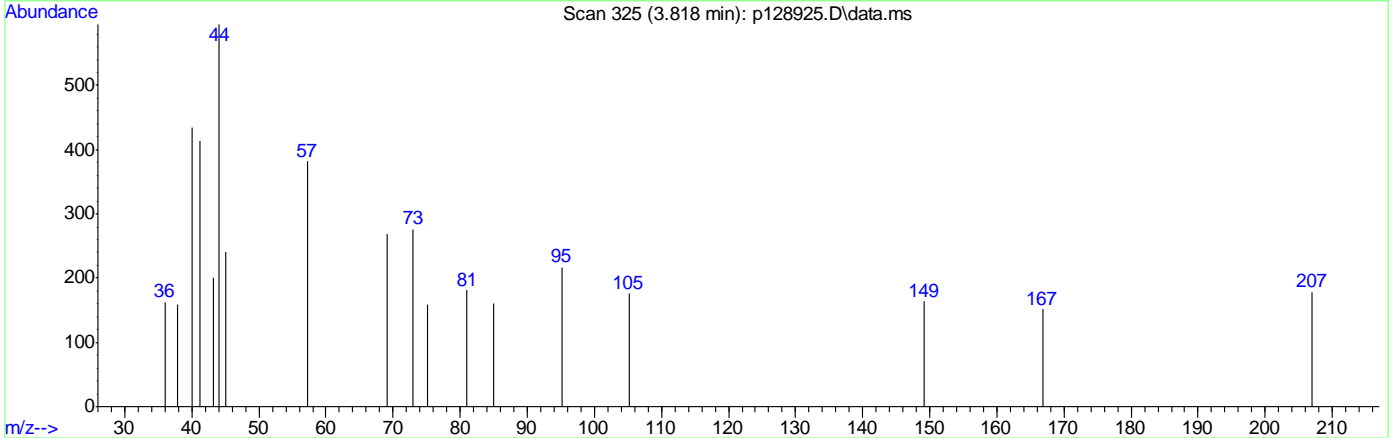
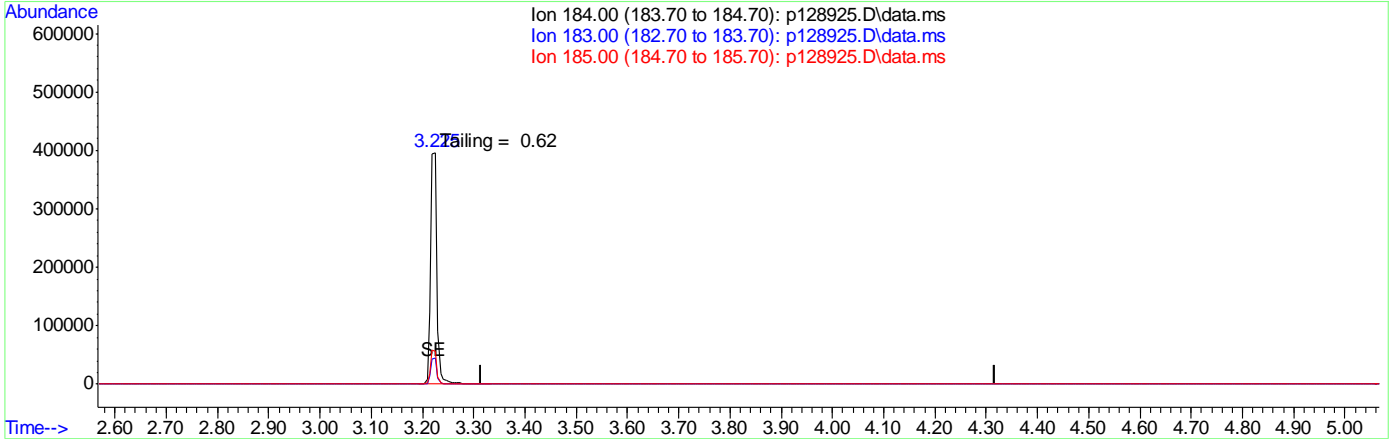
response 0

Ion	Exp%	Act%
265.80	100	0.00
263.80	63.90	0.00#
267.80	66.90	0.00#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EP5835\
 Data File : p128925.D
 Acq On : 11 Apr 2019 12:56 am
 Operator : chriss2
 Sample : dftpp
 Misc : op13894,ep5835,1000,,,1,1
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 11 01:02:33 2019
 Quant Method : C:\MSDCHEM\1\METHODS\DFTPPP.M
 Quant Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um
 QLast Update : Tue Dec 11 00:35:57 2018
 Response via : Initial Calibration



TIC: p128925.D\data.ms

(2) Benzidine (t)
 3.817min (-3.817) 0.00ppb
 response 0

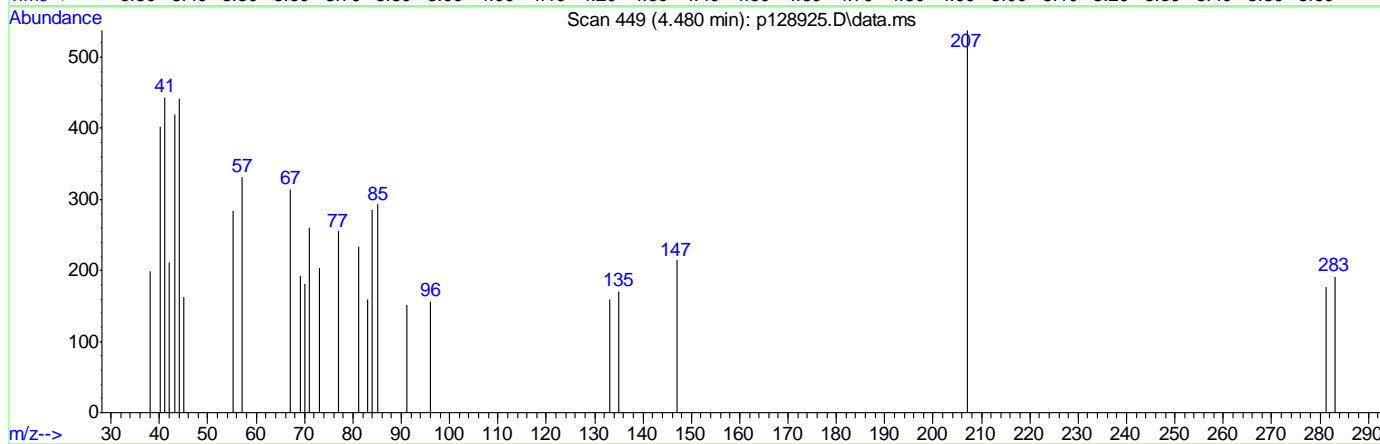
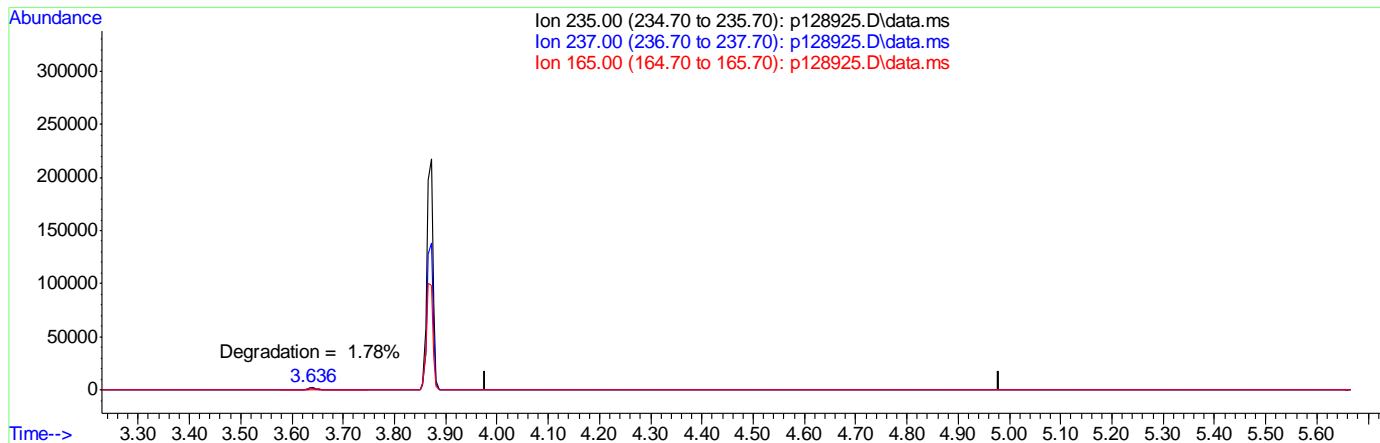
Ion	Exp%	Act%
184.00	100	0.00
183.00	11.70	0.00
185.00	14.30	0.00
0.00	0.00	0.00

9.5.10.2
 9

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EP5835\
 Data File : p128925.D
 Acq On : 11 Apr 2019 12:56 am
 Operator : chriss2
 Sample : dftpp
 Misc : op13894,ep5835,1000,,,1,1
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 11 01:02:33 2019
 Quant Method : C:\MSDCHEM\1\METHODS\DFTPPP.M
 Quant Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um
 QLast Update : Tue Dec 11 00:35:57 2018
 Response via : Initial Calibration



TIC: p128925.D\data.ms

(3) ddt

4.479min (-4.479) 0.00ppb

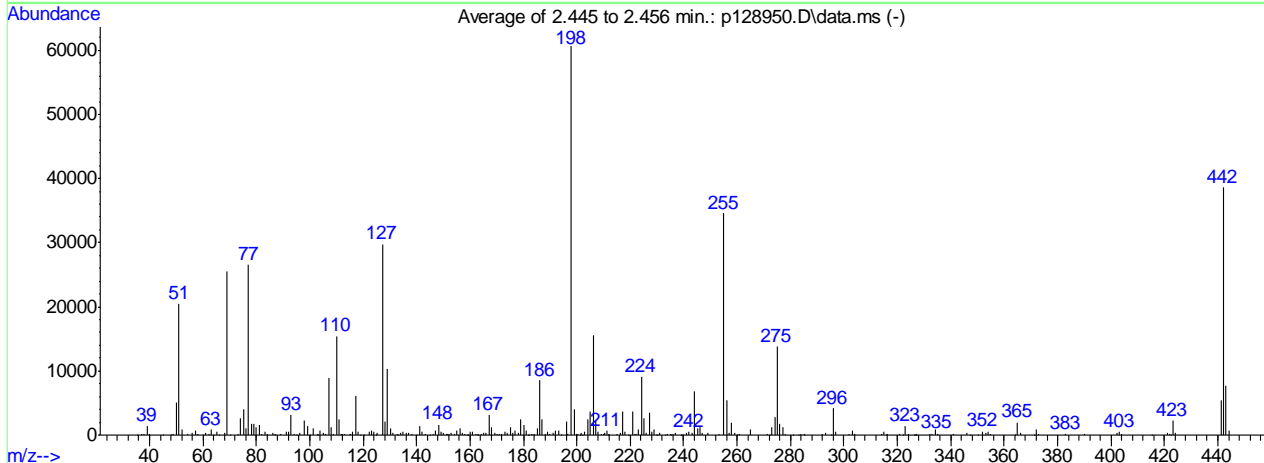
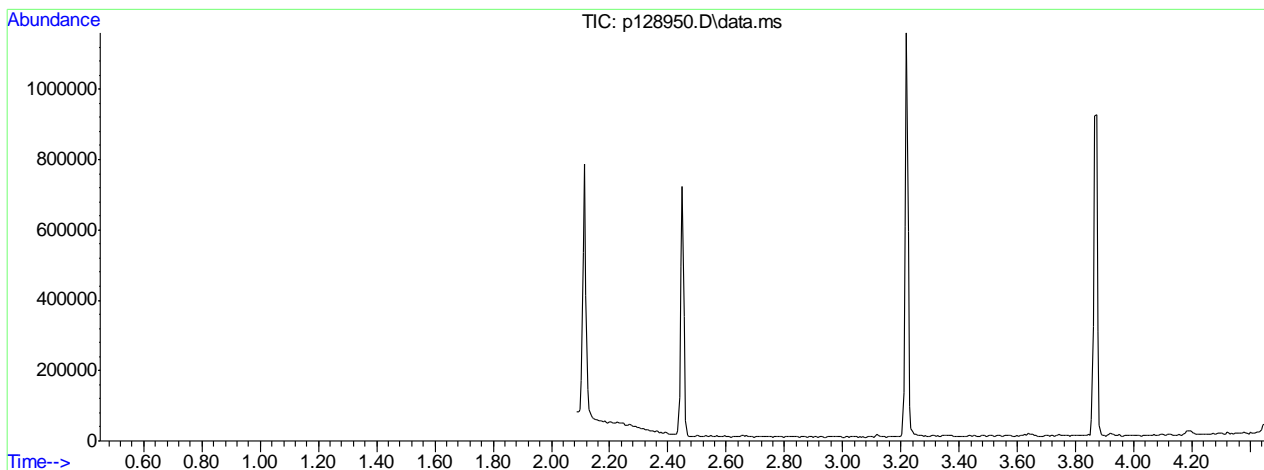
response 0

Ion	Exp%	Act%
235.00	100	0.00
237.00	64.10	0.00#
165.00	38.80	0.00#
0.00	0.00	0.00

DFTPP

Data File : C:\msdchem\1\DATA\EP5836\p128950.D Vial: 1
 Acq On : 11 Apr 2019 1:05 pm Operator: christc2
 Sample : dftpp Inst : MSVOAMSP
 Misc : op13894,ep5836,1000,,,1,1 Multiplr: 1.00
 MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\DFTPPP.M (RTE Integrator)
 Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um



AutoFind: Scans 68, 69, 70; Background Corrected with Scan 63

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result
51	198	30	60	33.7	20399	PASS
68	69	0.00	2	1.4	366	PASS
69	198	0.00	100	42.2	25590	PASS
70	69	0.00	2	0.3	68	PASS
127	198	40	60	49.1	29719	PASS
197	198	0.00	1	0.3	153	PASS
198	198	100	100	100.0	60589	PASS
199	198	5	9	6.6	4029	PASS
275	198	10	30	22.7	13747	PASS
365	198	1	100	3.2	1959	PASS
441	443	0.10	100	70.9	5424	PASS
442	198	40	100	63.6	38544	PASS
443	442	17	23	19.8	7648	PASS

Average of 2.445 to 2.456 min.: p128950.D\data.ms

dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
35.20	72	54.20	139	68.10	366	81.00	1608
37.15	193	56.05	361	69.05	25590	82.05	221
38.00	107	57.10	759	70.10	68	83.10	476
39.10	1424	58.15	150	73.30	188	84.00	168
40.05	105	60.05	16	74.10	2550	86.00	431
45.10	51	61.00	349	75.10	4044	86.90	93
48.00	52	62.05	257	76.10	1101	87.10	202
49.00	139	63.10	833	77.10	26495	89.15	231
50.05	5003	64.10	70	78.05	1755	91.05	455
51.10	20399	65.05	491	79.00	1779	92.10	489
52.10	899	66.10	52	80.05	1281	93.10	3111

Average of 2.445 to 2.456 min.: p128950.D\data.ms

dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
94.00	125	106.00	146	116.10	451	128.05	2089
95.00	32	107.05	8906	117.10	6166	129.10	10390
96.05	286	108.10	1293	118.05	517	130.10	1040
98.05	2328	109.00	94	119.10	65	131.10	289
99.05	1478	110.10	15417	120.00	62	132.60	116
100.10	81	111.05	2412	122.10	519	133.00	65
101.10	989	111.90	105	123.05	768	134.00	314
102.90	117	112.10	196	124.00	564	135.00	566
103.10	55	112.95	130	124.90	84	136.05	415
104.00	742	115.00	106	125.10	413	136.95	421
105.05	271	115.15	117	127.10	29719	138.10	148

Average of 2.445 to 2.456 min.: p128950.D\data.ms

dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
140.00	71	151.30	117	160.10	463	170.10	118
141.05	1436	151.50	115	161.05	610	171.00	127
142.05	452	152.05	115	162.05	172	171.95	198
143.05	259	152.95	274	162.90	176	173.05	590
145.00	65	154.10	259	163.10	51	174.10	417
146.05	207	155.10	628	164.20	144	175.10	1271
147.05	650	156.10	995	165.00	398	176.10	390
148.10	1629	157.15	365	166.05	390	177.00	645
149.05	456	158.00	222	167.05	3096	177.95	281
150.05	286	158.90	59	168.10	1246	179.00	2375
151.05	196	159.10	81	169.10	396	180.10	1516

Average of 2.445 to 2.456 min.: p128950.D\data.ms

dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
181.10	717	191.10	361	201.50	296	211.10	698
181.80	73	192.05	676	201.90	82	211.70	79
182.00	50	193.10	781	203.05	552	212.10	157
183.20	158	194.00	69	204.10	2448	215.00	128
184.05	142	196.10	2123	205.10	3672	216.15	320
185.05	1036	196.70	153	206.10	15483	217.00	3759
186.10	8560	198.00	60589	207.10	2316	218.00	519
187.05	2507	199.00	4029	208.05	522	219.20	57
188.05	242	200.00	235	209.05	139	221.10	3597
189.00	596	200.20	128	209.95	196	221.70	253
190.00	184	201.20	89	210.35	324	222.00	191

Average of 2.445 to 2.456 min.: p128950.D\data.ms

dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
223.00	876	234.10	183	244.10	6777	259.80	52
224.10	9014	235.00	91	245.15	1051	260.90	181
225.10	2562	235.15	224	246.00	1219	265.00	924
226.10	389	235.95	238	247.05	325	271.15	115

227.10	3485	237.05	428	249.00	295	272.10	79
228.15	610	238.90	72	253.05	256	273.05	1190
229.05	873	239.20	61	255.10	34584	274.05	2765
229.90	79	239.90	71	256.10	5397	275.05	13747
230.20	58	241.00	281	257.05	286	276.10	1759
231.00	335	242.10	520	258.05	1993	277.00	1245
233.10	72	243.15	349	259.00	361	278.00	97

Average of 2.445 to 2.456 min.: p128950.D\data.ms
dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
281.10	52	303.05	686	326.50	63	352.05	542
283.00	2	304.05	127	326.90	51	353.10	336
284.05	195	314.00	200	327.20	126	354.15	498
285.00	60	315.00	563	332.05	116	355.00	150
285.20	122	315.90	89	333.10	223	364.10	52
292.00	108	316.10	262	334.05	866	365.00	1959
293.00	401	321.00	108	335.05	180	366.00	309
295.20	56	321.90	54	341.10	119	371.00	59
296.05	4130	323.10	1400	346.05	281	372.05	883
297.05	555	324.05	190	347.10	50	373.05	232
302.05	135	326.20	54	350.20	55	383.05	144

Average of 2.445 to 2.456 min.: p128950.D\data.ms
dftpp

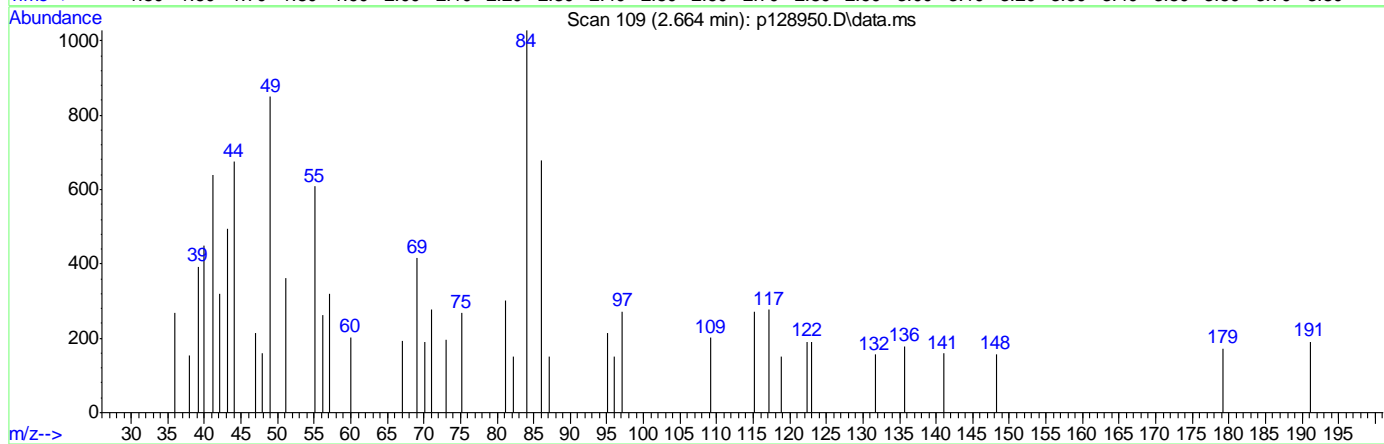
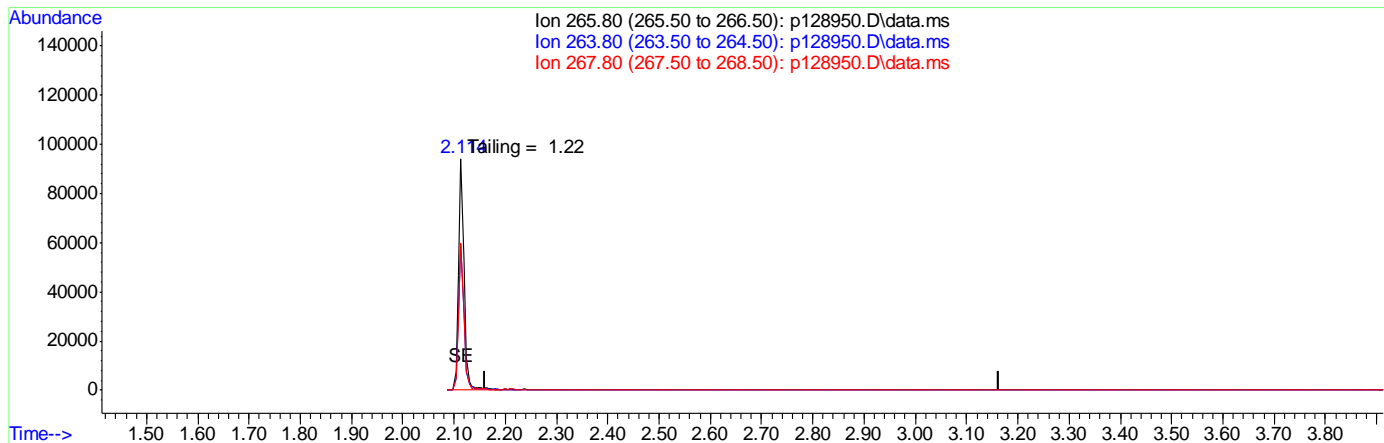
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
390.05	126	442.10	38544				
402.05	380	443.10	7648				
403.10	519	444.05	698				
404.10	158						
415.20	72						
420.95	425						
422.00	160						
422.30	78						
423.10	2216						
424.00	417						
441.10	5424						

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EP5836\
 Data File : p128950.D
 Acq On : 11 Apr 2019 1:05 pm
 Operator : christc2
 Sample : dftpp
 Misc : op13894,ep5836,1000,,,1,1
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 11 13:10:59 2019
 Quant Method : C:\MSDCHEM\1\METHODS\DFTPPP.M
 Quant Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um
 QLast Update : Tue Dec 11 00:35:57 2018
 Response via : Initial Calibration



TIC: p128950.D\data.ms

(1) Pentachlorophenol (t)

2.663min (-2.663) 0.00ppb

response 0

Ion	Exp%	Act%
265.80	100	0.00
263.80	63.90	0.00#
267.80	66.90	0.00#
0.00	0.00	0.00

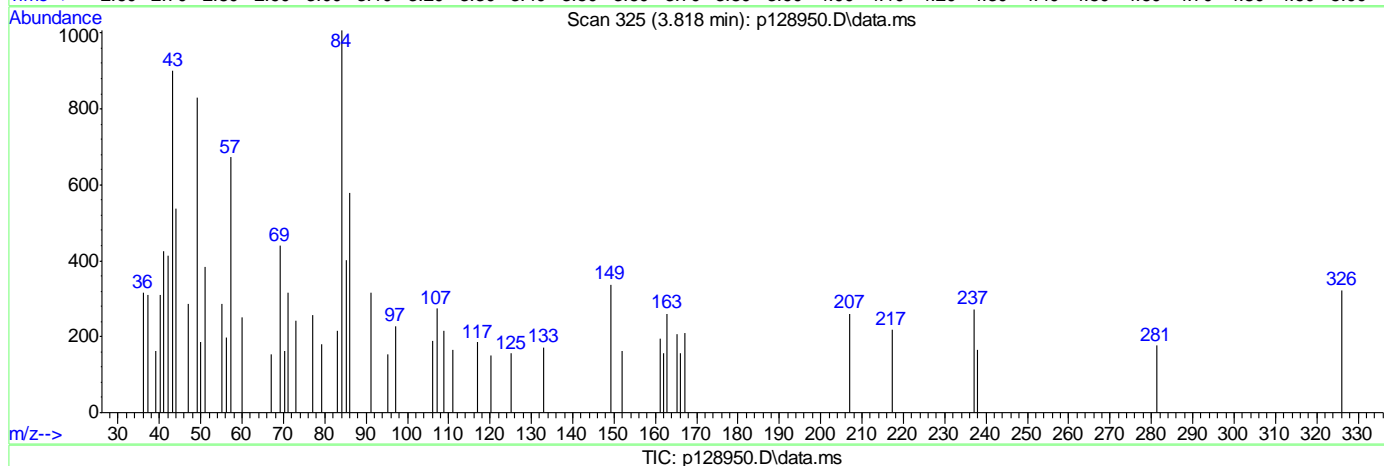
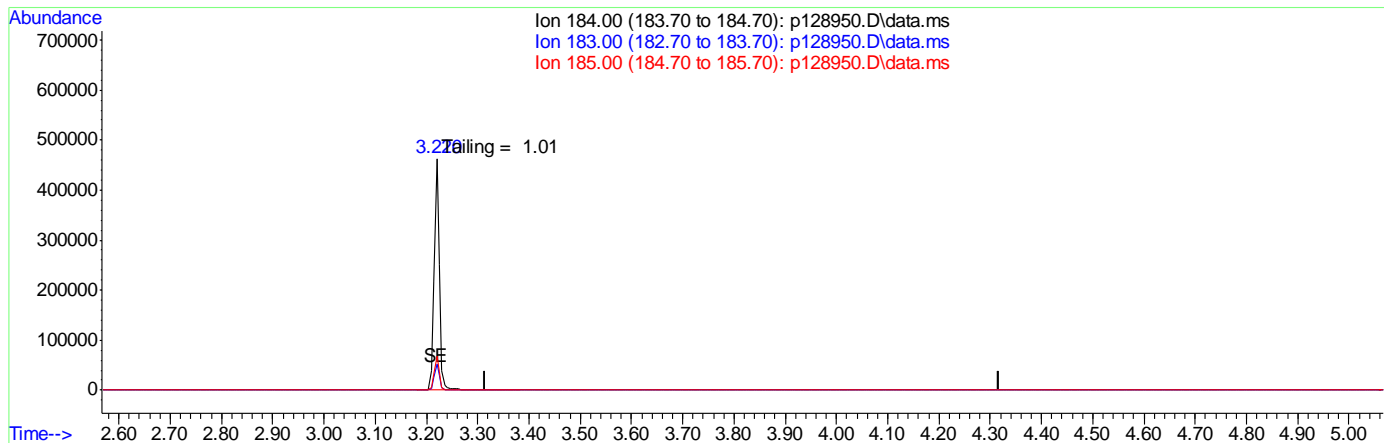
9.5.11.1

9

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EP5836\
 Data File : p128950.D
 Acq On : 11 Apr 2019 1:05 pm
 Operator : christc2
 Sample : dftpp
 Misc : op13894,ep5836,1000,,,1,1
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 11 13:10:59 2019
 Quant Method : C:\MSDCHEM\1\METHODS\DFTPPP.M
 Quant Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um
 QLast Update : Tue Dec 11 00:35:57 2018
 Response via : Initial Calibration



(2) Benzidine (t)

3.817min (-3.817) 0.00ppb

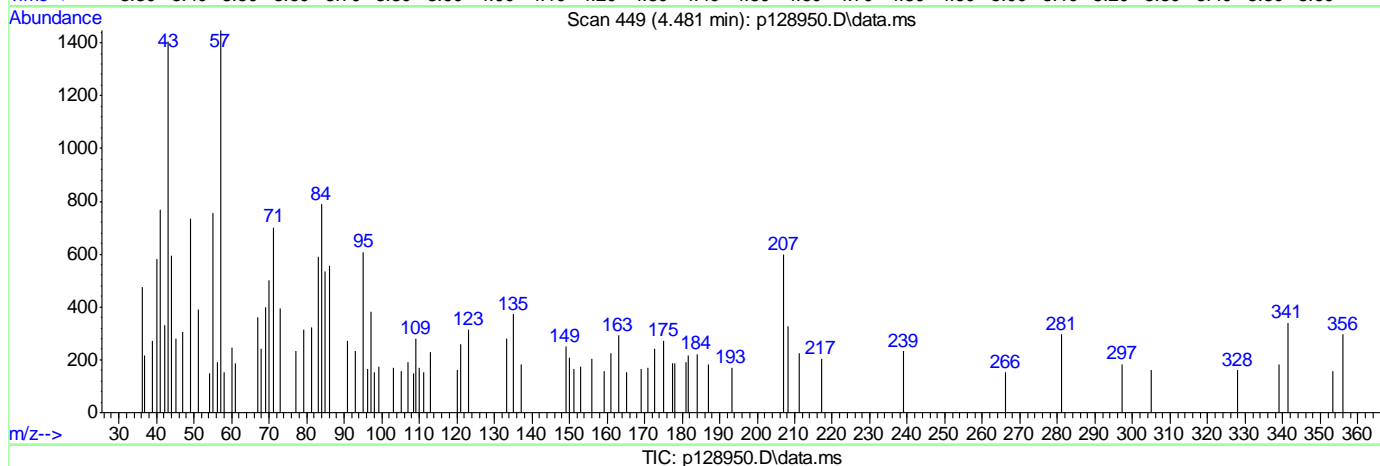
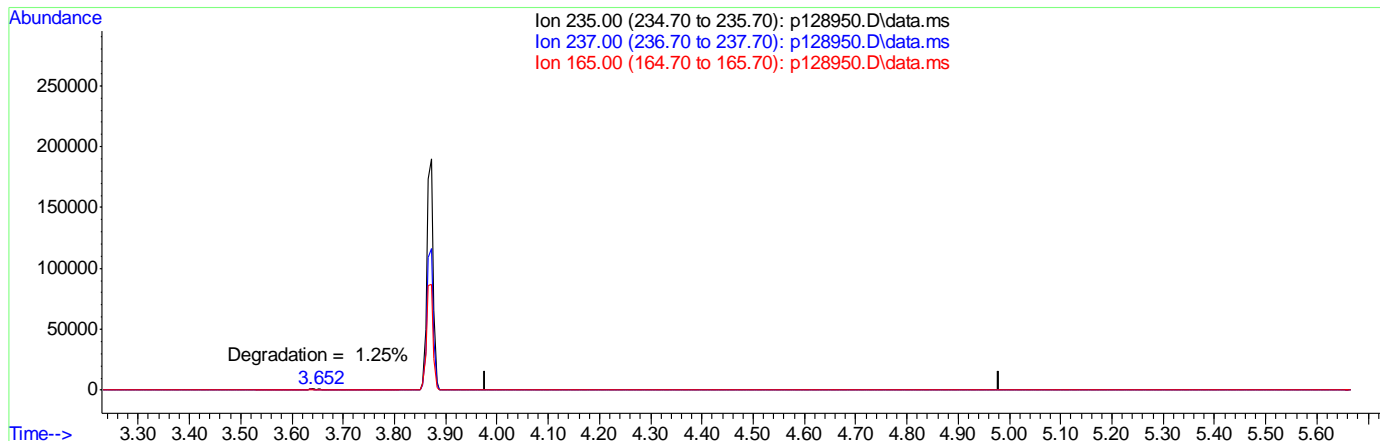
response 0

Ion	Exp%	Act%
184.00	100	0.00
183.00	11.70	0.00
185.00	14.30	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EP5836\
 Data File : p128950.D
 Acq On : 11 Apr 2019 1:05 pm
 Operator : christc2
 Sample : dftpp
 Misc : op13894,ep5836,1000,,,1,1
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 11 13:10:59 2019
 Quant Method : C:\MSDCHEM\1\METHODS\DFTPPP.M
 Quant Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um
 QLast Update : Tue Dec 11 00:35:57 2018
 Response via : Initial Calibration



(3) ddt

4.479min (-4.479) 0.00ppb

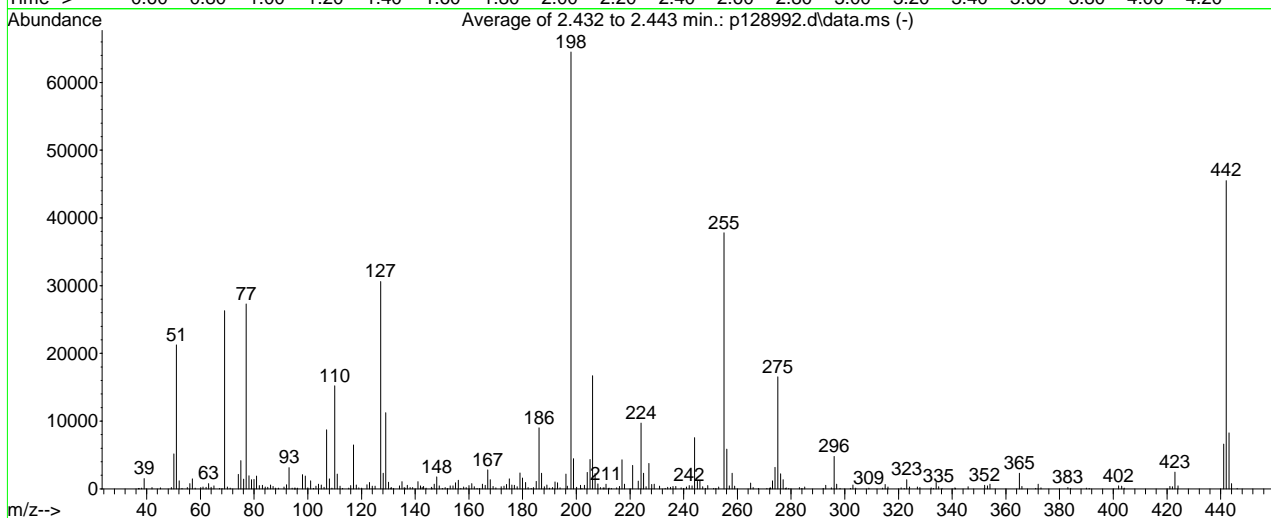
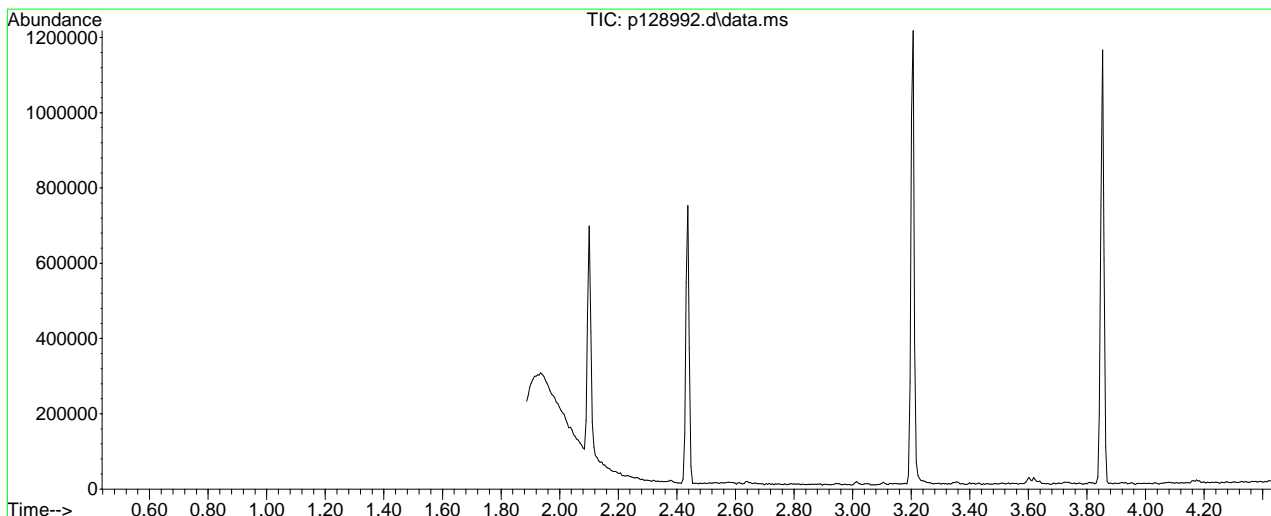
response 0

Ion	Exp%	Act%
235.00	100	0.00
237.00	64.10	0.00#
165.00	38.80	0.00#
0.00	0.00	0.00

DFTPP

Data File : C:\msdchem\1\data\da...meel\ep5838\p128992.d Vial: 1
 Acq On : 14 Apr 2019 1:07 pm Operator: carolb
 Sample : dftpp Inst : MSVOAMSP
 Misc : opl3894,ep5838,1000,,,1,1 Multiplr: 1.00
 MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\DFTPPP.M (RTE Integrator)
 Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um



AutoFind: Scans 103, 104, 105; Background Corrected with Scan 98

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	33.0	21267	PASS
68	69	0.00	2	0.2	43	PASS
69	198	0.00	100	40.8	26294	PASS
70	69	0.00	2	1.0	257	PASS
127	198	40	60	47.5	30627	PASS
197	198	0.00	1	0.6	377	PASS
198	198	100	100	100.0	64483	PASS
199	198	5	9	6.9	4458	PASS
275	198	10	30	25.7	16545	PASS
365	198	1	100	3.6	2298	PASS
441	443	0.10	100	79.7	6591	PASS
442	198	40	100	70.6	45523	PASS
443	442	17	23	18.2	8268	PASS

9.5.12 9

Average of 2.432 to 2.443 min.: p128992.d\data.ms

dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
37.00	75	55.10	183	68.05	43	80.95	1879
37.20	63	56.05	779	69.00	26294	82.00	462
38.10	112	57.05	1455	70.05	257	83.10	520
39.10	1504	58.00	125	71.10	88	84.15	255
42.00	189	60.15	192	74.10	2131	85.10	233
45.10	137	61.00	263	75.05	4142	86.10	558
49.15	184	62.10	239	76.10	1433	87.05	352
50.10	5153	63.05	758	77.10	27287	88.05	124
51.10	21267	64.05	218	78.10	1939	89.05	121
52.10	1164	65.00	439	79.05	1349	91.10	272
53.10	71	67.10	66	80.00	1407	92.05	600

Average of 2.432 to 2.443 min.: p128992.d\data.ms

dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
93.05	3126	104.00	676	115.95	463	129.00	11256
94.20	113	105.00	559	117.00	6488	130.05	965
95.00	1	106.10	222	118.05	581	130.90	102
95.20	146	107.05	8711	119.05	156	131.10	168
96.10	95	108.05	1457	120.00	105	132.00	57
98.00	2079	109.00	116	122.05	621	134.10	427
99.05	1906	110.05	15219	123.00	914	135.10	1055
100.00	156	111.00	2188	124.05	406	135.90	171
101.10	1169	112.05	386	125.10	384	136.20	90
102.10	57	113.00	80	127.10	30627	137.10	518
103.05	383	115.20	125	128.05	2287	138.15	211

Average of 2.432 to 2.443 min.: p128992.d\data.ms

dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
139.10	176	150.10	68	161.05	757	173.05	415
141.05	1077	151.15	184	162.05	299	174.05	658
142.00	425	152.10	77	163.10	73	175.10	1464
142.60	219	153.00	446	164.00	67	176.05	570
143.10	363	154.05	439	165.00	698	176.95	517
144.10	109	155.05	890	166.10	512	178.00	292
146.00	232	156.05	1254	167.05	2811	179.00	2328
146.20	109	156.95	85	167.95	1364	180.00	1588
147.05	667	158.05	268	169.05	374	181.10	935
148.00	1773	158.95	177	170.05	134	182.05	184
149.00	457	160.05	490	172.00	330	183.20	64

Average of 2.432 to 2.443 min.: p128992.d\data.ms

dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
184.00	180	196.10	2169	207.05	2257	217.00	4282
185.10	1092	196.70	377	208.05	724	218.00	681
186.10	9004	198.00	64483	208.95	194	221.00	3476
187.05	2311	199.00	4458	210.05	159	223.05	1142
188.10	333	200.10	230	210.30	137	224.10	9711
189.05	542	201.55	522	211.10	667	225.10	2317
190.00	126	202.10	57	212.00	66	225.95	292
191.10	174	203.05	509	212.20	95	227.00	3760
192.10	1004	204.10	2410	213.00	66	228.05	646
193.05	905	205.10	4317	215.00	147	229.00	690
194.00	157	206.10	16704	216.10	365	231.05	379

Average of 2.432 to 2.443 min.: p128992.d\data.ms

dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
233.10	52	245.10	1091	258.00	2309	276.05	2204
234.00	225	246.00	1242	258.95	381	277.00	1367
235.10	247	247.10	307	264.95	843	277.90	80
236.05	342	248.10	67	265.85	191	278.20	165
237.05	352	249.00	468	267.80	68	279.10	52
239.00	158	251.10	55	271.00	81	283.05	175
240.00	59	252.00	62	272.00	122	284.00	71
241.00	291	253.00	288	272.30	132	285.05	287
242.05	473	255.00	37795	273.05	1197	292.00	52
243.10	422	256.05	5864	274.05	3157	292.95	513
244.10	7564	257.00	419	275.05	16545	295.00	132

Average of 2.432 to 2.443 min.: p128992.d\data.ms

dftpp
 Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
296.00	4789	322.10	61	341.20	83	384.10	74
297.00	693	323.05	1342	345.95	319	390.00	103
298.20	69	324.10	281	352.05	507	391.00	60
302.10	73	327.00	264	353.10	448	402.00	424
303.05	552	327.95	170	354.05	700	403.15	415
304.10	97	332.10	151	365.00	2298	404.05	118
309.00	121	333.00	70	365.95	348	421.05	353
314.10	102	334.05	913	371.10	87	422.00	327
315.00	663	334.95	309	372.00	670	423.00	2474
316.10	255	336.20	50	373.10	139	424.05	443
320.95	143	341.00	136	383.05	211	441.10	6591

Average of 2.432 to 2.443 min.: p128992.d\data.ms

dftpp
 Modified:subtracted

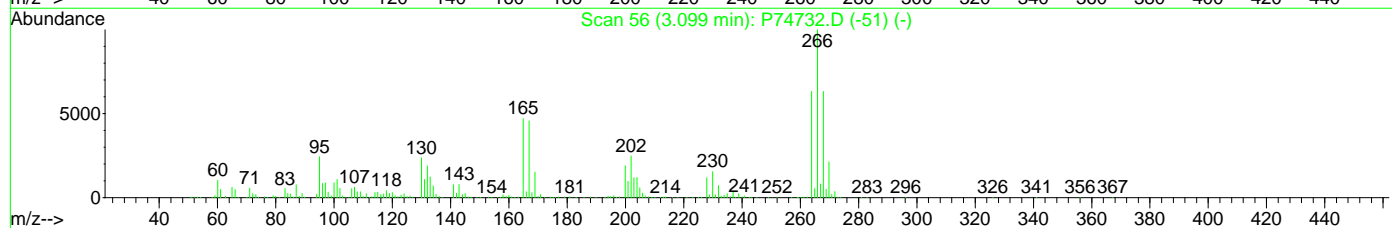
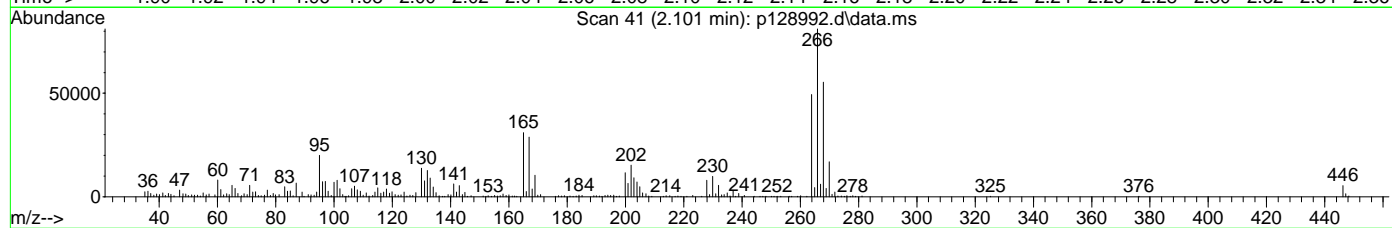
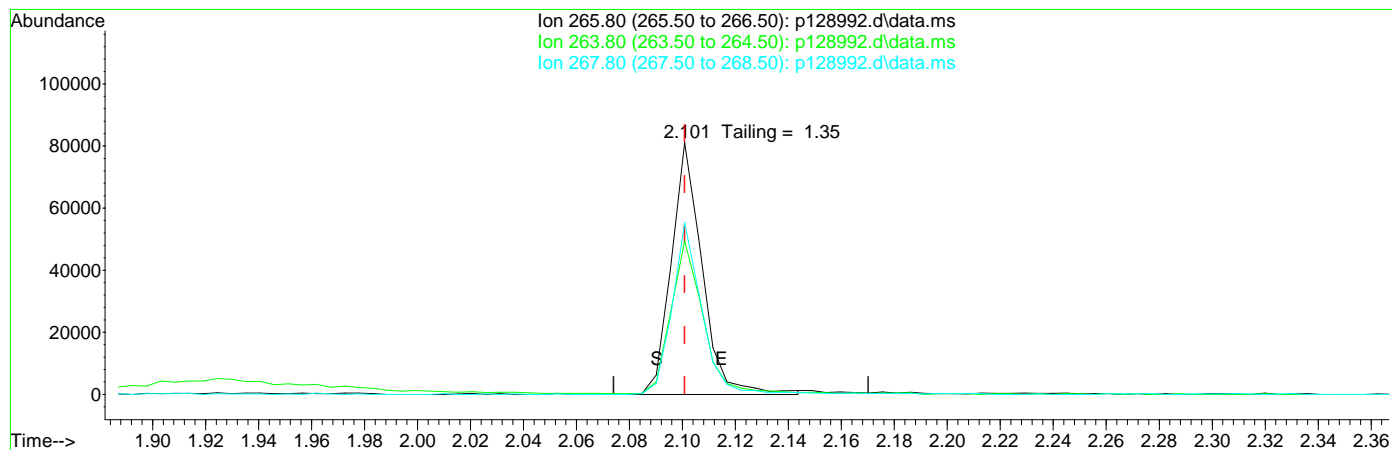
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
442.10	45523						
443.05	8268						
444.00	750						
446.10	55						



Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\data_aimeel\ep5838\
 Data File : p128992.d
 Acq On : 14 Apr 2019 1:07 pm
 Operator : carolb
 Sample : dftpp
 Misc : op13894,ep5838,1000,,,1,1
 ALS Vial : 1 Sample Multiplier: 1
 Inst : MSVOAMSP

Quant Method : C:\MSDCHEM\1\METHODS\DFTPPP.M
 Quant Results File: DFTPPP.RES
 Quant Time: Apr 15 12:04:55 2019
 Quant Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um
 QLast Update : Mon Apr 15 12:04:46 2019
 Response via : Initial Calibration



TIC: p128992.d\data.ms

(1) Pentachlorophenol (t)

2.101min (0.000) 289.00ppb

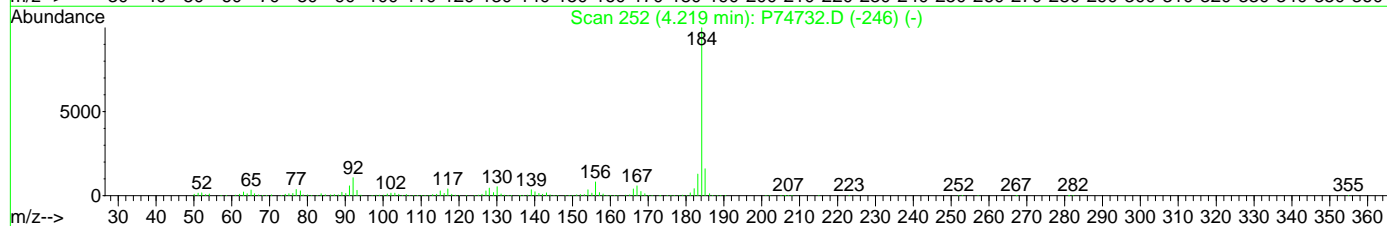
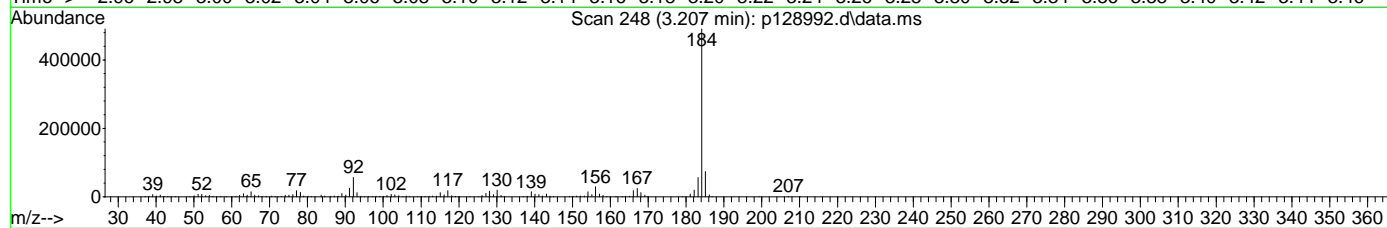
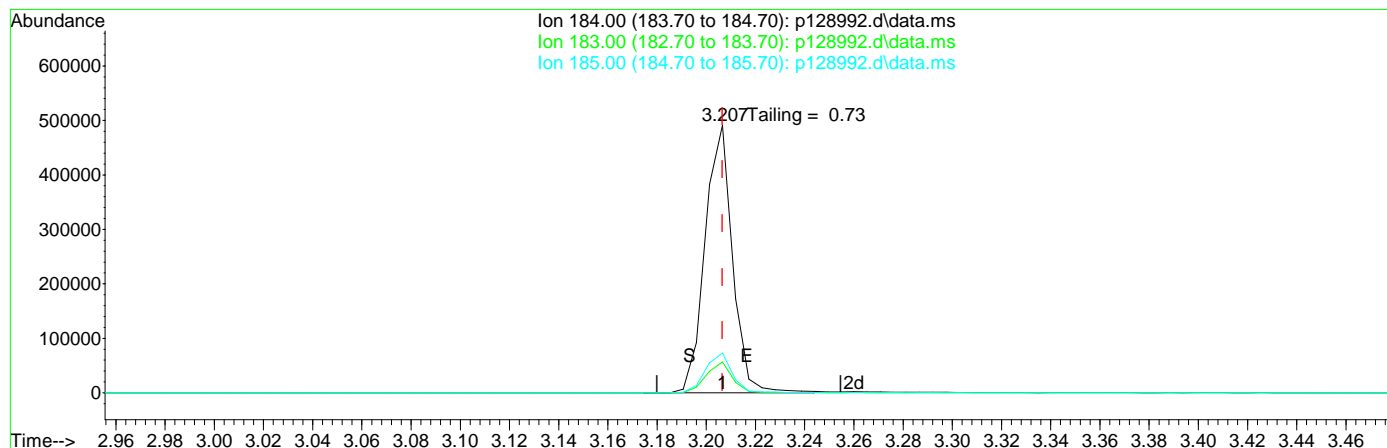
response 67045

Ion	Exp%	Act%
265.80	100	100
263.80	60.90	60.73
267.80	68.20	68.21
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\data_aimeel\ep5838\
 Data File : p128992.d
 Acq On : 14 Apr 2019 1:07 pm
 Operator : carolb
 Sample : dftpp
 Misc : op13894,ep5838,1000,,,1,1
 ALS Vial : 1 Sample Multiplier: 1
 Inst : MSVOAMSP

Quant Method : C:\MSDCHEM\1\METHODS\DFTPPP.M
 Quant Results File: DFTPPP.RES
 Quant Time: Apr 15 12:04:55 2019
 Quant Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um
 QLast Update : Mon Apr 15 12:04:46 2019
 Response via : Initial Calibration



TIC: p128992.d\data.ms

(2) Benzidine (t)

3.207min (0.000) 195.46ppb

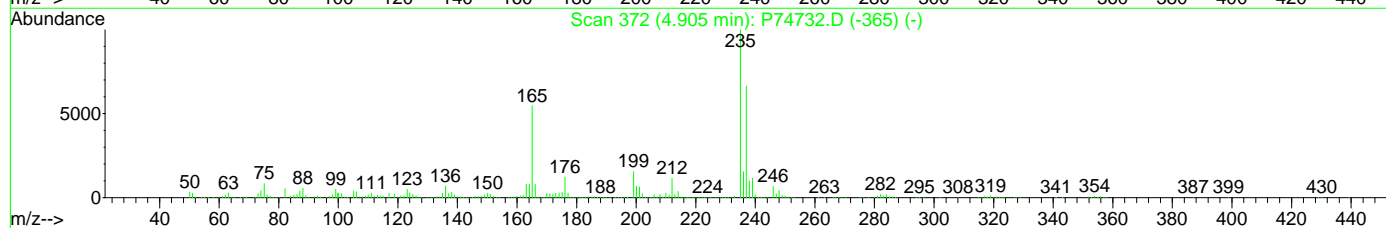
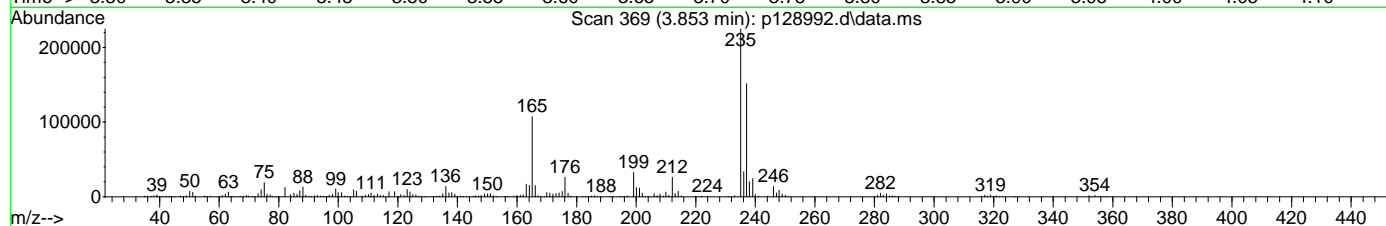
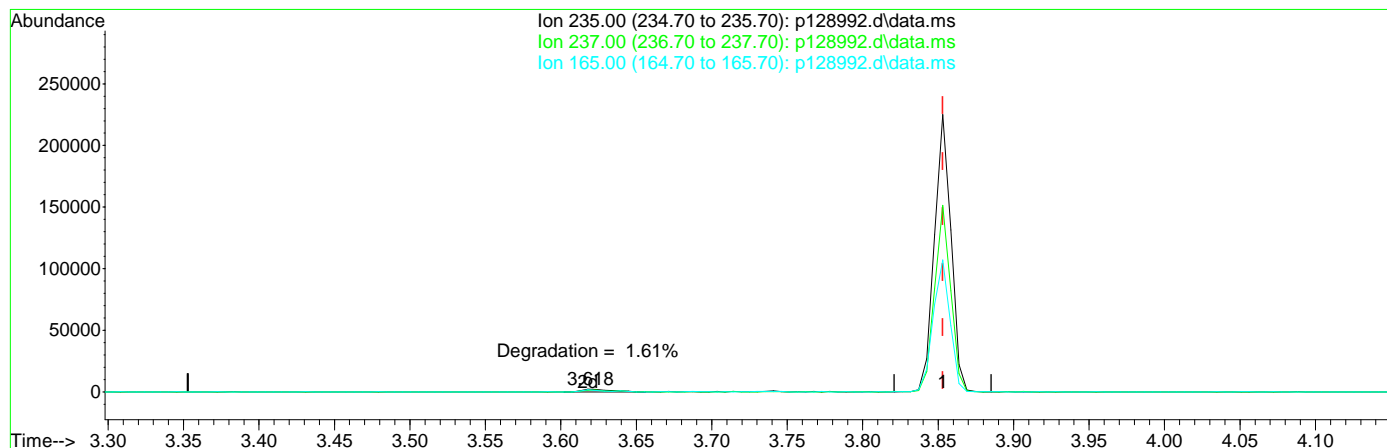
response 383868

Ion	Exp%	Act%
184.00	100	100
183.00	11.50	11.08
185.00	14.90	14.61
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\data_aimeel\ep5838\
 Data File : p128992.d
 Acq On : 14 Apr 2019 1:07 pm
 Operator : carolb
 Sample : dftpp
 Misc : op13894,ep5838,1000,,,1,1
 ALS Vial : 1 Sample Multiplier: 1
 Inst : MSVOAMSP

Quant Method : C:\MSDCHEM\1\METHODS\DFTPPP.M
 Quant Results File: DFTPPP.RES
 Quant Time: Apr 15 12:04:55 2019
 Quant Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um
 QLast Update : Mon Apr 15 12:04:46 2019
 Response via : Initial Calibration



TIC: p128992.d\data.ms

(3) ddt

3.853min (0.000) 171.03ppb

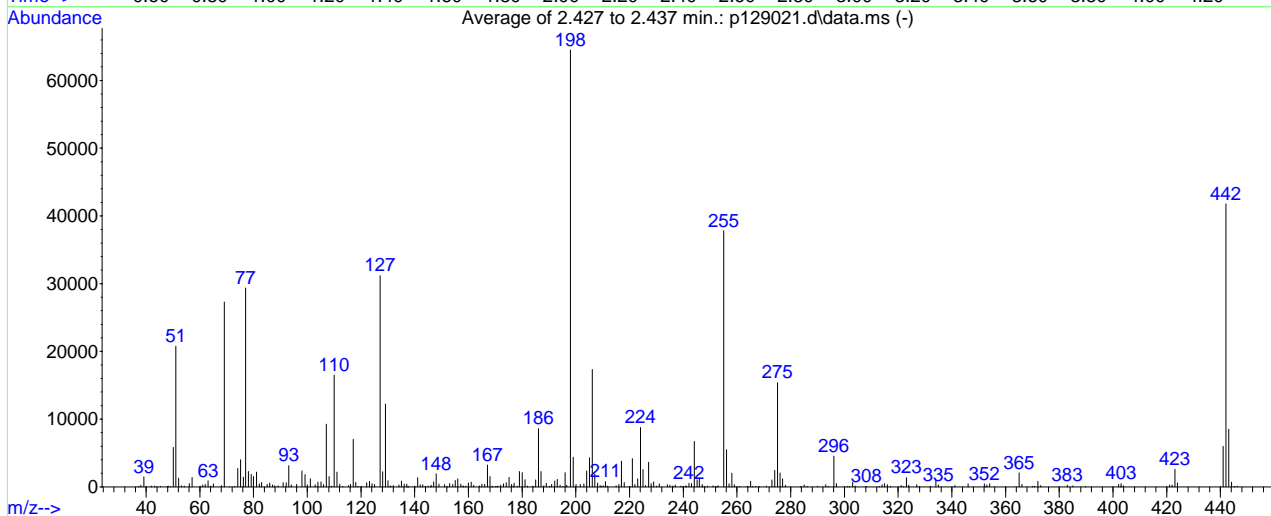
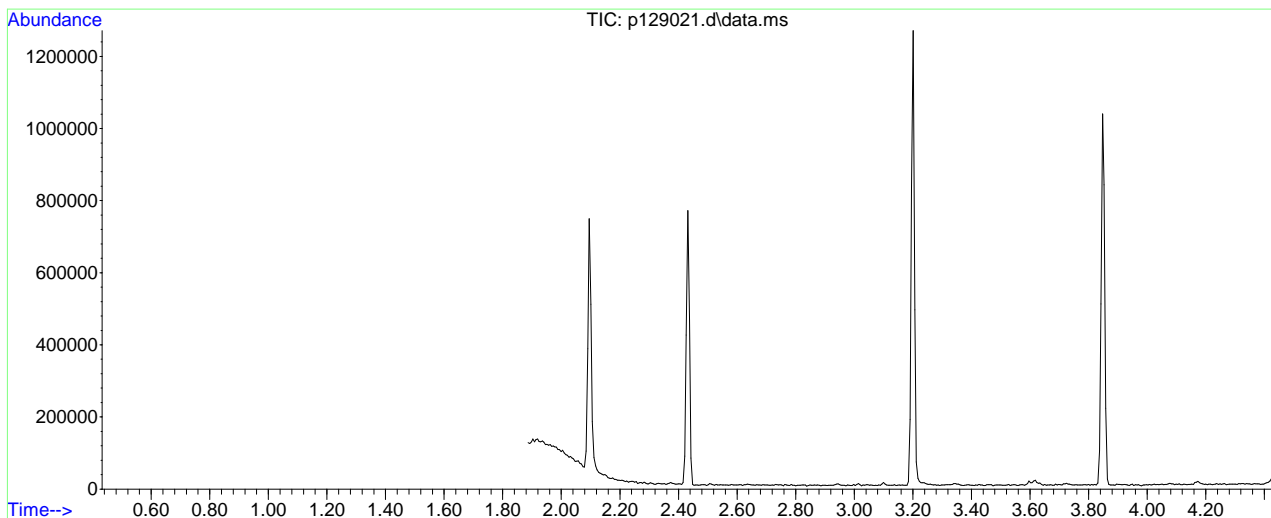
response 172125

Ion	Exp%	Act%
235.00	100	100
237.00	67.30	65.49
165.00	47.60	48.58
0.00	0.00	0.00

DFTPP

Data File : C:\msdchem\1\data\jeryllr\ep5839\p129021.d Vial: 1
 Acq On : 15 Apr 2019 10:21 am Operator: yujiac
 Sample : dftpp Inst : MSVOAMSP
 Misc : opl3894,ep5839,1000,,,1,1 Multiplr: 1.00
 MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\DFTPPP.M (RTE Integrator)
 Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um



AutoFind: Scans 102, 103, 104; Background Corrected with Scan 97

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	32.2	20772	PASS
68	69	0.00	2	0.6	175	PASS
69	198	0.00	100	42.3	27307	PASS
70	69	0.00	2	0.0	0	PASS
127	198	40	60	48.3	31165	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	64483	PASS
199	198	5	9	6.8	4355	PASS
275	198	10	30	23.8	15359	PASS
365	198	1	100	3.2	2050	PASS
441	443	0.10	100	70.0	5971	PASS
442	198	40	100	64.8	41782	PASS
443	442	17	23	20.4	8524	PASS

9.5.13
9

Average of 2.427 to 2.437 min.: p129021.d\data.ms

dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
37.20	80	50.10	5828	64.05	123	79.10	1829
38.05	240	51.05	20772	65.05	451	80.00	1519
39.10	1489	52.10	1272	68.05	175	81.05	2186
40.05	56	53.10	136	69.05	27307	82.10	434
42.00	127	54.15	126	71.05	14	83.00	651
43.10	112	56.10	494	73.00	51	85.05	371
44.05	16	57.05	1375	74.10	2734	86.00	545
45.30	65	60.10	106	75.10	3977	87.05	255
47.90	51	61.10	252	76.15	1420	87.90	148
48.20	111	62.05	361	77.05	29349	89.15	163
49.05	30	63.00	902	78.10	2246	91.00	598

Average of 2.427 to 2.437 min.: p129021.d\data.ms

dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
92.15	584	106.00	298	118.00	626	130.90	105
93.10	3137	107.10	9239	118.90	62	131.10	120
94.00	287	108.10	1512	120.20	55	132.05	171
96.05	365	109.00	108	122.10	590	134.10	283
98.05	2327	110.05	16497	123.10	824	135.05	864
99.10	1803	111.00	2173	124.05	469	136.10	415
100.00	325	112.10	407	125.00	374	137.05	407
101.10	1182	113.20	54	127.10	31165	137.50	70
102.95	313	115.30	177	128.05	2202	137.80	61
104.00	678	116.10	355	129.05	12251	140.10	96
105.05	717	117.05	7004	130.05	899	141.05	1349

Average of 2.427 to 2.437 min.: p129021.d\data.ms

dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
142.00	326	153.00	463	164.10	151	173.05	422
142.95	298	154.10	361	165.00	407	174.05	599
143.90	54	155.05	920	166.05	349	175.10	1386
144.95	116	156.05	1187	167.05	3216	176.05	368
145.90	51	157.15	377	168.05	1515	176.70	93
146.10	229	158.00	119	168.90	109	177.00	520
147.05	741	158.20	89	169.00	37	178.10	122
148.00	1922	159.05	102	170.00	57	179.00	2263
149.00	384	160.00	576	170.60	57	180.05	2077
151.10	320	161.00	678	170.90	98	181.05	1066
152.10	79	162.00	217	172.00	251	182.05	121

Average of 2.427 to 2.437 min.: p129021.d\data.ms

dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
184.00	110	195.20	51	207.05	1887	220.10	87
185.00	996	196.00	2095	208.05	567	221.00	4145
186.05	8573	196.60	223	209.05	183	222.00	343
187.05	2270	198.00	64483	209.60	56	223.05	1202
188.05	165	199.00	4355	210.20	176	224.10	8749
189.05	523	200.05	368	211.05	778	225.05	2551
190.10	72	201.60	371	211.60	104	225.95	183
191.00	351	203.00	439	215.00	152	227.05	3632
192.10	865	204.00	2322	216.05	361	228.05	470
193.05	1082	205.10	4297	217.00	3780	229.00	730
194.15	221	206.10	17321	218.00	643	230.05	120

Average of 2.427 to 2.437 min.: p129021.d\data.ms

dftpp

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
231.05	431	242.10	523	252.60	50	265.80	78
234.05	314	243.05	460	252.95	157	267.00	57
235.00	234	244.10	6702	255.05	37824	268.40	52
236.00	96	245.10	998	256.10	5501	270.95	118
236.20	78	246.00	1285	257.05	417	273.05	1031
237.00	259	247.00	356	258.05	2011	274.05	2414
239.10	113	247.20	113	259.05	312	275.05	15359
239.90	79	248.10	66	261.00	57	276.05	2068
240.10	63	249.00	110	263.80	58	276.95	1181
240.95	149	251.10	139	264.00	60	278.00	246
241.20	75	252.10	63	265.10	795	283.80	59

Average of 2.427 to 2.437 min.: p129021.d\data.ms

```
dftpp
Modified:subtracted
m/z      abund.    m/z      abund.    m/z      abund.    m/z      abund.
285.05   275    308.20   75     328.00   55     366.05   375
286.20   52     313.00   56     332.00   63     370.00   66
289.90   56     314.00   297    334.10   1024    370.80   55
293.05   303    315.00   487    334.95   253    372.05   808
294.00   54     315.95   311    341.10   176    373.10   181
296.05   4529   317.10   59     346.00   424    383.00   224
297.05   473    321.10   168    352.10   439    385.05   150
301.10   51     322.10   51     352.40   58     389.80   70
301.80   51     323.10   1328   353.05   290    402.05   363
303.10   652    323.95   237    354.10   446    402.90   83
304.00   88     326.95   326    365.00   2050   403.05   484
```

Average of 2.427 to 2.437 min.: p129021.d\data.ms

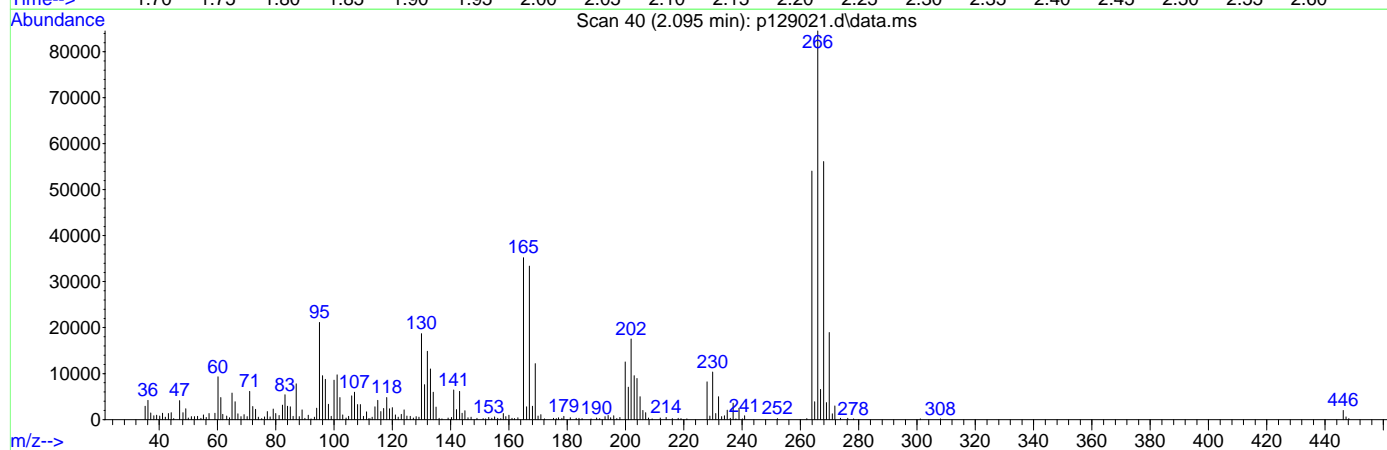
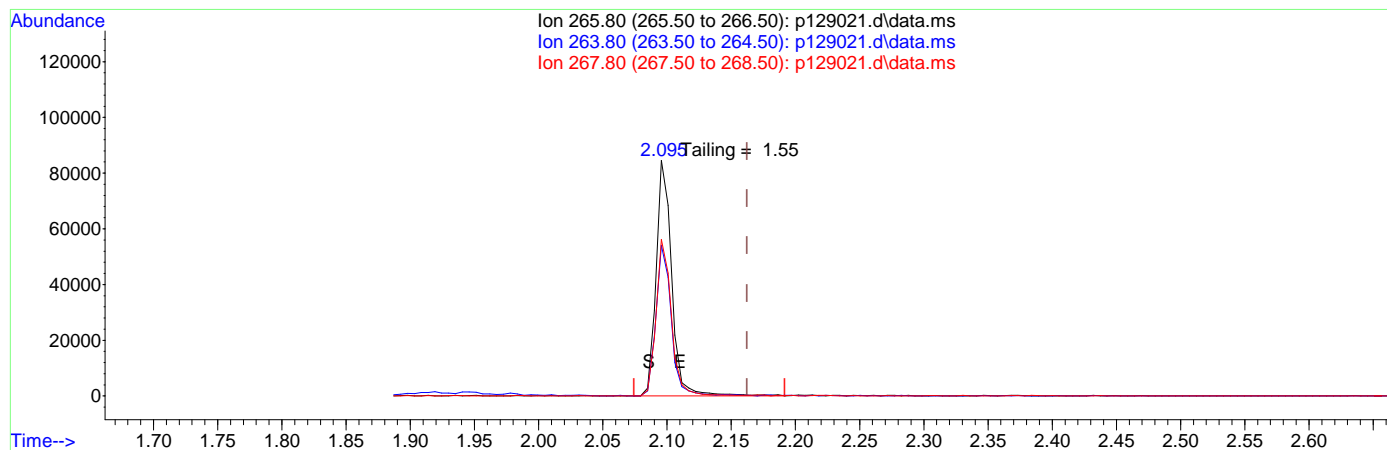
```
dftpp
Modified:subtracted
m/z      abund.    m/z      abund.    m/z      abund.    m/z      abund.
403.90   156
421.05   287
422.05   281
423.05   2569
424.05   546
441.05   5971
442.10   41782
443.10   8524
444.10   698
445.20   60
446.20   101
```

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\jeryllr\ep5839\
 Data File : p129021.d
 Acq On : 15 Apr 2019 10:21 am
 Operator : yujiac
 Sample : dftpp
 Misc : op13894,ep5839,1000,,,1,1
 ALS Vial : 1 Sample Multiplier: 1

Inst : MSVOAMSP

Quant Method : C:\MSDCHEM\1\METHODS\DFTPPP.M
 Quant Results File: DFTPPP.RES
 Quant Time: Apr 16 04:27:05 2019
 Quant Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um
 QLast Update : Mon Apr 08 02:21:06 2019
 Response via : Initial Calibration



TIC: p129021.d\data.ms

(1) Pentachlorophenol (t)

2.095min (-0.067) 310.38ppb

response 72005

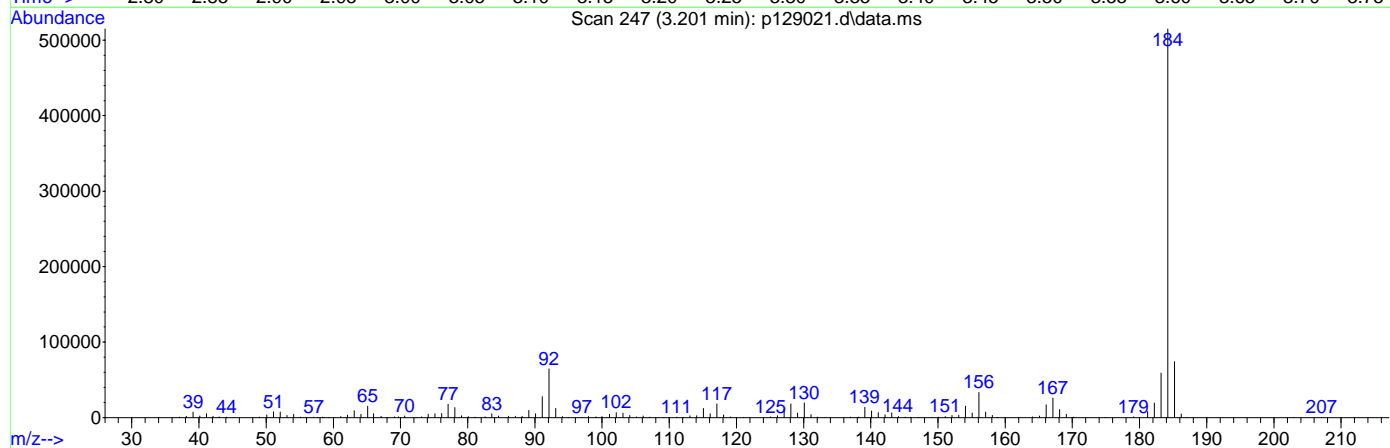
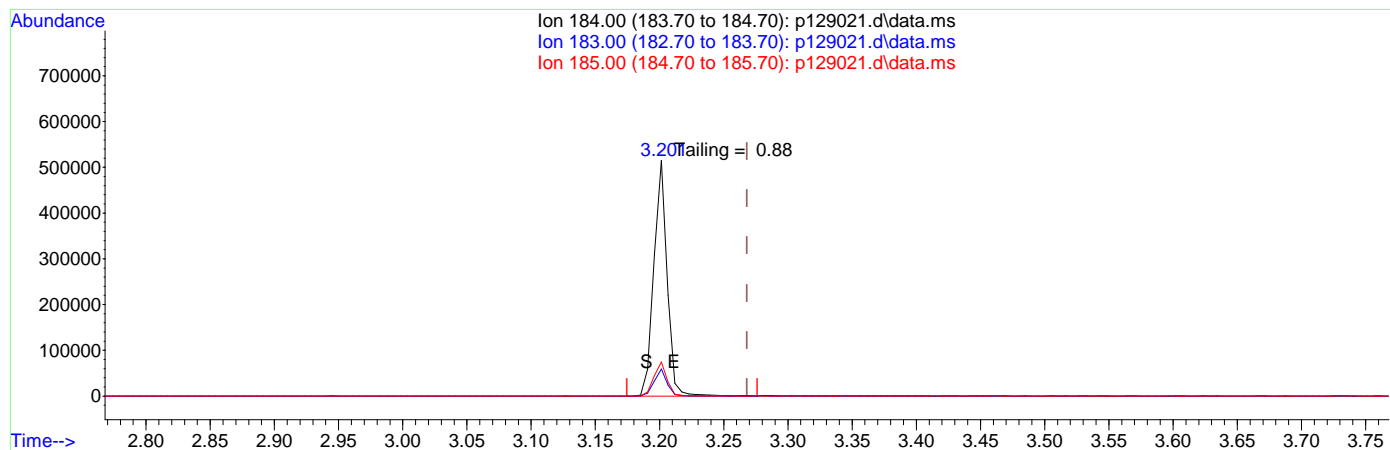
Ion	Exp%	Act%
265.80	100	100
263.80	61.80	63.71
267.80	64.40	66.27
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\jeryllr\ep5839\
 Data File : p129021.d
 Acq On : 15 Apr 2019 10:21 am
 Operator : yujiac
 Sample : dftpp
 Misc : op13894,ep5839,1000,,,1,1
 ALS Vial : 1 Sample Multiplier: 1

Inst : MSVOAMSP

Quant Method : C:\MSDCHEM\1\METHODS\DFTPPP.M
 Quant Results File: DFTPPP.RES
 Quant Time: Apr 16 04:27:05 2019
 Quant Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um
 QLast Update : Mon Apr 08 02:21:06 2019
 Response via : Initial Calibration



TIC: p129021.d\data.ms

(2) Benzidine (t)

3.201min (-0.067) 189.34ppb

response 371861

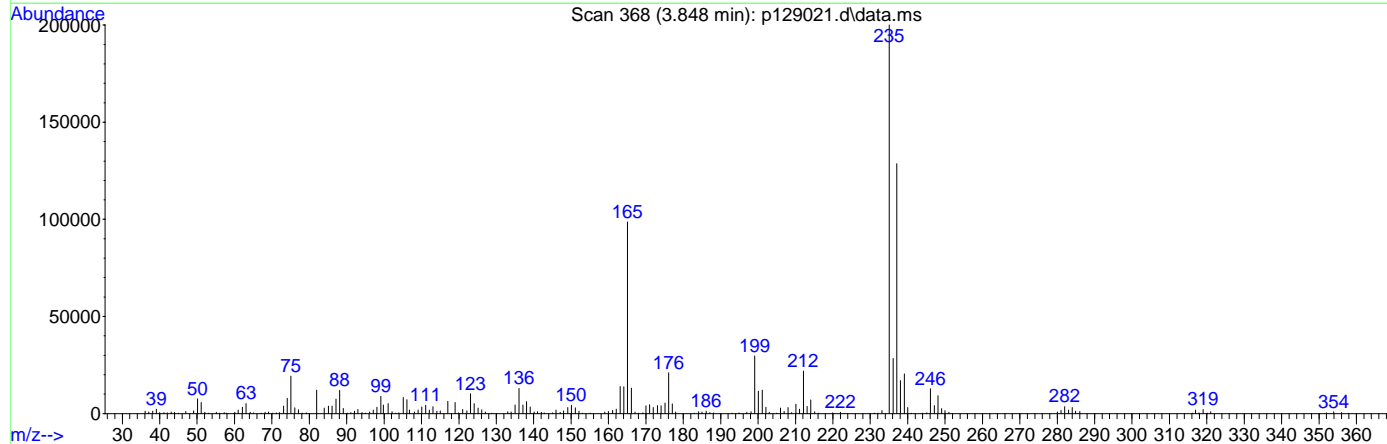
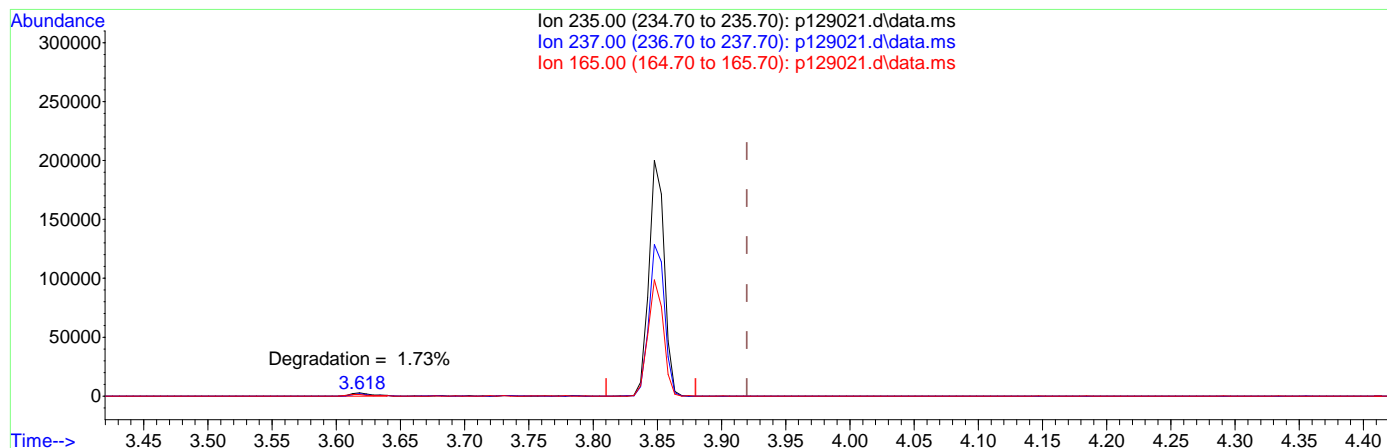
Ion	Exp%	Act%
184.00	100	100
183.00	10.70	11.08
185.00	14.00	14.23
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\jeryllr\ep5839\
 Data File : p129021.d
 Acq On : 15 Apr 2019 10:21 am
 Operator : yujiac
 Sample : dftpp
 Misc : op13894,ep5839,1000,,,1,1
 ALS Vial : 1 Sample Multiplier: 1

Inst : MSVOAMSP

Quant Method : C:\MSDCHEM\1\METHODS\DFTPPP.M
 Quant Results File: DFTPPP.RES
 Quant Time: Apr 16 04:27:05 2019
 Quant Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um
 QLast Update : Mon Apr 08 02:21:06 2019
 Response via : Initial Calibration



TIC: p129021.d\data.ms

(3) ddt

3.848min (-0.072) 165.34ppb

response 166402

Ion	Exp%	Act%
235.00	100	100
237.00	63.80	65.76
165.00	43.50	49.28
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3783\
 Data File : 2p85594.D
 Acq On : 8 Mar 2019 3:24 am
 Operator : chriss2
 Sample : ic3783-100
 Misc : op13652,e2p3783,1000,,,1,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 08 17:27:13 2019
 Quant Method : C:\MSDCHEM\1\METHODS\M2P3781.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Fri Mar 08 17:26:42 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	5.060	152	409481	40.00	ppm	0.00
24) Naphthalene-d8	6.092	136	1545600	40.00	ppm	0.00
47) Acenaphthene-d10	7.537	164	679720	40.00	ppm	0.00
69) Phenanthrene-d10	8.868	188	1053139	40.00	ppm	0.00
83) Chrysene-d12	12.206	240	1050677	40.00	ppm	-0.02
91) Perylene-d12	14.212	264	1102107	40.00	ppm	-0.02
101) 1,4-Dichlorobenzene-d4a	5.060	152	409481	40.00	ppm	0.00
103) Naphthalene-d8a	6.092	136	1545600	40.00	ppm	0.00
105) Acenaphthene-d10a	7.537	164	679720	40.00	ppm	0.00
108) Chrysene-d12a	12.206	240	1050677	40.00	ppm	-0.02
110) Phenanthrene-d10a	8.868	188	1053139	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount	50.000	Range	11 - 58	Recovery	=	0.00%#
8) Phenol-d5	0.000	99	0	0.00	ppm	
Spiked Amount	50.000	Range	10 - 59	Recovery	=	0.00%#
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount	50.000	Range	19 - 61	Recovery	=	0.00%#
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount	50.000	Range	21 - 58	Recovery	=	0.00%#
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount	50.000	Range	12 - 68	Recovery	=	0.00%#
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount	50.000	Range	16 - 65	Recovery	=	0.00%#
111) 1-Chlorooctadecane	10.141	57	727660	100.00	ppm	-0.04
Spiked Amount	50.000	Range	20 - 70	Recovery	=	200.00%#
112) o-terphenyl	9.280	230	1394763	100.00	ppm	-0.04
Spiked Amount	50.000	Range	20 - 70	Recovery	=	200.00%#
Target Compounds						
102) Benzaldehyde	4.702	105	1332386	100.00	ppm	93
104) Hydroquinone	6.451	110	1278284	100.00	ppm	93
106) Atrazine	8.596	215	284802	100.00	ppm	96
107) 1,2,4,5-Tetrachloroben...	6.825	216	926511	100.00	ppm	98
113) Pentachloronitrobenzene	8.697	295	119475	100.00	ppm	85

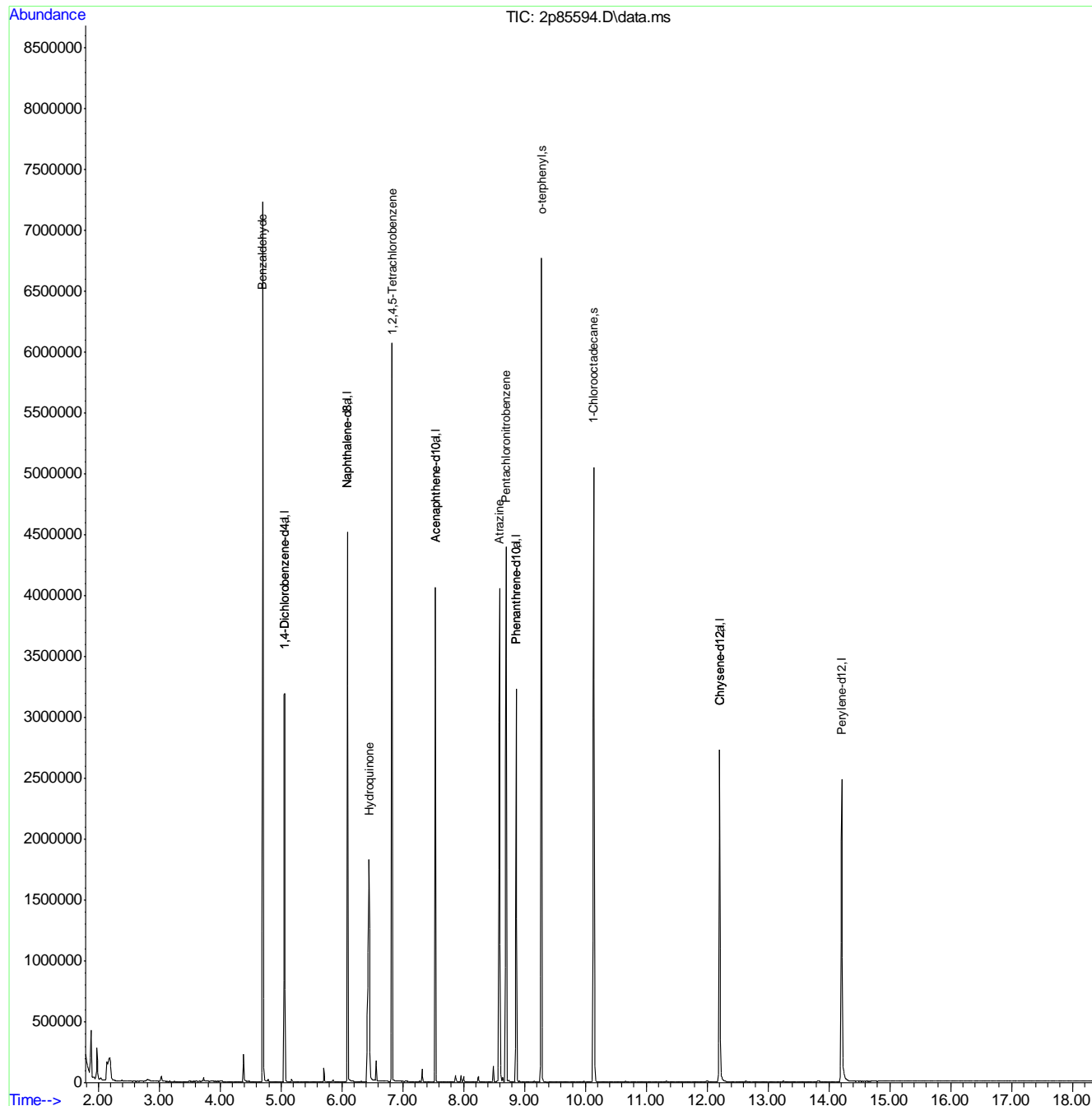
(#) = qualifier out of range (m) = manual integration (+) = signals summed

9.6.1
9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3783\
 Data File : 2p85594.D
 Acq On : 8 Mar 2019 3:24 am
 Operator : chriss2
 Sample : ic3783-100
 Misc : op13652,e2p3783,1000,,,1,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 08 17:27:13 2019
 Quant Method : C:\MSDCHEM\1\METHODS\M2P3781.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Fri Mar 08 17:26:42 2019
 Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3783\
 Data File : 2p85595.D
 Acq On : 8 Mar 2019 3:48 am
 Operator : chriss2
 Sample : ic3783-80
 Misc : op13652,e2p3783,1000,,,1,1
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 08 17:27:56 2019
 Quant Method : C:\MSDCHEM\1\METHODS\M2P3781.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Fri Mar 08 17:26:42 2019
 Response via : Initial Calibration

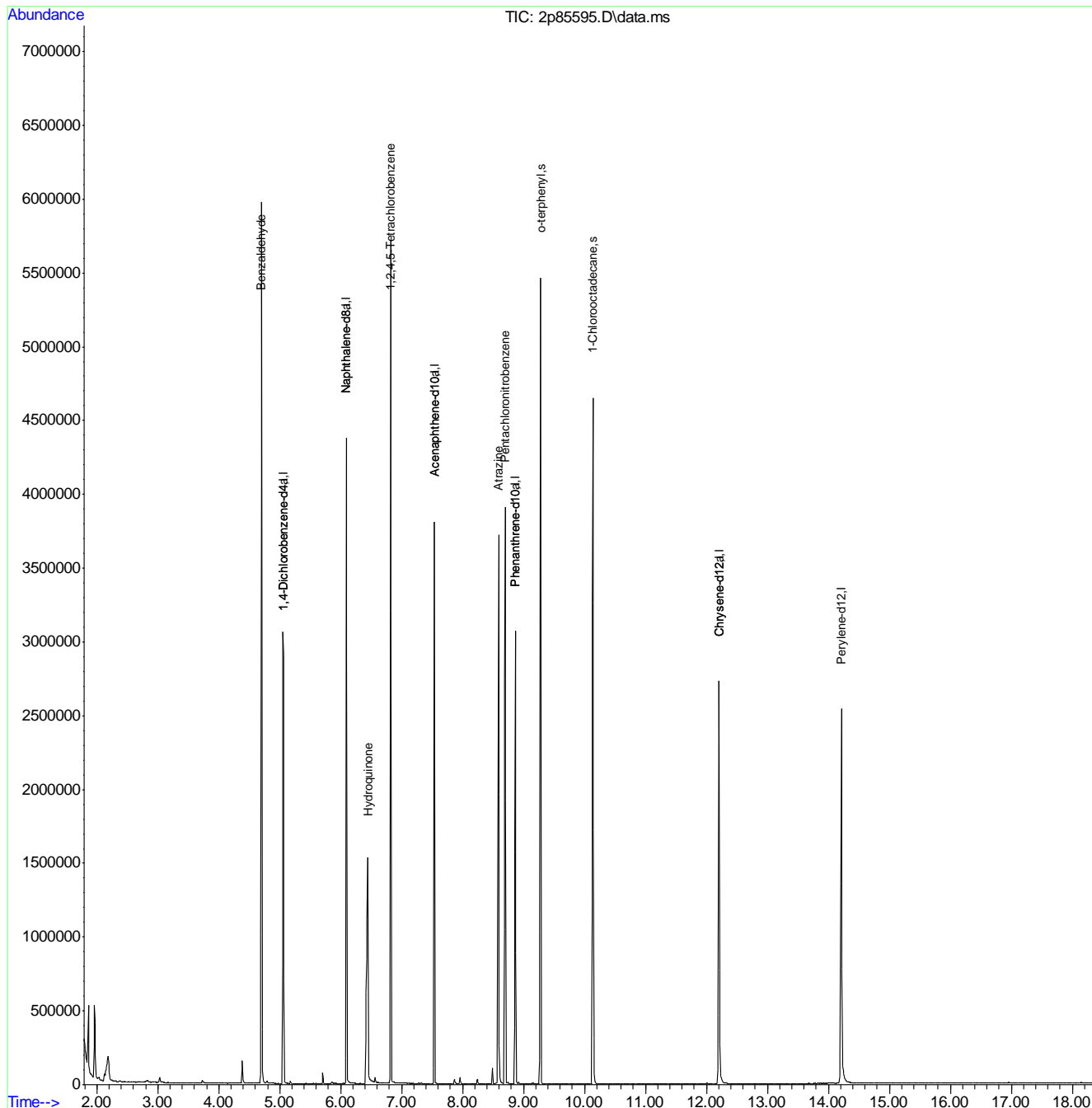
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	5.060	152	385682	40.00	ppm	0.00
24) Naphthalene-d8	6.092	136	1463225	40.00	ppm	0.00
47) Acenaphthene-d10	7.537	164	668934	40.00	ppm	0.00
69) Phenanthrene-d10	8.863	188	1042716	40.00	ppm	-0.01
83) Chrysene-d12	12.206	240	1037310	40.00	ppm	-0.02
91) Perylene-d12	14.212	264	1110618	40.00	ppm	-0.02
101) 1,4-Dichlorobenzene-d4a	5.060	152	385682	40.00	ppm	0.00
103) Naphthalene-d8a	6.092	136	1463225	40.00	ppm	0.00
105) Acenaphthene-d10a	7.537	164	668934	40.00	ppm	0.00
108) Chrysene-d12a	12.206	240	1037310	40.00	ppm	-0.02
110) Phenanthrene-d10a	8.863	188	1042716	40.00	ppm	-0.01
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount	50.000	Range	11 - 58	Recovery	=	0.00%#
8) Phenol-d5	0.000	99	0	0.00	ppm	
Spiked Amount	50.000	Range	10 - 59	Recovery	=	0.00%#
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount	50.000	Range	19 - 61	Recovery	=	0.00%#
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount	50.000	Range	21 - 58	Recovery	=	0.00%#
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount	50.000	Range	12 - 68	Recovery	=	0.00%#
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount	50.000	Range	16 - 65	Recovery	=	0.00%#
111) 1-Chlorooctadecane	10.136	57	623827	86.59	ppm	-0.04
Spiked Amount	50.000	Range	20 - 70	Recovery	=	173.18%#
112) o-terphenyl	9.280	230	1164638	84.34	ppm	-0.04
Spiked Amount	50.000	Range	20 - 70	Recovery	=	168.68%#
Target Compounds						
102) Benzaldehyde	4.702	105	1026958	81.83	ppm	93
104) Hydroquinone	6.445	110	989366	81.76	ppm	94
106) Atrazine	8.590	215	227575	81.19	ppm	95
107) 1,2,4,5-Tetrachloroben...	6.820	216	756775	83.00	ppm	99
113) Pentachloronitrobenzene	8.697	295	98182	83.00	ppm	88

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3783\
Data File : 2p85595.D
Acq On : 8 Mar 2019 3:48 am
Operator : chriss2
Sample : ic3783-80
Misc : op13652,e2p3783,1000,,,1,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 08 17:27:56 2019
Quant Method : C:\MSDCHEM\1\METHODS\M2P3781.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Mar 08 17:26:42 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3783\
 Data File : 2p85596.D
 Acq On : 8 Mar 2019 4:11 am
 Operator : chriss2
 Sample : icc3783-50
 Misc : op13652,e2p3783,1000,,,1,1
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 08 17:28:36 2019
 Quant Method : C:\MSDCHEM\1\METHODS\M2P3781.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Fri Mar 08 17:26:42 2019
 Response via : Initial Calibration

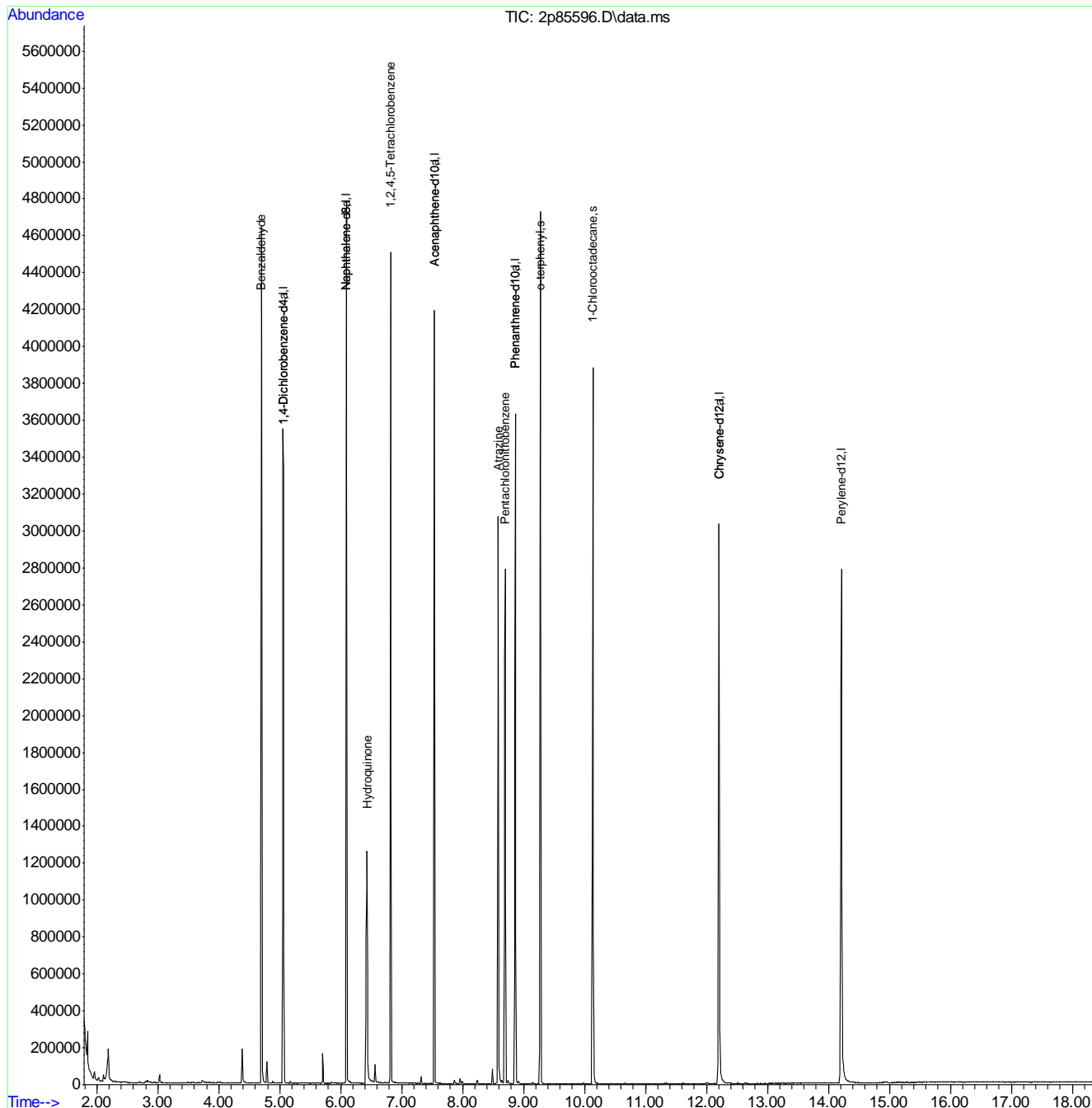
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	5.060	152	436663	40.00	ppm	0.00
24) Naphthalene-d8	6.093	136	1636213	40.00	ppm	0.00
47) Acenaphthene-d10	7.537	164	736974	40.00	ppm	0.00
69) Phenanthrene-d10	8.863	188	1194426	40.00	ppm	-0.01
83) Chrysene-d12	12.206	240	1153078	40.00	ppm	-0.02
91) Perylene-d12	14.212	264	1225425	40.00	ppm	-0.02
101) 1,4-Dichlorobenzene-d4a	5.060	152	436663	40.00	ppm	0.00
103) Naphthalene-d8a	6.093	136	1636213	40.00	ppm	0.00
105) Acenaphthene-d10a	7.537	164	736974	40.00	ppm	0.00
108) Chrysene-d12a	12.206	240	1153078	40.00	ppm	-0.02
110) Phenanthrene-d10a	8.863	188	1194426	40.00	ppm	-0.01
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount	50.000	Range	11 - 58	Recovery	=	0.00%#
8) Phenol-d5	0.000	99	0	0.00	ppm	
Spiked Amount	50.000	Range	10 - 59	Recovery	=	0.00%#
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount	50.000	Range	19 - 61	Recovery	=	0.00%#
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount	50.000	Range	21 - 58	Recovery	=	0.00%#
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount	50.000	Range	12 - 68	Recovery	=	0.00%#
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount	50.000	Range	16 - 65	Recovery	=	0.00%#
111) 1-Chlorooctadecane	10.136	57	492300	59.65	ppm	-0.04
Spiked Amount	50.000	Range	20 - 70	Recovery	=	119.30%#
112) o-terphenyl	9.275	230	858620	54.28	ppm	-0.04
Spiked Amount	50.000	Range	20 - 70	Recovery	=	108.56%#
Target Compounds						
102) Benzaldehyde	4.702	105	788789	55.52	ppm	92
104) Hydroquinone	6.435	110	643091	47.52	ppm	94
106) Atrazine	8.585	215	158499	51.33	ppm	87
107) 1,2,4,5-Tetrachloroben...	6.820	216	554368	55.19	ppm	97
113) Pentachloronitrobenzene	8.697	295	66438	49.03	ppm	# 81

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3783\
Data File : 2p85596.D
Acq On : 8 Mar 2019 4:11 am
Operator : chriss2
Sample : icc3783-50
Misc : op13652,e2p3783,1000,,,1,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 08 17:28:36 2019
Quant Method : C:\MSDCHEM\1\METHODS\M2P3781.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Mar 08 17:26:42 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3783\
 Data File : 2p85597.D
 Acq On : 8 Mar 2019 4:34 am
 Operator : chriss2
 Sample : ic3783-25
 Misc : op13652,e2p3783,1000,,,1,1
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 08 17:29:11 2019
 Quant Method : C:\MSDCHEM\1\METHODS\M2P3781.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Fri Mar 08 17:26:42 2019
 Response via : Initial Calibration

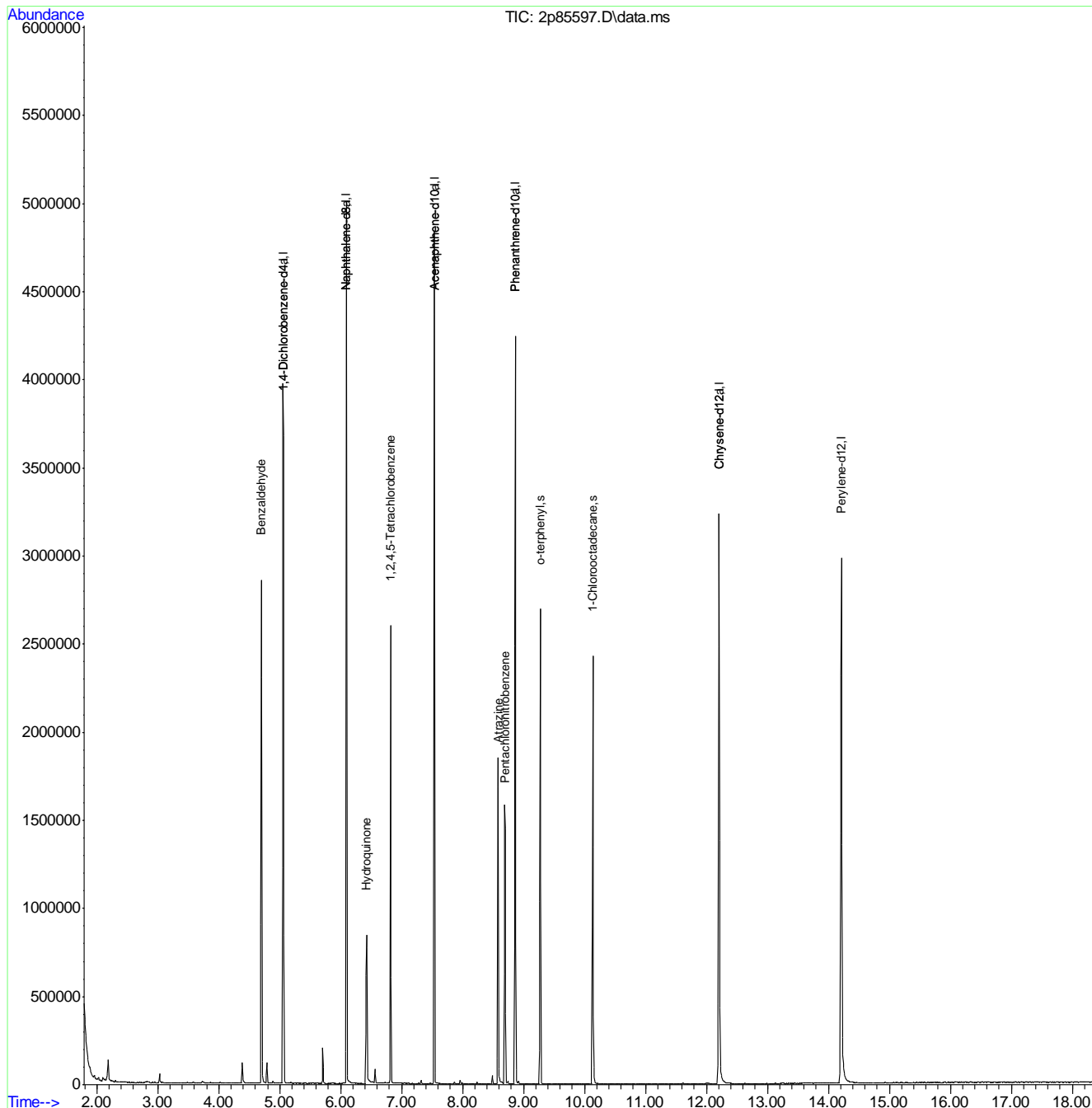
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	5.060	152	500841	40.00	ppm	0.00
24) Naphthalene-d8	6.093	136	1815114	40.00	ppm	0.00
47) Acenaphthene-d10	7.537	164	834788	40.00	ppm	0.00
69) Phenanthrene-d10	8.863	188	1383708	40.00	ppm	-0.01
83) Chrysene-d12	12.206	240	1307471	40.00	ppm	-0.02
91) Perylene-d12	14.212	264	1396641	40.00	ppm	-0.02
101) 1,4-Dichlorobenzene-d4a	5.060	152	500841	40.00	ppm	0.00
103) Naphthalene-d8a	6.093	136	1815114	40.00	ppm	0.00
105) Acenaphthene-d10a	7.537	164	834788	40.00	ppm	0.00
108) Chrysene-d12a	12.206	240	1307471	40.00	ppm	-0.02
110) Phenanthrene-d10a	8.863	188	1383708	40.00	ppm	-0.01
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount	50.000	Range	11 - 58	Recovery	=	0.00%#
8) Phenol-d5	0.000	99	0	0.00	ppm	
Spiked Amount	50.000	Range	10 - 59	Recovery	=	0.00%#
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount	50.000	Range	19 - 61	Recovery	=	0.00%#
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount	50.000	Range	21 - 58	Recovery	=	0.00%#
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount	50.000	Range	12 - 68	Recovery	=	0.00%#
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount	50.000	Range	16 - 65	Recovery	=	0.00%#
111) 1-Chlorooctadecane	10.136	57	311940	32.63	ppm	-0.04
Spiked Amount	50.000	Range	20 - 70	Recovery	=	65.26%
112) o-terphenyl	9.275	230	491370	26.81	ppm	-0.04
Spiked Amount	50.000	Range	20 - 70	Recovery	=	53.62%
Target Compounds						
102) Benzaldehyde	4.697	105	476233	29.22	ppm	90
104) Hydroquinone	6.424	110	340124	22.66	ppm	93
106) Atrazine	8.585	215	88640	25.34	ppm	97
107) 1,2,4,5-Tetrachloroben...	6.820	216	319999	28.12	ppm	97
113) Pentachloronitrobenzene	8.697	295	36703	23.38	ppm #	82

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3783\
 Data File : 2p85597.D
 Acq On : 8 Mar 2019 4:34 am
 Operator : chriss2
 Sample : ic3783-25
 Misc : op13652,e2p3783,1000,,,1,1
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 08 17:29:11 2019
 Quant Method : C:\MSDCHEM\1\METHODS\M2P3781.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Fri Mar 08 17:26:42 2019
 Response via : Initial Calibration



9.6.4
6

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3783\
 Data File : 2p85598.D
 Acq On : 8 Mar 2019 4:58 am
 Operator : chriss2
 Sample : ic3783-10
 Misc : op13652,e2p3783,1000,,,1,1
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 08 17:29:45 2019
 Quant Method : C:\MSDCHEM\1\METHODS\M2P3781.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Fri Mar 08 17:26:42 2019
 Response via : Initial Calibration

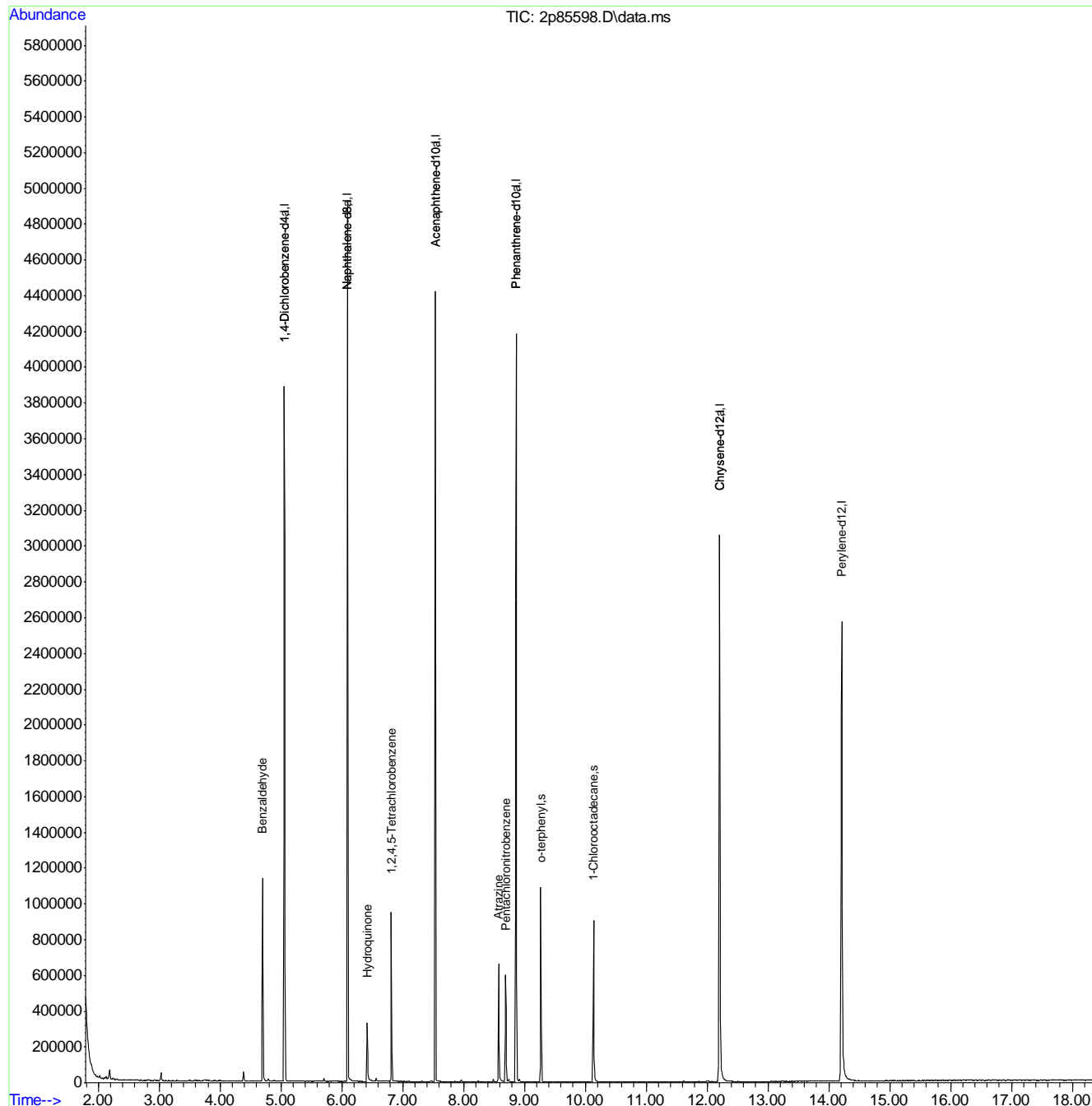
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	5.055	152	462547	40.00	ppm	0.00
24) Naphthalene-d8	6.093	136	1675091	40.00	ppm	0.00
47) Acenaphthene-d10	7.537	164	777566	40.00	ppm	0.00
69) Phenanthrene-d10	8.863	188	1339975	40.00	ppm	-0.01
83) Chrysene-d12	12.206	240	1172622	40.00	ppm	-0.02
91) Perylene-d12	14.212	264	1146869	40.00	ppm	-0.02
101) 1,4-Dichlorobenzene-d4a	5.055	152	462547	40.00	ppm	0.00
103) Naphthalene-d8a	6.093	136	1675091	40.00	ppm	0.00
105) Acenaphthene-d10a	7.537	164	777566	40.00	ppm	0.00
108) Chrysene-d12a	12.206	240	1172622	40.00	ppm	-0.02
110) Phenanthrene-d10a	8.863	188	1339975	40.00	ppm	-0.01
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount	50.000	Range	11 - 58	Recovery	=	0.00%#
8) Phenol-d5	0.000	99	0	0.00	ppm	
Spiked Amount	50.000	Range	10 - 59	Recovery	=	0.00%#
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount	50.000	Range	19 - 61	Recovery	=	0.00%#
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount	50.000	Range	21 - 58	Recovery	=	0.00%#
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount	50.000	Range	12 - 68	Recovery	=	0.00%#
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount	50.000	Range	16 - 65	Recovery	=	0.00%#
111) 1-Chlorooctadecane	10.131	57	120265	12.99	ppm	-0.05
Spiked Amount	50.000	Range	20 - 70	Recovery	=	25.98%
112) o-terphenyl	9.275	230	186600	10.51	ppm	-0.04
Spiked Amount	50.000	Range	20 - 70	Recovery	=	21.02%
Target Compounds						
102) Benzaldehyde	4.697	105	177902	11.82	ppm	88
104) Hydroquinone	6.419	110	94580	6.83	ppm	95
106) Atrazine	8.580	215	27943	8.58	ppm	87
107) 1,2,4,5-Tetrachloroben...	6.820	216	122143	11.52	ppm	97
113) Pentachloronitrobenzene	8.692	295	11677	7.68	ppm	# 83

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3783\
 Data File : 2p85598.D
 Acq On : 8 Mar 2019 4:58 am
 Operator : chriss2
 Sample : ic3783-10
 Misc : op13652,e2p3783,1000,,,1,1
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 08 17:29:45 2019
 Quant Method : C:\MSDCHEM\1\METHODS\M2P3781.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Fri Mar 08 17:26:42 2019
 Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3783\
 Data File : 2p85599.D
 Acq On : 8 Mar 2019 5:21 am
 Operator : chriss2
 Sample : ic3783-5
 Misc : op13652,e2p3783,1000,,,1,1
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 08 17:30:24 2019
 Quant Method : C:\MSDCHEM\1\METHODS\M2P3781.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Fri Mar 08 17:26:42 2019
 Response via : Initial Calibration

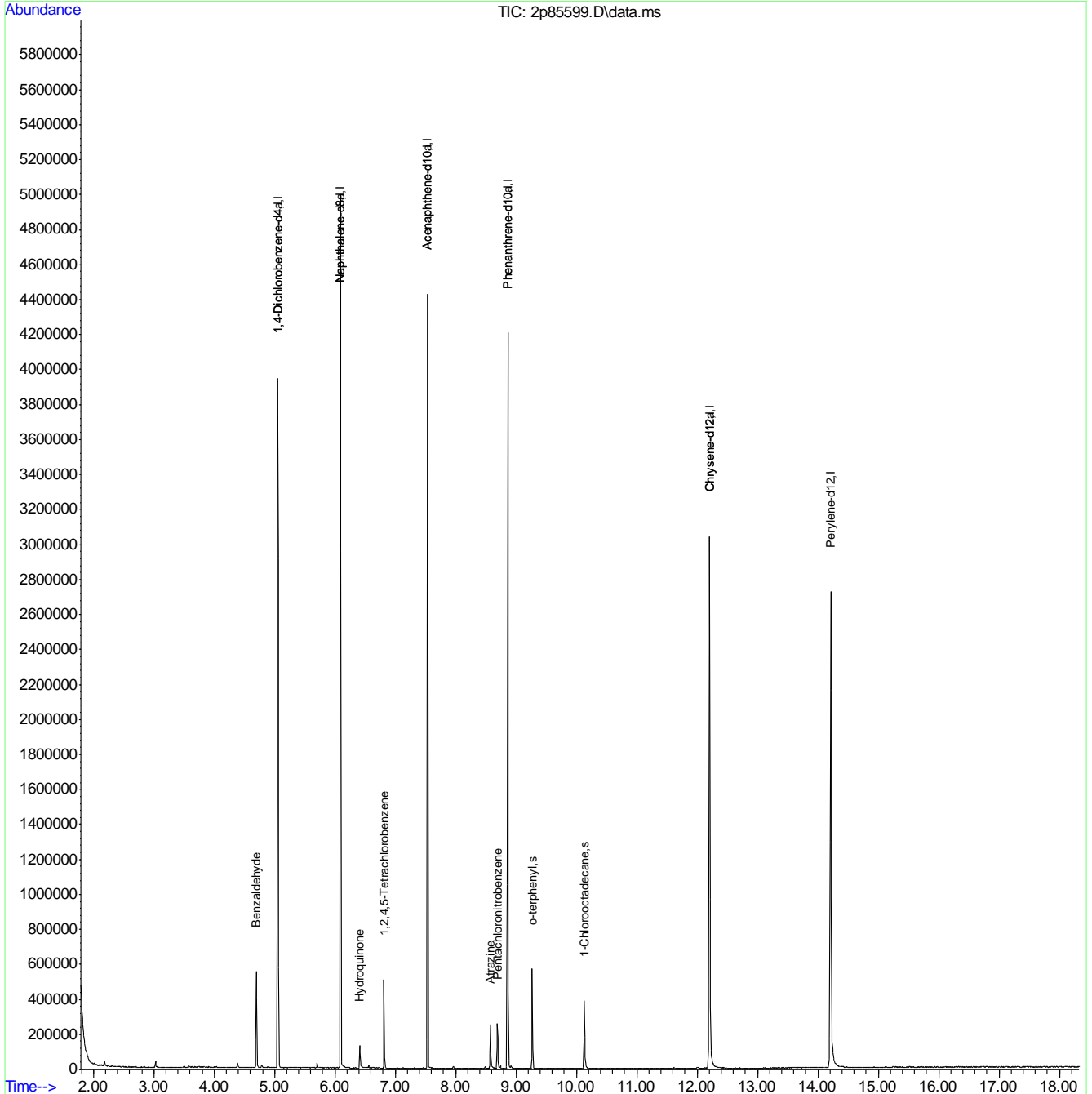
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	5.055	152	464958	40.00	ppm	0.00
24) Naphthalene-d8	6.092	136	1647696	40.00	ppm	0.00
47) Acenaphthene-d10	7.531	164	774219	40.00	ppm	-0.01
69) Phenanthrene-d10	8.863	188	1340128	40.00	ppm	-0.01
83) Chrysene-d12	12.206	240	1168329	40.00	ppm	-0.02
91) Perylene-d12	14.212	264	1199858	40.00	ppm	-0.02
101) 1,4-Dichlorobenzene-d4a	5.055	152	464958	40.00	ppm	0.00
103) Naphthalene-d8a	6.092	136	1647696	40.00	ppm	0.00
105) Acenaphthene-d10a	7.531	164	774219	40.00	ppm	-0.01
108) Chrysene-d12a	12.206	240	1168329	40.00	ppm	-0.02
110) Phenanthrene-d10a	8.863	188	1340128	40.00	ppm	-0.01
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount	50.000	Range	11 - 58	Recovery	=	0.00%#
8) Phenol-d5	0.000	99	0	0.00	ppm	
Spiked Amount	50.000	Range	10 - 59	Recovery	=	0.00%#
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount	50.000	Range	19 - 61	Recovery	=	0.00%#
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount	50.000	Range	21 - 58	Recovery	=	0.00%#
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount	50.000	Range	12 - 68	Recovery	=	0.00%#
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount	50.000	Range	16 - 65	Recovery	=	0.00%#
111) 1-Chlorooctadecane	10.131	57	52350	5.65	ppm	-0.05
Spiked Amount	50.000	Range	20 - 70	Recovery	=	11.30%#
112) o-terphenyl	9.270	230	88562	4.99	ppm	-0.05
Spiked Amount	50.000	Range	20 - 70	Recovery	=	9.98%#
Target Compounds						
102) Benzaldehyde	4.696	105	86555	5.72	ppm	86
104) Hydroquinone	6.413	110	33178	2.43	ppm	# 89
106) Atrazine	8.580	215	11029	3.40	ppm	82
107) 1,2,4,5-Tetrachloroben...	6.815	216	59795	5.67	ppm	99
113) Pentachloronitrobenzene	8.692	295	4365	2.87	ppm	# 74

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3783\
 Data File : 2p85599.D
 Acq On : 8 Mar 2019 5:21 am
 Operator : chriss2
 Sample : ic3783-5
 Misc : op13652,e2p3783,1000,,,1,1
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 08 17:30:24 2019
 Quant Method : C:\MSDCHEM\1\METHODS\M2P3781.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Fri Mar 08 17:26:42 2019
 Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3783\
 Data File : 2p85600.D
 Acq On : 8 Mar 2019 5:45 am
 Operator : chriss2
 Sample : ic3783-2
 Misc : op13652,e2p3783,1000,,,1,1
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 08 17:30:57 2019
 Quant Method : C:\MSDCHEM\1\METHODS\M2P3781.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Fri Mar 08 17:26:42 2019
 Response via : Initial Calibration

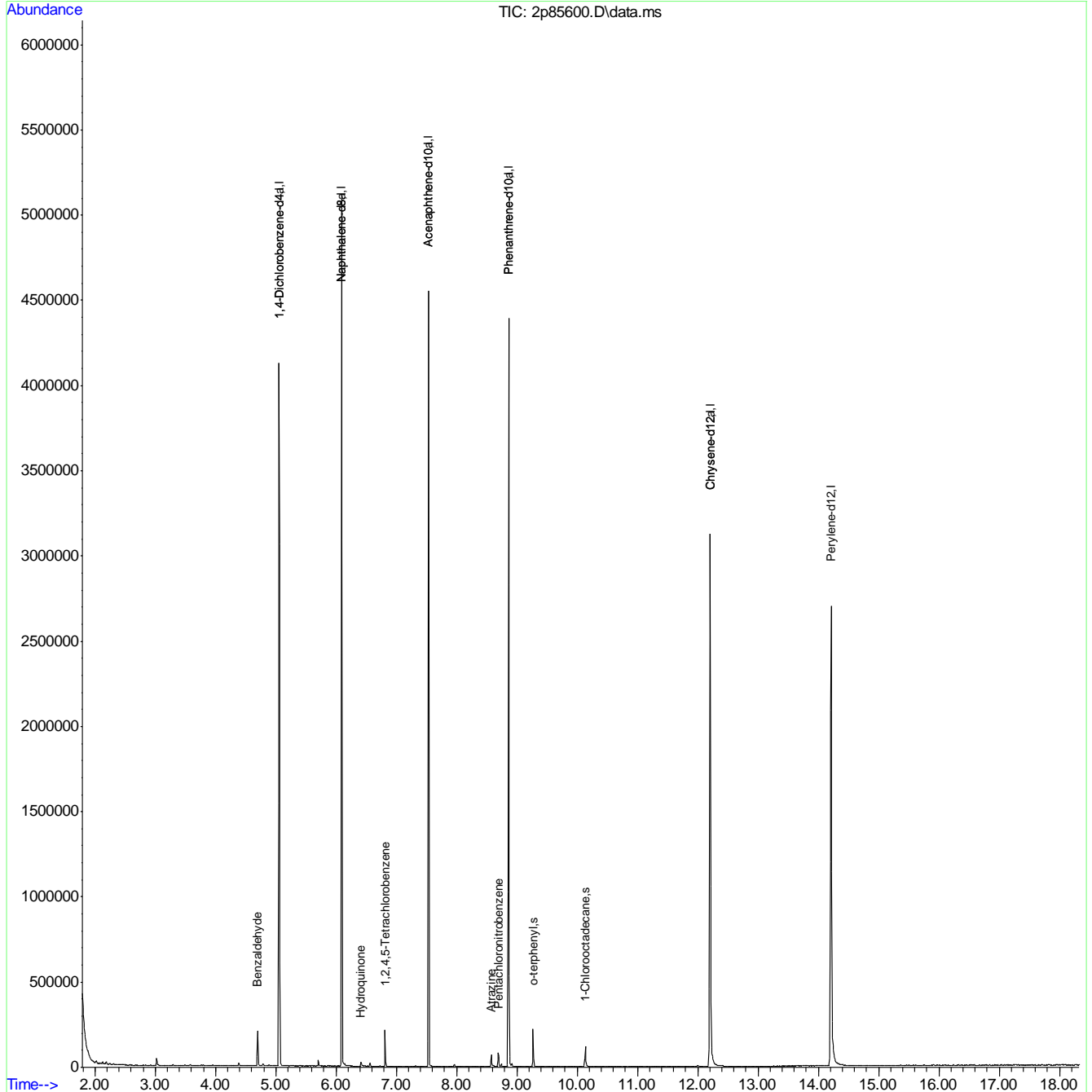
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	5.055	152	482657	40.00	ppm	0.00
24) Naphthalene-d8	6.093	136	1705500	40.00	ppm	0.00
47) Acenaphthene-d10	7.531	164	796145	40.00	ppm	-0.01
69) Phenanthrene-d10	8.863	188	1381891	40.00	ppm	-0.01
83) Chrysene-d12	12.206	240	1220716	40.00	ppm	-0.02
91) Perylene-d12	14.212	264	1206301	40.00	ppm	-0.02
101) 1,4-Dichlorobenzene-d4a	5.055	152	482657	40.00	ppm	0.00
103) Naphthalene-d8a	6.093	136	1705500	40.00	ppm	0.00
105) Acenaphthene-d10a	7.531	164	796145	40.00	ppm	-0.01
108) Chrysene-d12a	12.206	240	1220716	40.00	ppm	-0.02
110) Phenanthrene-d10a	8.863	188	1381891	40.00	ppm	-0.01
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount	50.000	Range	11 - 58	Recovery	=	0.00%#
8) Phenol-d5	0.000	99	0	0.00	ppm	
Spiked Amount	50.000	Range	10 - 59	Recovery	=	0.00%#
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount	50.000	Range	19 - 61	Recovery	=	0.00%#
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount	50.000	Range	21 - 58	Recovery	=	0.00%#
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount	50.000	Range	12 - 68	Recovery	=	0.00%#
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount	50.000	Range	16 - 65	Recovery	=	0.00%#
111) 1-Chlorooctadecane	10.136	57	18073	1.89	ppm	-0.04
Spiked Amount	50.000	Range	20 - 70	Recovery	=	3.78%#
112) o-terphenyl	9.270	230	34258	1.87	ppm	-0.05
Spiked Amount	50.000	Range	20 - 70	Recovery	=	3.74%#
Target Compounds						
102) Benzaldehyde	4.697	105	34972	2.23	ppm	89
104) Hydroquinone	6.413	110	6499	0.46	ppm	# 89
106) Atrazine	8.580	215	3306	0.99	ppm	87
107) 1,2,4,5-Tetrachloroben...	6.815	216	23739	2.19	ppm	97
113) Pentachloronitrobenzene	8.692	295	1340	0.85	ppm	# 48

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3783\
 Data File : 2p85600.D
 Acq On : 8 Mar 2019 5:45 am
 Operator : chriss2
 Sample : ic3783-2
 Misc : op13652,e2p3783,1000,,,1,1
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 08 17:30:57 2019
 Quant Method : C:\MSDCHEM\1\METHODS\M2P3781.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Fri Mar 08 17:26:42 2019
 Response via : Initial Calibration



6 796

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3783\
 Data File : 2p85601.D
 Acq On : 8 Mar 2019 6:08 am
 Operator : chriss2
 Sample : ic3783-1
 Misc : op13652,e2p3783,1000,,,1,1
 ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 08 17:32:24 2019
 Quant Method : C:\MSDCHEM\1\METHODS\M2P3781.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Fri Mar 08 17:26:42 2019
 Response via : Initial Calibration

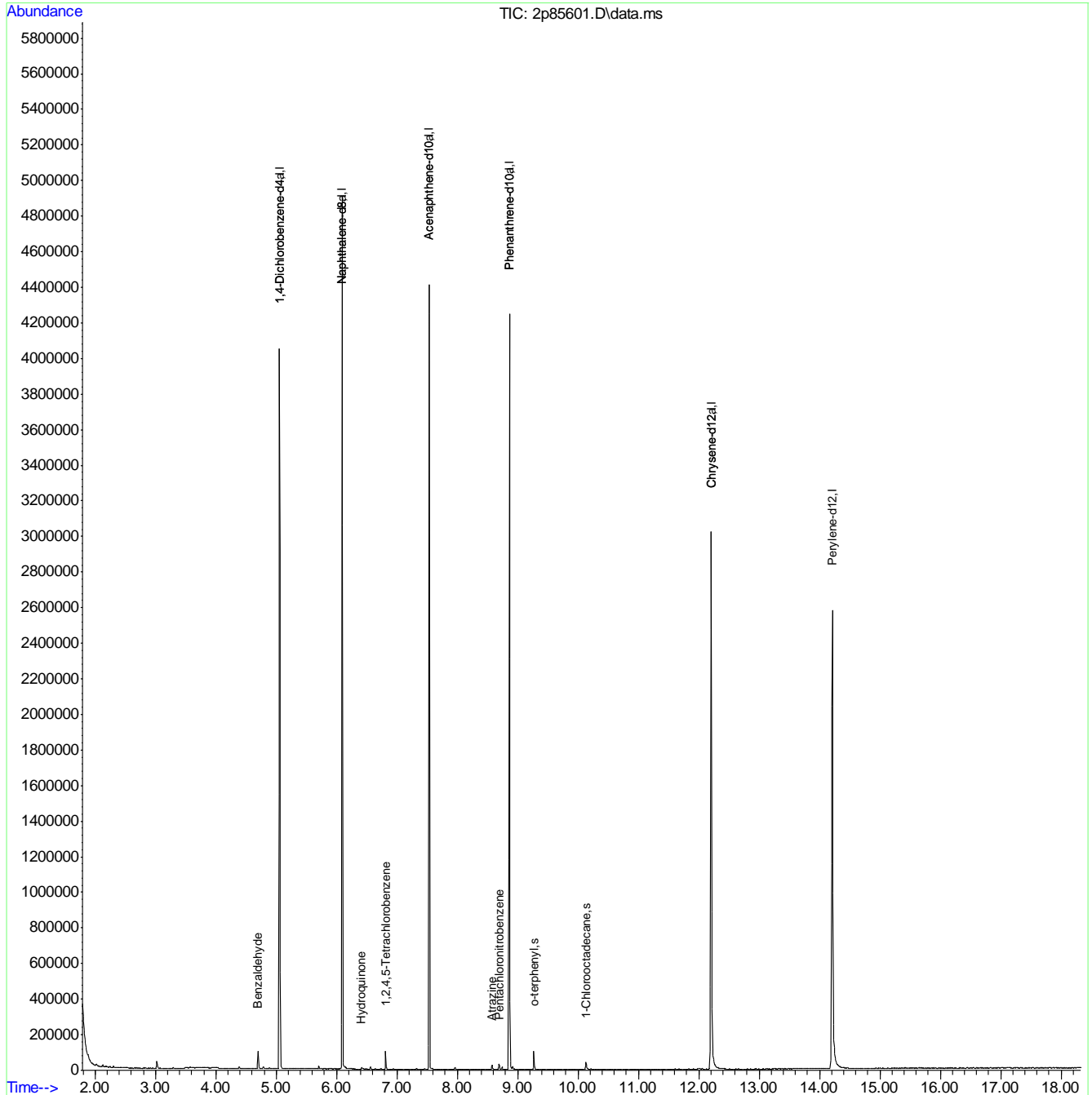
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	5.055	152	466521	40.00	ppm	0.00
24) Naphthalene-d8	6.092	136	1644079	40.00	ppm	0.00
47) Acenaphthene-d10	7.531	164	763586	40.00	ppm	-0.01
69) Phenanthrene-d10	8.863	188	1317408	40.00	ppm	-0.01
83) Chrysene-d12	12.206	240	1143523	40.00	ppm	-0.02
91) Perylene-d12	14.212	264	1147348	40.00	ppm	-0.02
101) 1,4-Dichlorobenzene-d4a	5.055	152	466521	40.00	ppm	0.00
103) Naphthalene-d8a	6.092	136	1644079	40.00	ppm	0.00
105) Acenaphthene-d10a	7.531	164	763586	40.00	ppm	-0.01
108) Chrysene-d12a	12.206	240	1143523	40.00	ppm	-0.02
110) Phenanthrene-d10a	8.863	188	1317408	40.00	ppm	-0.01
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount	50.000	Range	11 - 58	Recovery	=	0.00%#
8) Phenol-d5	0.000	99	0	0.00	ppm	
Spiked Amount	50.000	Range	10 - 59	Recovery	=	0.00%#
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount	50.000	Range	19 - 61	Recovery	=	0.00%#
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount	50.000	Range	21 - 58	Recovery	=	0.00%#
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount	50.000	Range	12 - 68	Recovery	=	0.00%#
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount	50.000	Range	16 - 65	Recovery	=	0.00%#
111) 1-Chlorooctadecane	10.131	57	6812	0.75	ppm	-0.05
Spiked Amount	50.000	Range	20 - 70	Recovery	=	1.50%#
112) o-terphenyl	9.270	230	16070	0.92	ppm	-0.05
Spiked Amount	50.000	Range	20 - 70	Recovery	=	1.84%#
Target Compounds						
102) Benzaldehyde	4.702	105	17430	1.15	ppm	90
104) Hydroquinone	6.413	110	1994	0.15	ppm	# 83
106) Atrazine	8.574	215	999	0.31	ppm	# 44
107) 1,2,4,5-Tetrachloroben...	6.814	216	11865	1.14	ppm	96
113) Pentachloronitrobenzene	8.692	295	398	0.27	ppm	# 49

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3783\
 Data File : 2p85601.D
 Acq On : 8 Mar 2019 6:08 am
 Operator : chriss2
 Sample : ic3783-1
 Misc : op13652,e2p3783,1000,,,1,1
 ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 08 17:32:24 2019
 Quant Method : C:\MSDCHEM\1\METHODS\M2P3781.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Fri Mar 08 17:26:42 2019
 Response via : Initial Calibration



6 8'9'6

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3783\
 Data File : 2p85602.D
 Acq On : 8 Mar 2019 6:31 am
 Operator : chriss2
 Sample : icv3783-50
 Misc : op13652,e2p3783,1000,,,1,1
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Mar 08 17:45:08 2019
 Quant Method : C:\MSDCHEM\1\METHODS\M2P3781.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Fri Mar 08 17:37:17 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	5.060	152	509417	40.00	ppm	0.00
24) Naphthalene-d8	6.098	136	1938199	40.00	ppm	0.00
47) Acenaphthene-d10	7.537	164	763102	40.00	ppm	0.00
69) Phenanthrene-d10	8.868	188	1452392	40.00	ppm	0.00
83) Chrysene-d12	12.211	240	1748769	40.00	ppm	-0.02
91) Perylene-d12	14.217	264	1691097	40.00	ppm	-0.02
101) 1,4-Dichlorobenzene-d4a	5.060	152	509417	40.00	ppm	0.00
103) Naphthalene-d8a	6.098	136	1938199	40.00	ppm	0.00
105) Acenaphthene-d10a	7.537	164	763102	40.00	ppm	0.00
108) Chrysene-d12a	12.211	240	1748769	40.00	ppm	0.00
110) Phenanthrene-d10a	8.868	188	1452392	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0d	0.00	ppm	
Spiked Amount	50.000	Range 11 - 58	Recovery	=	0.00%#	
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount	50.000	Range 10 - 59	Recovery	=	0.00%#	
25) Nitrobenzene-d5	0.000	82	0d	0.00	ppm	
Spiked Amount	50.000	Range 19 - 61	Recovery	=	0.00%#	
51) 2-Fluorobiphenyl	0.000	172	0d	0.00	ppm	
Spiked Amount	50.000	Range 21 - 58	Recovery	=	0.00%#	
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount	50.000	Range 12 - 68	Recovery	=	0.00%#	
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount	50.000	Range 16 - 65	Recovery	=	0.00%#	
111) 1-Chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount	50.000	Range 20 - 70	Recovery	=	0.00%#	
112) o-terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount	50.000	Range 20 - 70	Recovery	=	0.00%#	
Target Compounds						
102) Benzaldehyde	4.702	105	927578	50.36	ppm	98
106) Atrazine	8.596	215	188431	57.56	ppm #	84
107) 1,2,4,5-Tetrachloroben...	6.820	216	638450	55.89	ppm	98
113) Pentachloronitrobenzene	8.697	295	78612	47.69	ppm	98

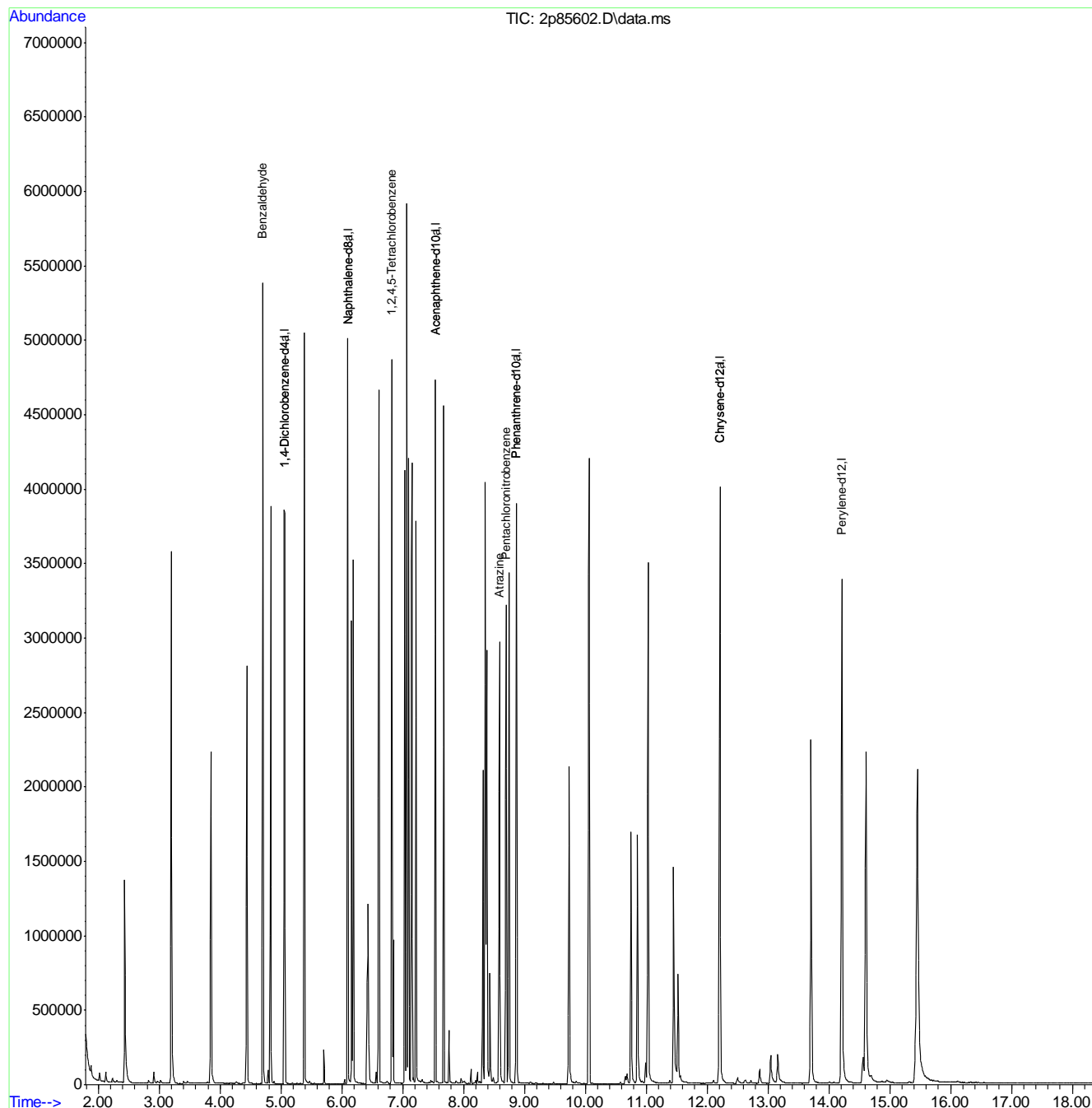
(#) = qualifier out of range (m) = manual integration (+) = signals summed

6 69.6

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3783\
 Data File : 2p85602.D
 Acq On : 8 Mar 2019 6:31 am
 Operator : chriss2
 Sample : icv3783-50
 Misc : op13652,e2p3783,1000,,,1,1
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Mar 08 17:45:08 2019
 Quant Method : C:\MSDCHEM\1\METHODS\M2P3781.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Fri Mar 08 17:37:17 2019
 Response via : Initial Calibration



6 6'9'6

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3783\
 Data File : 2p85603.D
 Acq On : 8 Mar 2019 6:54 am
 Operator : chriss2
 Sample : icv3783-50
 Misc : op13652,e2p3783,1000,,,1,1
 ALS Vial : 11 Sample Multiplier: 1

Quant Time: Mar 08 17:45:59 2019
 Quant Method : C:\MSDCHEM\1\METHODS\M2P3781.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Fri Mar 08 17:37:17 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	5.055	152	505530	40.00	ppm	0.00
24) Naphthalene-d8	6.092	136	1783887	40.00	ppm	0.00
47) Acenaphthene-d10	7.531	164	747607	40.00	ppm	-0.01
69) Phenanthrene-d10	8.863	188	1442500	40.00	ppm	-0.01
83) Chrysene-d12	12.206	240	1316102	40.00	ppm	-0.02
91) Perylene-d12	14.212	264	1215460	40.00	ppm	-0.02
101) 1,4-Dichlorobenzene-d4a	5.055	152	505530	40.00	ppm	0.00
103) Naphthalene-d8a	6.092	136	1783887	40.00	ppm	0.00
105) Acenaphthene-d10a	7.531	164	747607	40.00	ppm	0.00
108) Chrysene-d12a	12.206	240	1316102	40.00	ppm	0.00
110) Phenanthrene-d10a	8.863	188	1442500	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount	50.000	Range 11 - 58	Recovery =	0.00	%#	
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount	50.000	Range 10 - 59	Recovery =	0.00	%#	
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount	50.000	Range 19 - 61	Recovery =	0.00	%#	
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount	50.000	Range 21 - 58	Recovery =	0.00	%#	
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount	50.000	Range 12 - 68	Recovery =	0.00	%#	
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount	50.000	Range 16 - 65	Recovery =	0.00	%#	
111) 1-Chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount	50.000	Range 20 - 70	Recovery =	0.00	%#	
112) o-terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount	50.000	Range 20 - 70	Recovery =	0.00	%#	
Target Compounds						Qvalue
104) Hydroquinone	6.435	110	713487	53.01	ppm	98

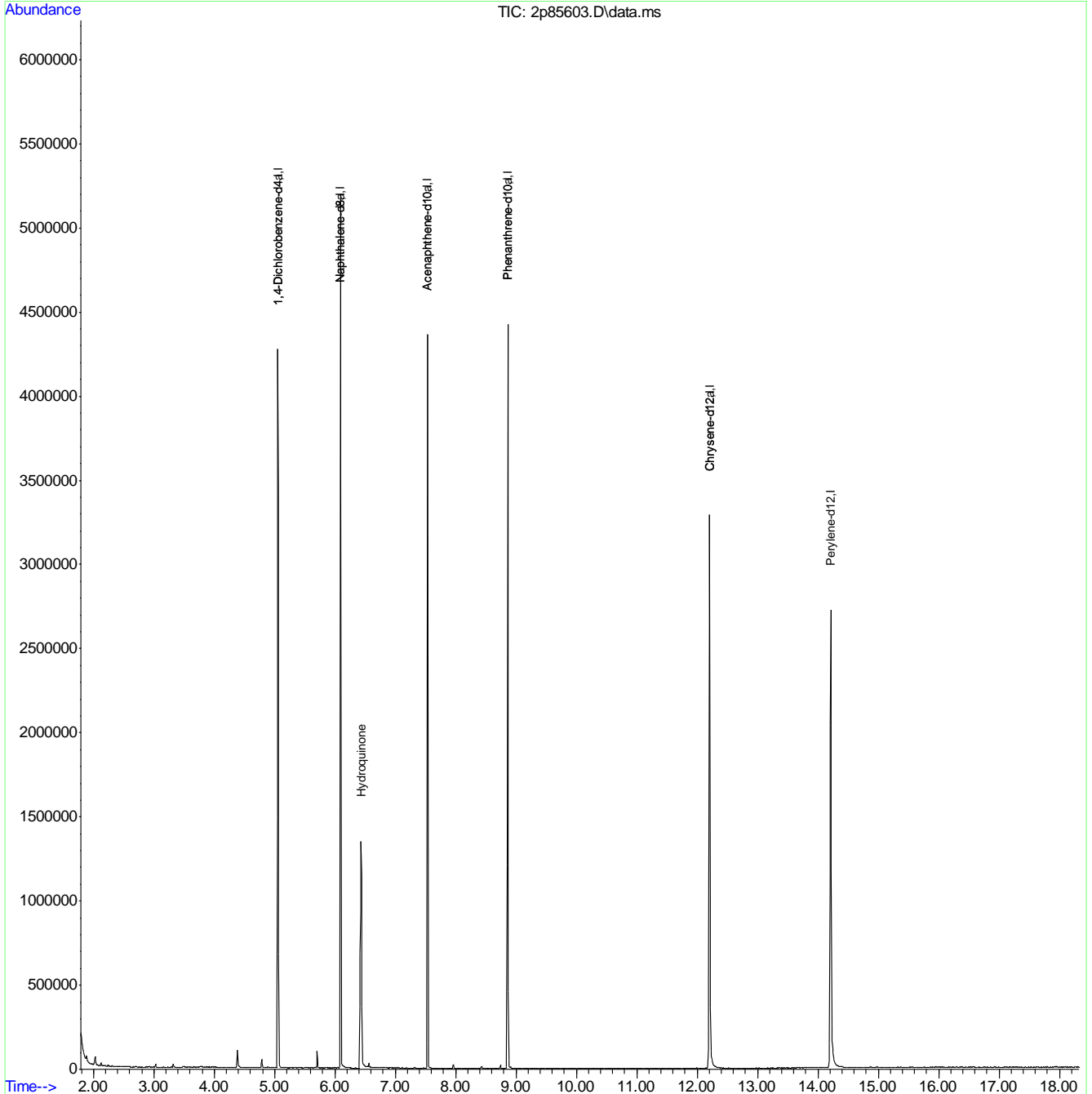
(#) = qualifier out of range (m) = manual integration (+) = signals summed

9.6-10
9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3783\
 Data File : 2p85603.D
 Acq On : 8 Mar 2019 6:54 am
 Operator : chriss2
 Sample : icv3783-50
 Misc : op13652,e2p3783,1000,,,1,1
 ALS Vial : 11 Sample Multiplier: 1

Quant Time: Mar 08 17:45:59 2019
 Quant Method : C:\MSDCHEM\1\METHODS\M2P3781.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Fri Mar 08 17:37:17 2019
 Response via : Initial Calibration



9.6.10
 9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3816\
 Data File : 2p86290.D
 Acq On : 5 Apr 2019 6:54 am
 Operator : chriss2
 Sample : ic3816-100
 Misc : op13652,e2p3816,1000,,,1,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 05 13:44:08 2019
 Quant Method : C:\MSDCHEM\1\METHODS\M2P3816.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Thu Apr 04 03:01:46 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.841	152	456795	40.00	ppm	-0.07
24) Naphthalene-d8	5.879	136	1557038	40.00	ppm	-0.07
47) Acenaphthene-d10	7.317	164	862455	40.00	ppm	-0.07
69) Phenanthrene-d10	8.612	188	1553734	40.00	ppm	-0.09
83) Chrysene-d12	11.907	240	1417107	40.00	ppm	-0.11
91) Perylene-d12	13.902	264	1464645	40.00	ppm	-0.12
101) 1,4-Dichlorobenzene-d4a	4.841	152	456795	40.00	ppm	-0.07
103) Naphthalene-d8a	5.879	136	1557038	40.00	ppm	-0.07
105) Acenaphthene-d10a	7.317	164	862455	40.00	ppm	-0.07
108) Chrysene-d12a	11.907	240	1417107	40.00	ppm	-0.11
110) Phenanthrene-d10a	8.612	188	1553734	40.00	ppm	-0.09
System Monitoring Compounds						
5) 2-Fluorophenol	3.793	112	2828974	130.76	ppm	-0.08
Spiked Amount	50.000	Range	11 - 58	Recovery	=	261.52%#
8) Phenol-d5	4.590	99	2529007	102.31	ppm	-0.04
Spiked Amount	50.000	Range	10 - 59	Recovery	=	204.62%#
25) Nitrobenzene-d5	5.301	82	1881995	108.69	ppm	-0.08
Spiked Amount	50.000	Range	19 - 61	Recovery	=	217.38%#
51) 2-Fluorobiphenyl	6.772	172	2895801	102.67	ppm	-0.07
Spiked Amount	50.000	Range	21 - 58	Recovery	=	205.34%#
73) 2,4,6-Tribromophenol	7.981	330	647737	119.21	ppm	-0.06
Spiked Amount	50.000	Range	12 - 68	Recovery	=	238.42%#
85) Terphenyl-d14	10.468	244	4086874	124.02	ppm	-0.11
Spiked Amount	50.000	Range	16 - 65	Recovery	=	248.04%#
111) 1-Chlorooctadecane	0.000	57	0d	0.00	ppm	
Spiked Amount	50.000	Range	20 - 70	Recovery	=	0.00%#
112) o-terphenyl	0.000	230	0d	0.00	ppm	
Spiked Amount	50.000	Range	20 - 70	Recovery	=	0.00%#
Target Compounds						
2) 1,4-Dioxane	2.167	88	2330086	132.89	ppm	93
3) Pyridine	2.514	79	3909561	129.92	ppm	98
4) N-Nitrosodimethylamine	2.509	74	2578428	143.74	ppm	91
6) Indene	5.050	116	2463819	106.86	ppm	99
7) Cumene	4.188	105	5917918	115.06	ppm	96
9) Phenol	4.600	94	2478241	95.18	ppm	95
10) Aniline	4.579	93	2772182	103.08	ppm	98
11) bis(2-Chloroethyl)ether	4.638	93	1689022	87.36	ppm	98
12) 2-Chlorophenol	4.686	128	1672611	100.18	ppm	97
13) Decane	4.723	57	1376507	86.11	ppm	98
14) 1,3-Dichlorobenzene	4.793	146	1829397	101.26	ppm	98
15) 1,4-Dichlorobenzene	4.857	146	1750606	107.42	ppm	99
16) Benzyl alcohol	4.975	108	980497	77.18	ppm	# 69
17) 1,2-Dichlorobenzene	4.975	146	1717128	111.11	ppm	98
18) Acetophenone	5.183	105	2272936	106.26	ppm	# 43
19) 2-Methylphenol	5.082	108	1283734	103.16	ppm	97
20) 2,2'-oxybis(1-Chloropr...	5.071	121	384261	98.43	ppm	# 70
21) 3&4-Methylphenol	5.205	108	1351575	106.91	ppm	96

9.6.11
 9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3816\
 Data File : 2p86290.D
 Acq On : 5 Apr 2019 6:54 am
 Operator : chriss2
 Sample : ic3816-100
 Misc : op13652,e2p3816,1000,,,1,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 05 13:44:08 2019
 Quant Method : C:\MSDCHEM\1\METHODS\M2P3816.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Thu Apr 04 03:01:46 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
22) n-Nitroso-di-n-propyla...	5.194	70	1065831	103.99	ppm	97
23) Hexachloroethane	5.247	201	593393	106.66	ppm	95
26) Nitrobenzene	5.317	77	1709472	95.67	ppm	98
27) Quinoline	6.194	129	2954610	110.57	ppm	100
28) Isophorone	5.520	82	3422027	109.09	ppm	99
29) 2-Nitrophenol	5.574	139	882041	116.24	ppm	81
30) 2,4-Dimethylphenol	5.633	107	1554698	122.08	ppm	99
31) Benzoic acid	5.809	105	1416250m	108.99	ppm	
32) bis(2-Chloroethoxy)met...	5.691	93	1808227	92.77	ppm	95
33) 2,4-Dichlorophenol	5.782	162	1291772	120.30	ppm	97
34) 2,6-Dichlorophenol	5.959	162	1168300	123.61	ppm	100
35) 1,3,5-Trichlorobenzene	5.584	180	1470473	105.07	ppm	98
36) 1,2,4-Trichlorobenzene	5.836	180	1309203	98.90	ppm	98
37) 1,2,3-Trichlorobenzene	6.018	180	1196968	103.03	ppm	99
38) Naphthalene	5.900	128	3813125	105.57	ppm	99
39) 4-Chloroaniline	5.954	127	1577254	105.35	ppm	98
40) 2,3-Dichloroaniline	6.697	161	1577477	119.73	ppm	97
41) Caprolactam	6.301	113	580673m	128.34	ppm	
42) Hexachlorobutadiene	6.007	225	830933	114.73	ppm	99
43) 4-Chloro-3-methylphenol	6.376	107	1572507	126.26	ppm	97
44) 2-Methylnaphthalene	6.462	141	2420132	113.09	ppm	99
45) 1-Methylnaphthalene	6.547	141	2551873	108.75	ppm	99
46) Dimethylnaphthalene	6.980	156	2383597	108.18	ppm	98
48) Hexachlorocyclopentadiene	6.601	237	1783233	239.53	ppm	99
49) 2,4,6-Trichlorophenol	6.713	196	871466	106.90	ppm	98
50) 2,4,5-Trichlorophenol	6.750	196	930685	108.06	ppm	99
52) 2-Chloronaphthalene	6.868	162	2357554	96.75	ppm	98
53) Biphenyl	6.852	154	3388919	103.95	ppm	100
54) 2-Nitroaniline	6.964	65	985000	115.94	ppm	91
55) Dimethylphthalate	7.109	163	3127371	110.13	ppm	100
56) Acenaphthylene	7.205	152	4106291	101.81	ppm	98
57) 2,6-Dinitrotoluene	7.157	165	721279	119.93	ppm	91
58) 3-Nitroaniline	7.301	138	810446	110.56	ppm	99
59) Acenaphthene	7.349	153	2634165	108.67	ppm	100
60) 2,4-Dinitrophenol	7.392	184	838338	248.02	ppm	75
61) 4-Nitrophenol	7.473	109	642076	144.87	ppm	84
62) Dibenzofuran	7.494	168	3607328	113.00	ppm	94
63) 2,4-Dinitrotoluene	7.494	165	933723	122.53	ppm	# 60
64) 2,3,4,6-Tetrachlorophenol	7.601	232	940872	118.55	ppm	97
65) Diethylphthalate	7.692	149	3235282	112.00	ppm	99
66) Fluorene	7.772	166	2960432	110.12	ppm	100
67) 4-Chlorophenyl-phenyle...	7.772	204	1579885	115.07	ppm	89
68) 4-Nitroaniline	7.826	138	692272	101.59	ppm	89
70) 4,6-Dinitro-2-methylph...	7.842	198	545675	154.87	ppm	91
71) n-Nitrosodiphenylamine	7.879	169	2137352	114.37	ppm	99
72) 1,2-Diphenylhydrazine	7.906	77	3101460	90.19	ppm	96
74) 4-Bromophenyl-phenylether	8.195	248	1132341	123.87	ppm	100
75) Hexachlorobenzene	8.259	284	1228264	114.93	ppm	96
76) Pentachlorophenol	8.451	266	1755400	227.39	ppm	99
77) Phenanthrene	8.644	178	4215580	111.79	ppm	99

9.6.11
9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3816\
 Data File : 2p86290.D
 Acq On : 5 Apr 2019 6:54 am
 Operator : chriss2
 Sample : ic3816-100
 Misc : op13652,e2p3816,1000,,,1,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 05 13:44:08 2019
 Quant Method : C:\MSDCHEM\1\METHODS\M2P3816.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Thu Apr 04 03:01:46 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
78) Anthracene	8.692	178	4183828	110.66	ppm	99
79) Carbazole	8.863	167	4393330	121.36	ppm	99
80) Di-n-butylphthalate	9.243	149	6579891	126.61	ppm	98
81) Fluoranthene	9.960	202	6340438	122.43	ppm	99
82) Octadecane	8.526	43	967717	89.54	ppm	95
84) Pyrene	10.238	202	5828661	122.79	ppm	98
86) Butylbenzylphthalate	11.163	149	3271161	138.95	ppm	97
87) Benzo[a]anthracene	11.890	228	5803294	120.48	ppm	100
88) 3,3'-Dichlorobenzidine	11.896	252	2188311	126.45	ppm	99
89) Chrysene	11.955	228	4041380	106.95	ppm	99
90) bis(2-Ethylhexyl)phtha...	12.040	149	3277169	133.07	ppm	99
92) Di-n-octylphthalate	12.987	149	7918615	151.53	ppm	98
93) Benzo[b]fluoranthene	13.431	252	5578001	112.81	ppm	96
94) Benzo[k]fluoranthene	13.463	252	3644512	95.70	ppm	99
95) Benzo[a]pyrene	13.837	252	4674454	128.36	ppm	99
96) Indeno[1,2,3-cd]pyrene	15.319	276	5497470	128.33	ppm	92
97) Dibenz(a,h)acridine	14.998	279	4698249	110.51	ppm	98
98) Dibenz[a,h]anthracene	15.362	278	4312020	116.68	ppm	98
99) 7,12-Dimethylbenz(a)an...	13.404	256	2561699	132.12	ppm	98
100) Benzo[g,h,i]perylene	15.715	276	4196779	107.88	ppm	95

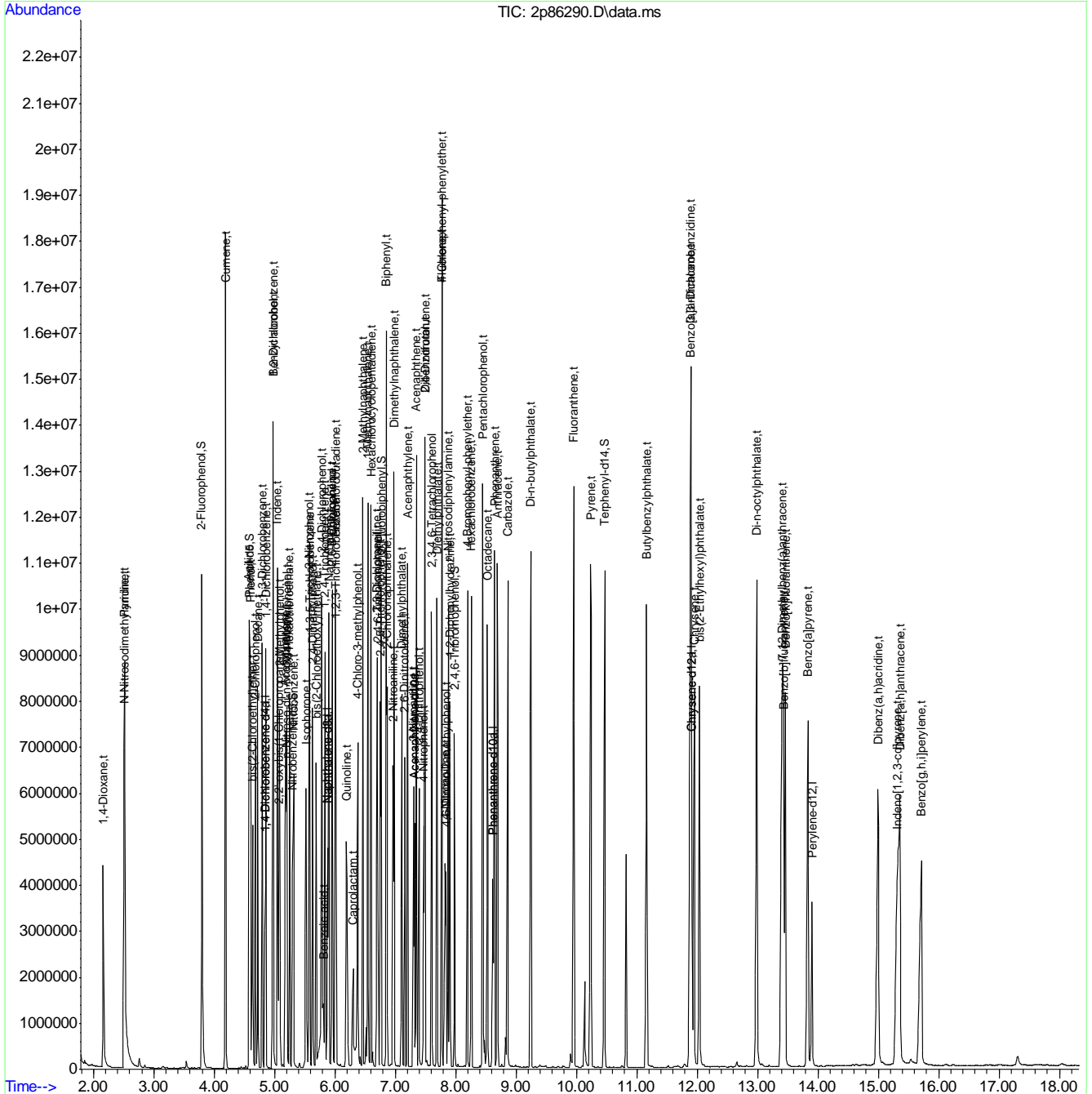
(#) = qualifier out of range (m) = manual integration (+) = signals summed

9.6.11
9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3816\
 Data File : 2p86290.D
 Acq On : 5 Apr 2019 6:54 am
 Operator : chriss2
 Sample : ic3816-100
 Misc : op13652,e2p3816,1000,,1,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 05 13:44:08 2019
 Quant Method : C:\MSDCHEM\1\METHODS\M2P3816.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Thu Apr 04 03:01:46 2019
 Response via : Initial Calibration



Manual Integration Approval Summary

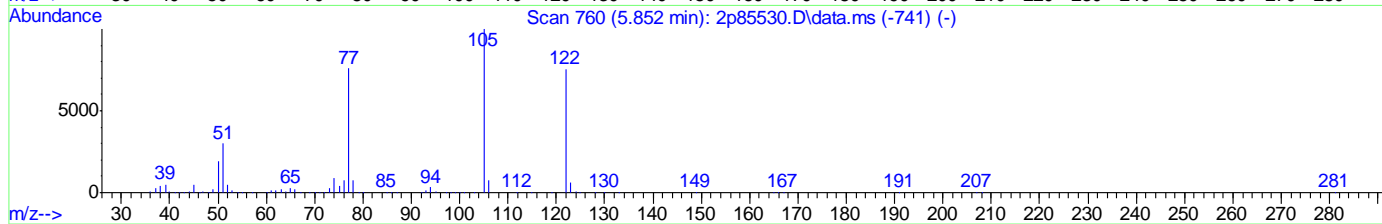
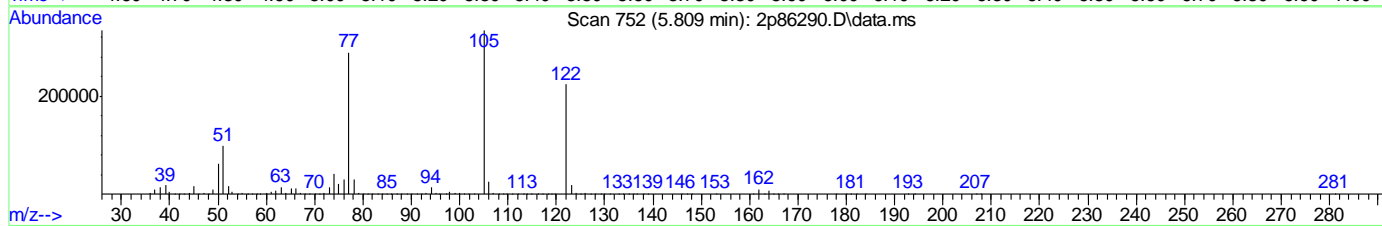
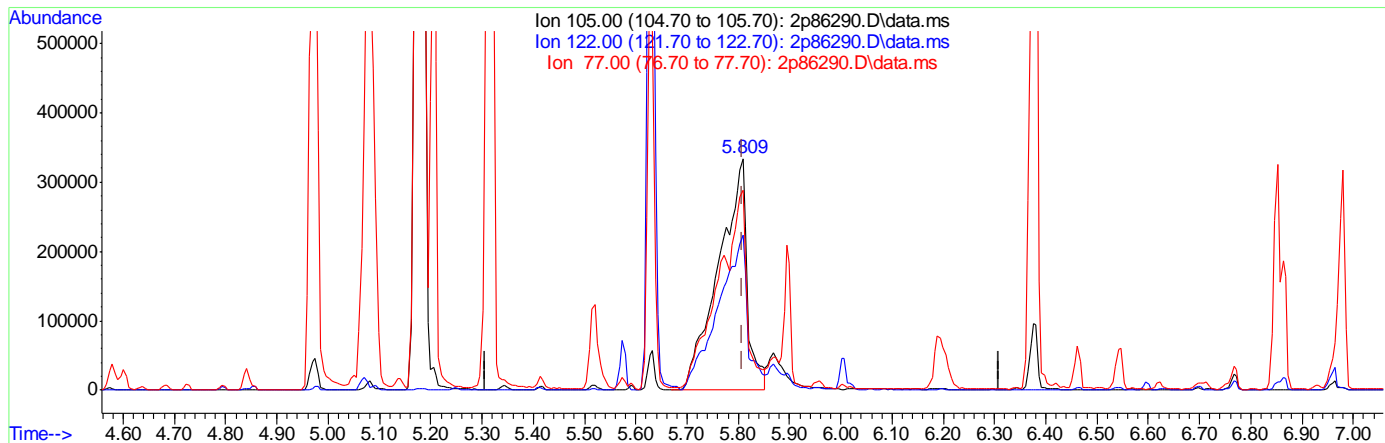
Sample Number: E2P3816-IC3816 Method: SW846 8270D
Lab FileID: 2P86290.D Analyst approved: 04/08/19 13:30 Kristi Schollenberger
Injection Time: 04/05/19 06:54 Supervisor approved: 04/09/19 16:32 Nina Pandya

Parameter	CAS	Sig#	R.T. (min.)	Reason
Benzoic acid	65-85-0		5.81	Split peak
Caprolactam	105-60-2		6.30	Split peak

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2P3816\
 Data File : 2p86290.D
 Acq On : 5 Apr 2019 6:54 am
 Operator : chriss2
 Sample : ic3816-100
 Misc : op13652,e2p3816,1000,,,1,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 05 13:40:14 2019
 Quant Method : C:\MSDCHEM\1\METHODS\M2P3816.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Thu Apr 04 03:01:46 2019
 Response via : Initial Calibration



TIC: 2p86290.D\data.ms

(31) Benzoic acid (t)
 5.809min (+0.001) 99.07ppm
 response 1287301

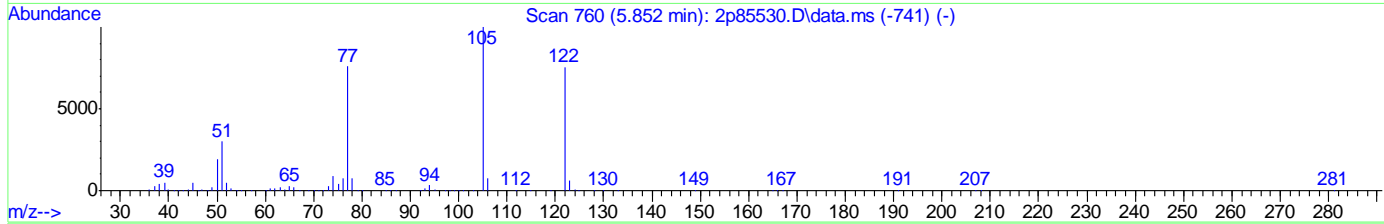
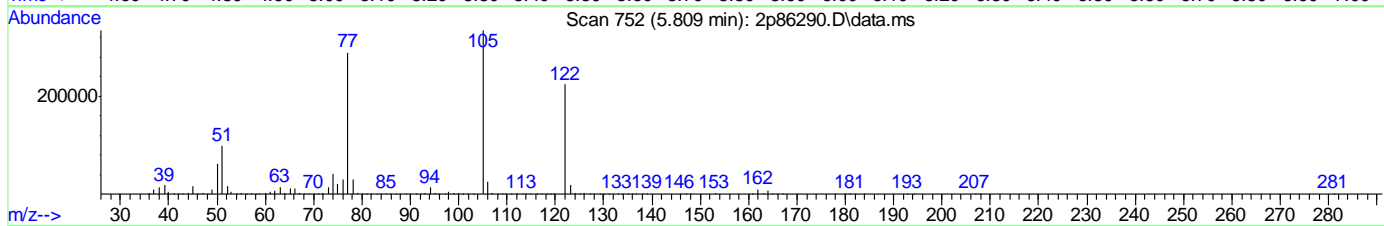
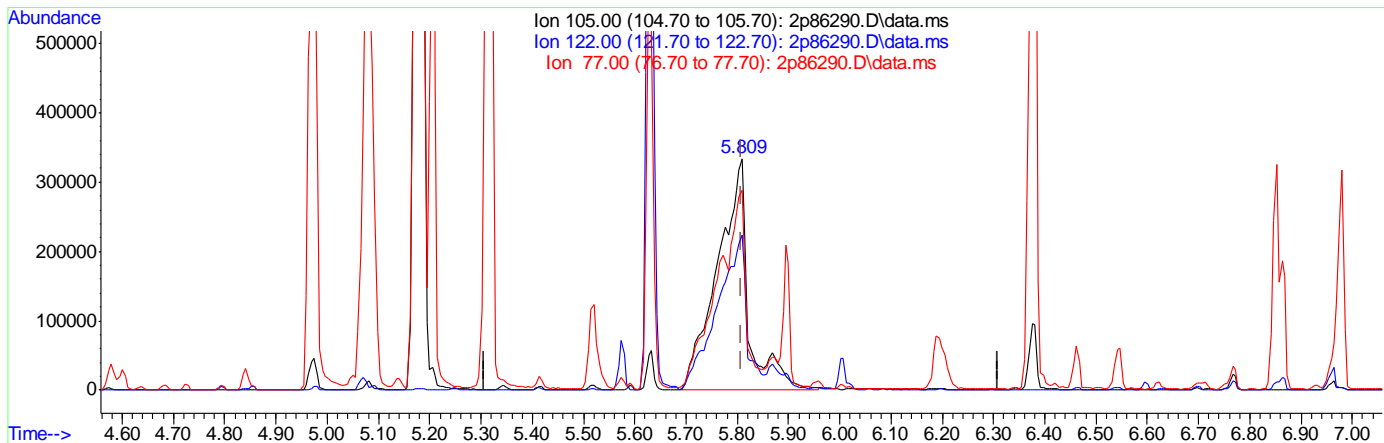
Ion	Exp%	Act%
105.00	100	100
122.00	70.50	66.07
77.00	78.20	85.56
0.00	0.00	0.00

9.6.11.2
9

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2P3816\
 Data File : 2p86290.D
 Acq On : 5 Apr 2019 6:54 am
 Operator : chriss2
 Sample : ic3816-100
 Misc : op13652,e2p3816,1000,,,1,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 05 13:40:14 2019
 Quant Method : C:\MSDCHEM\1\METHODS\M2P3816.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Thu Apr 04 03:01:46 2019
 Response via : Initial Calibration



TIC: 2p86290.D\data.ms

(31) Benzoic acid (t)
 5.809min (+0.001) 108.99ppm m
 response 1416250

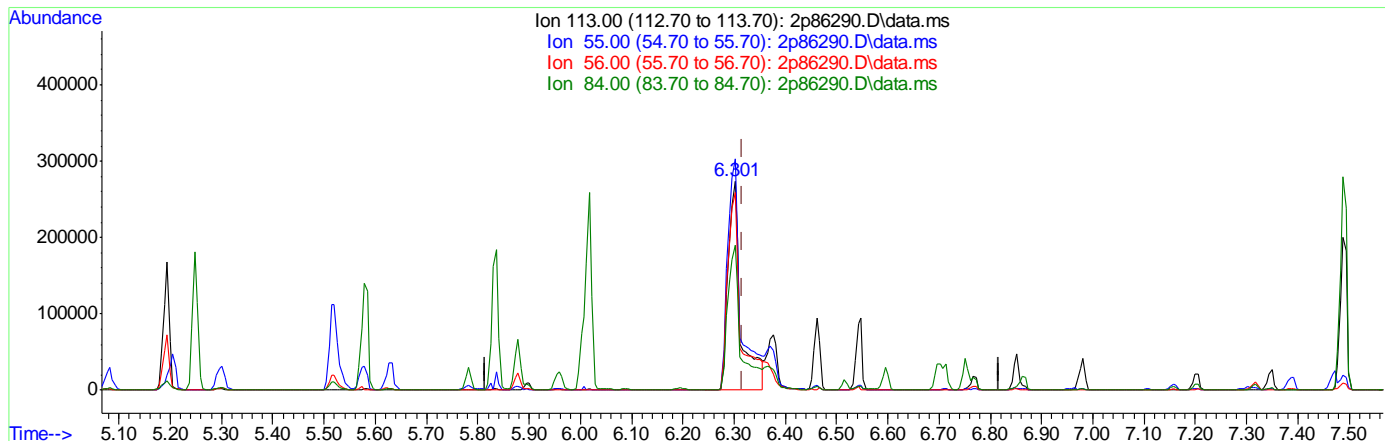
Ion	Exp%	Act%
105.00	100	100
122.00	70.50	66.91
77.00	78.20	86.42
0.00	0.00	0.00

9.6.11.3
 9

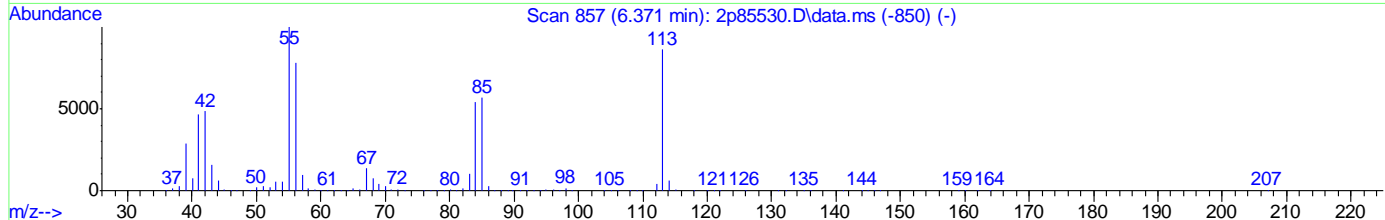
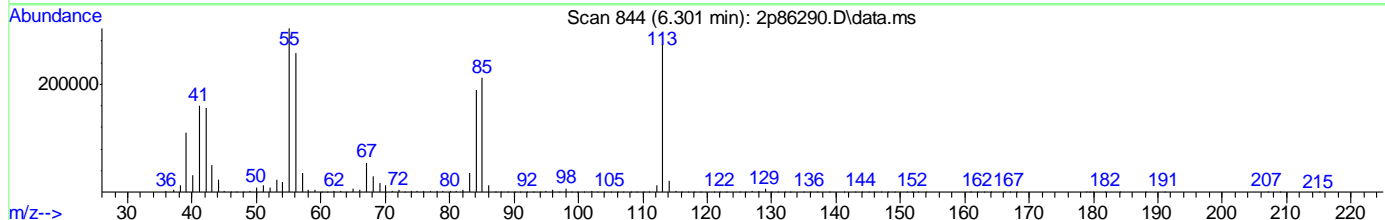
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2P3816\
 Data File : 2p86290.D
 Acq On : 5 Apr 2019 6:54 am
 Operator : chriss2
 Sample : ic3816-100
 Misc : op13652,e2p3816,1000,,,1,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 05 13:40:14 2019
 Quant Method : C:\MSDCHEM\1\METHODS\M2P3816.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Thu Apr 04 03:01:46 2019
 Response via : Initial Calibration



9.6.11.4
9



TIC: 2p86290.D\data.ms

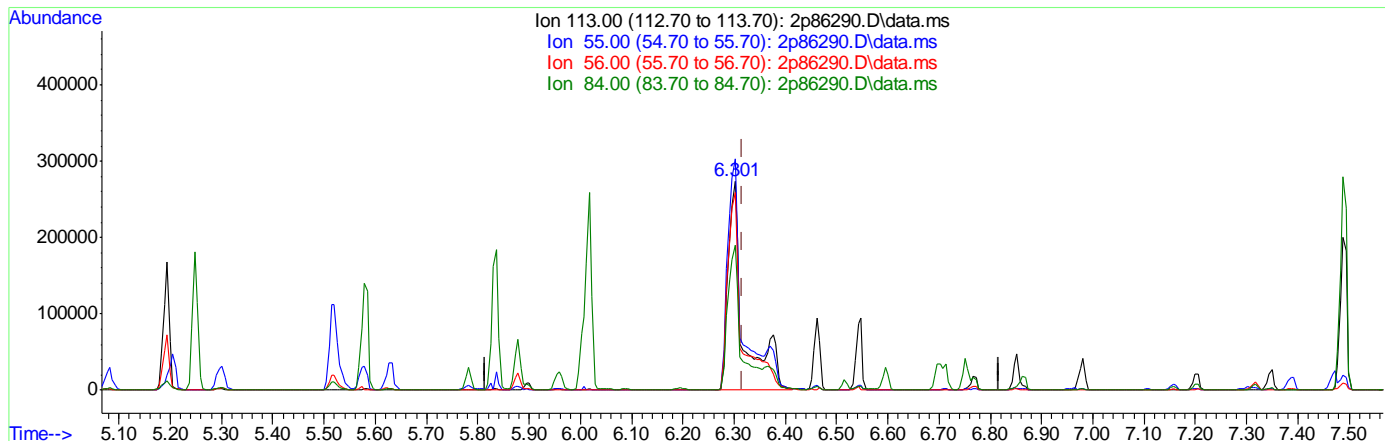
(41) Caprolactam (t)
 6.301min (-0.015) 105.48ppm
 response 477253

Ion	Exp%	Act%
113.00	100	100
55.00	118.90	110.24
56.00	93.00	94.09
84.00	67.20	68.88

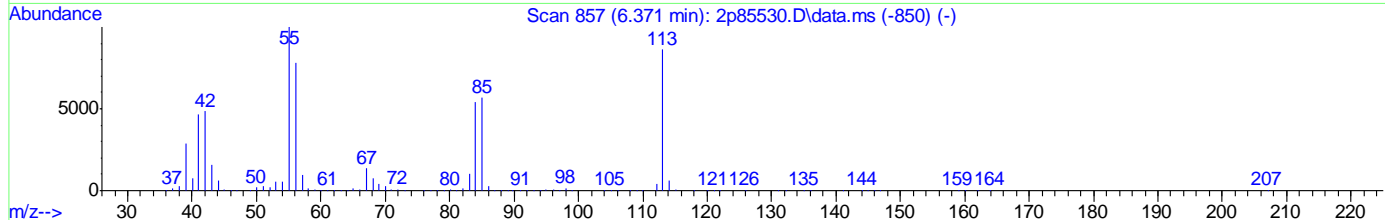
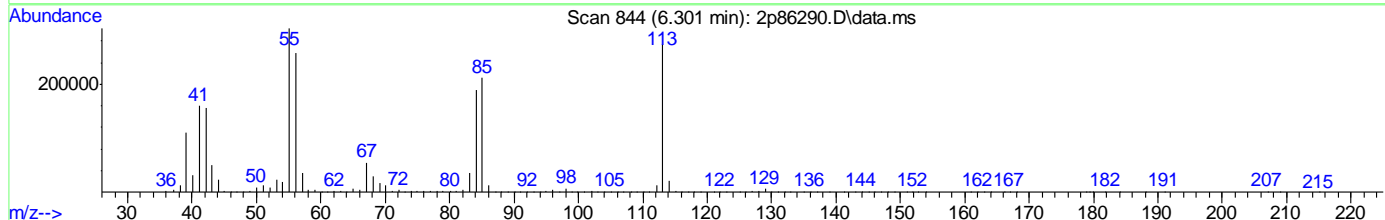
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2P3816\
 Data File : 2p86290.D
 Acq On : 5 Apr 2019 6:54 am
 Operator : chriss2
 Sample : ic3816-100
 Misc : op13652,e2p3816,1000,,,1,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 05 13:40:14 2019
 Quant Method : C:\MSDCHEM\1\METHODS\M2P3816.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Thu Apr 04 03:01:46 2019
 Response via : Initial Calibration



9.6.11.5
9



(41) Caprolactam (t)

6.301min (-0.015) 128.34ppm m

response 580673

Ion	Exp%	Act%
113.00	100	100
55.00	118.90	110.79
56.00	93.00	94.35
84.00	67.20	69.10

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3816\
 Data File : 2p86291.D
 Acq On : 5 Apr 2019 7:17 am
 Operator : chriss2
 Sample : ic3816-80
 Misc : op13652,e2p3816,1000,,,1,1
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Apr 05 13:46:22 2019
 Quant Method : C:\MSDCHEM\1\METHODS\M2P3816.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Thu Apr 04 03:01:46 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.836	152	496594	40.00	ppm	-0.07
24) Naphthalene-d8	5.879	136	1686728	40.00	ppm	-0.07
47) Acenaphthene-d10	7.317	164	930862	40.00	ppm	-0.07
69) Phenanthrene-d10	8.612	188	1653343	40.00	ppm	-0.09
83) Chrysene-d12	11.901	240	1531669	40.00	ppm	-0.11
91) Perylene-d12	13.896	264	1666059	40.00	ppm	-0.12
101) 1,4-Dichlorobenzene-d4a	4.836	152	496594	40.00	ppm	-0.07
103) Naphthalene-d8a	5.879	136	1686728	40.00	ppm	-0.07
105) Acenaphthene-d10a	7.317	164	930787	40.00	ppm	-0.07
108) Chrysene-d12a	11.901	240	1531669	40.00	ppm	-0.11
110) Phenanthrene-d10a	8.612	188	1653343	40.00	ppm	-0.09

System Monitoring Compounds

5) 2-Fluorophenol	3.793	112	2173922	92.43	ppm	-0.08
Spiked Amount	50.000	Range	11 - 58	Recovery	=	184.86%#
8) Phenol-d5	4.584	99	2248173	83.66	ppm	-0.05
Spiked Amount	50.000	Range	10 - 59	Recovery	=	167.32%#
25) Nitrobenzene-d5	5.296	82	1655055	88.23	ppm	-0.08
Spiked Amount	50.000	Range	19 - 61	Recovery	=	176.46%#
51) 2-Fluorobiphenyl	6.767	172	2475658	81.32	ppm	-0.08
Spiked Amount	50.000	Range	21 - 58	Recovery	=	162.64%#
73) 2,4,6-Tribromophenol	7.981	330	531023	91.84	ppm	-0.06
Spiked Amount	50.000	Range	12 - 68	Recovery	=	183.68%#
85) Terphenyl-d14	10.462	244	3472950	97.51	ppm	-0.11
Spiked Amount	50.000	Range	16 - 65	Recovery	=	195.02%#
111) 1-Chlorooctadecane	0.000	57	0d	0.00	ppm	
Spiked Amount	50.000	Range	20 - 70	Recovery	=	0.00%#
112) o-terphenyl	0.000	230	0d	0.00	ppm	
Spiked Amount	50.000	Range	20 - 70	Recovery	=	0.00%#

Target Compounds

Qvalue

2) 1,4-Dioxane	2.156	88	1557838	89.96	ppm	94
3) Pyridine	2.509	79	3008971	91.98	ppm	96
4) N-Nitrosodimethylamine	2.498	74	1879580	96.38	ppm	93
6) Indene	5.050	116	2180547	86.99	ppm	99
7) Cumene	4.183	105	5159323	92.27	ppm	98
9) Phenol	4.595	94	2190104	77.38	ppm	98
10) Aniline	4.574	93	2422693	82.86	ppm	99
11) bis(2-Chloroethyl)ether	4.632	93	1498830	71.31	ppm	97
12) 2-Chlorophenol	4.681	128	1450116	79.89	ppm	99
13) Decane	4.723	57	1204369	69.31	ppm	97
14) 1,3-Dichlorobenzene	4.793	146	1614878	82.22	ppm	99
15) 1,4-Dichlorobenzene	4.852	146	1522385	85.93	ppm	100
16) Benzyl alcohol	4.969	108	875959	63.43	ppm	# 77
17) 1,2-Dichlorobenzene	4.975	146	1495747	89.03	ppm	99
18) Acetophenone	5.178	105	2001635	86.08	ppm	95
19) 2-Methylphenol	5.076	108	1137710	84.10	ppm	98
20) 2,2'-oxybis(1-Chloropr...	5.071	121	332305	78.30	ppm	# 48
21) 3&4-Methylphenol	5.205	108	1201964	87.45	ppm	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3816\
 Data File : 2p86291.D
 Acq On : 5 Apr 2019 7:17 am
 Operator : chriss2
 Sample : ic3816-80
 Misc : op13652,e2p3816,1000,,,1,1
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Apr 05 13:46:22 2019
 Quant Method : C:\MSDCHEM\1\METHODS\M2P3816.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Thu Apr 04 03:01:46 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
22) n-Nitroso-di-n-propyla...	5.189	70	948901	85.16	ppm	96
23) Hexachloroethane	5.247	201	530907	87.78	ppm	97
26) Nitrobenzene	5.312	77	1547788	79.96	ppm	95
27) Quinoline	6.189	129	2549501	88.07	ppm	99
28) Isophorone	5.515	82	3017329	88.79	ppm	99
29) 2-Nitrophenol	5.574	139	795716	96.80	ppm	75
30) 2,4-Dimethylphenol	5.627	107	1338861	97.05	ppm	99
31) Benzoic acid	5.793	105	1214870m	86.31	ppm	
32) bis(2-Chloroethoxy)met...	5.686	93	1625580	76.99	ppm	96
33) 2,4-Dichlorophenol	5.782	162	1121413	96.41	ppm	94
34) 2,6-Dichlorophenol	5.959	162	1005042	98.16	ppm	99
35) 1,3,5-Trichlorobenzene	5.579	180	1299868	85.74	ppm	98
36) 1,2,4-Trichlorobenzene	5.836	180	1165541	81.28	ppm	99
37) 1,2,3-Trichlorobenzene	6.018	180	1034584	82.21	ppm	98
38) Naphthalene	5.895	128	3284044	83.93	ppm	99
39) 4-Chloroaniline	5.954	127	1383736	85.32	ppm	95
40) 2,3-Dichloroaniline	6.697	161	1363377	95.53	ppm	98
41) Caprolactam	6.290	113	496340m	101.27	ppm	
42) Hexachlorobutadiene	6.002	225	738937	94.18	ppm	99
43) 4-Chloro-3-methylphenol	6.376	107	1373547	101.80	ppm	97
44) 2-Methylnaphthalene	6.462	141	2124507	91.64	ppm	98
45) 1-Methylnaphthalene	6.542	141	2253282	88.64	ppm	98
46) Dimethylnaphthalene	6.980	156	2135314	89.46	ppm	98
48) Hexachlorocyclopentadiene	6.595	237	1550987	193.03	ppm	100
49) 2,4,6-Trichlorophenol	6.708	196	755646	85.88	ppm	98
50) 2,4,5-Trichlorophenol	6.750	196	790586	85.05	ppm	100
52) 2-Chloronaphthalene	6.863	162	2039303	77.54	ppm	99
53) Biphenyl	6.847	154	3037774	86.33	ppm	99
54) 2-Nitroaniline	6.959	65	854879	93.23	ppm	99
55) Dimethylphthalate	7.103	163	2724641	88.90	ppm	100
56) Acenaphthylene	7.200	152	3625749	83.29	ppm	99
57) 2,6-Dinitrotoluene	7.157	165	608613	93.76	ppm	99
58) 3-Nitroaniline	7.296	138	703723	88.95	ppm	94
59) Acenaphthene	7.344	153	2331932	89.13	ppm	99
60) 2,4-Dinitrophenol	7.387	184	692280	192.11	ppm	77
61) 4-Nitrophenol	7.467	109	548605	114.69	ppm	83
62) Dibenzofuran	7.489	168	3147655	91.36	ppm	96
63) 2,4-Dinitrotoluene	7.489	165	829194	100.82	ppm	70
64) 2,3,4,6-Tetrachlorophenol	7.601	232	785447	91.69	ppm	94
65) Diethylphthalate	7.686	149	2798228	89.75	ppm	100
66) Fluorene	7.772	166	2637285	90.89	ppm	100
67) 4-Chlorophenyl-phenyle...	7.767	204	1424433	96.12	ppm	94
68) 4-Nitroaniline	7.815	138	588603	80.03	ppm	87
70) 4,6-Dinitro-2-methylph...	7.836	198	462764	123.42	ppm	94
71) n-Nitrosodiphenylamine	7.879	169	1821482	91.59	ppm	98
72) 1,2-Diphenylhydrazine	7.906	77	2763745	75.53	ppm	91
74) 4-Bromophenyl-phenylether	8.189	248	954395	98.12	ppm	91
75) Hexachlorobenzene	8.259	284	1042429	91.67	ppm	98
76) Pentachlorophenol	8.446	266	1466280	173.52	ppm	99
77) Phenanthrene	8.639	178	3592514	89.53	ppm	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3816\
 Data File : 2p86291.D
 Acq On : 5 Apr 2019 7:17 am
 Operator : chriss2
 Sample : ic3816-80
 Misc : op13652,e2p3816,1000,,,1,1
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Apr 05 13:46:22 2019
 Quant Method : C:\MSDCHEM\1\METHODS\M2P3816.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Thu Apr 04 03:01:46 2019
 Response via : Initial Calibration

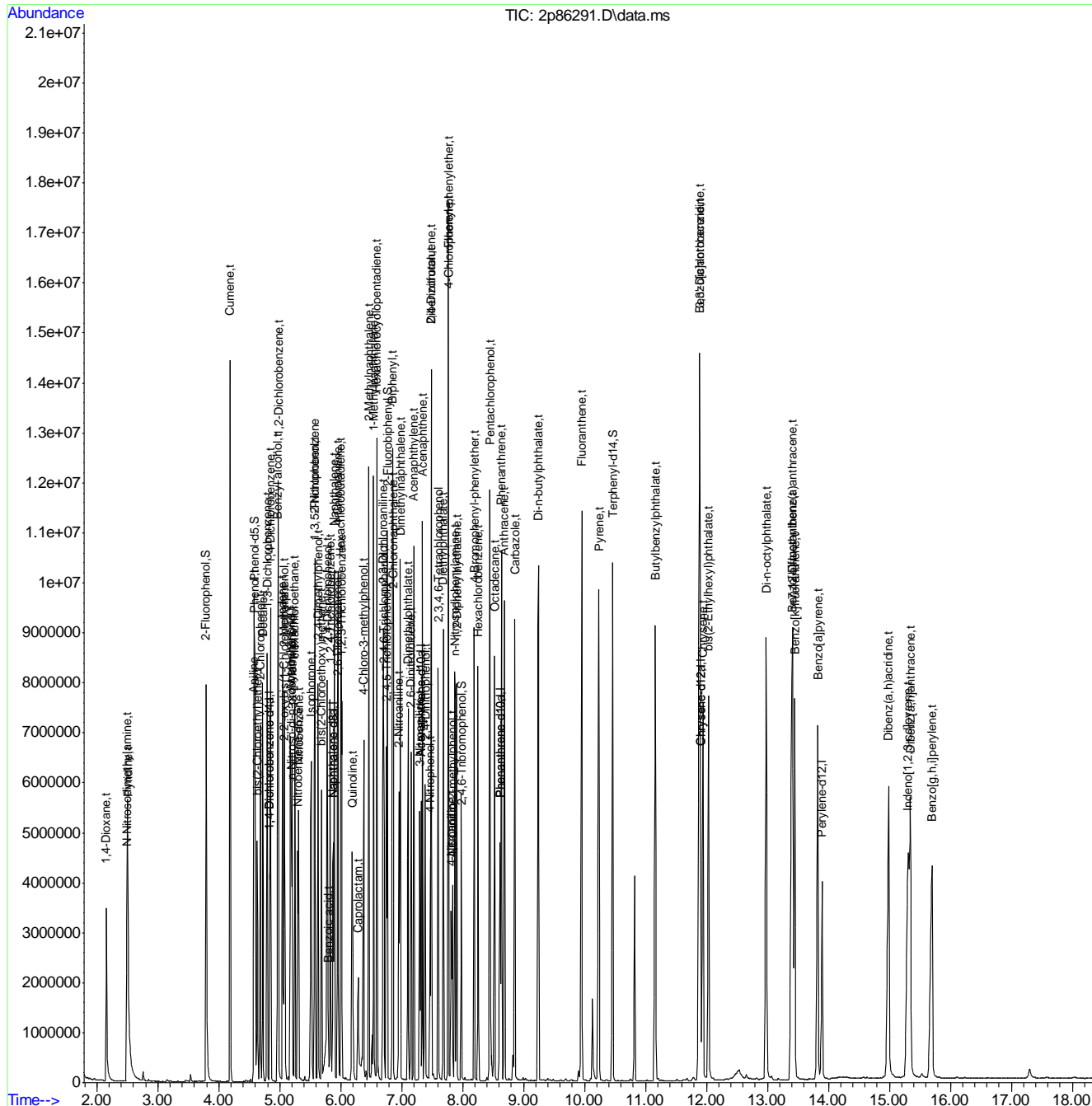
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
78) Anthracene	8.687	178	3588821	89.20	ppm	99
79) Carbazole	8.858	167	3772687	97.94	ppm	99
80) Di-n-butylphthalate	9.243	149	5772915	104.39	ppm	99
81) Fluoranthene	9.954	202	5419734	98.35	ppm	99
82) Octadecane	8.521	43	865823	75.28	ppm	97
84) Pyrene	10.238	202	5018579	97.82	ppm	99
86) Butylbenzylphthalate	11.163	149	2825606	111.05	ppm	97
87) Benzo[a]anthracene	11.885	228	5153790	98.99	ppm	100
88) 3,3'-Dichlorobenzidine	11.891	252	1944526	97.02	ppm	97
89) Chrysene	11.944	228	3540702	86.69	ppm	99
90) bis(2-Ethylhexyl)phtha...	12.035	149	2944082	110.60	ppm	98
92) Di-n-octylphthalate	12.982	149	6558713	101.54	ppm	100
93) Benzo[b]fluoranthene	13.415	252	4740048	82.33	ppm	99
94) Benzo[k]fluoranthene	13.452	252	3273148	75.56	ppm	99
95) Benzo[a]pyrene	13.827	252	4188555	101.11	ppm	99
96) Indeno[1,2,3-cd]pyrene	15.308	276	4956741	99.08	ppm	92
97) Dibenz(a,h)acridine	14.987	279	4202142	84.18	ppm	100
98) Dibenz[a,h]anthracene	15.346	278	3799311	85.95	ppm	100
99) 7,12-Dimethylbenz(a)an...	13.404	256	2206963	100.06	ppm	99
100) Benzo[g,h,i]perylene	15.699	276	3831984	83.81	ppm	97

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3816\
 Data File : 2p86291.D
 Acq On : 5 Apr 2019 7:17 am
 Operator : chriss2
 Sample : ic3816-80
 Misc : op13652,e2p3816,1000,,,1,1
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Apr 05 13:46:22 2019
 Quant Method : C:\MSDCHEM\1\METHODS\M2P3816.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Thu Apr 04 03:01:46 2019
 Response via : Initial Calibration



9.6-12
 9

Manual Integration Approval Summary

Sample Number: E2P3816-IC3816 Method: SW846 8270D
Lab FileID: 2P86291.D Analyst approved: 04/08/19 13:30 Kristi Schollenberger
Injection Time: 04/05/19 07:17 Supervisor approved: 04/09/19 16:32 Nina Pandya

Parameter	CAS	Sig#	R.T. (min.)	Reason
Benzoic acid	65-85-0		5.79	Split peak
Caprolactam	105-60-2		6.29	Split peak

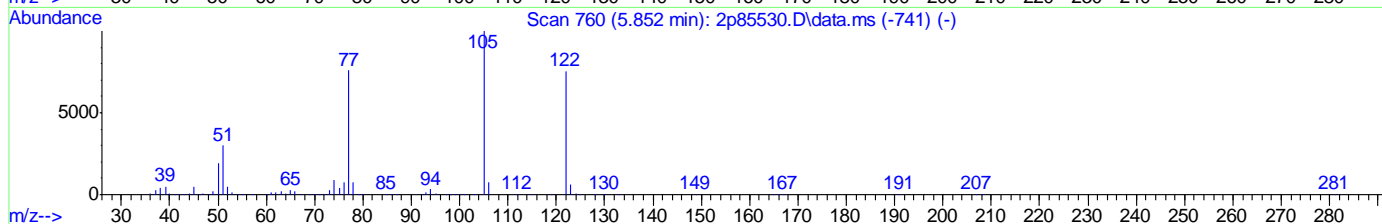
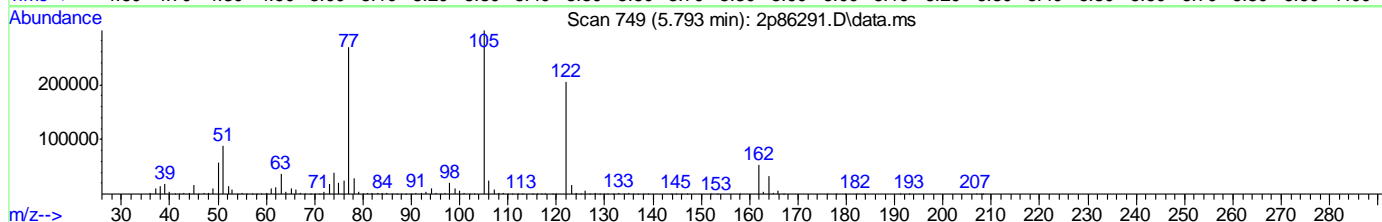
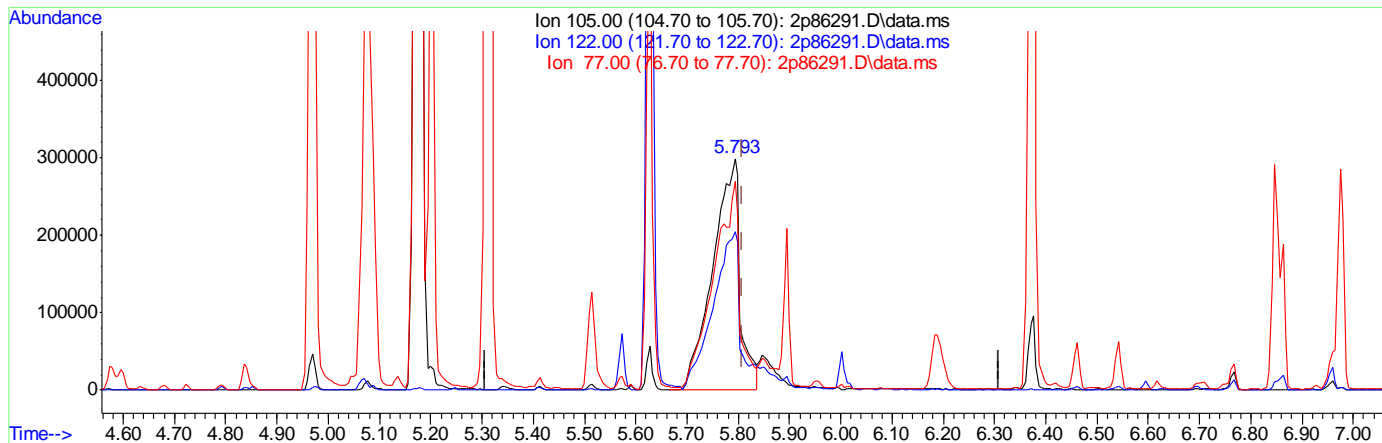
9.6.12.1

9

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2P3816\
 Data File : 2p86291.D
 Acq On : 5 Apr 2019 7:17 am
 Operator : chriss2
 Sample : ic3816-80
 Misc : op13652,e2p3816,1000,,,1,1
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Apr 05 13:44:24 2019
 Quant Method : C:\MSDCHEM\1\METHODS\M2P3816.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Thu Apr 04 03:01:46 2019
 Response via : Initial Calibration



TIC: 2p86291.D\data.ms

(31) Benzoic acid (t)
 5.793min (-0.015) 78.67ppm
 response 1107347

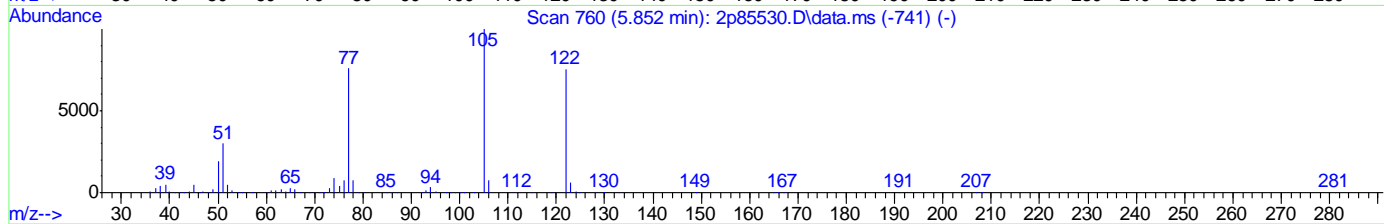
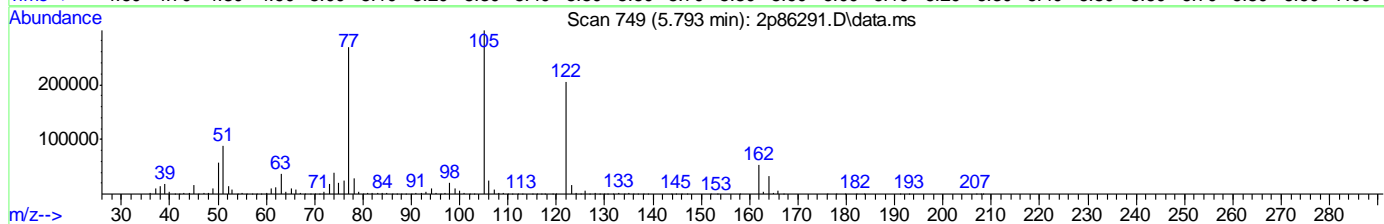
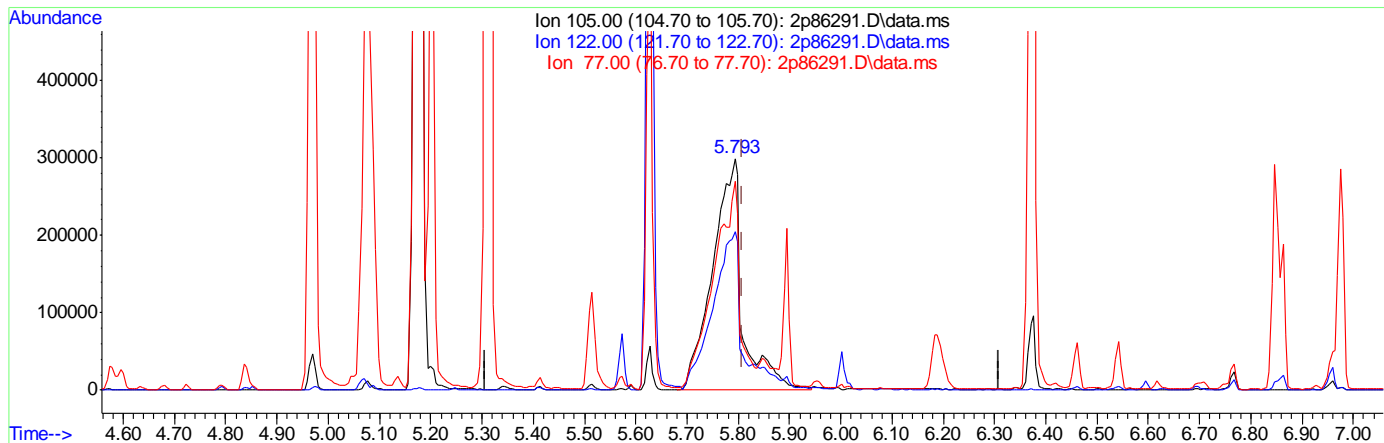
Ion	Exp%	Act%
105.00	100	100
122.00	70.50	65.66
77.00	78.20	89.39
0.00	0.00	0.00

9.6.12.2
 9

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2P3816\
 Data File : 2p86291.D
 Acq On : 5 Apr 2019 7:17 am
 Operator : chriss2
 Sample : ic3816-80
 Misc : op13652,e2p3816,1000,,,1,1
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Apr 05 13:44:24 2019
 Quant Method : C:\MSDCHEM\1\METHODS\M2P3816.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Thu Apr 04 03:01:46 2019
 Response via : Initial Calibration



TIC: 2p86291.D\data.ms

(31) Benzoic acid (t)

5.793min (-0.015) 86.31ppm m

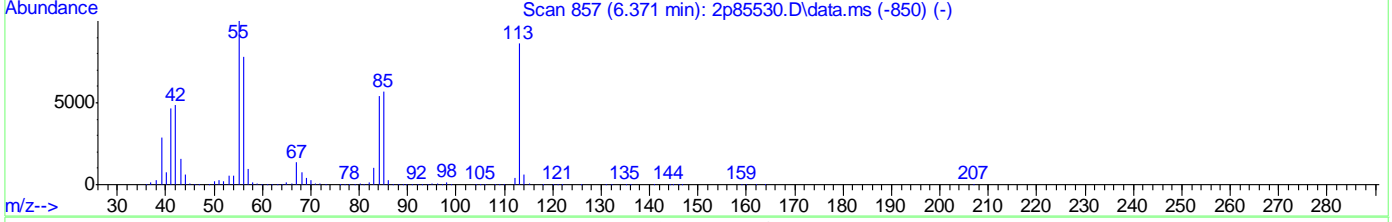
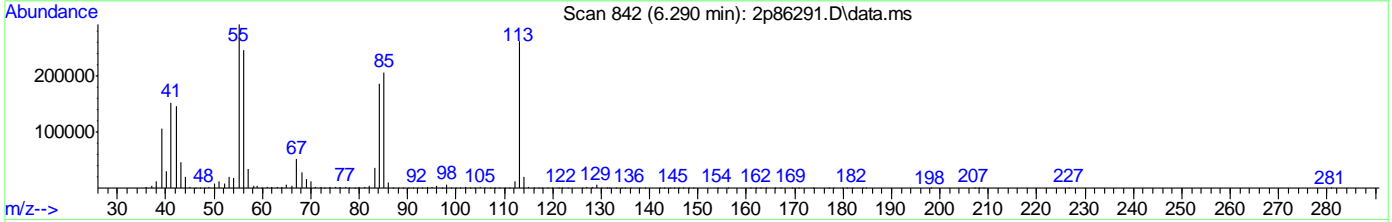
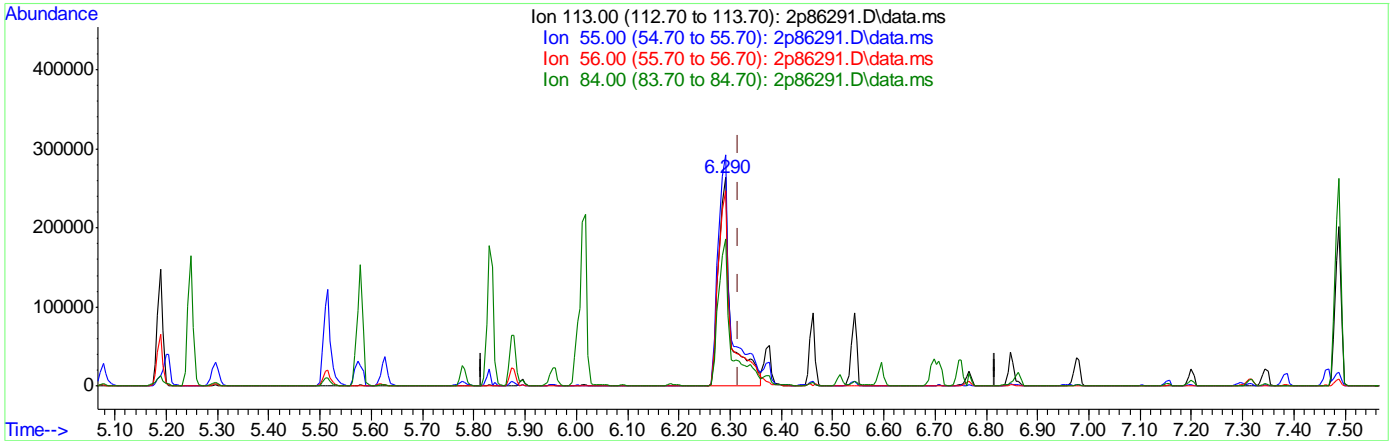
response 1214870

Ion	Exp%	Act%
105.00	100	100
122.00	70.50	68.34
77.00	78.20	89.95
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2P3816\
 Data File : 2p86291.D
 Acq On : 5 Apr 2019 7:17 am
 Operator : chriss2
 Sample : ic3816-80
 Misc : op13652,e2p3816,1000,,,1,1
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Apr 05 13:44:24 2019
 Quant Method : C:\MSDCHEM\1\METHODS\M2P3816.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Thu Apr 04 03:01:46 2019
 Response via : Initial Calibration



TIC: 2p86291.D\data.ms

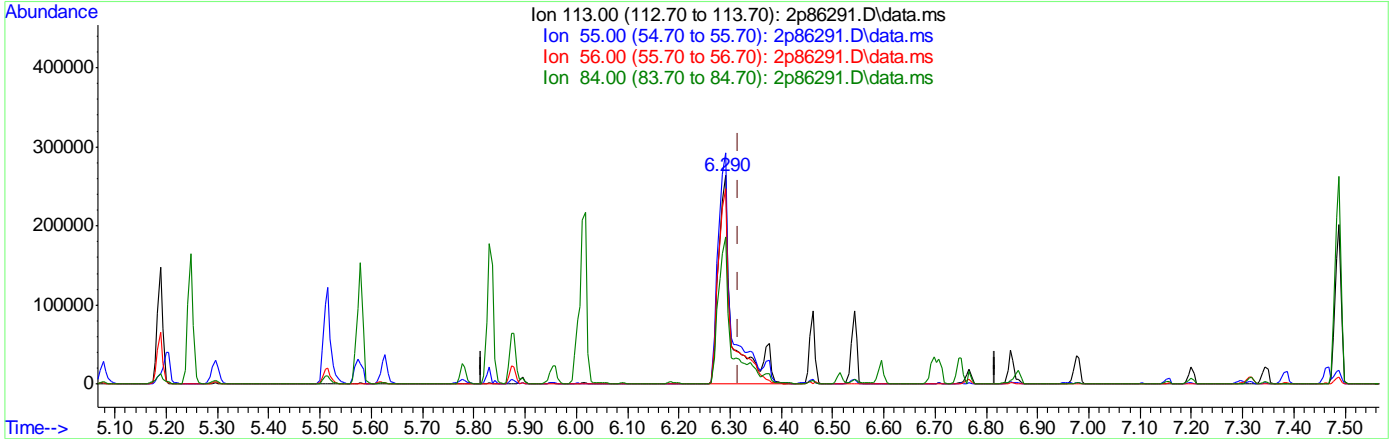
(41) Caprolactam (t)		
6.290min (-0.026)	91.21ppm	
response	447031	
Ion	Exp%	Act%
113.00	100	100
55.00	118.90	111.20
56.00	93.00	94.45
84.00	67.20	70.90

9.6.12.4
9

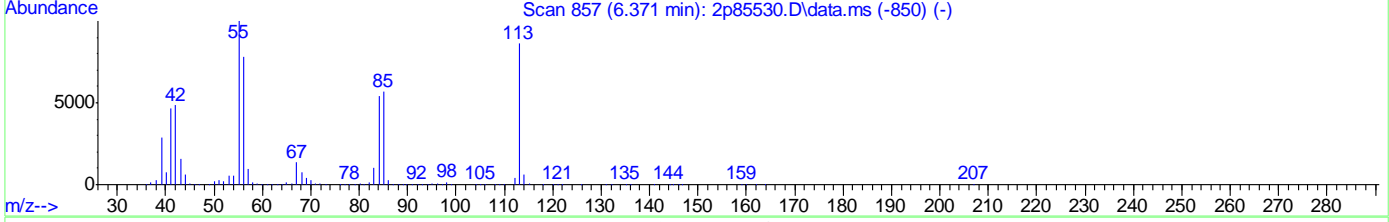
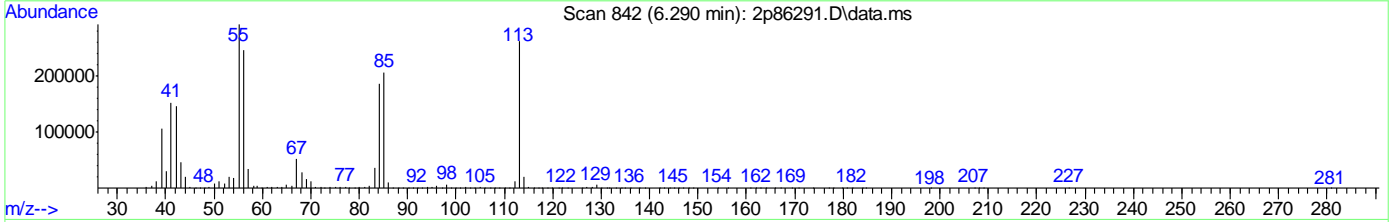
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2P3816\
 Data File : 2p86291.D
 Acq On : 5 Apr 2019 7:17 am
 Operator : chriss2
 Sample : ic3816-80
 Misc : op13652,e2p3816,1000,,,1,1
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Apr 05 13:44:24 2019
 Quant Method : C:\MSDCHEM\1\METHODS\M2P3816.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Thu Apr 04 03:01:46 2019
 Response via : Initial Calibration



9.6.12.5
9



TIC: 2p86291.D\data.ms

(41) Caprolactam (t)		
6.290min (-0.026)	101.27ppm	m
response	496340	
Ion	Exp%	Act%
113.00	100	100
55.00	118.90	111.07
56.00	93.00	93.74
84.00	67.20	70.56

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3816\
 Data File : 2p86292.D
 Acq On : 5 Apr 2019 7:40 am
 Operator : chriss2
 Sample : icc3816-50
 Misc : op13652,e2p3816,1000,,,1,1
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Apr 05 13:48:34 2019
 Quant Method : C:\MSDCHEM\1\METHODS\M2P3816.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Thu Apr 04 03:01:46 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.836	152	580490	40.00	ppm	-0.07
24) Naphthalene-d8	5.873	136	1932000	40.00	ppm	-0.08
47) Acenaphthene-d10	7.312	164	1060482	40.00	ppm	-0.08
69) Phenanthrene-d10	8.606	188	1882648	40.00	ppm	-0.09
83) Chrysene-d12	11.896	240	1621659	40.00	ppm	-0.12
91) Perylene-d12	13.896	264	1727853	40.00	ppm	-0.12
101) 1,4-Dichlorobenzene-d4a	4.836	152	580490	40.00	ppm	-0.07
103) Naphthalene-d8a	5.873	136	1932000	40.00	ppm	-0.08
105) Acenaphthene-d10a	7.312	164	1060482	40.00	ppm	-0.08
108) Chrysene-d12a	11.896	240	1621659	40.00	ppm	-0.12
110) Phenanthrene-d10a	8.606	188	1882648	40.00	ppm	-0.09

System Monitoring Compounds

5) 2-Fluorophenol	3.787	112	1646263	59.88	ppm	-0.09
Spiked Amount	50.000	Range	11 - 58	Recovery	=	119.76%#
8) Phenol-d5	4.579	99	1719692	54.75	ppm	-0.05
Spiked Amount	50.000	Range	10 - 59	Recovery	=	109.50%#
25) Nitrobenzene-d5	5.290	82	1254209	58.37	ppm	-0.09
Spiked Amount	50.000	Range	19 - 61	Recovery	=	116.74%#
51) 2-Fluorobiphenyl	6.767	172	1800601	51.92	ppm	-0.08
Spiked Amount	50.000	Range	21 - 58	Recovery	=	103.84%#
73) 2,4,6-Tribromophenol	7.975	330	340133	51.66	ppm	-0.07
Spiked Amount	50.000	Range	12 - 68	Recovery	=	103.32%#
85) Terphenyl-d14	10.457	244	2262504	60.00	ppm	-0.12
Spiked Amount	50.000	Range	16 - 65	Recovery	=	120.00%#
111) 1-Chlorooctadecane	0.000	57	0d	0.00	ppm	
Spiked Amount	50.000	Range	20 - 70	Recovery	=	0.00%#
112) o-terphenyl	0.000	230	0d	0.00	ppm	
Spiked Amount	50.000	Range	20 - 70	Recovery	=	0.00%#

Target Compounds

Qvalue

2) 1,4-Dioxane	2.151	88	1095779	58.59	ppm	94
3) Pyridine	2.498	79	2242098	58.63	ppm	98
4) N-Nitrosodimethylamine	2.488	74	1379891	60.53	ppm	91
6) Indene	5.044	116	1619371	55.27	ppm	100
7) Cumene	4.183	105	3992846	61.09	ppm	99
9) Phenol	4.590	94	1710565	51.70	ppm	99
10) Aniline	4.574	93	1828435	53.50	ppm	98
11) bis(2-Chloroethyl)ether	4.627	93	1164004	47.37	ppm	96
12) 2-Chlorophenol	4.675	128	1087108	51.24	ppm	96
13) Decane	4.718	57	945395	46.54	ppm	98
14) 1,3-Dichlorobenzene	4.793	146	1186877	51.69	ppm	98
15) 1,4-Dichlorobenzene	4.852	146	1113577	53.77	ppm	100
16) Benzyl alcohol	4.964	108	654314	40.53	ppm	88
17) 1,2-Dichlorobenzene	4.975	146	1069218	54.44	ppm	98
18) Acetophenone	5.173	105	1496591	55.06	ppm	97
19) 2-Methylphenol	5.071	108	854265	54.02	ppm	98
20) 2,2'-oxybis(1-Chloropr...	5.066	121	247443	49.88	ppm	# 66
21) 3&4-Methylphenol	5.199	108	899193	55.97	ppm	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3816\
 Data File : 2p86292.D
 Acq On : 5 Apr 2019 7:40 am
 Operator : chriss2
 Sample : icc3816-50
 Misc : op13652,e2p3816,1000,,,1,1
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Apr 05 13:48:34 2019
 Quant Method : C:\MSDCHEM\1\METHODS\M2P3816.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Thu Apr 04 03:01:46 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
22) n-Nitroso-di-n-propyla...	5.183	70	744312	57.15	ppm	96
23) Hexachloroethane	5.247	201	377121	53.34	ppm	97
26) Nitrobenzene	5.306	77	1197698	54.02	ppm	91
27) Quinoline	6.178	129	1848924	55.76	ppm	99
28) Isophorone	5.510	82	2254065	57.91	ppm	98
29) 2-Nitrophenol	5.568	139	575650	61.14	ppm	87
30) 2,4-Dimethylphenol	5.622	107	990600	62.69	ppm	94
31) Benzoic acid	5.772	105	889014m	55.14	ppm	
32) bis(2-Chloroethoxy)met...	5.686	93	1222791	50.56	ppm	97
33) 2,4-Dichlorophenol	5.777	162	784313	58.87	ppm	98
34) 2,6-Dichlorophenol	5.954	162	705086	60.12	ppm	98
35) 1,3,5-Trichlorobenzene	5.579	180	934288	53.80	ppm	98
36) 1,2,4-Trichlorobenzene	5.830	180	839433	51.11	ppm	98
37) 1,2,3-Trichlorobenzene	6.012	180	739916	51.33	ppm	98
38) Naphthalene	5.895	128	2411838	53.81	ppm	99
39) 4-Chloroaniline	5.948	127	996622	53.65	ppm	99
40) 2,3-Dichloroaniline	6.692	161	976260	59.72	ppm	94
41) Caprolactam	6.274	113	322148	57.38	ppm	96
42) Hexachlorobutadiene	6.002	225	506967	56.41	ppm	99
43) 4-Chloro-3-methylphenol	6.371	107	1030541	66.68	ppm	77
44) 2-Methylnaphthalene	6.456	141	1571495	59.18	ppm	97
45) 1-Methylnaphthalene	6.542	141	1680564	57.72	ppm	99
46) Dimethylnaphthalene	6.975	156	1551029	56.73	ppm	99
48) Hexachlorocyclopentadiene	6.595	237	1058621	115.65	ppm	99
49) 2,4,6-Trichlorophenol	6.708	196	535875	53.46	ppm	96
50) 2,4,5-Trichlorophenol	6.745	196	551416	52.07	ppm	100
52) 2-Chloronaphthalene	6.857	162	1463763	48.85	ppm	97
53) Biphenyl	6.847	154	2166948	54.06	ppm	99
54) 2-Nitroaniline	6.954	65	643196	61.57	ppm	96
55) Dimethylphthalate	7.103	163	1963492	56.23	ppm	99
56) Acenaphthylene	7.200	152	2624449	52.92	ppm	99
57) 2,6-Dinitrotoluene	7.152	165	442110	59.78	ppm	95
58) 3-Nitroaniline	7.291	138	502367	55.74	ppm	88
59) Acenaphthene	7.344	153	1649268	55.33	ppm	100
60) 2,4-Dinitrophenol	7.382	184	467492	117.31	ppm	90
61) 4-Nitrophenol	7.462	109	399376	73.29	ppm	81
62) Dibenzofuran	7.483	168	2257527	57.51	ppm	99
63) 2,4-Dinitrotoluene	7.483	165	600245	64.06	ppm	76
64) 2,3,4,6-Tetrachlorophenol	7.596	232	524909	53.79	ppm	98
65) Diethylphthalate	7.681	149	2078183	58.51	ppm	98
66) Fluorene	7.767	166	1968379	59.54	ppm	99
67) 4-Chlorophenyl-phenyle...	7.767	204	996830	59.04	ppm	93
68) 4-Nitroaniline	7.804	138	425251	50.75	ppm	86
70) 4,6-Dinitro-2-methylph...	7.826	198	316543	74.14	ppm	82
71) n-Nitrosodiphenylamine	7.874	169	1300320	57.42	ppm	99
72) 1,2-Diphenylhydrazine	7.900	77	2179274	52.30	ppm	99
74) 4-Bromophenyl-phenylether	8.189	248	640386	57.82	ppm	95
75) Hexachlorobenzene	8.253	284	696612	53.80	ppm	93
76) Pentachlorophenol	8.446	266	962864	97.55	ppm	98
77) Phenanthrene	8.633	178	2529408	55.36	ppm	99

9.6.13

9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3816\
 Data File : 2p86292.D
 Acq On : 5 Apr 2019 7:40 am
 Operator : chriss2
 Sample : icc3816-50
 Misc : op13652,e2p3816,1000,,,1,1
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Apr 05 13:48:34 2019
 Quant Method : C:\MSDCHEM\1\METHODS\M2P3816.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Thu Apr 04 03:01:46 2019
 Response via : Initial Calibration

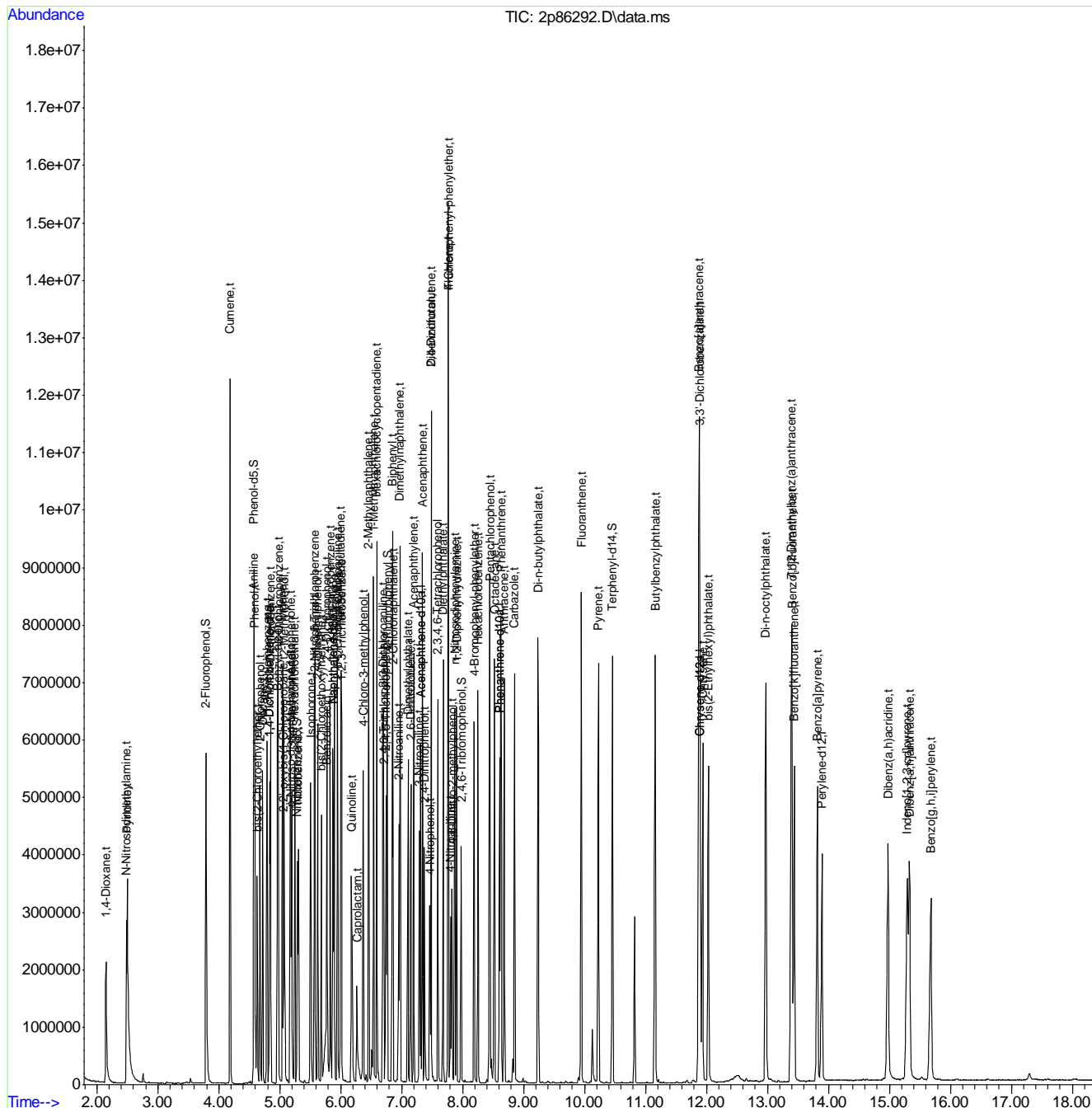
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
78) Anthracene	8.687	178	2525644	55.13	ppm	99
79) Carbazole	8.852	167	2688359	61.29	ppm	99
80) Di-n-butylphthalate	9.238	149	3956279	62.83	ppm	99
81) Fluoranthene	9.949	202	3563439	56.79	ppm	99
82) Octadecane	8.521	43	686328	52.41	ppm	97
84) Pyrene	10.232	202	3386354	62.34	ppm	99
86) Butylbenzylphthalate	11.158	149	2011350	74.66	ppm	96
87) Benzo[a]anthracene	11.880	228	3389390	61.49	ppm	99
88) 3,3'-Dichlorobenzidine	11.885	252	1284601	56.14	ppm	98
89) Chrysene	11.939	228	2332142	53.93	ppm	99
90) bis(2-Ethylhexyl)phtha...	12.030	149	2021836	71.74	ppm	98
92) Di-n-octylphthalate	12.971	149	4701040	67.09	ppm	99
93) Benzo[b]fluoranthene	13.404	252	3252222	53.57	ppm	99
94) Benzo[k]fluoranthene	13.442	252	2338417	52.05	ppm	99
95) Benzo[a]pyrene	13.821	252	2633686	61.31	ppm	100
96) Indeno[1,2,3-cd]pyrene	15.292	276	3176278	59.62	ppm	90
97) Dibenz(a,h)acridine	14.982	279	2602642	49.24	ppm	100
98) Dibenz[a,h]anthracene	15.330	278	2433882	50.63	ppm	98
99) 7,12-Dimethylbenz(a)an...	13.399	256	1495682	65.39	ppm	98
100) Benzo[g,h,i]perylene	15.683	276	2477746	50.37	ppm	98

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3816\
Data File : 2p86292.D
Acq On : 5 Apr 2019 7:40 am
Operator : chriss2
Sample : icc3816-50
Misc : op13652,e2p3816,1000,,,1,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Apr 05 13:48:34 2019
Quant Method : C:\MSDCHEM\1\METHODS\M2P3816.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Thu Apr 04 03:01:46 2019
Response via : Initial Calibration



9.6.13
9

Manual Integration Approval Summary

Sample Number: E2P3816-ICC3816 Method: SW846 8270D
Lab FileID: 2P86292.D Analyst approved: 04/08/19 13:30 Kristi Schollenberger
Injection Time: 04/05/19 07:40 Supervisor approved: 04/09/19 16:32 Nina Pandya

Parameter	CAS	Sig#	R.T. (min.)	Reason
Benzoic acid	65-85-0		5.77	Split peak

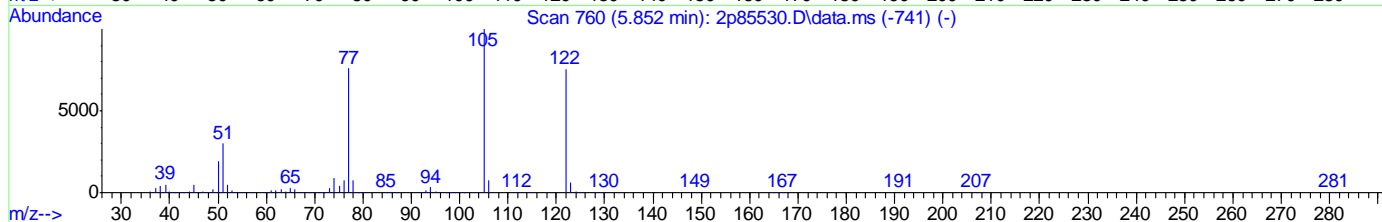
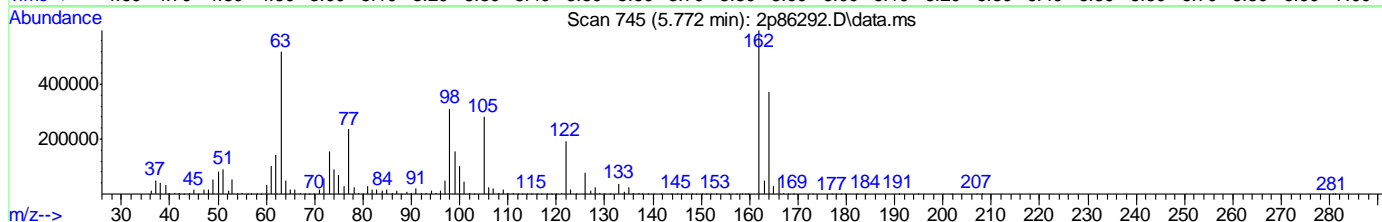
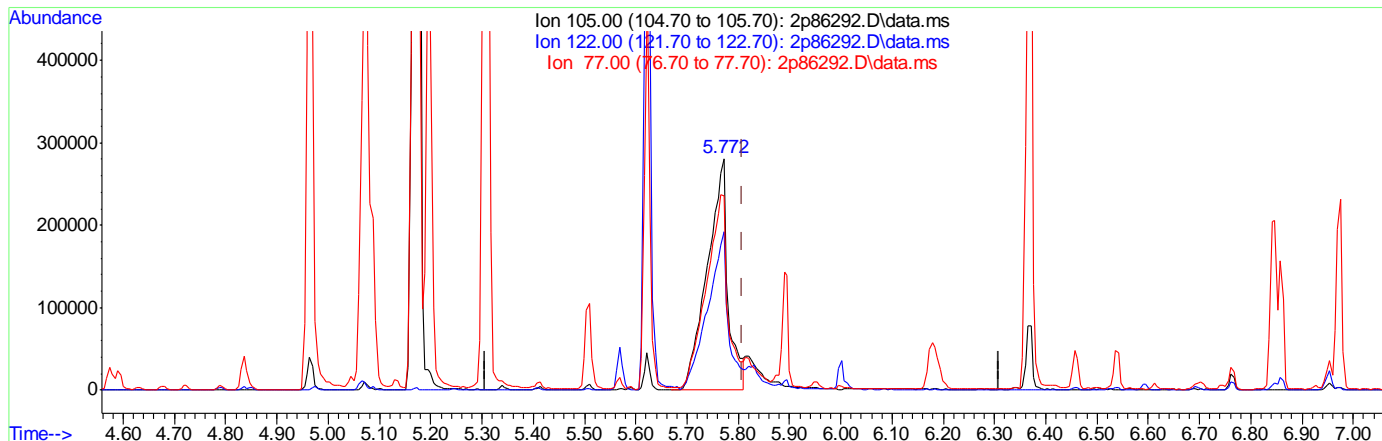
9.6.13.1

9

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2P3816\
 Data File : 2p86292.D
 Acq On : 5 Apr 2019 7:40 am
 Operator : chriss2
 Sample : icc3816-50
 Misc : op13652,e2p3816,1000,,,1,1
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Apr 05 13:46:43 2019
 Quant Method : C:\MSDCHEM\1\METHODS\M2P3816.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Thu Apr 04 03:01:46 2019
 Response via : Initial Calibration



TIC: 2p86292.D\data.ms

(31) Benzoic acid (t)
 5.772min (-0.037) 48.90ppm
 response 788389

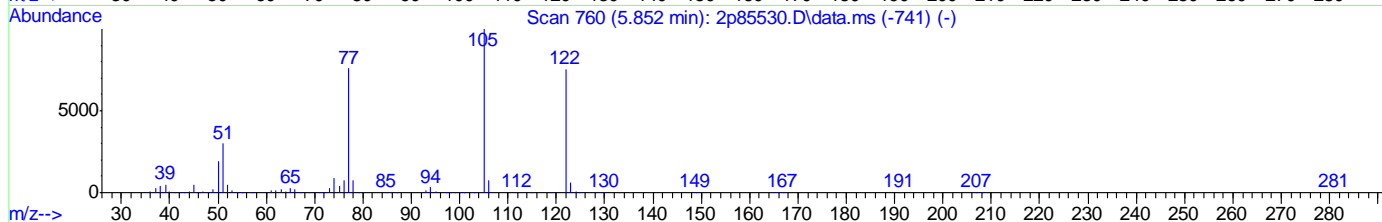
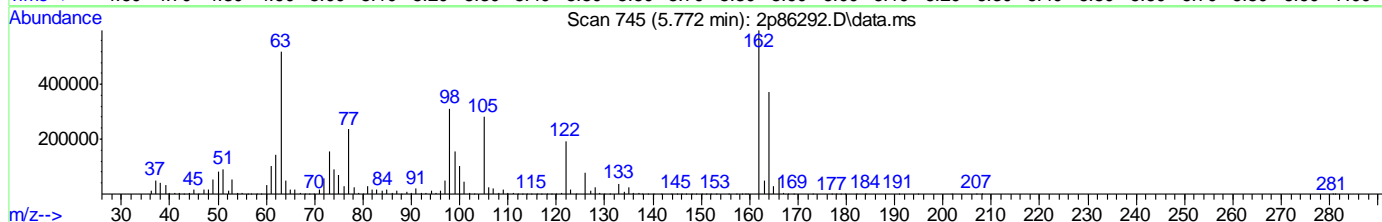
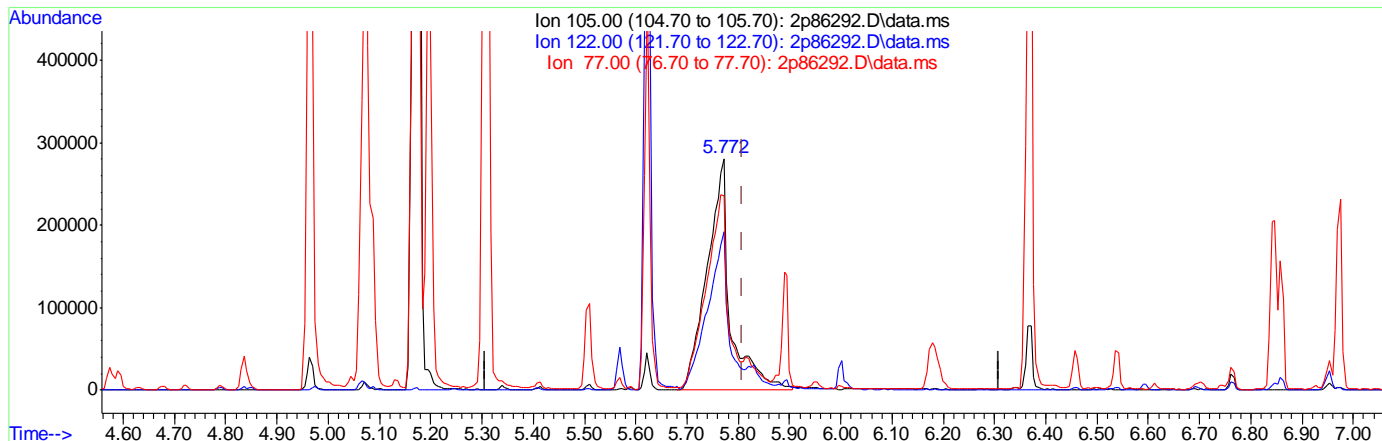
Ion	Exp%	Act%
105.00	100	100
122.00	70.50	68.11
77.00	78.20	82.90
0.00	0.00	0.00

9.6.13.2
9

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2P3816\
 Data File : 2p86292.D
 Acq On : 5 Apr 2019 7:40 am
 Operator : chriss2
 Sample : icc3816-50
 Misc : op13652,e2p3816,1000,,,1,1
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Apr 05 13:46:43 2019
 Quant Method : C:\MSDCHEM\1\METHODS\M2P3816.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Thu Apr 04 03:01:46 2019
 Response via : Initial Calibration



TIC: 2p86292.D\data.ms

(31) Benzoic acid (t)
 5.772min (-0.037) 55.14ppm m
 response 889014

Ion	Exp%	Act%
105.00	100	100
122.00	70.50	68.57
77.00	78.20	83.88
0.00	0.00	0.00

9.6.13.3
 9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3816\
 Data File : 2p86293.D
 Acq On : 5 Apr 2019 8:03 am
 Operator : chriss2
 Sample : ic3816-25
 Misc : op13652,e2p3816,1000,,,1,1
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Apr 05 13:55:28 2019
 Quant Method : C:\MSDCHEM\1\METHODS\M2P3816.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Thu Apr 04 03:01:46 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.835	152	738121	40.00	ppm	-0.07
24) Naphthalene-d8	5.873	136	2410309	40.00	ppm	-0.08
47) Acenaphthene-d10	7.312	164	1304645	40.00	ppm	-0.08
69) Phenanthrene-d10	8.606	188	2273787	40.00	ppm	-0.09
83) Chrysene-d12	11.896	240	2151973	40.00	ppm	-0.12
91) Perylene-d12	13.891	264	2241151	40.00	ppm	-0.13
101) 1,4-Dichlorobenzene-d4a	4.835	152	738121	40.00	ppm	-0.07
103) Naphthalene-d8a	5.873	136	2410309	40.00	ppm	-0.08
105) Acenaphthene-d10a	7.312	164	1304681	40.00	ppm	-0.08
108) Chrysene-d12a	11.896	240	2151973	40.00	ppm	-0.12
110) Phenanthrene-d10a	8.606	188	2273787	40.00	ppm	-0.09
System Monitoring Compounds						
5) 2-Fluorophenol	3.787	112	949087	27.15	ppm	-0.09
Spiked Amount	50.000	Range	11 - 58	Recovery	=	54.30%
8) Phenol-d5	4.579	99	1082260	27.10	ppm	-0.05
Spiked Amount	50.000	Range	10 - 59	Recovery	=	54.20%
25) Nitrobenzene-d5	5.290	82	791636	29.53	ppm	-0.09
Spiked Amount	50.000	Range	19 - 61	Recovery	=	59.06%
51) 2-Fluorobiphenyl	6.761	172	1089932	25.54	ppm	-0.08
Spiked Amount	50.000	Range	21 - 58	Recovery	=	51.08%
73) 2,4,6-Tribromophenol	7.970	330	175924	22.12	ppm	-0.08
Spiked Amount	50.000	Range	12 - 68	Recovery	=	44.24%
85) Terphenyl-d14	10.451	244	1338499	26.75	ppm	-0.12
Spiked Amount	50.000	Range	16 - 65	Recovery	=	53.50%
111) 1-Chlorooctadecane	0.000	57	0d	0.00	ppm	
Spiked Amount	50.000	Range	20 - 70	Recovery	=	0.00%#
112) o-terphenyl	0.000	230	0d	0.00	ppm	
Spiked Amount	50.000	Range	20 - 70	Recovery	=	0.00%#
Target Compounds						
2) 1,4-Dioxane	2.156	88	595038	27.56	ppm	93
3) Pyridine	2.503	79	1346305	27.69	ppm	97
4) N-Nitrosodimethylamine	2.487	74	817182	28.19	ppm	91
6) Indene	5.044	116	1015310	27.25	ppm	99
7) Cumene	4.183	105	2424320	29.17	ppm	97
9) Phenol	4.589	94	1106069	26.29	ppm	98
10) Aniline	4.573	93	1161309	26.72	ppm	96
11) bis(2-Chloroethyl)ether	4.627	93	757061	24.23	ppm	94
12) 2-Chlorophenol	4.675	128	699181	25.92	ppm	95
13) Decane	4.718	57	642182	24.86	ppm	98
14) 1,3-Dichlorobenzene	4.787	146	746813	25.58	ppm	97
15) 1,4-Dichlorobenzene	4.846	146	675306	25.64	ppm	97
16) Benzyl alcohol	4.958	108	407461	19.85	ppm	96
17) 1,2-Dichlorobenzene	4.974	146	646679	25.90	ppm	99
18) Acetophenone	5.167	105	938124	27.14	ppm	100
19) 2-Methylphenol	5.065	108	557840	27.74	ppm	99
20) 2,2'-oxybis(1-Chloropr...	5.065	121	156304	24.78	ppm	# 33
21) 3&4-Methylphenol	5.194	108	569482	27.88	ppm	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3816\
 Data File : 2p86293.D
 Acq On : 5 Apr 2019 8:03 am
 Operator : chriss2
 Sample : ic3816-25
 Misc : op13652,e2p3816,1000,,,1,1
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Apr 05 13:55:28 2019
 Quant Method : C:\MSDCHEM\1\METHODS\M2P3816.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Thu Apr 04 03:01:46 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
22) n-Nitroso-di-n-propyla...	5.178	70	491280	29.66	ppm	96
23) Hexachloroethane	5.247	201	224909	25.02	ppm	94
26) Nitrobenzene	5.306	77	779543	28.18	ppm	93
27) Quinoline	6.167	129	1089145	26.33	ppm	98
28) Isophorone	5.499	82	1415755	29.15	ppm	93
29) 2-Nitrophenol	5.568	139	337350	28.72	ppm	78
30) 2,4-Dimethylphenol	5.616	107	599303	30.40	ppm	92
31) Benzoic acid	5.745	105	494886	24.60	ppm	92
32) bis(2-Chloroethoxy)met...	5.681	93	770903	25.55	ppm	97
33) 2,4-Dichlorophenol	5.771	162	462025	27.80	ppm	95
34) 2,6-Dichlorophenol	5.953	162	414429	28.33	ppm	98
35) 1,3,5-Trichlorobenzene	5.574	180	550678	25.42	ppm	97
36) 1,2,4-Trichlorobenzene	5.830	180	500261	24.41	ppm	98
37) 1,2,3-Trichlorobenzene	6.012	180	442895	24.63	ppm	98
38) Naphthalene	5.889	128	1449673	25.93	ppm	100
39) 4-Chloroaniline	5.943	127	612492	26.43	ppm	96
40) 2,3-Dichloroaniline	6.691	161	574032	28.15	ppm	94
41) Caprolactam	6.247	113	190840	27.25	ppm	94
42) Hexachlorobutadiene	6.001	225	289762	25.84	ppm	98
43) 4-Chloro-3-methylphenol	6.360	107	622089	32.27	ppm	87
44) 2-Methylnaphthalene	6.456	141	943890	28.49	ppm	96
45) 1-Methylnaphthalene	6.536	141	1004941	27.67	ppm	97
46) Dimethylnaphthalene	6.970	156	905341	26.54	ppm	97
48) Hexachlorocyclopentadiene	6.595	237	567600	50.40	ppm	98
49) 2,4,6-Trichlorophenol	6.702	196	317420	25.74	ppm	98
50) 2,4,5-Trichlorophenol	6.740	196	321838	24.70	ppm	97
52) 2-Chloronaphthalene	6.857	162	899179	24.39	ppm	98
53) Biphenyl	6.841	154	1275447	25.86	ppm	98
54) 2-Nitroaniline	6.948	65	409886	31.89	ppm	91
55) Dimethylphthalate	7.098	163	1143097	26.61	ppm	99
56) Acenaphthylene	7.194	152	1571900	25.76	ppm	100
57) 2,6-Dinitrotoluene	7.146	165	255378	28.07	ppm	86
58) 3-Nitroaniline	7.285	138	299973	27.05	ppm	90
59) Acenaphthene	7.339	153	931977	25.42	ppm	99
60) 2,4-Dinitrophenol	7.376	184	242702	53.80	ppm	84
61) 4-Nitrophenol	7.451	109	226199	33.74	ppm	# 85
62) Dibenzofuran	7.483	168	1301051	26.94	ppm	99
63) 2,4-Dinitrotoluene	7.478	165	349484	30.32	ppm	86
64) 2,3,4,6-Tetrachlorophenol	7.595	232	277576	23.12	ppm	98
65) Diethylphthalate	7.676	149	1236583	28.30	ppm	96
66) Fluorene	7.761	166	1158562	28.49	ppm	100
67) 4-Chlorophenyl-phenyle...	7.761	204	548557	26.41	ppm	93
68) 4-Nitroaniline	7.793	138	253123	24.56	ppm	82
70) 4,6-Dinitro-2-methylph...	7.820	198	175892	34.11	ppm	79
71) n-Nitrosodiphenylamine	7.868	169	749472	27.40	ppm	99
72) 1,2-Diphenylhydrazine	7.895	77	1453189	28.88	ppm	92
74) 4-Bromophenyl-phenylether	8.184	248	331136	24.75	ppm	85
75) Hexachlorobenzene	8.248	284	375578	24.01	ppm	79
76) Pentachlorophenol	8.440	266	485881	42.19	ppm	99
77) Phenanthrene	8.628	178	1410866	25.57	ppm	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3816\
 Data File : 2p86293.D
 Acq On : 5 Apr 2019 8:03 am
 Operator : chriss2
 Sample : ic3816-25
 Misc : op13652,e2p3816,1000,,,1,1
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Apr 05 13:55:28 2019
 Quant Method : C:\MSDCHEM\1\METHODS\M2P3816.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Thu Apr 04 03:01:46 2019
 Response via : Initial Calibration

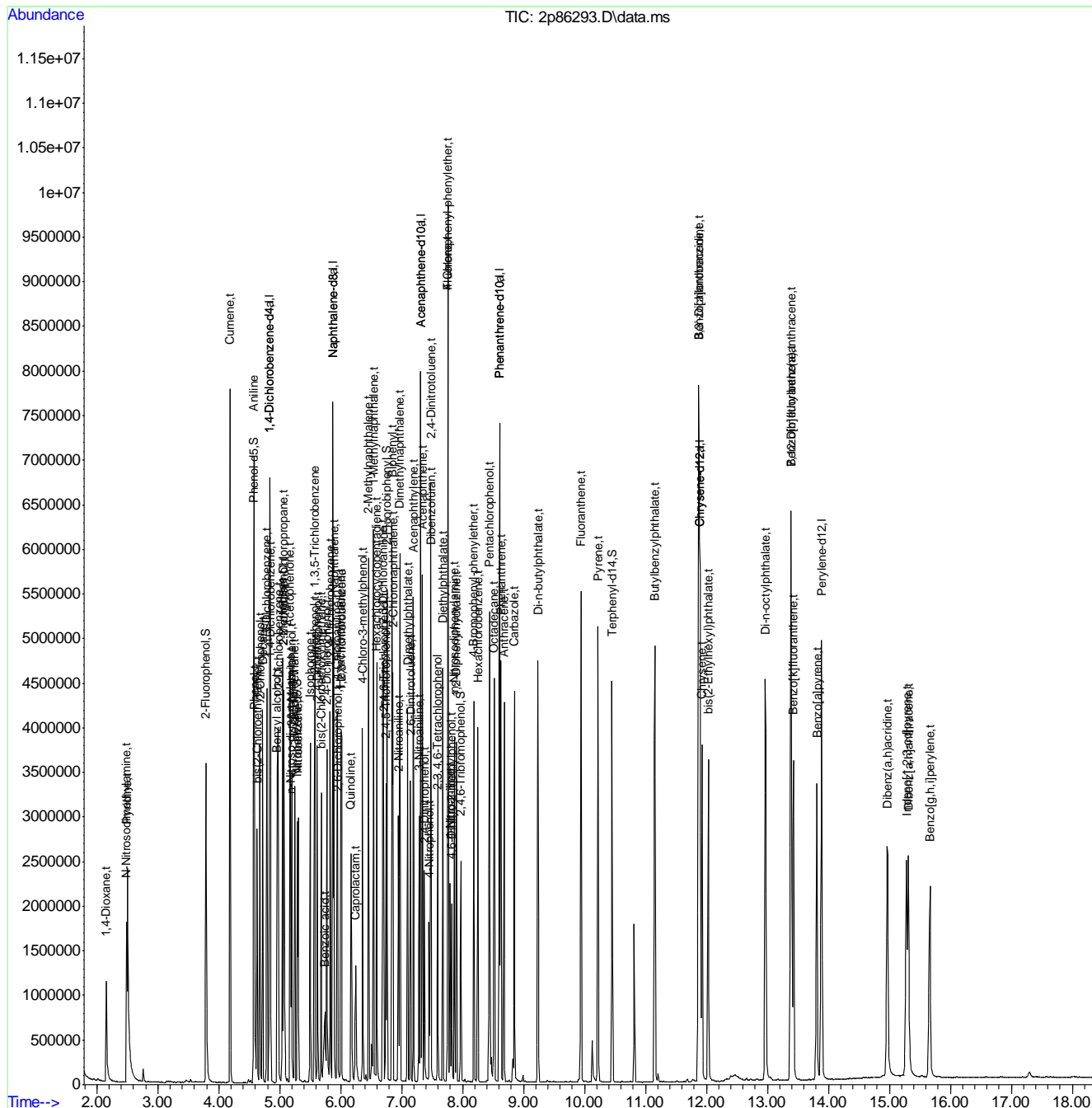
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
78) Anthracene	8.681	178	1439703	26.02	ppm	99
79) Carbazole	8.847	167	1527637	28.84	ppm	98
80) Di-n-butylphthalate	9.237	149	2435746	32.03	ppm	99
81) Fluoranthene	9.943	202	2187528	28.86	ppm	98
82) Octadecane	8.515	43	463746	29.32	ppm	98
84) Pyrene	10.221	202	2112276	29.30	ppm	98
86) Butylbenzylphthalate	11.152	149	1219903	34.12	ppm	91
87) Benzo[a]anthracene	11.874	228	2032004	27.78	ppm	100
88) 3,3'-Dichlorobenzidine	11.874	252	731788	24.10	ppm	99
89) Chrysene	11.928	228	1430581	24.93	ppm	100
90) bis(2-Ethylhexyl)phtha...	12.029	149	1284277	34.34	ppm	97
92) Di-n-octylphthalate	12.965	149	2900710	31.60	ppm	98
93) Benzo[b]fluoranthene	13.388	252	1994672	25.42	ppm	97
94) Benzo[k]fluoranthene	13.425	252	1479400	25.39	ppm	97
95) Benzo[a]pyrene	13.810	252	1570208	28.18	ppm	98
96) Indeno[1,2,3-cd]pyrene	15.281	276	1876048	27.43	ppm	89
97) Dibenz(a,h)acridine	14.971	279	1503750	23.21	ppm	98
98) Dibenz[a,h]anthracene	15.313	278	1441561	22.93	ppm	96
99) 7,12-Dimethylbenz(a)an...	13.388	256	838172	28.25	ppm	96
100) Benzo[g,h,i]perylene	15.666	276	1488608	23.30	ppm	99

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3816\
Data File : 2p86293.D
Acq On : 5 Apr 2019 8:03 am
Operator : chriss2
Sample : ic3816-25
Misc : op13652,e2p3816,1000,,,1,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Apr 05 13:55:28 2019
Quant Method : C:\MSDCHEM\1\METHODS\M2P3816.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Thu Apr 04 03:01:46 2019
Response via : Initial Calibration



9.6.14
9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3816\
 Data File : 2p86294.D
 Acq On : 5 Apr 2019 8:26 am
 Operator : chriss2
 Sample : ic3816-10
 Misc : op13652,e2p3816,1000,,,1,1
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Apr 05 13:59:08 2019
 Quant Method : C:\MSDCHEM\1\METHODS\M2P3816.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Fri Apr 05 13:55:55 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.835	152	922093	40.00	ppm	0.00
24) Naphthalene-d8	5.873	136	2868767	40.00	ppm	0.00
47) Acenaphthene-d10	7.312	164	1521444	40.00	ppm	0.00
69) Phenanthrene-d10	8.606	188	2636905	40.00	ppm	0.00
83) Chrysene-d12	11.890	240	2482079	40.00	ppm	0.00
91) Perylene-d12	13.891	264	2518804	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.835	152	922093	40.00	ppm	0.00
103) Naphthalene-d8a	5.873	136	2868767	40.00	ppm	0.00
105) Acenaphthene-d10a	7.312	164	1521444	40.00	ppm	0.00
108) Chrysene-d12a	11.890	240	2482079	40.00	ppm	0.00
110) Phenanthrene-d10a	8.606	188	2636905	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	3.787	112	434331	9.94	ppm	0.00
Spiked Amount	50.000	Range	11 - 58	Recovery	=	19.88%
8) Phenol-d5	4.573	99	528943	10.60	ppm	0.00
Spiked Amount	50.000	Range	10 - 59	Recovery	=	21.20%
25) Nitrobenzene-d5	5.285	82	403761	12.66	ppm	0.00
Spiked Amount	50.000	Range	19 - 61	Recovery	=	25.32%
51) 2-Fluorobiphenyl	6.761	172	522086	10.49	ppm	0.00
Spiked Amount	50.000	Range	21 - 58	Recovery	=	20.98%#
73) 2,4,6-Tribromophenol	7.970	330	69768	7.57	ppm	0.00
Spiked Amount	50.000	Range	12 - 68	Recovery	=	15.14%
85) Terphenyl-d14	10.452	244	579968	10.05	ppm	0.00
Spiked Amount	50.000	Range	16 - 65	Recovery	=	20.10%
111) 1-Chlorooctadecane	0.000	57	0d	0.00	ppm	
Spiked Amount	50.000	Range	20 - 70	Recovery	=	0.00%#
112) o-terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount	50.000	Range	20 - 70	Recovery	=	0.00%#
Target Compounds						
2) 1,4-Dioxane	2.156	88	243613	10.07	ppm	98
3) Pyridine	2.509	79	595836	9.81	ppm	96
4) N-Nitrosodimethylamine	2.493	74	359456	9.93	ppm	94
6) Indene	5.044	116	485481	10.43	ppm	96
7) Cumene	4.183	105	1203449	11.59	ppm	95
9) Phenol	4.584	94	561488	10.68	ppm	95
10) Aniline	4.573	93	614183	11.31	ppm	92
11) bis(2-Chloroethyl)ether	4.627	93	392064	10.05	ppm	95
12) 2-Chlorophenol	4.675	128	352568	10.46	ppm	96
13) Decane	4.718	57	335973	10.41	ppm	97
14) 1,3-Dichlorobenzene	4.787	146	372289	10.21	ppm	97
15) 1,4-Dichlorobenzene	4.846	146	324373	9.86	ppm	97
16) Benzyl alcohol	4.958	108	184967	7.21	ppm	95
17) 1,2-Dichlorobenzene	4.975	146	307142	9.85	ppm	99
18) Acetophenone	5.167	105	460192	10.66	ppm	98
19) 2-Methylphenol	5.065	108	279124	11.11	ppm	97
20) 2,2'-oxybis(1-Chloropr...	5.065	121	74904	9.51	ppm	# 29
21) 3&4-Methylphenol	5.189	108	278462	10.91	ppm	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3816\
 Data File : 2p86294.D
 Acq On : 5 Apr 2019 8:26 am
 Operator : chriss2
 Sample : ic3816-10
 Misc : op13652,e2p3816,1000,,,1,1
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Apr 05 13:59:08 2019
 Quant Method : C:\MSDCHEM\1\METHODS\M2P3816.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Fri Apr 05 13:55:55 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
22) n-Nitroso-di-n-propyla...	5.172	70	255293	12.34	ppm	95
23) Hexachloroethane	5.247	201	108524	9.66	ppm	92
26) Nitrobenzene	5.301	77	402806	12.24	ppm	88
27) Quinoline	6.162	129	502198	10.20	ppm	97
28) Isophorone	5.499	82	690165	11.94	ppm	96
29) 2-Nitrophenol	5.563	139	156794	11.21	ppm	80
30) 2,4-Dimethylphenol	5.616	107	272319	11.61	ppm	93
31) Benzoic acid	5.718	105	183930	7.68	ppm	91
32) bis(2-Chloroethoxy)met...	5.681	93	389321	10.84	ppm	96
33) 2,4-Dichlorophenol	5.771	162	216115	10.92	ppm	97
34) 2,6-Dichlorophenol	5.948	162	188496	10.82	ppm	96
35) 1,3,5-Trichlorobenzene	5.574	180	254876	9.88	ppm	96
36) 1,2,4-Trichlorobenzene	5.830	180	240668	9.87	ppm	97
37) 1,2,3-Trichlorobenzene	6.007	180	206549	9.65	ppm	96
38) Naphthalene	5.889	128	678414	10.19	ppm	99
39) 4-Chloroaniline	5.937	127	291367	10.56	ppm	91
40) 2,3-Dichloroaniline	6.691	161	268375	11.06	ppm	93
41) Caprolactam	6.221	113	83374	10.00	ppm	91
42) Hexachlorobutadiene	5.996	225	131270	9.84	ppm	97
43) 4-Chloro-3-methylphenol	6.354	107	285257	12.43	ppm #	64
44) 2-Methylnaphthalene	6.456	141	437586	11.10	ppm	96
45) 1-Methylnaphthalene	6.536	141	485571	11.23	ppm	96
46) Dimethylnaphthalene	6.970	156	432220	10.65	ppm	95
48) Hexachlorocyclopentadiene	6.590	237	218142	16.61	ppm	98
49) 2,4,6-Trichlorophenol	6.697	196	144182	10.03	ppm	99
50) 2,4,5-Trichlorophenol	6.734	196	150499	9.91	ppm	97
52) 2-Chloronaphthalene	6.852	162	432784	10.07	ppm	92
53) Biphenyl	6.841	154	602785	10.48	ppm	98
54) 2-Nitroaniline	6.943	65	201453	13.44	ppm	83
55) Dimethylphthalate	7.093	163	528442	10.55	ppm	99
56) Acenaphthylene	7.194	152	744261	10.46	ppm	99
57) 2,6-Dinitrotoluene	7.141	165	118536	11.17	ppm	78
58) 3-Nitroaniline	7.280	138	139307	10.77	ppm	85
59) Acenaphthene	7.339	153	418853	9.79	ppm	97
60) 2,4-Dinitrophenol	7.371	184	86023	21.32	ppm	73
61) 4-Nitrophenol	7.451	109	98291	12.57	ppm #	83
62) Dibenzofuran	7.478	168	584695	10.38	ppm	93
63) 2,4-Dinitrotoluene	7.472	165	154349	11.48	ppm	97
64) 2,3,4,6-Tetrachlorophenol	7.590	232	117767	8.41	ppm	89
65) Diethylphthalate	7.670	149	559522	10.98	ppm	95
66) Fluorene	7.761	166	516090	10.88	ppm	99
67) 4-Chlorophenyl-phenyle...	7.761	204	237676	9.81	ppm	90
68) 4-Nitroaniline	7.788	138	120201	10.00	ppm	86
70) 4,6-Dinitro-2-methylph...	7.815	198	76388	12.77	ppm	69
71) n-Nitrosodiphenylamine	7.863	169	350535	11.05	ppm	98
72) 1,2-Diphenylhydrazine	7.895	77	734924	12.59	ppm	94
74) 4-Bromophenyl-phenylether	8.184	248	143879	9.27	ppm	85
75) Hexachlorobenzene	8.248	284	159191	8.78	ppm	85
76) Pentachlorophenol	8.435	266	187397	16.93	ppm	98
77) Phenanthrene	8.628	178	620169	9.69	ppm	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3816\
 Data File : 2p86294.D
 Acq On : 5 Apr 2019 8:26 am
 Operator : chriss2
 Sample : ic3816-10
 Misc : op13652,e2p3816,1000,,,1,1
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Apr 05 13:59:08 2019
 Quant Method : C:\MSDCHEM\1\METHODS\M2P3816.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Fri Apr 05 13:55:55 2019
 Response via : Initial Calibration

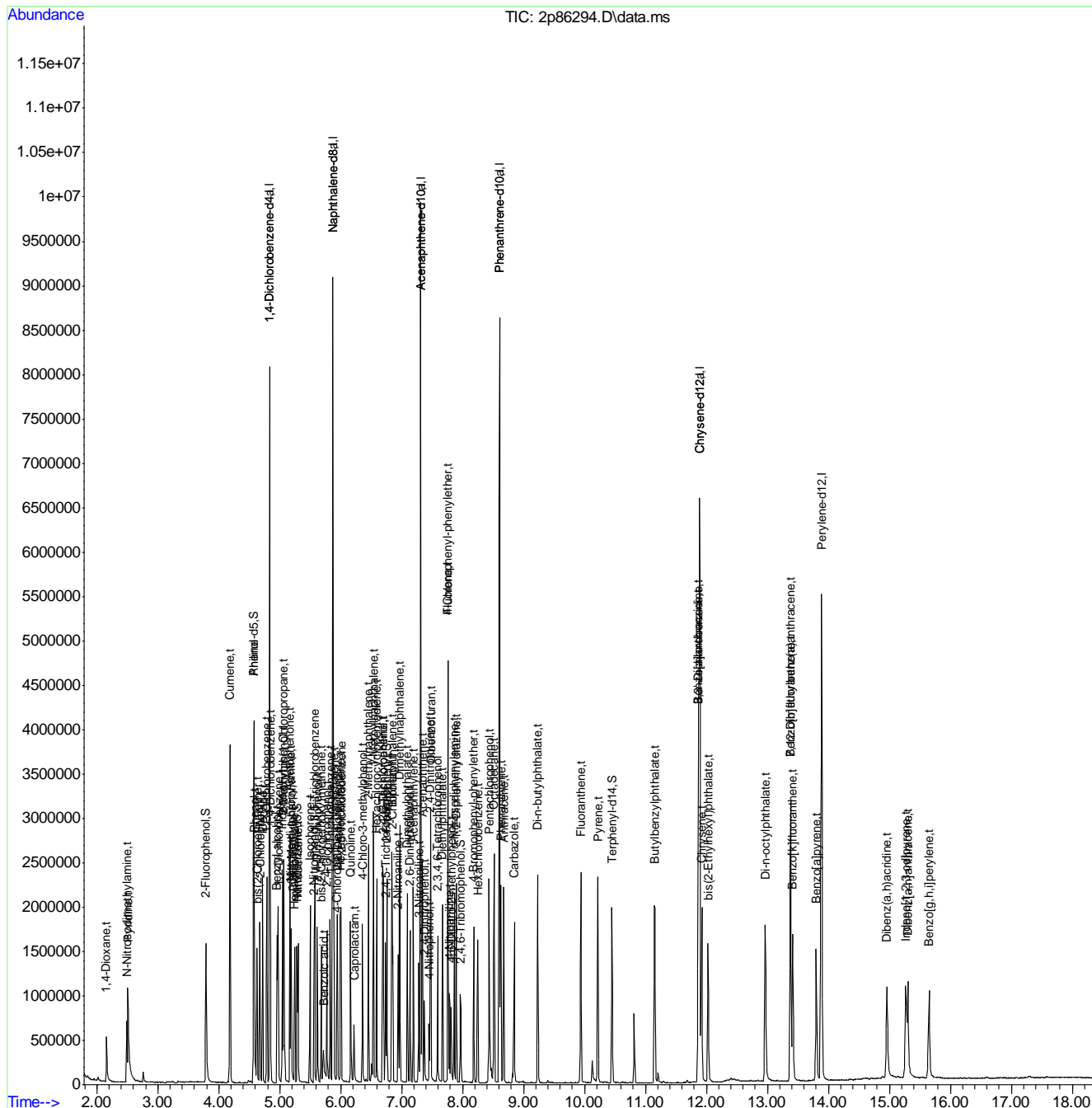
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
78) Anthracene	8.676	178	645839	10.06	ppm	99
79) Carbazole	8.847	167	671971	10.94	ppm	98
80) Di-n-butylphthalate	9.232	149	1083139	12.28	ppm	98
81) Fluoranthene	9.943	202	922590	10.50	ppm	98
82) Octadecane	8.515	43	234384	12.78	ppm	97
84) Pyrene	10.222	202	950892	11.44	ppm	99
86) Butylbenzylphthalate	11.152	149	520538	12.62	ppm	89
87) Benzo[a]anthracene	11.869	228	854957	10.13	ppm	99
88) 3,3'-Dichlorobenzidine	11.869	252	291107	9.87	ppm	96
89) Chrysene	11.922	228	639387	9.66	ppm	99
90) bis(2-Ethylhexyl)phtha...	12.029	149	573298	13.29	ppm	96
92) Di-n-octylphthalate	12.965	149	1212825	13.11	ppm	97
93) Benzo[b]fluoranthene	13.377	252	816222	9.97	ppm	95
94) Benzo[k]fluoranthene	13.415	252	707819	10.81	ppm	95
95) Benzo[a]pyrene	13.800	252	674147	10.76	ppm	96
96) Indeno[1,2,3-cd]pyrene	15.265	276	762993	11.07	ppm	79
97) Dibenz(a,h)acridine	14.960	279	576057	10.21	ppm	98
98) Dibenz[a,h]anthracene	15.303	278	597186	9.20	ppm	93
99) 7,12-Dimethylbenz(a)an...	13.377	256	318861	9.56	ppm	92
100) Benzo[g,h,i]perylene	15.650	276	604437	9.24	ppm	96

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3816\
 Data File : 2p86294.D
 Acq On : 5 Apr 2019 8:26 am
 Operator : chriss2
 Sample : ic3816-10
 Misc : op13652,e2p3816,1000,,,1,1
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Apr 05 13:59:08 2019
 Quant Method : C:\MSDCHEM\1\METHODS\M2P3816.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Fri Apr 05 13:55:55 2019
 Response via : Initial Calibration



9.6-15
9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3816\
 Data File : 2p86295.D
 Acq On : 5 Apr 2019 8:50 am
 Operator : chriss2
 Sample : ic3816-5
 Misc : op13652,e2p3816,1000,,,1,1
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Apr 05 14:00:38 2019
 Quant Method : C:\MSDCHEM\1\METHODS\M2P3816.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Fri Apr 05 13:55:55 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.836	152	1000760	40.00	ppm	0.00
24) Naphthalene-d8	5.873	136	3155520	40.00	ppm	0.00
47) Acenaphthene-d10	7.312	164	1633901	40.00	ppm	0.00
69) Phenanthrene-d10	8.606	188	2729337	40.00	ppm	0.00
83) Chrysene-d12	11.891	240	2532945	40.00	ppm	0.00
91) Perylene-d12	13.886	264	2546198	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.836	152	1000760	40.00	ppm	0.00
103) Naphthalene-d8a	5.873	136	3155520	40.00	ppm	0.00
105) Acenaphthene-d10a	7.312	164	1633901	40.00	ppm	0.00
108) Chrysene-d12a	11.891	240	2532945	40.00	ppm	0.00
110) Phenanthrene-d10a	8.606	188	2729337	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	3.793	112	214911	4.53	ppm	0.00
Spiked Amount	50.000	Range	11 - 58	Recovery	=	9.06%#
8) Phenol-d5	4.574	99	277196	5.12	ppm	0.00
Spiked Amount	50.000	Range	10 - 59	Recovery	=	10.24%
25) Nitrobenzene-d5	5.285	82	221093	6.30	ppm	0.00
Spiked Amount	50.000	Range	19 - 61	Recovery	=	12.60%#
51) 2-Fluorobiphenyl	6.756	172	286580	5.36	ppm	0.00
Spiked Amount	50.000	Range	21 - 58	Recovery	=	10.72%#
73) 2,4,6-Tribromophenol	7.965	330	34592	3.62	ppm	0.00
Spiked Amount	50.000	Range	12 - 68	Recovery	=	7.24%#
85) Terphenyl-d14	10.446	244	260166	4.42	ppm	0.00
Spiked Amount	50.000	Range	16 - 65	Recovery	=	8.84%#
111) 1-Chlorooctadecane	0.000	57	0d	0.00	ppm	
Spiked Amount	50.000	Range	20 - 70	Recovery	=	0.00%#
112) o-terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount	50.000	Range	20 - 70	Recovery	=	0.00%#
Target Compounds						
2) 1,4-Dioxane	2.161	88	124570	5.28	ppm	Qvalue 94
3) Pyridine	2.520	79	276658	4.20	ppm	97
4) N-Nitrosodimethylamine	2.498	74	171118	4.35	ppm	94
6) Indene	5.044	116	268690	5.32	ppm	100
7) Cumene	4.183	105	618809	5.49	ppm	96
9) Phenol	4.584	94	300362	5.27	ppm	92
10) Aniline	4.574	93	335354	5.69	ppm	89
11) bis(2-Chloroethyl)ether	4.627	93	214184	5.06	ppm	95
12) 2-Chlorophenol	4.675	128	193547	5.29	ppm	93
13) Decane	4.718	57	189591	5.41	ppm	98
14) 1,3-Dichlorobenzene	4.788	146	208916	5.28	ppm	98
15) 1,4-Dichlorobenzene	4.846	146	171632	4.81	ppm	98
16) Benzyl alcohol	4.959	108	97108	3.49	ppm	94
17) 1,2-Dichlorobenzene	4.975	146	165143	4.88	ppm	98
18) Acetophenone	5.162	105	248691	5.31	ppm	91
19) 2-Methylphenol	5.066	108	150843	5.53	ppm	98
20) 2,2'-oxybis(1-Chloropr...	5.066	121	41744	4.88	ppm	# 27
21) 3&4-Methylphenol	5.189	108	148735	5.37	ppm	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3816\
 Data File : 2p86295.D
 Acq On : 5 Apr 2019 8:50 am
 Operator : chriss2
 Sample : ic3816-5
 Misc : op13652,e2p3816,1000,,,1,1
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Apr 05 14:00:38 2019
 Quant Method : C:\MSDCHEM\1\METHODS\M2P3816.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Fri Apr 05 13:55:55 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
22) n-Nitroso-di-n-propyla...	5.167	70	140142	6.24	ppm	90
23) Hexachloroethane	5.248	201	59152	4.85	ppm	88
26) Nitrobenzene	5.301	77	224083	6.19	ppm	88
27) Quinoline	6.162	129	259504	4.79	ppm	97
28) Isophorone	5.494	82	365320	5.75	ppm	91
29) 2-Nitrophenol	5.563	139	81706	5.31	ppm	76
30) 2,4-Dimethylphenol	5.617	107	142256	5.51	ppm	91
31) Benzoic acid	5.718	105	67070	2.55	ppm	94
32) bis(2-Chloroethoxy)met...	5.681	93	208914	5.29	ppm	96
33) 2,4-Dichlorophenol	5.772	162	115524	5.31	ppm	96
34) 2,6-Dichlorophenol	5.948	162	101487	5.30	ppm	91
35) 1,3,5-Trichlorobenzene	5.574	180	139558	4.92	ppm	98
36) 1,2,4-Trichlorobenzene	5.831	180	129151	4.81	ppm	94
37) 1,2,3-Trichlorobenzene	6.007	180	110150	4.68	ppm	95
38) Naphthalene	5.889	128	367927	5.03	ppm	98
39) 4-Chloroaniline	5.938	127	150117	4.95	ppm	89
40) 2,3-Dichloroaniline	6.692	161	138544	5.19	ppm	93
41) Caprolactam	6.210	113	43612	4.76	ppm	94
42) Hexachlorobutadiene	5.996	225	68463	4.66	ppm	99
43) 4-Chloro-3-methylphenol	6.355	107	145572	5.77	ppm	90
44) 2-Methylnaphthalene	6.456	141	224621	5.18	ppm	96
45) 1-Methylnaphthalene	6.537	141	255582	5.37	ppm	94
46) Dimethylnaphthalene	6.970	156	233870	5.24	ppm	97
48) Hexachlorocyclopentadiene	6.590	237	98519	6.99	ppm	95
49) 2,4,6-Trichlorophenol	6.697	196	73255	4.74	ppm	99
50) 2,4,5-Trichlorophenol	6.734	196	75866	4.65	ppm	96
52) 2-Chloronaphthalene	6.852	162	238214	5.16	ppm	94
53) Biphenyl	6.836	154	323900	5.24	ppm	98
54) 2-Nitroaniline	6.943	65	104787	6.51	ppm	86
55) Dimethylphthalate	7.093	163	275200	5.12	ppm	98
56) Acenaphthylene	7.194	152	393216	5.15	ppm	99
57) 2,6-Dinitrotoluene	7.141	165	62002	5.44	ppm	79
58) 3-Nitroaniline	7.280	138	69008	4.97	ppm	83
59) Acenaphthene	7.339	153	219935	4.79	ppm	97
60) 2,4-Dinitrophenol	7.371	184	32123	12.05	ppm #	40
61) 4-Nitrophenol	7.451	109	44070	5.25	ppm #	84
62) Dibenzofuran	7.478	168	307163	5.08	ppm	93
63) 2,4-Dinitrotoluene	7.473	165	76992	5.33	ppm	90
64) 2,3,4,6-Tetrachlorophenol	7.590	232	54932	3.65	ppm	84
65) Diethylphthalate	7.670	149	291956	5.33	ppm	95
66) Fluorene	7.761	166	265898	5.22	ppm	97
67) 4-Chlorophenyl-phenyle...	7.761	204	116662	4.49	ppm	87
68) 4-Nitroaniline	7.783	138	66541	5.15	ppm	79
70) 4,6-Dinitro-2-methylph...	7.815	198	35924	5.80	ppm #	54
71) n-Nitrosodiphenylamine	7.863	169	185183	5.64	ppm	99
72) 1,2-Diphenylhydrazine	7.895	77	410293	6.79	ppm	94
74) 4-Bromophenyl-phenylether	8.184	248	70883	4.41	ppm	85
75) Hexachlorobenzene	8.248	284	79221	4.22	ppm	86
76) Pentachlorophenol	8.435	266	82032	9.81	ppm	98
77) Phenanthrene	8.628	178	320859	4.84	ppm	99

9.6.16
9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3816\
 Data File : 2p86295.D
 Acq On : 5 Apr 2019 8:50 am
 Operator : chriss2
 Sample : ic3816-5
 Misc : op13652,e2p3816,1000,,,1,1
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Apr 05 14:00:38 2019
 Quant Method : C:\MSDCHEM\1\METHODS\M2P3816.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Fri Apr 05 13:55:55 2019
 Response via : Initial Calibration

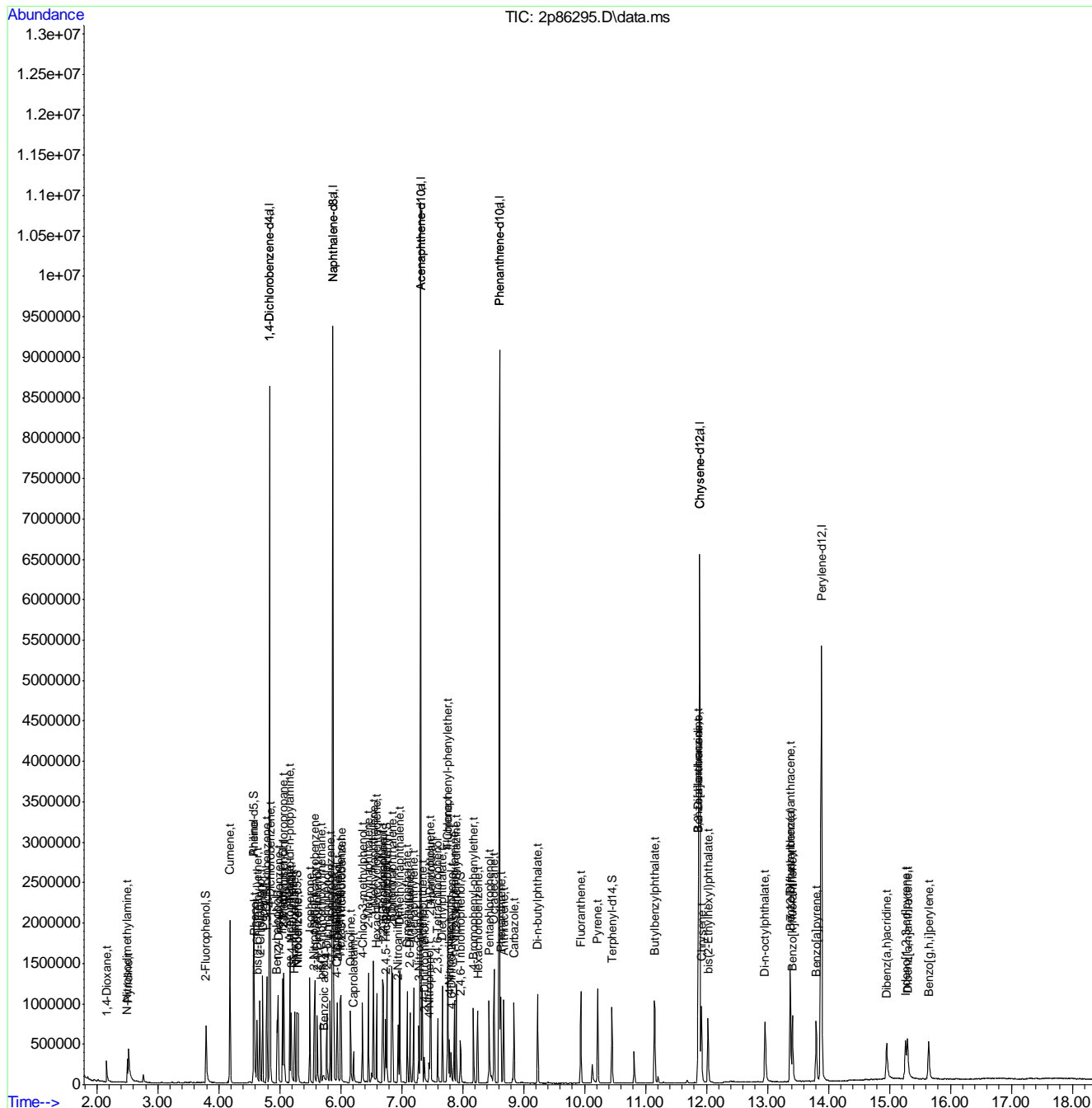
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
78) Anthracene	8.676	178	337868	5.09	ppm	97
79) Carbazole	8.842	167	344429	5.42	ppm	97
80) Di-n-butylphthalate	9.232	149	496623	5.44	ppm	97
81) Fluoranthene	9.938	202	414972	4.56	ppm	95
82) Octadecane	8.516	43	129055	6.80	ppm	98
84) Pyrene	10.216	202	444919	5.24	ppm	99
86) Butylbenzylphthalate	11.147	149	249364	5.93	ppm	81
87) Benzo[a]anthracene	11.869	228	431015	5.01	ppm	97
88) 3,3'-Dichlorobenzidine	11.869	252	134915	5.93	ppm	94
89) Chrysene	11.917	228	313296	4.64	ppm	99
90) bis(2-Ethylhexyl)phtha...	12.024	149	281237	6.39	ppm	93
92) Di-n-octylphthalate	12.960	149	545246	7.25	ppm	97
93) Benzo[b]fluoranthene	13.377	252	372750	5.20	ppm	95
94) Benzo[k]fluoranthene	13.410	252	367153	5.55	ppm	94
95) Benzo[a]pyrene	13.800	252	328914	5.20	ppm	95
96) Indeno[1,2,3-cd]pyrene	15.266	276	359436	6.22	ppm	83
97) Dibenz(a,h)acridine	14.955	279	251445	6.48	ppm	97
98) Dibenz[a,h]anthracene	15.298	278	290472	5.15	ppm	93
99) 7,12-Dimethylbenz(a)an...	13.372	256	133286	3.95	ppm	90
100) Benzo[g,h,i]perylene	15.645	276	286393	5.12	ppm	93

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3816\
Data File : 2p86295.D
Acq On : 5 Apr 2019 8:50 am
Operator : chriss2
Sample : ic3816-5
Misc : op13652,e2p3816,1000,,,1,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Apr 05 14:00:38 2019
Quant Method : C:\MSDCHEM\1\METHODS\M2P3816.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Apr 05 13:55:55 2019
Response via : Initial Calibration



9.6.16
9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3816\
 Data File : 2p86296.D
 Acq On : 5 Apr 2019 9:13 am
 Operator : chriss2
 Sample : ic3816-2
 Misc : op13652,e2p3816,1000,,,1,1
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Apr 05 14:02:40 2019
 Quant Method : C:\MSDCHEM\1\METHODS\M2P3816.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Fri Apr 05 13:55:55 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.835	152	1006194	40.00	ppm	0.00
24) Naphthalene-d8	5.873	136	3242453	40.00	ppm	0.00
47) Acenaphthene-d10	7.312	164	1734207	40.00	ppm	0.00
69) Phenanthrene-d10	8.606	188	2855483	40.00	ppm	0.00
83) Chrysene-d12	11.885	240	2504406	40.00	ppm	-0.01
91) Perylene-d12	13.891	264	2543584	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.835	152	1006194	40.00	ppm	0.00
103) Naphthalene-d8a	5.873	136	3242453	40.00	ppm	0.00
105) Acenaphthene-d10a	7.312	164	1734207	40.00	ppm	0.00
108) Chrysene-d12a	11.885	240	2504406	40.00	ppm	-0.01
110) Phenanthrene-d10a	8.606	188	2855483	40.00	ppm	0.00

System Monitoring Compounds

5) 2-Fluorophenol	3.793	112	75252	1.58	ppm	0.00
Spiked Amount	50.000	Range	11 - 58	Recovery	=	3.16%#
8) Phenol-d5	4.573	99	102656	1.89	ppm	0.00
Spiked Amount	50.000	Range	10 - 59	Recovery	=	3.78%#
25) Nitrobenzene-d5	5.285	82	92073	2.55	ppm	0.00
Spiked Amount	50.000	Range	19 - 61	Recovery	=	5.10%#
51) 2-Fluorobiphenyl	6.756	172	126378	2.23	ppm	0.00
Spiked Amount	50.000	Range	21 - 58	Recovery	=	4.46%#
73) 2,4,6-Tribromophenol	7.970	330	13801	1.38	ppm	0.00
Spiked Amount	50.000	Range	12 - 68	Recovery	=	2.76%#
85) Terphenyl-d14	10.446	244	111830	1.92	ppm	0.00
Spiked Amount	50.000	Range	16 - 65	Recovery	=	3.84%#
111) 1-Chlorooctadecane	0.000	57	0d	0.00	ppm	
Spiked Amount	50.000	Range	20 - 70	Recovery	=	0.00%#
112) o-terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount	50.000	Range	20 - 70	Recovery	=	0.00%#

Target Compounds

Qvalue

2) 1,4-Dioxane	2.167	88	48229	2.61	ppm	94
3) Pyridine	2.536	79	100108	1.51	ppm	95
4) N-Nitrosodimethylamine	2.503	74	65556	1.66	ppm	95
6) Indene	5.044	116	101905	2.01	ppm	98
7) Cumene	4.183	105	232713	2.05	ppm	94
9) Phenol	4.584	94	112035	1.95	ppm	80
10) Aniline	4.573	93	130565	2.20	ppm	94
11) bis(2-Chloroethyl)ether	4.627	93	85019	2.00	ppm	87
12) 2-Chlorophenol	4.675	128	71490	1.94	ppm	89
13) Decane	4.718	57	76760	2.18	ppm	97
14) 1,3-Dichlorobenzene	4.787	146	81473	2.05	ppm	96
15) 1,4-Dichlorobenzene	4.846	146	67831	1.89	ppm	98
16) Benzyl alcohol	4.958	108	33403	1.19	ppm	91
17) 1,2-Dichlorobenzene	4.975	146	65169	1.91	ppm	98
18) Acetophenone	5.167	105	101375	2.15	ppm	96
19) 2-Methylphenol	5.065	108	57686	2.10	ppm	98
20) 2,2'-oxybis(1-Chloropr...	5.065	121	17399	2.02	ppm	# 32
21) 3&4-Methylphenol	5.194	108	58113	2.09	ppm	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3816\
 Data File : 2p86296.D
 Acq On : 5 Apr 2019 9:13 am
 Operator : chriss2
 Sample : ic3816-2
 Misc : op13652,e2p3816,1000,,,1,1
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Apr 05 14:02:40 2019
 Quant Method : C:\MSDCHEM\1\METHODS\M2P3816.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Fri Apr 05 13:55:55 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
22) n-Nitroso-di-n-propyla...	5.167	70	58355	2.58	ppm	90
23) Hexachloroethane	5.247	201	23918	1.95	ppm	82
26) Nitrobenzene	5.301	77	91684	2.46	ppm	87
27) Quinoline	6.162	129	108539	1.95	ppm	94
28) Isophorone	5.493	82	147783	2.26	ppm	90
29) 2-Nitrophenol	5.563	139	31422	1.99	ppm	73
30) 2,4-Dimethylphenol	5.616	107	52269	1.97	ppm	93
32) bis(2-Chloroethoxy)met...	5.675	93	86502	2.13	ppm	97
33) 2,4-Dichlorophenol	5.777	162	43639	1.95	ppm	95
34) 2,6-Dichlorophenol	5.948	162	38526	1.96	ppm	90
35) 1,3,5-Trichlorobenzene	5.574	180	55137	1.89	ppm	95
36) 1,2,4-Trichlorobenzene	5.830	180	51694	1.88	ppm	96
37) 1,2,3-Trichlorobenzene	6.007	180	48199	1.99	ppm	93
38) Naphthalene	5.889	128	147998	1.97	ppm	99
39) 4-Chloroaniline	5.943	127	58957	1.89	ppm	93
40) 2,3-Dichloroaniline	6.691	161	59484	2.17	ppm	90
41) Caprolactam	6.205	113	17551	1.86	ppm	96
42) Hexachlorobutadiene	5.996	225	28089	1.86	ppm	97
43) 4-Chloro-3-methylphenol	6.354	107	58469	2.25	ppm	91
44) 2-Methylnaphthalene	6.456	141	95887	2.15	ppm	96
45) 1-Methylnaphthalene	6.536	141	109894	2.25	ppm	94
46) Dimethylnaphthalene	6.970	156	101374	2.21	ppm	94
48) Hexachlorocyclopentadiene	6.590	237	31093	2.08	ppm	92
49) 2,4,6-Trichlorophenol	6.697	196	29048	1.77	ppm	98
50) 2,4,5-Trichlorophenol	6.740	196	29774	1.72	ppm	95
52) 2-Chloronaphthalene	6.852	162	105819	2.16	ppm	94
53) Biphenyl	6.836	154	141110	2.15	ppm	97
54) 2-Nitroaniline	6.943	65	43180	2.53	ppm	83
55) Dimethylphthalate	7.093	163	120262	2.11	ppm	97
56) Acenaphthylene	7.194	152	172546	2.13	ppm	99
57) 2,6-Dinitrotoluene	7.141	165	25317	2.09	ppm	82
58) 3-Nitroaniline	7.280	138	26553	1.80	ppm	80
59) Acenaphthene	7.333	153	91851	1.88	ppm	98
60) 2,4-Dinitrophenol	7.376	184	7023	8.12	ppm #	78
61) 4-Nitrophenol	7.467	109	14372	1.61	ppm #	72
62) Dibenzofuran	7.478	168	127870	1.99	ppm	93
63) 2,4-Dinitrotoluene	7.472	165	29401	1.92	ppm	77
64) 2,3,4,6-Tetrachlorophenol	7.590	232	21131	1.32	ppm	77
65) Diethylphthalate	7.670	149	121218	2.09	ppm	95
66) Fluorene	7.761	166	110839	2.05	ppm	98
67) 4-Chlorophenyl-phenyle...	7.761	204	48038	1.74	ppm	80
68) 4-Nitroaniline	7.783	138	22911	1.67	ppm	83
70) 4,6-Dinitro-2-methylph...	7.815	198	10880	1.68	ppm	77
71) n-Nitrosodiphenylamine	7.863	169	75449	2.20	ppm	99
72) 1,2-Diphenylhydrazine	7.895	77	179041	2.83	ppm	93
74) 4-Bromophenyl-phenylether	8.184	248	29224	1.74	ppm	84
75) Hexachlorobenzene	8.248	284	32401	1.65	ppm	84
76) Pentachlorophenol	8.435	266	27499	6.28	ppm	95
77) Phenanthrene	8.622	178	131034	1.89	ppm	99
78) Anthracene	8.676	178	136316	1.96	ppm	99

9.6.17
9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3816\
 Data File : 2p86296.D
 Acq On : 5 Apr 2019 9:13 am
 Operator : chriss2
 Sample : ic3816-2
 Misc : op13652,e2p3816,1000,,,1,1
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Apr 05 14:02:40 2019
 Quant Method : C:\MSDCHEM\1\METHODS\M2P3816.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Fri Apr 05 13:55:55 2019
 Response via : Initial Calibration

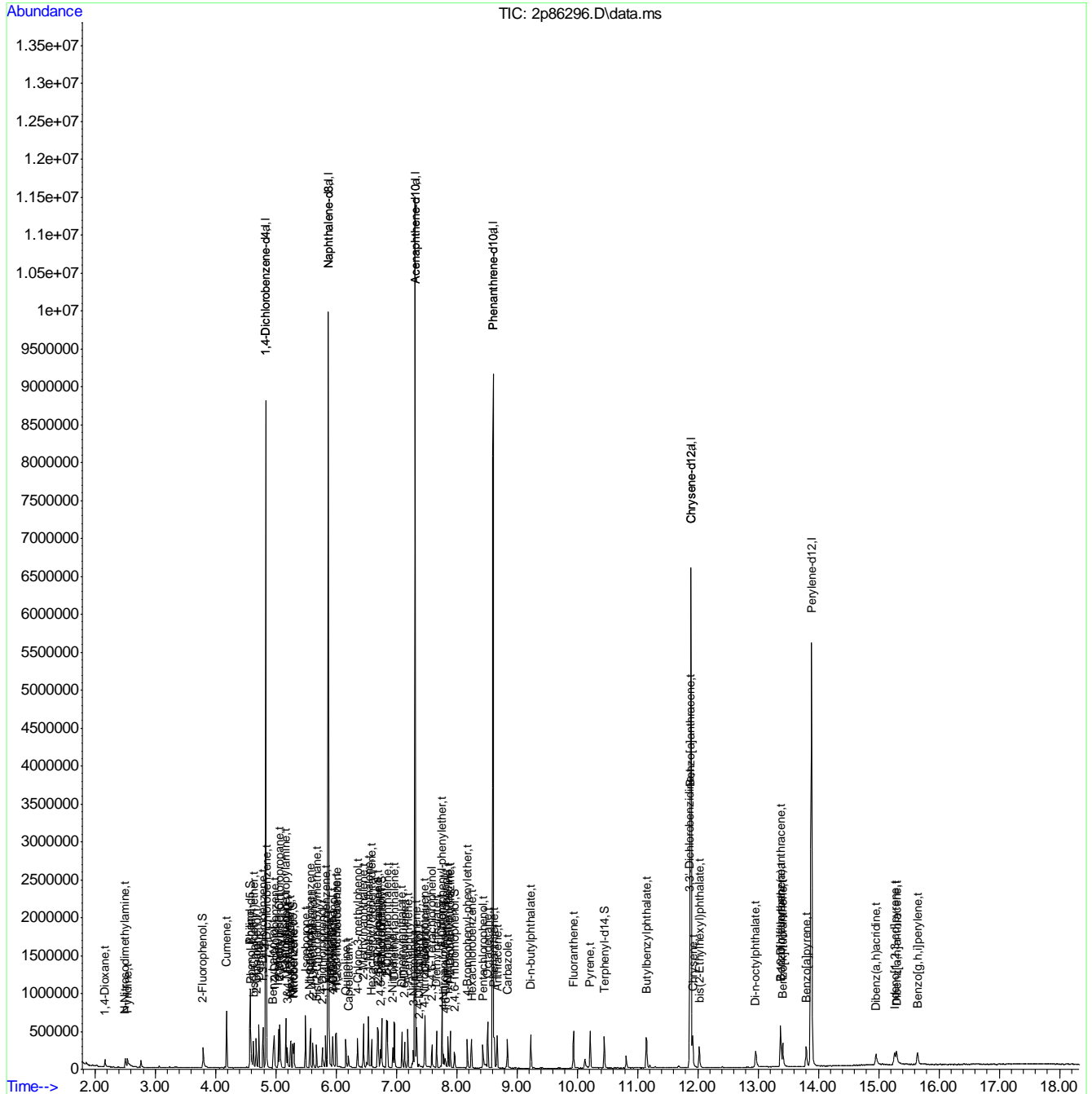
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
79) Carbazole	8.842	167	134675	2.02	ppm	96
80) Di-n-butylphthalate	9.232	149	203346	2.13	ppm	98
81) Fluoranthene	9.938	202	172304	1.81	ppm	92
82) Octadecane	8.515	43	54262	2.73	ppm	95
84) Pyrene	10.216	202	181259	2.16	ppm	98
86) Butylbenzylphthalate	11.147	149	102458	2.46	ppm	87
87) Benzo[a]anthracene	11.874	228	171208	2.01	ppm	100
88) 3,3'-Dichlorobenzidine	11.869	252	45367	3.79	ppm	90
89) Chrysene	11.917	228	122678	1.84	ppm	96
90) bis(2-Ethylhexyl)phtha...	12.024	149	101363	2.33	ppm	96
92) Di-n-octylphthalate	12.960	149	173507	4.10	ppm	95
93) Benzo[b]fluoranthene	13.372	252	137721m	2.74	ppm	
94) Benzo[k]fluoranthene	13.409	252	143988	2.18	ppm	95
95) Benzo[a]pyrene	13.800	252	119494	1.89	ppm	91
96) Indeno[1,2,3-cd]pyrene	15.265	276	125276	3.48	ppm	79
97) Dibenz(a,h)acridine	14.960	279	83899	4.60	ppm	91
98) Dibenz[a,h]anthracene	15.297	278	102329	2.74	ppm	89
99) 7,12-Dimethylbenz(a)an...	13.372	256	48201	1.43	ppm	97
100) Benzo[g,h,i]perylene	15.645	276	105492	2.84	ppm	86

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3816\
 Data File : 2p86296.D
 Acq On : 5 Apr 2019 9:13 am
 Operator : chriss2
 Sample : ic3816-2
 Misc : op13652,e2p3816,1000,,,1,1
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Apr 05 14:02:40 2019
 Quant Method : C:\MSDCHEM\1\METHODS\M2P3816.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Fri Apr 05 13:55:55 2019
 Response via : Initial Calibration



Manual Integration Approval Summary

Sample Number: E2P3816-IC3816 Method: SW846 8270D
Lab FileID: 2P86296.D Analyst approved: 04/08/19 13:30 Kristi Schollenberger
Injection Time: 04/05/19 09:13 Supervisor approved: 04/09/19 16:32 Nina Pandya

Parameter	CAS	Sig#	R.T. (min.)	Reason
Benzo(b)fluoranthene	205-99-2		13.37	Overlapping peak

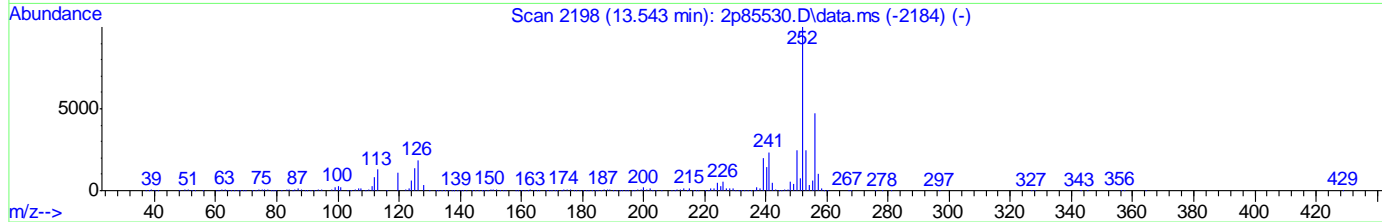
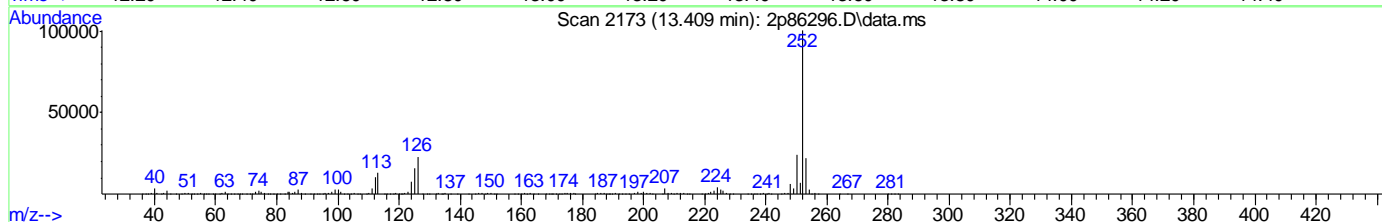
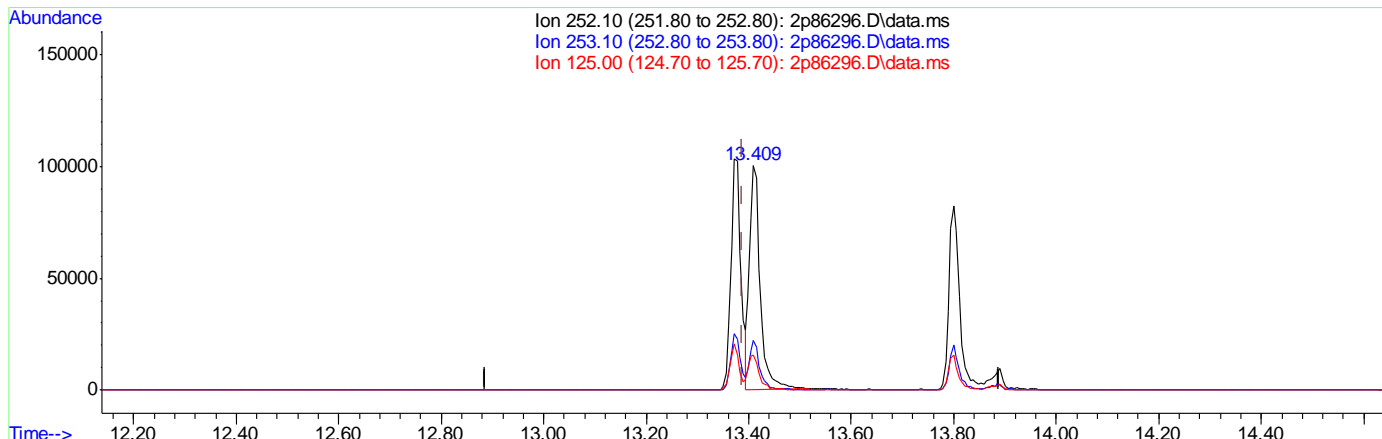
9.6.17.1

9

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2P3816\
 Data File : 2p86296.D
 Acq On : 5 Apr 2019 9:13 am
 Operator : chriss2
 Sample : ic3816-2
 Misc : op13652,e2p3816,1000,,,1,1
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Apr 05 14:00:58 2019
 Quant Method : C:\MSDCHEM\1\METHODS\M2P3816.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Fri Apr 05 13:55:55 2019
 Response via : Initial Calibration



TIC: 2p86296.D\data.ms

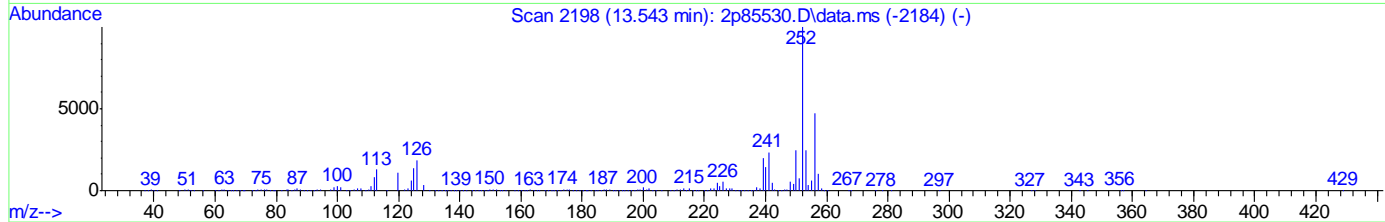
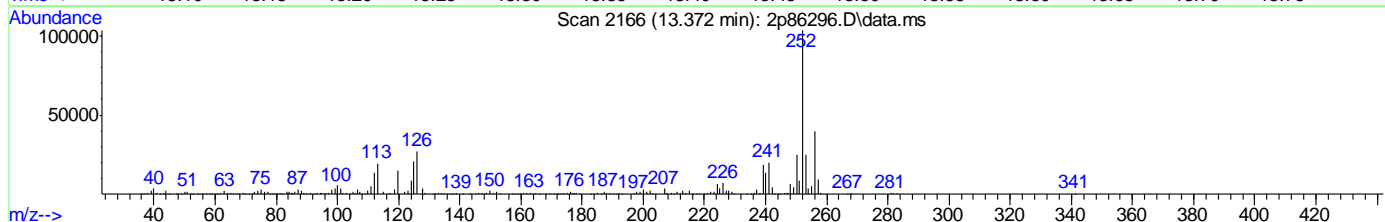
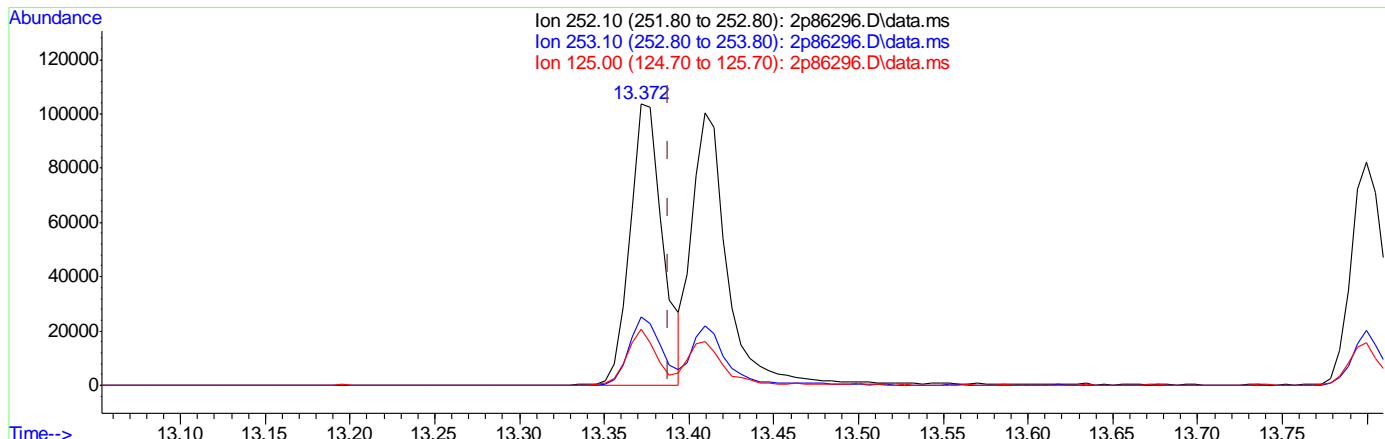
(93) Benzo[b]fluoranthene (t)		
13.409min (+0.021) 2.80ppm		
response 142958		
Ion	Exp%	Act%
252.10	100	100
253.10	25.10	21.97
125.00	11.40	15.58
0.00	0.00	0.00

9.6.17.2
9

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2P3816\
 Data File : 2p86296.D
 Acq On : 5 Apr 2019 9:13 am
 Operator : chriss2
 Sample : ic3816-2
 Misc : op13652,e2p3816,1000,,,1,1
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Apr 05 14:00:58 2019
 Quant Method : C:\MSDCHEM\1\METHODS\M2P3816.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Fri Apr 05 13:55:55 2019
 Response via : Initial Calibration



TIC: 2p86296.D\data.ms

(93) Benzo[b]fluoranthene (t)		
13.372min (-0.016) 2.74ppm m		
response 137721		
Ion	Exp%	Act%
252.10	100	100
253.10	25.10	24.29
125.00	11.40	20.14
0.00	0.00	0.00

9.6.17.3
9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3816\
 Data File : 2p86297.D
 Acq On : 5 Apr 2019 9:36 am
 Operator : chriss2
 Sample : ic3816-1
 Misc : op13652,e2p3816,1000,,,1,1
 ALS Vial : 9 Sample Multiplier: 1

Quant Time: Apr 05 14:04:27 2019
 Quant Method : C:\MSDCHEM\1\METHODS\M2P3816.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Fri Apr 05 13:55:55 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.835	152	1085527	40.00	ppm	0.00
24) Naphthalene-d8	5.873	136	3465605	40.00	ppm	0.00
47) Acenaphthene-d10	7.312	164	1774818	40.00	ppm	0.00
69) Phenanthrene-d10	8.606	188	2914349	40.00	ppm	0.00
83) Chrysene-d12	11.885	240	2354919	40.00	ppm	-0.01
91) Perylene-d12	13.885	264	2589352	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.835	152	1085527	40.00	ppm	0.00
103) Naphthalene-d8a	5.873	136	3465605	40.00	ppm	0.00
105) Acenaphthene-d10a	7.312	164	1774818	40.00	ppm	0.00
108) Chrysene-d12a	11.885	240	2354919	40.00	ppm	-0.01
110) Phenanthrene-d10a	8.606	188	2914349	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	3.798	112	35148	0.68	ppm	0.01
Spiked Amount	50.000	Range	11 - 58	Recovery	=	1.36%#
8) Phenol-d5	4.579	99	51658	0.88	ppm	0.00
Spiked Amount	50.000	Range	10 - 59	Recovery	=	1.76%#
25) Nitrobenzene-d5	5.285	82	51184	1.33	ppm	0.00
Spiked Amount	50.000	Range	19 - 61	Recovery	=	2.66%#
51) 2-Fluorobiphenyl	6.756	172	65474	1.13	ppm	0.00
Spiked Amount	50.000	Range	21 - 58	Recovery	=	2.26%#
73) 2,4,6-Tribromophenol	7.970	330	6478	0.64	ppm	0.00
Spiked Amount	50.000	Range	12 - 68	Recovery	=	1.28%#
85) Terphenyl-d14	10.446	244	53910	0.98	ppm	0.00
Spiked Amount	50.000	Range	16 - 65	Recovery	=	1.96%#
111) 1-Chlorooctadecane	0.000	57	0d	0.00	ppm	
Spiked Amount	50.000	Range	20 - 70	Recovery	=	0.00%#
112) o-terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount	50.000	Range	20 - 70	Recovery	=	0.00%#
Target Compounds						
2) 1,4-Dioxane	2.167	88	23805	1.69	ppm	99
3) Pyridine	2.552	79	48617	0.68	ppm	91
4) N-Nitrosodimethylamine	2.509	74	30287	0.71	ppm	81
6) Indene	5.044	116	58078	1.06	ppm	98
7) Cumene	4.183	105	128156	1.05	ppm	92
9) Phenol	4.589	94	60344	0.98	ppm	92
10) Aniline	4.573	93	70979	1.11	ppm	96
11) bis(2-Chloroethyl)ether	4.627	93	49540	1.08	ppm	97
12) 2-Chlorophenol	4.675	128	37727	0.95	ppm	85
13) Decane	4.718	57	43189	1.14	ppm	95
14) 1,3-Dichlorobenzene	4.787	146	45124	1.05	ppm	99
15) 1,4-Dichlorobenzene	4.846	146	39954	1.03	ppm	96
16) Benzyl alcohol	4.964	108	18946	0.63	ppm	92
17) 1,2-Dichlorobenzene	4.975	146	37460	1.02	ppm	97
18) Acetophenone	5.167	105	55130	1.08	ppm	95
19) 2-Methylphenol	5.065	108	31911	1.08	ppm	98
20) 2,2'-oxybis(1-Chloropr...	5.065	121	9818	1.06	ppm	# 41
21) 3&4-Methylphenol	5.194	108	29915	1.00	ppm	92

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3816\
 Data File : 2p86297.D
 Acq On : 5 Apr 2019 9:36 am
 Operator : chriss2
 Sample : ic3816-1
 Misc : op13652,e2p3816,1000,,,1,1
 ALS Vial : 9 Sample Multiplier: 1

Quant Time: Apr 05 14:04:27 2019
 Quant Method : C:\MSDCHEM\1\METHODS\M2P3816.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Fri Apr 05 13:55:55 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
22) n-Nitroso-di-n-propyla...	5.167	70	31018	1.27	ppm	89
23) Hexachloroethane	5.247	201	12635	0.96	ppm	88
26) Nitrobenzene	5.301	77	52536	1.32	ppm	82
27) Quinoline	6.162	129	54401	0.91	ppm	98
28) Isophorone	5.499	82	82610	1.18	ppm	96
29) 2-Nitrophenol	5.563	139	15218	0.90	ppm	60
30) 2,4-Dimethylphenol	5.616	107	27510	0.97	ppm	94
32) bis(2-Chloroethoxy)met...	5.681	93	47521	1.10	ppm	100
33) 2,4-Dichlorophenol	5.777	162	21305	0.89	ppm	80
34) 2,6-Dichlorophenol	5.948	162	20345	0.97	ppm	91
35) 1,3,5-Trichlorobenzene	5.574	180	30270	0.97	ppm	94
36) 1,2,4-Trichlorobenzene	5.830	180	29065	0.99	ppm	92
37) 1,2,3-Trichlorobenzene	6.007	180	24097	0.93	ppm	93
38) Naphthalene	5.889	128	82223	1.02	ppm	99
39) 4-Chloroaniline	5.943	127	30853	0.93	ppm	92
40) 2,3-Dichloroaniline	6.691	161	29144	0.99	ppm	91
41) Caprolactam	6.205	113	8280	0.82	ppm	89
42) Hexachlorobutadiene	5.996	225	14862	0.92	ppm	97
43) 4-Chloro-3-methylphenol	6.360	107	29075	1.05	ppm	89
44) 2-Methylnaphthalene	6.456	141	49252	1.03	ppm	92
45) 1-Methylnaphthalene	6.536	141	55826	1.07	ppm	95
46) Dimethylnaphthalene	6.970	156	52968	1.08	ppm	93
48) Hexachlorocyclopentadiene	6.590	237	10918	0.71	ppm	95
49) 2,4,6-Trichlorophenol	6.697	196	14163	0.84	ppm	99
50) 2,4,5-Trichlorophenol	6.740	196	15095	0.85	ppm	95
52) 2-Chloronaphthalene	6.852	162	55688	1.11	ppm	92
53) Biphenyl	6.836	154	72037	1.07	ppm	98
54) 2-Nitroaniline	6.943	65	21974	1.26	ppm	# 79
55) Dimethylphthalate	7.093	163	63710	1.09	ppm	97
56) Acenaphthylene	7.194	152	89682	1.08	ppm	98
57) 2,6-Dinitrotoluene	7.141	165	12199	0.99	ppm	77
58) 3-Nitroaniline	7.285	138	13278	0.88	ppm	79
59) Acenaphthene	7.339	153	48285	0.97	ppm	94
60) 2,4-Dinitrophenol	7.381	184	1691	7.34	ppm	90
61) 4-Nitrophenol	7.472	109	6944	0.76	ppm	# 1
62) Dibenzofuran	7.478	168	66187	1.01	ppm	92
63) 2,4-Dinitrotoluene	7.472	165	14230	0.91	ppm	78
64) 2,3,4,6-Tetrachlorophenol	7.590	232	9869	0.60	ppm	# 73
65) Diethylphthalate	7.670	149	62755	1.06	ppm	92
66) Fluorene	7.761	166	54750	0.99	ppm	95
67) 4-Chlorophenyl-phenyle...	7.761	204	24315	0.86	ppm	86
68) 4-Nitroaniline	7.788	138	11004	0.78	ppm	74
70) 4,6-Dinitro-2-methylph...	7.815	198	4199	0.64	ppm	72
71) n-Nitrosodiphenylamine	7.863	169	39113	1.12	ppm	99
72) 1,2-Diphenylhydrazine	7.895	77	92471	1.43	ppm	93
74) 4-Bromophenyl-phenylether	8.184	248	14351	0.84	ppm	# 78
75) Hexachlorobenzene	8.248	284	16451	0.82	ppm	79
76) Pentachlorophenol	8.440	266	11959	5.33	ppm	95
77) Phenanthrene	8.622	178	67989	0.96	ppm	100
78) Anthracene	8.676	178	67910	0.96	ppm	98

9.6.18
9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3816\
 Data File : 2p86297.D
 Acq On : 5 Apr 2019 9:36 am
 Operator : chriss2
 Sample : ic3816-1
 Misc : op13652,e2p3816,1000,,,1,1
 ALS Vial : 9 Sample Multiplier: 1

Quant Time: Apr 05 14:04:27 2019
 Quant Method : C:\MSDCHEM\1\METHODS\M2P3816.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Fri Apr 05 13:55:55 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
79) Carbazole	8.847	167	67017	0.99	ppm	96
80) Di-n-butylphthalate	9.232	149	98994	1.02	ppm	98
81) Fluoranthene	9.938	202	86080	0.89	ppm	94
82) Octadecane	8.515	43	28623	1.41	ppm	95
84) Pyrene	10.216	202	90754	1.15	ppm	98
86) Butylbenzylphthalate	11.147	149	46679	1.19	ppm	74
87) Benzo[a]anthracene	11.869	228	83000	1.04	ppm	95
88) 3,3'-Dichlorobenzidine	11.869	252	17407	3.15	ppm	88
89) Chrysene	11.917	228	59830	0.95	ppm	96
90) bis(2-Ethylhexyl)phtha...	12.029	149	42764	1.04	ppm	92
92) Di-n-octylphthalate	12.960	149	70978	3.22	ppm	98
93) Benzo[b]fluoranthene	13.372	252	68587m	2.01	ppm	
94) Benzo[k]fluoranthene	13.409	252	67813	1.01	ppm	93
95) Benzo[a]pyrene	13.800	252	57898	0.90	ppm	87
96) Indeno[1,2,3-cd]pyrene	15.265	276	59464	2.70	ppm	69
97) Dibenz(a,h)acridine	14.955	279	36284	4.07	ppm	92
98) Dibenz[a,h]anthracene	15.297	278	44251	1.99	ppm	88
99) 7,12-Dimethylbenz(a)an...	13.372	256	21775	0.64	ppm	92
100) Benzo[g,h,i]perylene	15.645	276	48864	2.12	ppm	89

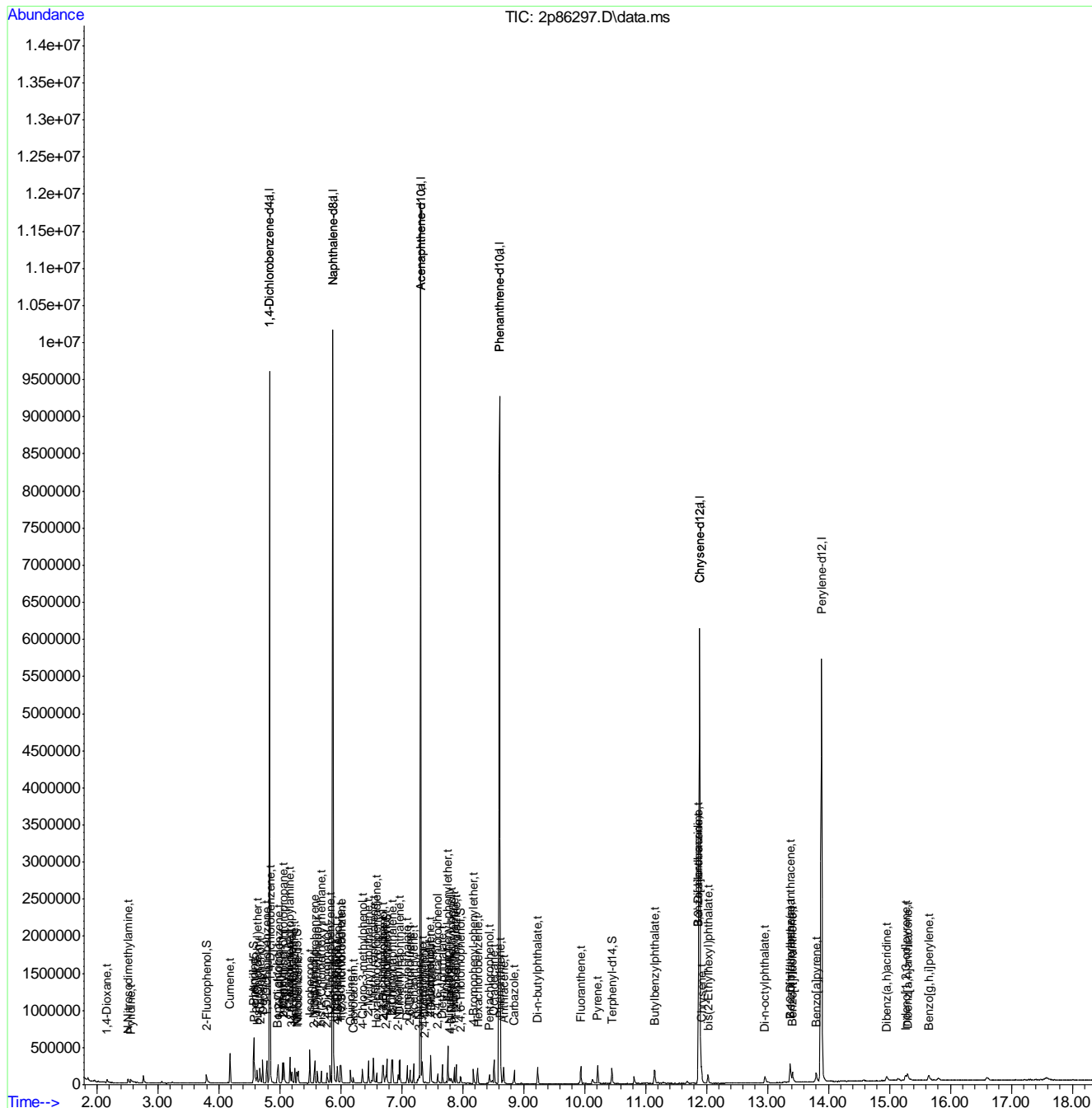
(#) = qualifier out of range (m) = manual integration (+) = signals summed

9.6.18
9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3816\
 Data File : 2p86297.D
 Acq On : 5 Apr 2019 9:36 am
 Operator : chriss2
 Sample : ic3816-1
 Misc : op13652,e2p3816,1000,,,1,1
 ALS Vial : 9 Sample Multiplier: 1

Quant Time: Apr 05 14:04:27 2019
 Quant Method : C:\MSDCHEM\1\METHODS\M2P3816.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Fri Apr 05 13:55:55 2019
 Response via : Initial Calibration



9.6-18
 9

Manual Integration Approval Summary

Sample Number: E2P3816-IC3816 Method: SW846 8270D
Lab FileID: 2P86297.D Analyst approved: 04/08/19 13:30 Kristi Schollenberger
Injection Time: 04/05/19 09:36 Supervisor approved: 04/09/19 16:32 Nina Pandya

Parameter	CAS	Sig#	R.T. (min.)	Reason
Benzo(b)fluoranthene	205-99-2		13.37	Overlapping peak

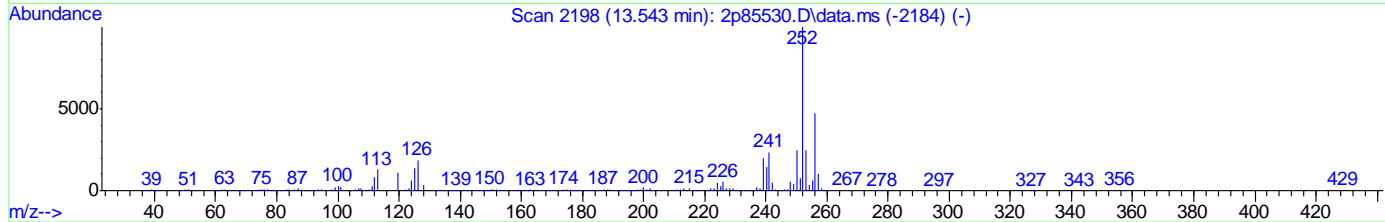
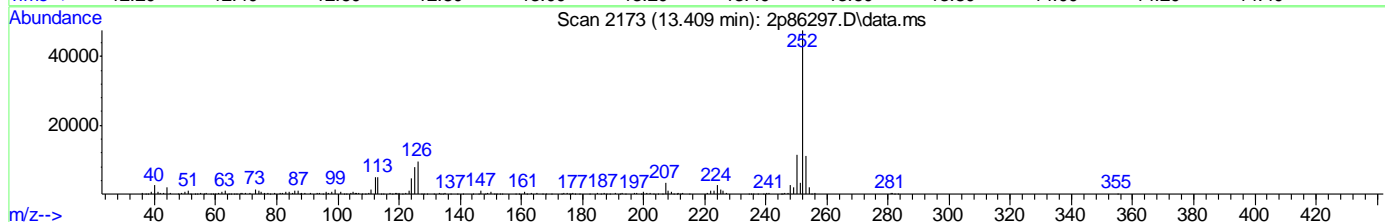
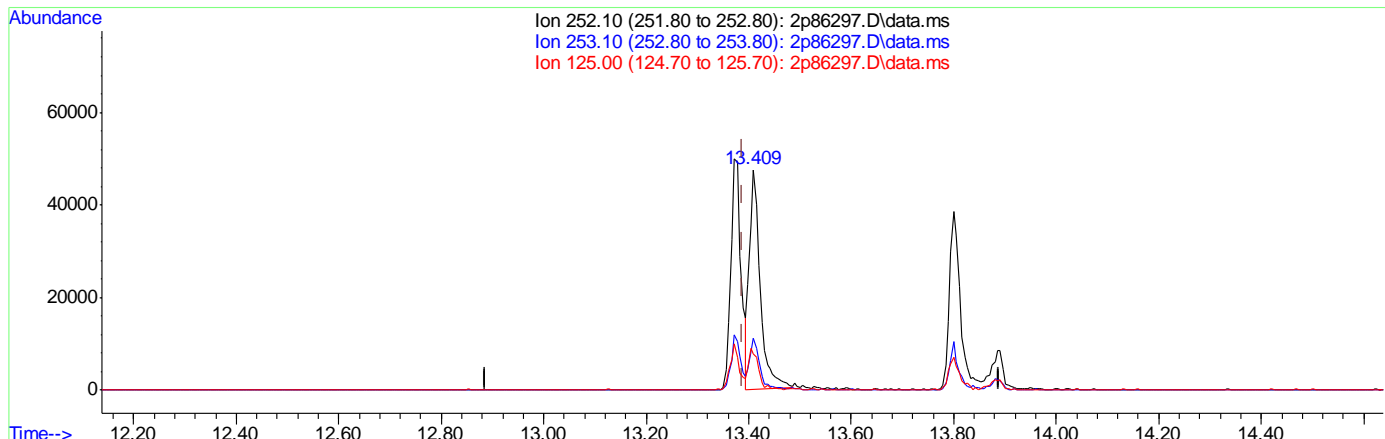
9.6.18.1

9

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2P3816\
 Data File : 2p86297.D
 Acq On : 5 Apr 2019 9:36 am
 Operator : chriss2
 Sample : ic3816-1
 Misc : op13652,e2p3816,1000,,,1,1
 ALS Vial : 9 Sample Multiplier: 1

Quant Time: Apr 05 14:02:58 2019
 Quant Method : C:\MSDCHEM\1\METHODS\M2P3816.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Fri Apr 05 13:55:55 2019
 Response via : Initial Calibration



TIC: 2p86297.D\data.ms

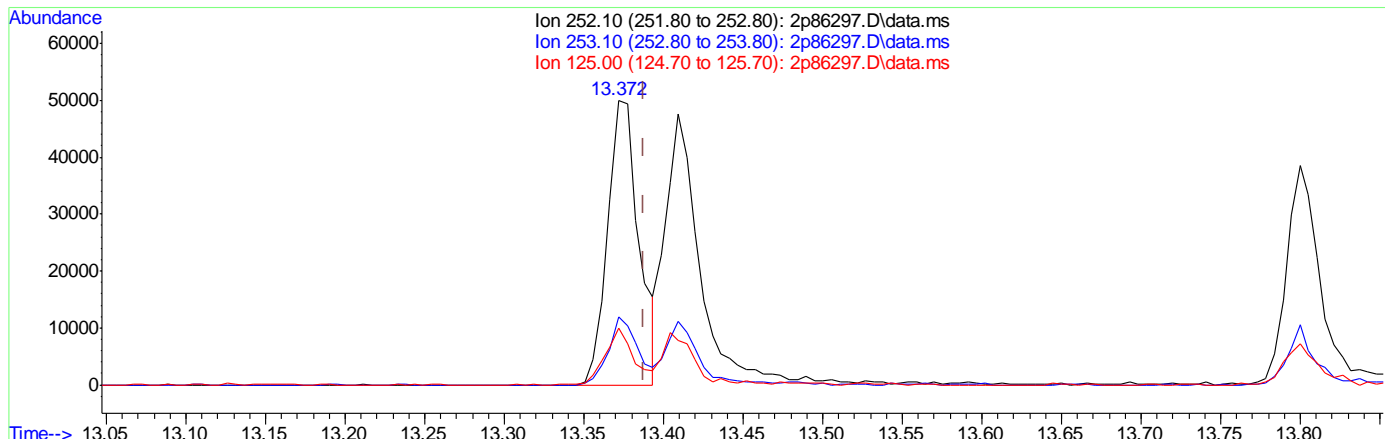
(93) Benzo[b]fluoranthene (t)		
13.409min (+0.021) 2.01ppm		
response 69278		
Ion	Exp%	Act%
252.10	100	100
253.10	25.10	23.80
125.00	11.40	16.28
0.00	0.00	0.00

9.6.18.2
9

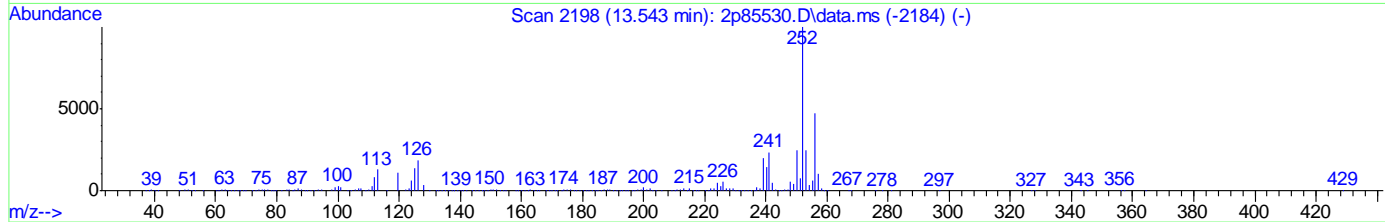
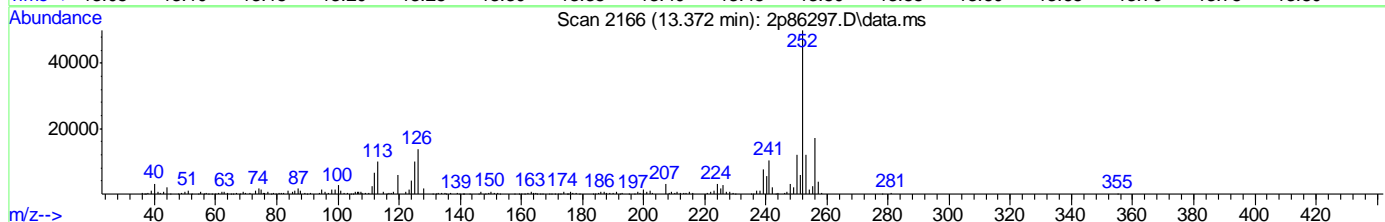
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2P3816\
 Data File : 2p86297.D
 Acq On : 5 Apr 2019 9:36 am
 Operator : chriss2
 Sample : ic3816-1
 Misc : op13652,e2p3816,1000,,,1,1
 ALS Vial : 9 Sample Multiplier: 1

Quant Time: Apr 05 14:02:58 2019
 Quant Method : C:\MSDCHEM\1\METHODS\M2P3816.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Fri Apr 05 13:55:55 2019
 Response via : Initial Calibration



9.6.18.3
9



TIC: 2p86297.D\data.ms

(93) Benzo[b]fluoranthene (t)
 13.372min (-0.016) 2.01ppm m
 response 68587

Ion	Exp%	Act%
252.10	100	100
253.10	25.10	23.86
125.00	11.40	20.11
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3816\
 Data File : 2p86298.D
 Acq On : 5 Apr 2019 9:59 am
 Operator : chriss2
 Sample : icv3816-50
 Misc : op13652,e2p3816,1000,,,1,1
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Apr 05 14:23:55 2019
 Quant Method : C:\MSDCHEM\1\METHODS\M2P3816.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Fri Apr 05 14:12:48 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.836	152	637726	40.00	ppm	0.00
24) Naphthalene-d8	5.873	136	1970449	40.00	ppm	0.00
47) Acenaphthene-d10	7.312	164	1027591	40.00	ppm	0.00
69) Phenanthrene-d10	8.606	188	1925269	40.00	ppm	0.00
83) Chrysene-d12	11.896	240	1421174	40.00	ppm	0.00
91) Perylene-d12	13.891	264	1436386	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.836	152	637726	40.00	ppm	0.00
103) Naphthalene-d8a	5.873	136	1970449	40.00	ppm	0.00
105) Acenaphthene-d10a	7.312	164	1027591	40.00	ppm	0.00
108) Chrysene-d12a	11.896	240	1421174	40.00	ppm	0.00
110) Phenanthrene-d10a	8.606	188	1925269	40.00	ppm	0.00

System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0d	0.00	ppm	
Spiked Amount	50.000	Range 11 - 58	Recovery =	0.00	%#	
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount	50.000	Range 10 - 59	Recovery =	0.00	%#	
25) Nitrobenzene-d5	0.000	82	0d	0.00	ppm	
Spiked Amount	50.000	Range 19 - 61	Recovery =	0.00	%#	
51) 2-Fluorobiphenyl	0.000	172	0d	0.00	ppm	
Spiked Amount	50.000	Range 21 - 58	Recovery =	0.00	%#	
73) 2,4,6-Tribromophenol	0.000	330	0d	0.00	ppm	
Spiked Amount	50.000	Range 12 - 68	Recovery =	0.00	%#	
85) Terphenyl-d14	0.000	244	0d	0.00	ppm	
Spiked Amount	50.000	Range 16 - 65	Recovery =	0.00	%#	
111) 1-Chlorooctadecane	0.000	57	0d	0.00	ppm	
Spiked Amount	50.000	Range 20 - 70	Recovery =	0.00	%#	
112) o-terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount	50.000	Range 20 - 70	Recovery =	0.00	%#	

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
4) N-Nitrosodimethylamine	2.536	74	869158	31.66	ppm	99
11) bis(2-Chloroethyl)ether	4.627	93	1562450	59.57	ppm	98
14) 1,3-Dichlorobenzene	4.793	146	1431372	55.04	ppm	99
15) 1,4-Dichlorobenzene	4.852	146	1188777	51.14	ppm	99
17) 1,2-Dichlorobenzene	4.975	146	1074658	48.09	ppm	99
20) 2,2'-oxybis(1-Chloropr...	5.066	121	313707	57.93	ppm	# 69
22) n-Nitroso-di-n-propyla...	5.173	70	893686	52.69	ppm	98
23) Hexachloroethane	5.248	201	401973	51.12	ppm	100
26) Nitrobenzene	5.306	77	1272367	49.05	ppm	97
28) Isophorone	5.499	82	2238612	49.13	ppm	100
32) bis(2-Chloroethoxy)met...	5.681	93	1370498	54.03	ppm	100
36) 1,2,4-Trichlorobenzene	5.831	180	893394	54.16	ppm	98
38) Naphthalene	5.889	128	2480864	52.63	ppm	99
42) Hexachlorobutadiene	5.996	225	521039	55.08	ppm	99
48) Hexachlorocyclopentadiene	6.595	237	498316	51.81	ppm	100
52) 2-Chloronaphthalene	6.857	162	1774728	60.23	ppm	96
55) Dimethylphthalate	7.098	163	2004157	54.96	ppm	99
56) Acenaphthylene	7.194	152	2480752	49.35	ppm	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3816\
 Data File : 2p86298.D
 Acq On : 5 Apr 2019 9:59 am
 Operator : chriss2
 Sample : icv3816-50
 Misc : op13652,e2p3816,1000,,,1,1
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Apr 05 14:23:55 2019
 Quant Method : C:\MSDCHEM\1\METHODS\M2P3816.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Fri Apr 05 14:12:48 2019
 Response via : Initial Calibration

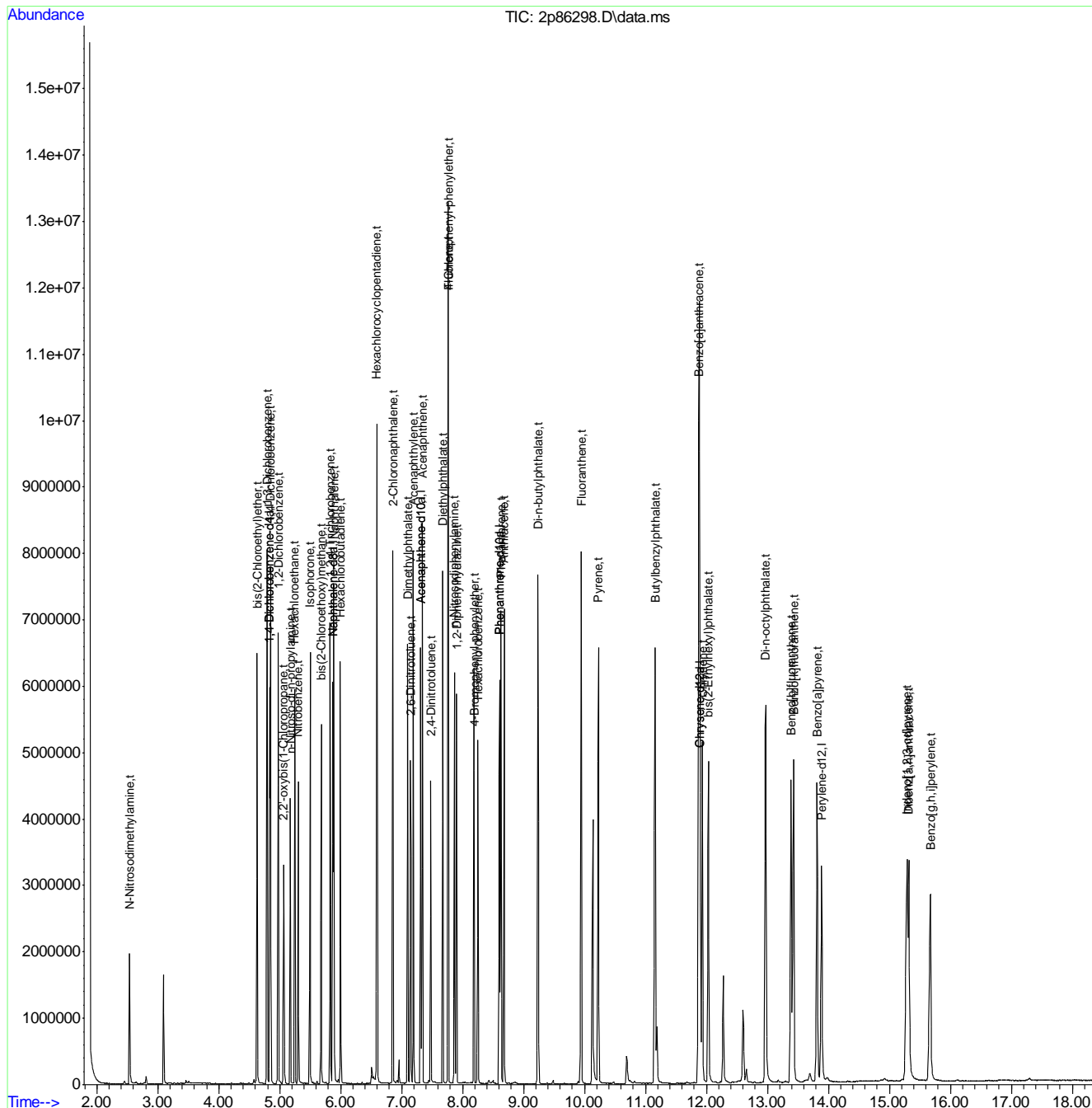
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
57) 2,6-Dinitrotoluene	7.146	165	410696	51.36	ppm	83
59) Acenaphthene	7.339	153	1508691	51.14	ppm	97
63) 2,4-Dinitrotoluene	7.478	165	511242	49.71	ppm	93
65) Diethylphthalate	7.676	149	2038843	53.80	ppm	99
66) Fluorene	7.767	166	1887549	54.09	ppm	99
67) 4-Chlorophenyl-phenyle...	7.767	204	944739	56.35	ppm	98
71) n-Nitrosodiphenylamine	7.868	169	1149492	44.22	ppm	100
72) 1,2-Diphenylhydrazine	7.900	77	2142551	42.28	ppm	96
74) 4-Bromophenyl-phenylether	8.189	248	549326	47.73	ppm	98
75) Hexachlorobenzene	8.253	284	575519	45.16	ppm	99
77) Phenanthrene	8.633	178	2423117	50.52	ppm	99
78) Anthracene	8.681	178	2285364	46.86	ppm	100
80) Di-n-butylphthalate	9.238	149	3775704	49.35	ppm	100
81) Fluoranthene	9.949	202	3278421	48.10	ppm	98
84) Pyrene	10.227	202	2806896	50.76	ppm	98
86) Butylbenzylphthalate	11.158	149	1845168	59.50	ppm	99
87) Benzo[a]anthracene	11.874	228	2929520	54.88	ppm	100
89) Chrysene	11.933	228	2000600	52.83	ppm	99
90) bis(2-Ethylhexyl)phtha...	12.030	149	1810283	56.72	ppm	98
92) Di-n-octylphthalate	12.971	149	3933194	57.29	ppm	99
93) Benzo[b]fluoranthene	13.388	252	2530576	53.77	ppm	96
94) Benzo[k]fluoranthene	13.431	252	2179674	56.64	ppm	99
95) Benzo[a]pyrene	13.816	252	2236082	56.53	ppm	99
96) Indeno[1,2,3-cd]pyrene	15.287	276	2803450	62.18	ppm	99
98) Dibenz[a,h]anthracene	15.319	278	2030905	57.83	ppm	98
100) Benzo[g,h,i]perylene	15.677	276	2110742	59.15	ppm	98

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3816\
 Data File : 2p86298.D
 Acq On : 5 Apr 2019 9:59 am
 Operator : chriss2
 Sample : icv3816-50
 Misc : op13652,e2p3816,1000,,,1,1
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Apr 05 14:23:55 2019
 Quant Method : C:\MSDCHEM\1\METHODS\M2P3816.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Fri Apr 05 14:12:48 2019
 Response via : Initial Calibration



9.6.19
9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3816\
 Data File : 2p86299.D
 Acq On : 5 Apr 2019 10:22 am
 Operator : chriss2
 Sample : icv3816-50
 Misc : op13652,e2p3816,1000,,,1,1
 ALS Vial : 11 Sample Multiplier: 1

Quant Time: Apr 05 14:26:40 2019
 Quant Method : C:\MSDCHEM\1\METHODS\M2P3816.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Fri Apr 05 14:12:48 2019
 Response via : Initial Calibration

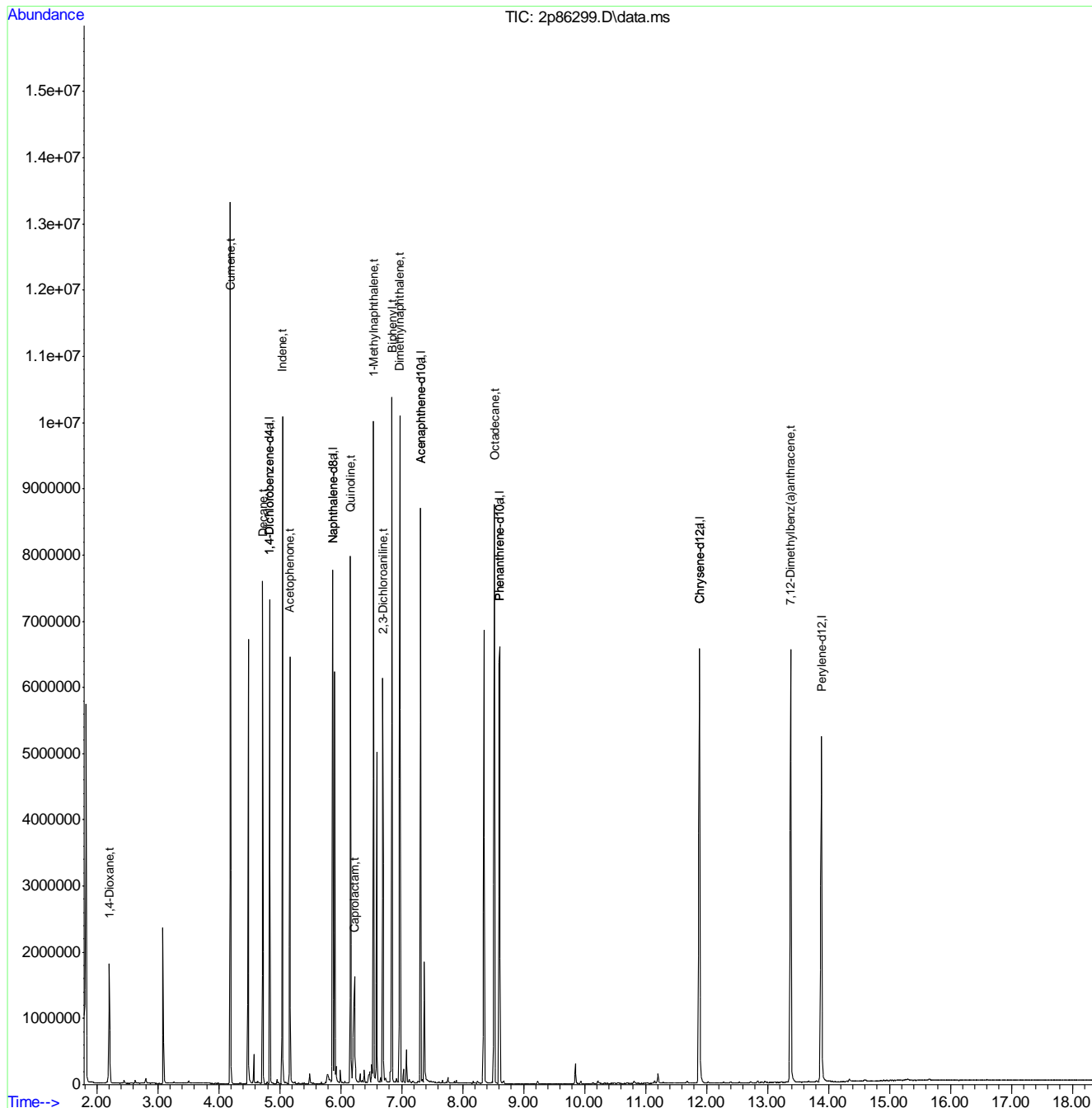
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.836	152	725673	40.00	ppm	0.00
24) Naphthalene-d8	5.873	136	2808973	40.00	ppm	0.00
47) Acenaphthene-d10	7.312	164	1310602	40.00	ppm	0.00
69) Phenanthrene-d10	8.606	188	2124461	40.00	ppm	0.00
83) Chrysene-d12	11.885	240	2481164	40.00	ppm	-0.01
91) Perylene-d12	13.886	264	2188246	40.00	ppm	-0.01
101) 1,4-Dichlorobenzene-d4a	4.836	152	725673	40.00	ppm	0.00
103) Naphthalene-d8a	5.873	136	2808973	40.00	ppm	0.00
105) Acenaphthene-d10a	7.312	164	1310602	40.00	ppm	0.00
108) Chrysene-d12a	11.885	240	2481164	40.00	ppm	-0.01
110) Phenanthrene-d10a	8.606	188	2124461	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0d	0.00	ppm	
Spiked Amount	50.000	Range 11 - 58	Recovery =	0.00	%#	
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount	50.000	Range 10 - 59	Recovery =	0.00	%#	
25) Nitrobenzene-d5	0.000	82	0d	0.00	ppm	
Spiked Amount	50.000	Range 19 - 61	Recovery =	0.00	%#	
51) 2-Fluorobiphenyl	0.000	172	0d	0.00	ppm	
Spiked Amount	50.000	Range 21 - 58	Recovery =	0.00	%#	
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount	50.000	Range 12 - 68	Recovery =	0.00	%#	
85) Terphenyl-d14	0.000	244	0d	0.00	ppm	
Spiked Amount	50.000	Range 16 - 65	Recovery =	0.00	%#	
111) 1-Chlorooctadecane	0.000	57	0d	0.00	ppm	
Spiked Amount	50.000	Range 20 - 70	Recovery =	0.00	%#	
112) o-terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount	50.000	Range 20 - 70	Recovery =	0.00	%#	
Target Compounds						
2) 1,4-Dioxane	2.204	88	869136	38.01	ppm	97
6) Indene	5.044	116	2134068	54.70	ppm	100
7) Cumene	4.194	105	4159350	45.12	ppm	99
13) Decane	4.723	57	1158378	45.60	ppm	95
18) Acetophenone	5.167	105	1696648	46.38	ppm	97
27) Quinoline	6.162	129	2095680	42.19	ppm	98
40) 2,3-Dichloroaniline	6.692	161	857350	32.30	ppm	98
41) Caprolactam	6.226	113	307540	35.50	ppm	95
45) 1-Methylnaphthalene	6.537	141	1787805	38.19	ppm	98
46) Dimethylnaphthalene	6.970	156	1646850	38.13	ppm	97
53) Biphenyl	6.841	154	2267671	43.18	ppm	99
82) Octadecane	8.521	43	852787	48.74	ppm	99
99) 7,12-Dimethylbenz(a)an...	13.383	256	1592580	48.82	ppm	97

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3816\
 Data File : 2p86299.D
 Acq On : 5 Apr 2019 10:22 am
 Operator : chriss2
 Sample : icv3816-50
 Misc : op13652,e2p3816,1000,,,1,1
 ALS Vial : 11 Sample Multiplier: 1

Quant Time: Apr 05 14:26:40 2019
 Quant Method : C:\MSDCHEM\1\METHODS\M2P3816.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Fri Apr 05 14:12:48 2019
 Response via : Initial Calibration



9.6.20
 9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3816\
 Data File : 2p86301.D
 Acq On : 5 Apr 2019 11:09 am
 Operator : chriss2
 Sample : icv3816-50
 Misc : op13652,e2p3816,1000,,,1,1
 ALS Vial : 13 Sample Multiplier: 1

Quant Time: Apr 05 14:30:43 2019
 Quant Method : C:\MSDCHEM\1\METHODS\M2P3816.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Fri Apr 05 14:12:48 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.836	152	731019	40.00	ppm	0.00
24) Naphthalene-d8	5.873	136	2113848	40.00	ppm	0.00
47) Acenaphthene-d10	7.312	164	1416805	40.00	ppm	0.00
69) Phenanthrene-d10	8.606	188	2167373	40.00	ppm	0.00
83) Chrysene-d12	11.885	240	2172779	40.00	ppm	-0.01
91) Perylene-d12	13.886	264	2195184	40.00	ppm	-0.01
101) 1,4-Dichlorobenzene-d4a	4.836	152	731019	40.00	ppm	0.00
103) Naphthalene-d8a	5.873	136	2113848	40.00	ppm	0.00
105) Acenaphthene-d10a	7.312	164	1416805	40.00	ppm	0.00
108) Chrysene-d12a	11.885	240	2172779	40.00	ppm	-0.01
110) Phenanthrene-d10a	8.606	188	2167373	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0d	0.00	ppm	
Spiked Amount	50.000	Range 11 - 58	Recovery	=	0.00%#	
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount	50.000	Range 10 - 59	Recovery	=	0.00%#	
25) Nitrobenzene-d5	0.000	82	0d	0.00	ppm	
Spiked Amount	50.000	Range 19 - 61	Recovery	=	0.00%#	
51) 2-Fluorobiphenyl	0.000	172	0d	0.00	ppm	
Spiked Amount	50.000	Range 21 - 58	Recovery	=	0.00%#	
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount	50.000	Range 12 - 68	Recovery	=	0.00%#	
85) Terphenyl-d14	0.000	244	0d	0.00	ppm	
Spiked Amount	50.000	Range 16 - 65	Recovery	=	0.00%#	
111) 1-Chlorooctadecane	0.000	57	0d	0.00	ppm	
Spiked Amount	50.000	Range 20 - 70	Recovery	=	0.00%#	
112) o-terphenyl	0.000	230	0d	0.00	ppm	
Spiked Amount	50.000	Range 20 - 70	Recovery	=	0.00%#	
Target Compounds						
9) Phenol	4.590	94	2340553	55.63	ppm	Qvalue 94
12) 2-Chlorophenol	4.675	128	1462494	54.13	ppm	97
19) 2-Methylphenol	5.066	108	1261500	58.78	ppm	98
21) 3&4-Methylphenol	5.194	108	1225110	56.32	ppm	99
29) 2-Nitrophenol	5.563	139	664577	58.49	ppm	84
30) 2,4-Dimethylphenol	5.617	107	1309261	66.41	ppm	97
31) Benzoic acid	5.761	105	843829	47.61	ppm	95
33) 2,4-Dichlorophenol	5.772	162	816264	51.38	ppm	99
34) 2,6-Dichlorophenol	5.948	162	797315	55.94	ppm	98
43) 4-Chloro-3-methylphenol	6.355	107	1140383	55.44	ppm	74
49) 2,4,6-Trichlorophenol	6.697	196	674075	50.82	ppm	96
50) 2,4,5-Trichlorophenol	6.729	196	620538	44.95	ppm	98
60) 2,4-Dinitrophenol	7.371	184	232789	43.31	ppm #	46
61) 4-Nitrophenol	7.451	109	427298	46.63	ppm	96
64) 2,3,4,6-Tetrachlorophenol	7.590	232	526646	41.05	ppm	93
70) 4,6-Dinitro-2-methylph...	7.815	198	382337	59.08	ppm	85
76) Pentachlorophenol	8.435	266	522213	51.93	ppm	98

9.6.21
9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3816\
Data File : 2p86301.D
Acq On : 5 Apr 2019 11:09 am
Operator : chriss2
Sample : icv3816-50
Misc : op13652,e2p3816,1000,,,1,1
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Apr 05 14:30:43 2019
Quant Method : C:\MSDCHEM\1\METHODS\M2P3816.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Apr 05 14:12:48 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

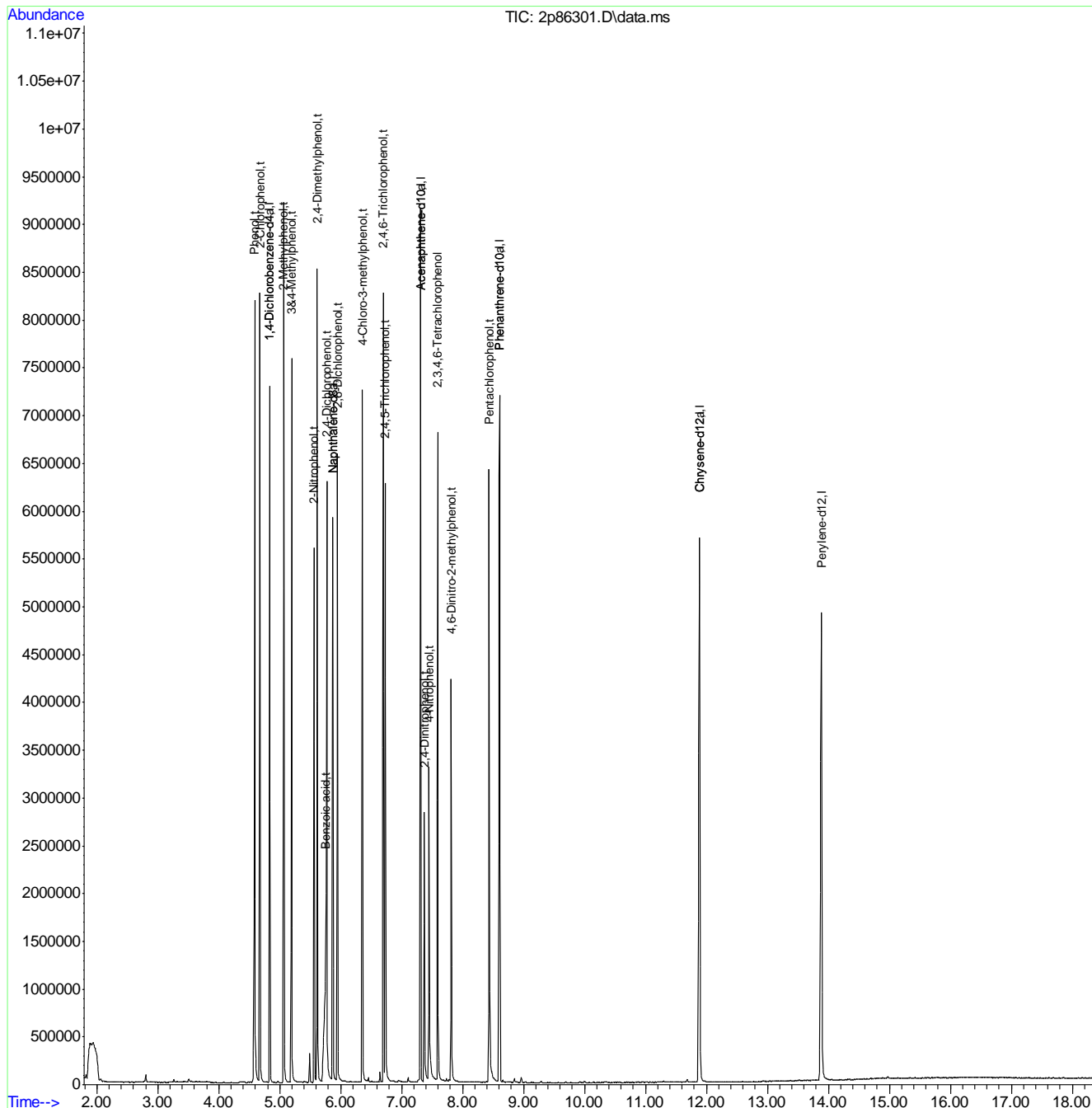
9.6.21

9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3816\
 Data File : 2p86301.D
 Acq On : 5 Apr 2019 11:09 am
 Operator : chriss2
 Sample : icv3816-50
 Misc : op13652,e2p3816,1000,,,1,1
 ALS Vial : 13 Sample Multiplier: 1

Quant Time: Apr 05 14:30:43 2019
 Quant Method : C:\MSDCHEM\1\METHODS\M2P3816.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Fri Apr 05 14:12:48 2019
 Response via : Initial Calibration



9.6.21
9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3816\
 Data File : 2p86302.D
 Acq On : 5 Apr 2019 11:32 am
 Operator : chriss2
 Sample : icv3816-50
 Misc : op13652,e2p3816,1000,,,1,1
 ALS Vial : 14 Sample Multiplier: 1

Quant Time: Apr 05 14:33:30 2019
 Quant Method : C:\MSDCHEM\1\METHODS\M2P3816.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Fri Apr 05 14:12:48 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.836	152	880241	40.00	ppm	0.00
24) Naphthalene-d8	5.868	136	3088721	40.00	ppm	0.00
47) Acenaphthene-d10	7.312	164	1538493	40.00	ppm	0.00
69) Phenanthrene-d10	8.601	188	2534217	40.00	ppm	0.00
83) Chrysene-d12	11.885	240	2054658	40.00	ppm	-0.01
91) Perylene-d12	13.886	264	1977762	40.00	ppm	-0.01
101) 1,4-Dichlorobenzene-d4a	4.836	152	880241	40.00	ppm	0.00
103) Naphthalene-d8a	5.868	136	3088721	40.00	ppm	# 0.00
105) Acenaphthene-d10a	7.312	164	1538493	40.00	ppm	0.00
108) Chrysene-d12a	11.885	240	2054658	40.00	ppm	-0.01
110) Phenanthrene-d10a	8.601	188	2534217	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	3.798	112	1704717	38.49	ppm	0.01
Spiked Amount	50.000	Range 11 - 58	Recovery =	76.98%#		
8) Phenol-d5	4.579	99	2153550	44.36	ppm	0.00
Spiked Amount	50.000	Range 10 - 59	Recovery =	88.72%#		
25) Nitrobenzene-d5	5.285	82	1943758	46.82	ppm	0.00
Spiked Amount	50.000	Range 19 - 61	Recovery =	93.64%#		
51) 2-Fluorobiphenyl	6.761	172	2708111	50.85	ppm	0.00
Spiked Amount	50.000	Range 21 - 58	Recovery =	101.70%#		
73) 2,4,6-Tribromophenol	7.970	330	364516	41.01	ppm	0.00
Spiked Amount	50.000	Range 12 - 68	Recovery =	82.02%#		
85) Terphenyl-d14	10.452	244	2594718	50.74	ppm	0.00
Spiked Amount	50.000	Range 16 - 65	Recovery =	101.48%#		
111) 1-Chlorooctadecane	0.000	57	0d	0.00	ppm	
Spiked Amount	50.000	Range 20 - 70	Recovery =	0.00%#		
112) o-terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount	50.000	Range 20 - 70	Recovery =	0.00%#		

Target Compounds Qvalue

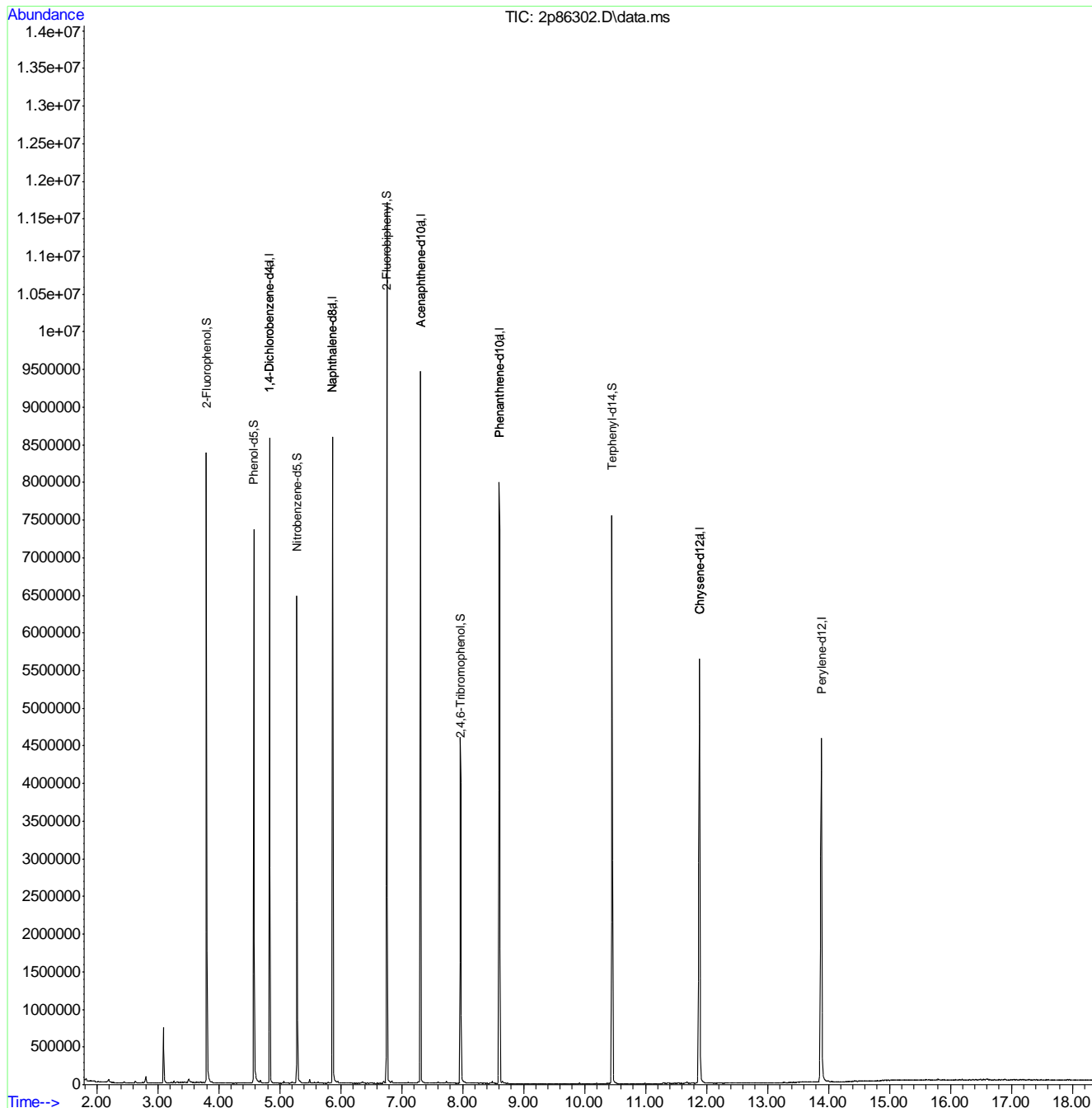
(#) = qualifier out of range (m) = manual integration (+) = signals summed

9.6.22
9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3816\
 Data File : 2p86302.D
 Acq On : 5 Apr 2019 11:32 am
 Operator : chriss2
 Sample : icv3816-50
 Misc : op13652,e2p3816,1000,,,1,1
 ALS Vial : 14 Sample Multiplier: 1

Quant Time: Apr 05 14:33:30 2019
 Quant Method : C:\MSDCHEM\1\METHODS\M2P3816.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Fri Apr 05 14:12:48 2019
 Response via : Initial Calibration



9.6.22
9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3816\
 Data File : 2p86303.D
 Acq On : 5 Apr 2019 11:55 am
 Operator : chriss2
 Sample : icv3816-50
 Misc : op13652,e2p3816,1000,,,1,1
 ALS Vial : 15 Sample Multiplier: 1

Quant Time: Apr 05 14:34:52 2019
 Quant Method : C:\MSDCHEM\1\METHODS\M2P3816.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Fri Apr 05 14:12:48 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.836	152	1218658	40.00	ppm	0.00
24) Naphthalene-d8	5.873	136	4110915	40.00	ppm	0.00
47) Acenaphthene-d10	7.312	164	2047205	40.00	ppm	0.00
69) Phenanthrene-d10	8.606	188	3461314	40.00	ppm	0.00
83) Chrysene-d12	11.890	240	2776110	40.00	ppm	0.00
91) Perylene-d12	13.891	264	2966609	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.836	152	1218658	40.00	ppm	0.00
103) Naphthalene-d8a	5.873	136	4110915	40.00	ppm	0.00
105) Acenaphthene-d10a	7.312	164	2047205	40.00	ppm	0.00
108) Chrysene-d12a	11.890	240	2776110	40.00	ppm	0.00
110) Phenanthrene-d10a	8.606	188	3461314	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0d	0.00	ppm	
Spiked Amount	50.000	Range 11 - 58	Recovery	=	0.00%#	
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount	50.000	Range 10 - 59	Recovery	=	0.00%#	
25) Nitrobenzene-d5	0.000	82	0d	0.00	ppm	
Spiked Amount	50.000	Range 19 - 61	Recovery	=	0.00%#	
51) 2-Fluorobiphenyl	0.000	172	0d	0.00	ppm	
Spiked Amount	50.000	Range 21 - 58	Recovery	=	0.00%#	
73) 2,4,6-Tribromophenol	0.000	330	0d	0.00	ppm	
Spiked Amount	50.000	Range 12 - 68	Recovery	=	0.00%#	
85) Terphenyl-d14	0.000	244	0d	0.00	ppm	
Spiked Amount	50.000	Range 16 - 65	Recovery	=	0.00%#	
111) 1-Chlorooctadecane	0.000	57	0d	0.00	ppm	
Spiked Amount	50.000	Range 20 - 70	Recovery	=	0.00%#	
112) o-terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount	50.000	Range 20 - 70	Recovery	=	0.00%#	
Target Compounds						
88) 3,3'-Dichlorobenzidine	11.880	252	1765566	41.17	ppm	99

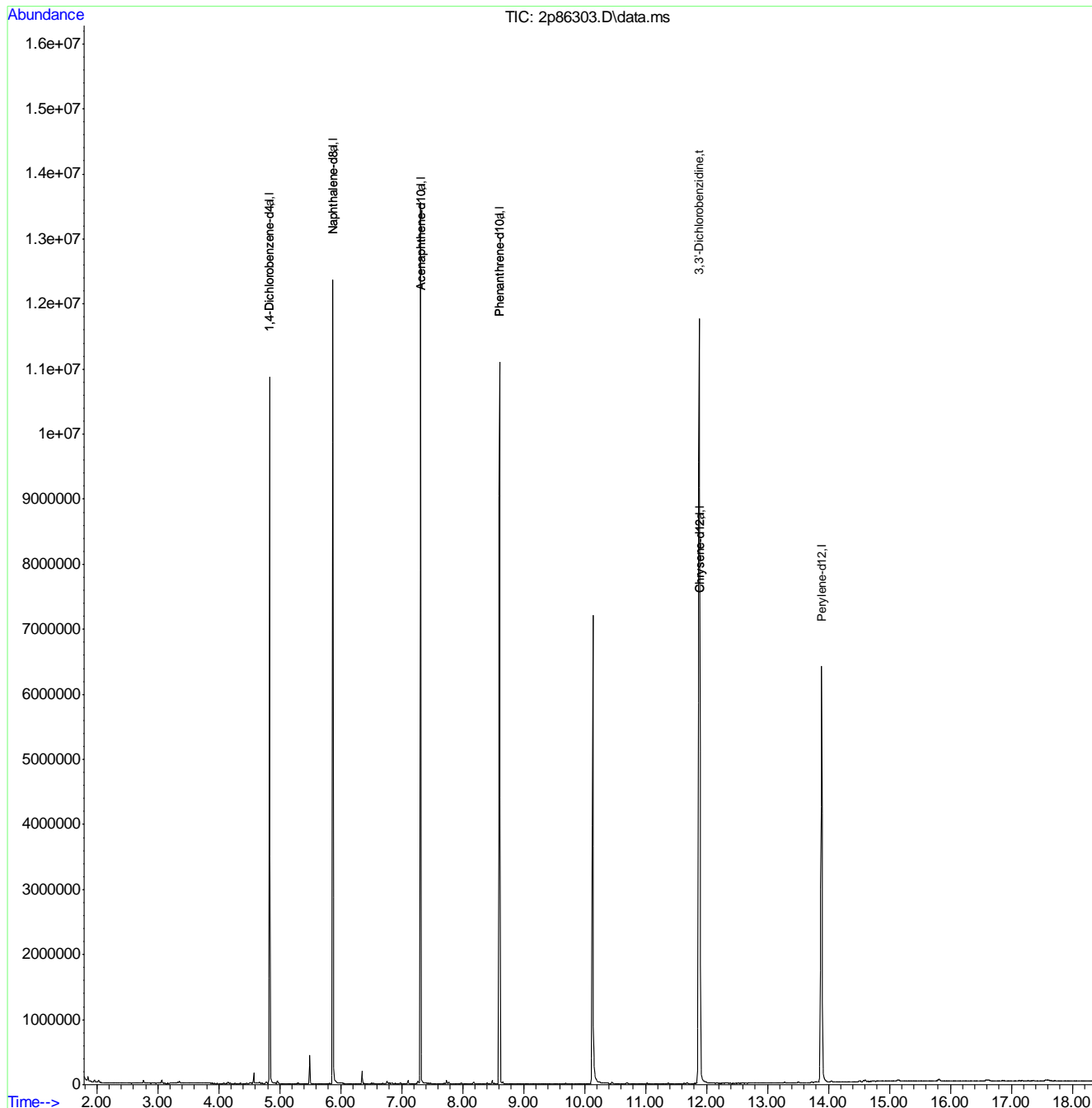
(#) = qualifier out of range (m) = manual integration (+) = signals summed

9.6.23
9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3816\
 Data File : 2p86303.D
 Acq On : 5 Apr 2019 11:55 am
 Operator : chriss2
 Sample : icv3816-50
 Misc : op13652,e2p3816,1000,,,1,1
 ALS Vial : 15 Sample Multiplier: 1

Quant Time: Apr 05 14:34:52 2019
 Quant Method : C:\MSDCHEM\1\METHODS\M2P3816.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Fri Apr 05 14:12:48 2019
 Response via : Initial Calibration



9.6.23
9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3817\
 Data File : 2p86307.D
 Acq On : 5 Apr 2019 4:36 pm
 Operator : christc2
 Sample : icv3816-50
 Misc : op13652,e2p3817,1000,,,1,1
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Apr 08 13:13:41 2019
 Quant Method : C:\MSDCHEM\1\METHODS\M2P3816.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Fri Apr 05 14:12:48 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.830	152	796068	40.00	ppm	0.00
24) Naphthalene-d8	5.863	136	2690544	40.00	ppm	-0.01
47) Acenaphthene-d10	7.301	164	1337964	40.00	ppm	-0.01
69) Phenanthrene-d10	8.590	188	2415060	40.00	ppm	-0.02
83) Chrysene-d12	11.864	240	2331393	40.00	ppm	-0.03
91) Perylene-d12	13.864	264	2195805	40.00	ppm	-0.03
101) 1,4-Dichlorobenzene-d4a	4.830	152	796068	40.00	ppm	0.00
103) Naphthalene-d8a	5.863	136	2690781	40.00	ppm	-0.01
105) Acenaphthene-d10a	7.301	164	1337964	40.00	ppm	-0.01
108) Chrysene-d12a	11.864	240	2331393	40.00	ppm	-0.03
110) Phenanthrene-d10a	8.590	188	2415060	40.00	ppm	-0.02
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount	50.000	Range 11 - 58	Recovery =	0.00	%#	
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount	50.000	Range 10 - 59	Recovery =	0.00	%#	
25) Nitrobenzene-d5	0.000	82	0d	0.00	ppm	
Spiked Amount	50.000	Range 19 - 61	Recovery =	0.00	%#	
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount	50.000	Range 21 - 58	Recovery =	0.00	%#	
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount	50.000	Range 12 - 68	Recovery =	0.00	%#	
85) Terphenyl-d14	0.000	244	0d	0.00	ppm	
Spiked Amount	50.000	Range 16 - 65	Recovery =	0.00	%#	
111) 1-Chlorooctadecane	0.000	57	0d	0.00	ppm	
Spiked Amount	50.000	Range 20 - 70	Recovery =	0.00	%#	
112) o-terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount	50.000	Range 20 - 70	Recovery =	0.00	%#	
Target Compounds						
10) Aniline	4.574	93	2493638	48.99	ppm	98
16) Benzyl alcohol	4.959	108	772500	48.02	ppm	98
39) 4-Chloroaniline	5.932	127	1228408	46.51	ppm	96
44) 2-Methylnaphthalene	6.446	141	1781493	43.52	ppm	98
54) 2-Nitroaniline	6.938	65	802413	48.71	ppm	99
58) 3-Nitroaniline	7.275	138	565259	48.11	ppm	96
62) Dibenzofuran	7.467	168	2577901	48.66	ppm	95
68) 4-Nitroaniline	7.777	138	541746	53.49	ppm	97
79) Carbazole	8.836	167	2950413	46.64	ppm	99

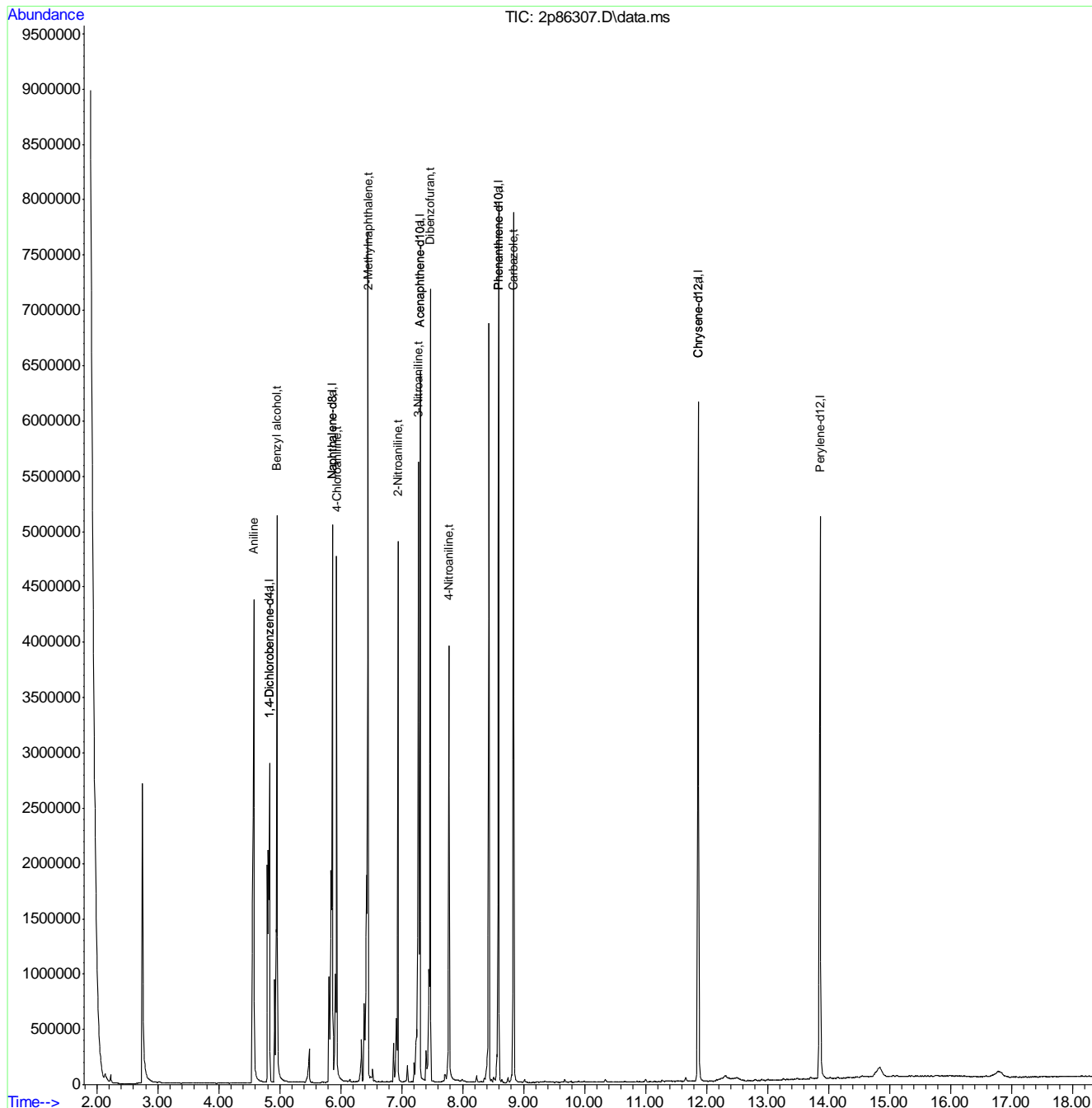
(#) = qualifier out of range (m) = manual integration (+) = signals summed

9.6.24
9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3817\
 Data File : 2p86307.D
 Acq On : 5 Apr 2019 4:36 pm
 Operator : christc2
 Sample : icv3816-50
 Misc : op13652,e2p3817,1000,,,1,1
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Apr 08 13:13:41 2019
 Quant Method : C:\MSDCHEM\1\METHODS\M2P3816.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Fri Apr 05 14:12:48 2019
 Response via : Initial Calibration



9.6.24
9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3822\
 Data File : 2p86451.D
 Acq On : 11 Apr 2019 3:15 am
 Operator : chriss2
 Sample : cc3816-50
 Misc : op13652,e2p3822,1000,,,1,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 11 09:55:23 2019
 Quant Method : C:\MSDCHEM\1\METHODS\M2P3816.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Fri Apr 05 14:12:48 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.739	152	402208	40.00	ppm	-0.10
24) Naphthalene-d8	5.771	136	1346792	40.00	ppm	-0.10
47) Acenaphthene-d10	7.205	164	747756	40.00	ppm	-0.11
69) Phenanthrene-d10	8.483	188	1267594	40.00	ppm	-0.12
83) Chrysene-d12	11.725	240	1217500	40.00	ppm	-0.17
91) Perylene-d12	13.709	264	1225134	40.00	ppm	-0.19
101) 1,4-Dichlorobenzene-d4a	4.739	152	402208	40.00	ppm	-0.10
103) Naphthalene-d8a	5.771	136	1346792	40.00	ppm	#-0.10
105) Acenaphthene-d10a	7.205	164	747756	40.00	ppm	-0.11
108) Chrysene-d12a	11.725	240	1217500	40.00	ppm	-0.17
110) Phenanthrene-d10a	8.483	188	1267594	40.00	ppm	-0.12

System Monitoring Compounds						
5) 2-Fluorophenol	3.691	112	1104472	54.57	ppm	-0.10
Spiked Amount	50.000	Range	11 - 58	Recovery	=	109.14%#
8) Phenol-d5	4.488	99	1148870	51.79	ppm	-0.09
Spiked Amount	50.000	Range	10 - 59	Recovery	=	103.58%#
25) Nitrobenzene-d5	5.194	82	908335	50.18	ppm	-0.10
Spiked Amount	50.000	Range	19 - 61	Recovery	=	100.36%#
51) 2-Fluorobiphenyl	6.659	172	1279573	49.44	ppm	-0.11
Spiked Amount	50.000	Range	21 - 58	Recovery	=	98.88%#
73) 2,4,6-Tribromophenol	7.863	330	221621	49.85	ppm	-0.11
Spiked Amount	50.000	Range	12 - 68	Recovery	=	99.70%#
85) Terphenyl-d14	10.302	244	1569985	51.82	ppm	-0.16
Spiked Amount	50.000	Range	16 - 65	Recovery	=	103.64%#
111) 1-Chlorooctadecane	0.000	57	0d	0.00	ppm	
Spiked Amount	50.000	Range	20 - 70	Recovery	=	0.00%#
112) o-terphenyl	0.000	230	0d	0.00	ppm	
Spiked Amount	50.000	Range	20 - 70	Recovery	=	0.00%#

Target Compounds						Qvalue
2) 1,4-Dioxane	2.027	88	655650	47.69	ppm	98
3) Pyridine	2.386	79	1558013	56.35	ppm	100
4) N-Nitrosodimethylamine	2.375	74	930895	53.76	ppm	100
6) Indene	4.942	116	1132667	52.38	ppm	97
7) Cumene	4.081	105	2627062	51.42	ppm	98
9) Phenol	4.498	94	1203072	51.97	ppm	98
10) Aniline	4.477	93	1537129	59.77	ppm	99
11) bis(2-Chloroethyl)ether	4.536	93	789495	47.72	ppm	100
12) 2-Chlorophenol	4.579	128	755474	50.82	ppm	100
13) Decane	4.627	57	697837	49.56	ppm	98
14) 1,3-Dichlorobenzene	4.691	146	815612	49.73	ppm	98
15) 1,4-Dichlorobenzene	4.750	146	782152	53.35	ppm	99
16) Benzyl alcohol	4.868	108	456368	56.15	ppm	99
17) 1,2-Dichlorobenzene	4.873	146	774712	54.97	ppm	98
18) Acetophenone	5.076	105	1048308	51.70	ppm	97
19) 2-Methylphenol	4.980	108	645522	54.66	ppm	100
20) 2,2'-oxybis(1-Chloropr...	4.969	121	174037	50.96	ppm	# 82
21) 3&4-Methylphenol	5.103	108	656440	54.85	ppm	99

9.6.25
 9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3822\
 Data File : 2p86451.D
 Acq On : 11 Apr 2019 3:15 am
 Operator : chriss2
 Sample : cc3816-50
 Misc : op13652,e2p3822,1000,,,1,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 11 09:55:23 2019
 Quant Method : C:\MSDCHEM\1\METHODS\M2P3816.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Fri Apr 05 14:12:48 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
22) n-Nitroso-di-n-propyla...	5.087	70	558204	52.19	ppm	97
23) Hexachloroethane	5.146	201	254293	51.27	ppm	99
26) Nitrobenzene	5.210	77	882779	49.79	ppm	99
27) Quinoline	6.076	129	1224190	51.40	ppm	98
28) Isophorone	5.408	82	1609309	51.67	ppm	95
29) 2-Nitrophenol	5.472	139	397417	54.90	ppm	86
30) 2,4-Dimethylphenol	5.525	107	753337	58.72	ppm	99
31) Benzoic acid	5.686	105	648368m	57.41	ppm	
32) bis(2-Chloroethoxy)met...	5.590	93	840616	48.49	ppm	100
33) 2,4-Dichlorophenol	5.675	162	543675	53.71	ppm	95
34) 2,6-Dichlorophenol	5.857	162	510899	56.26	ppm	99
35) 1,3,5-Trichlorobenzene	5.477	180	647703	52.81	ppm	96
36) 1,2,4-Trichlorobenzene	5.729	180	574236	50.93	ppm	98
37) 1,2,3-Trichlorobenzene	5.911	180	525356	52.95	ppm	98
38) Naphthalene	5.793	128	1727159	53.61	ppm	99
39) 4-Chloroaniline	5.846	127	747979	56.58	ppm	94
40) 2,3-Dichloroaniline	6.590	161	663599	52.15	ppm	100
41) Caprolactam	6.173	113	211104	50.82	ppm	93
42) Hexachlorobutadiene	5.900	225	351444	54.36	ppm	99
43) 4-Chloro-3-methylphenol	6.269	107	713363	54.43	ppm #	50
44) 2-Methylnaphthalene	6.354	141	1078081	52.62	ppm	97
45) 1-Methylnaphthalene	6.435	141	1174187	52.31	ppm	97
46) Dimethylnaphthalene	6.873	156	1026004	49.54	ppm	98
48) Hexachlorocyclopentadiene	6.494	237	807316	108.71	ppm	100
49) 2,4,6-Trichlorophenol	6.606	196	367838	52.55	ppm	99
50) 2,4,5-Trichlorophenol	6.643	196	380711	52.26	ppm	100
52) 2-Chloronaphthalene	6.756	162	1058640	49.38	ppm	97
53) Biphenyl	6.740	154	1512741	50.48	ppm	100
54) 2-Nitroaniline	6.852	65	422054	45.84	ppm	99
55) Dimethylphthalate	7.002	163	1285941	48.46	ppm	100
56) Acenaphthylene	7.093	152	1837503	50.24	ppm	100
57) 2,6-Dinitrotoluene	7.050	165	295564	50.79	ppm	97
58) 3-Nitroaniline	7.189	138	334883	50.99	ppm	97
59) Acenaphthene	7.237	153	1177194	54.84	ppm	99
60) 2,4-Dinitrophenol	7.280	184	347158	106.52	ppm	88
61) 4-Nitrophenol	7.360	109	276390	57.15	ppm	94
62) Dibenzofuran	7.376	168	1631162	55.10	ppm	98
63) 2,4-Dinitrotoluene	7.381	165	421831	56.37	ppm	99
64) 2,3,4,6-Tetrachlorophenol	7.488	232	348433	51.46	ppm	95
65) Diethylphthalate	7.579	149	1427333	51.76	ppm	99
66) Fluorene	7.660	166	1415280	55.74	ppm	97
67) 4-Chlorophenyl-phenyle...	7.660	204	705570	57.84	ppm	98
68) 4-Nitroaniline	7.697	138	292760	51.72	ppm	96
70) 4,6-Dinitro-2-methylph...	7.724	198	224409	59.29	ppm	85
71) n-Nitrosodiphenylamine	7.761	169	886158	51.77	ppm	99
72) 1,2-Diphenylhydrazine	7.788	77	1643102	49.24	ppm	95
74) 4-Bromophenyl-phenylether	8.071	248	413035	54.51	ppm	95
75) Hexachlorobenzene	8.136	284	456366	54.39	ppm	99
76) Pentachlorophenol	8.323	266	670399	104.05	ppm	98
77) Phenanthrene	8.505	178	1780662	56.39	ppm	99

9.6.25
9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3822\
 Data File : 2p86451.D
 Acq On : 11 Apr 2019 3:15 am
 Operator : chriss2
 Sample : cc3816-50
 Misc : op13652,e2p3822,1000,,,1,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 11 09:55:23 2019
 Quant Method : C:\MSDCHEM\1\METHODS\M2P3816.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Fri Apr 05 14:12:48 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
78) Anthracene	8.553	178	1823681	56.80	ppm	100
79) Carbazole	8.724	167	1793135	54.01	ppm	99
80) Di-n-butylphthalate	9.104	149	2806432	55.71	ppm	100
81) Fluoranthene	9.799	202	2520857	56.17	ppm	99
82) Octadecane	8.403	43	539716	51.69	ppm	98
84) Pyrene	10.072	202	2389309	50.44	ppm	98
86) Butylbenzylphthalate	10.997	149	1368943	51.53	ppm	98
87) Benzo[a]anthracene	11.703	228	2426694	53.07	ppm	98
88) 3,3'-Dichlorobenzidine	11.714	252	917649	48.53	ppm	99
89) Chrysene	11.762	228	1736909	53.54	ppm	99
90) bis(2-Ethylhexyl)phtha...	11.869	149	1498380	54.80	ppm	100
92) Di-n-octylphthalate	12.805	149	3252981	55.56	ppm	100
93) Benzo[b]fluoranthene	13.222	252	2295574	57.18	ppm	98
94) Benzo[k]fluoranthene	13.260	252	1694775	51.63	ppm	99
95) Benzo[a]pyrene	13.634	252	1875249	55.58	ppm	98
96) Indeno[1,2,3-cd]pyrene	15.067	276	2182937	56.77	ppm	100
97) Dibenz(a,h)acridine	14.768	279	1711903	51.37	ppm	98
98) Dibenz[a,h]anthracene	15.105	278	1701072	56.80	ppm	99
99) 7,12-Dimethylbenz(a)an...	13.217	256	1092032	59.79	ppm	98
100) Benzo[g,h,i]perylene	15.436	276	1688836	55.49	ppm	98

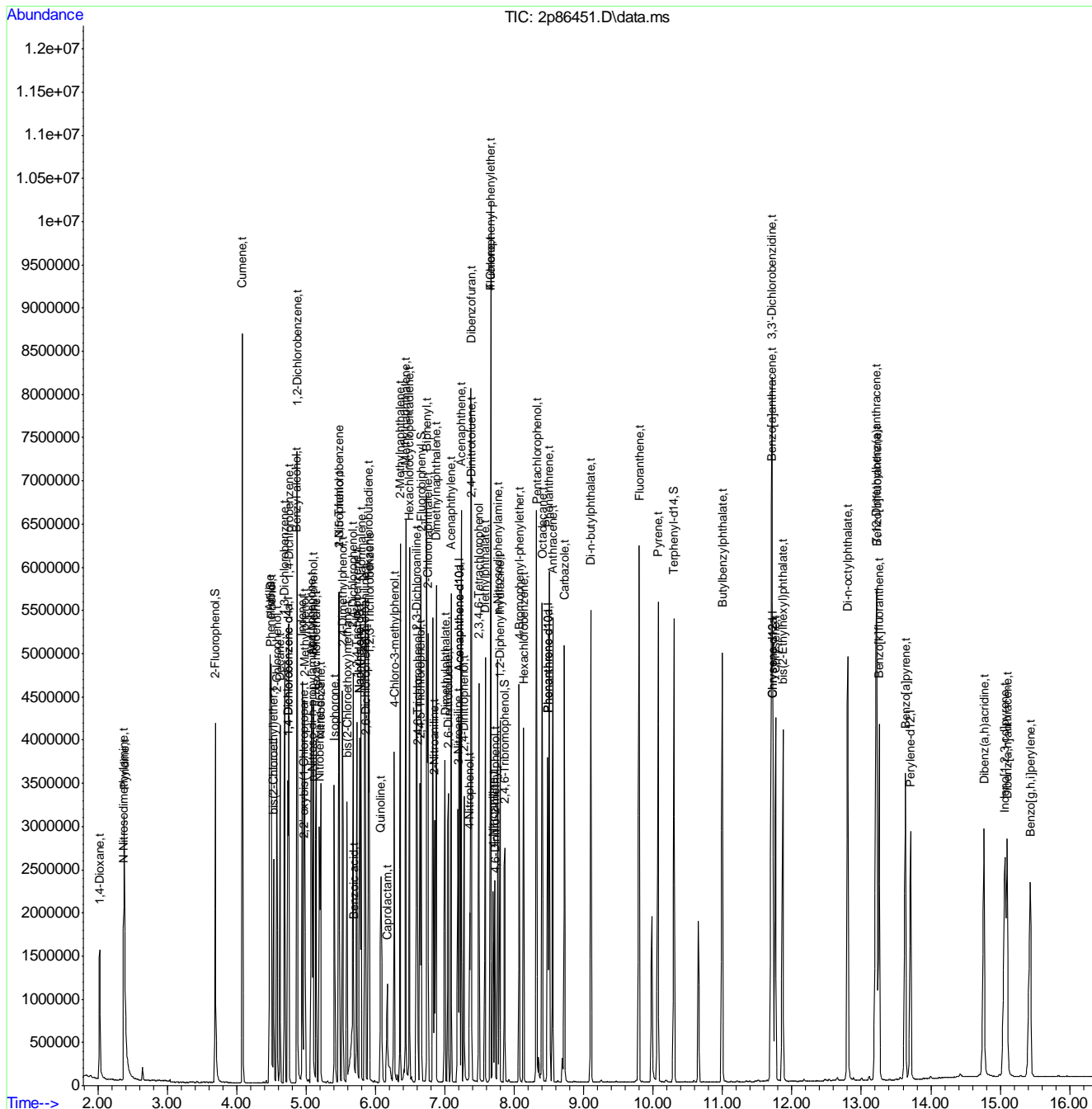
(#) = qualifier out of range (m) = manual integration (+) = signals summed

9.6.25
9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3822\
 Data File : 2p86451.D
 Acq On : 11 Apr 2019 3:15 am
 Operator : chriss2
 Sample : cc3816-50
 Misc : op13652,e2p3822,1000,,,1,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 11 09:55:23 2019
 Quant Method : C:\MSDCHEM\1\METHODS\M2P3816.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Fri Apr 05 14:12:48 2019
 Response via : Initial Calibration



9.6-25
 9

Manual Integration Approval Summary

Sample Number: E2P3822-CC3816 Method: SW846 8270D
Lab FileID: 2P86451.D Analyst approved: 04/11/19 11:17 Kristi Schollenberger
Injection Time: 04/11/19 03:15 Supervisor approved: 04/11/19 12:24 Nina Pandya

Parameter	CAS	Sig#	R.T. (min.)	Reason
Benzoic acid	65-85-0		5.69	Split peak

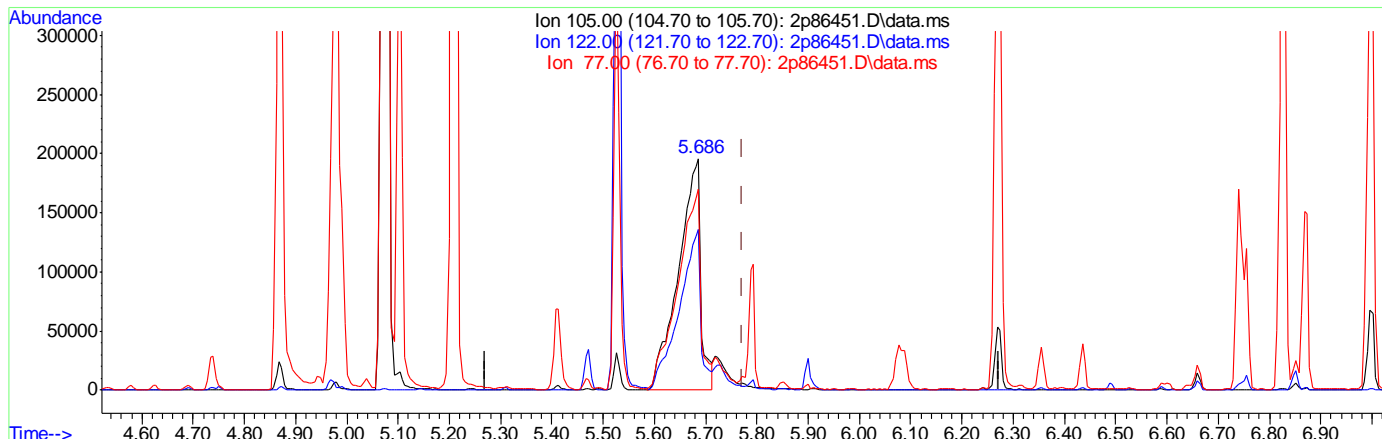
9.6.25.1

9

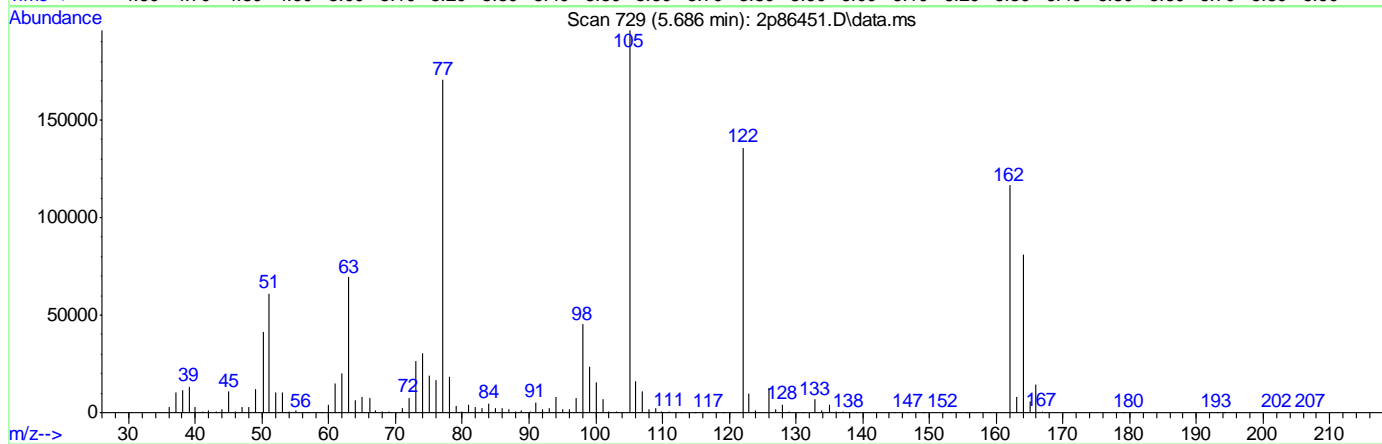
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2P3822\
 Data File : 2p86451.D
 Acq On : 11 Apr 2019 3:15 am
 Operator : chriss2
 Sample : cc3816-50
 Misc : op13652,e2p3822,1000,,,1,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 11 03:30:06 2019
 Quant Method : C:\MSDCHEM\1\METHODS\M2P3816.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Fri Apr 05 14:12:48 2019
 Response via : Initial Calibration



9.6.25.2
9



(31) Benzoic acid (t)

5.686min (-0.086) 52.33ppm

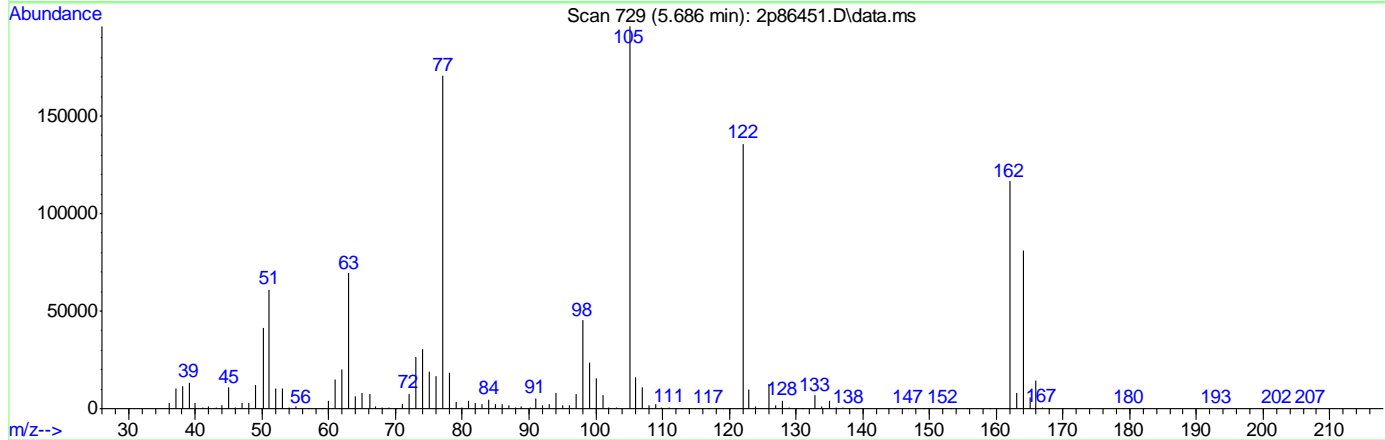
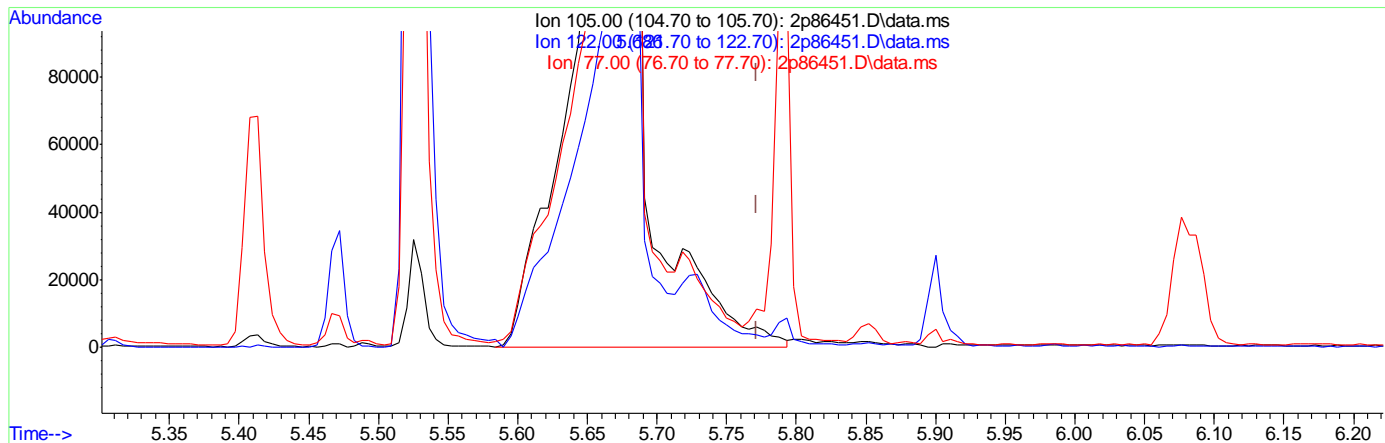
response 590918

Ion	Exp%	Act%
105.00	100	100
122.00	68.60	68.70
77.00	83.90	85.89
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2P3822\
 Data File : 2p86451.D
 Acq On : 11 Apr 2019 3:15 am
 Operator : chriss2
 Sample : cc3816-50
 Misc : op13652,e2p3822,1000,,,1,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 11 03:30:06 2019
 Quant Method : C:\MSDCHEM\1\METHODS\M2P3816.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Fri Apr 05 14:12:48 2019
 Response via : Initial Calibration



(31) Benzoic acid (t)

5.686min (-0.086) 57.41ppm m

response 648368

Ion	Exp%	Act%
105.00	100	100
122.00	68.60	69.29
77.00	83.90	87.00
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3822\
 Data File : 2p86452.D
 Acq On : 11 Apr 2019 3:36 am
 Operator : chriss2
 Sample : cc3783-50
 Misc : op13652,e2p3822,1000,,,1,1
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Apr 11 10:15:13 2019
 Quant Method : C:\MSDCHEM\1\METHODS\M2P3816.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Fri Apr 05 14:12:48 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.734	152	534974	40.00	ppm	-0.10
24) Naphthalene-d8	5.766	136	2180626	40.00	ppm	-0.11
47) Acenaphthene-d10	7.205	164	994107	40.00	ppm	-0.11
69) Phenanthrene-d10	8.478	188	1468953	40.00	ppm	-0.13
83) Chrysene-d12	11.714	240	1390703	40.00	ppm	-0.18
91) Perylene-d12	13.698	264	1396494	40.00	ppm	-0.20
101) 1,4-Dichlorobenzene-d4a	4.734	152	534974	40.00	ppm	-0.10
103) Naphthalene-d8a	5.766	136	2180626	40.00	ppm	-0.11
105) Acenaphthene-d10a	7.205	164	994107	40.00	ppm	-0.11
108) Chrysene-d12a	11.714	240	1390703	40.00	ppm	-0.18
110) Phenanthrene-d10a	8.478	188	1468953	40.00	ppm	-0.13
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0d	0.00	ppm	
Spiked Amount	50.000	Range 11 - 58	Recovery	=	0.00%#	
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount	50.000	Range 10 - 59	Recovery	=	0.00%#	
25) Nitrobenzene-d5	0.000	82	0d	0.00	ppm	
Spiked Amount	50.000	Range 19 - 61	Recovery	=	0.00%#	
51) 2-Fluorobiphenyl	0.000	172	0d	0.00	ppm	
Spiked Amount	50.000	Range 21 - 58	Recovery	=	0.00%#	
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount	50.000	Range 12 - 68	Recovery	=	0.00%#	
85) Terphenyl-d14	0.000	244	0d	0.00	ppm	
Spiked Amount	50.000	Range 16 - 65	Recovery	=	0.00%#	
111) 1-Chlorooctadecane	9.708	57	710802	64.36	ppm	0.00
Spiked Amount	50.000	Range 20 - 70	Recovery	=	128.72%#	
112) o-terphenyl	8.868	230	1159940	58.75	ppm	-0.23
Spiked Amount	50.000	Range 20 - 70	Recovery	=	117.50%#	
Target Compounds						
102) Benzaldehyde	4.376	105	938289	48.51	ppm	94
104) Hydroquinone	6.151	110	1028941	62.54	ppm	96
106) Atrazine	8.237	215	241487	56.61	ppm #	84
107) 1,2,4,5-Tetrachloroben...	6.494	216	766218	51.49	ppm	99
113) Pentachloronitrobenzene	8.323	295	94595	56.41	ppm	95

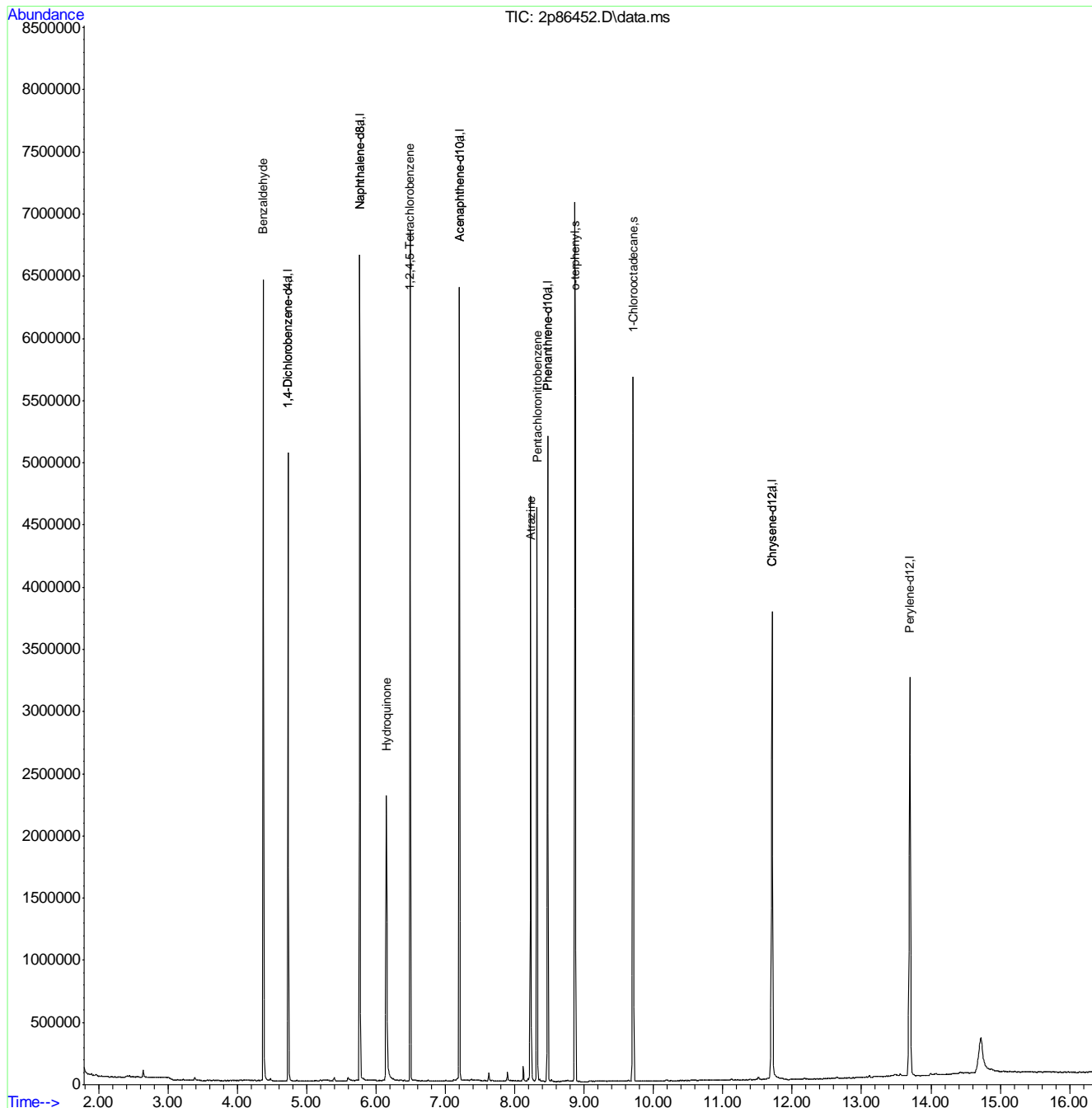
(#) = qualifier out of range (m) = manual integration (+) = signals summed

9.6.26
9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3822\
 Data File : 2p86452.D
 Acq On : 11 Apr 2019 3:36 am
 Operator : chriss2
 Sample : cc3783-50
 Misc : op13652,e2p3822,1000,,,1,1
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Apr 11 10:15:13 2019
 Quant Method : C:\MSDCHEM\1\METHODS\M2P3816.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Fri Apr 05 14:12:48 2019
 Response via : Initial Calibration



9.6-26
9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3823\
 Data File : 2p86487.D
 Acq On : 12 Apr 2019 9:21 am
 Operator : angelar
 Sample : cc3816-25
 Misc : op13652,e2p3823,1000,,,1,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 12 14:34:52 2019
 Quant Method : C:\MSDCHEM\1\METHODS\M2P3816.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Fri Apr 05 14:12:48 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.734	152	520082	40.00	ppm	-0.10
24) Naphthalene-d8	5.766	136	1746662	40.00	ppm	-0.11
47) Acenaphthene-d10	7.205	164	918595	40.00	ppm	-0.11
69) Phenanthrene-d10	8.473	188	1586908	40.00	ppm	-0.13
83) Chrysene-d12	11.714	240	1462010	40.00	ppm	-0.18
91) Perylene-d12	13.698	264	1407561	40.00	ppm	-0.20
101) 1,4-Dichlorobenzene-d4a	4.734	152	520082	40.00	ppm	-0.10
103) Naphthalene-d8a	5.766	136	1746662	40.00	ppm	#-0.11
105) Acenaphthene-d10a	7.205	164	918595	40.00	ppm	-0.11
108) Chrysene-d12a	11.714	240	1462010	40.00	ppm	-0.18
110) Phenanthrene-d10a	8.473	188	1586908	40.00	ppm	-0.13
System Monitoring Compounds						
5) 2-Fluorophenol	3.686	112	668221	25.53	ppm	-0.10
Spiked Amount	50.000	Range	11 - 58	Recovery	=	51.06%
8) Phenol-d5	4.482	99	765254	26.68	ppm	-0.10
Spiked Amount	50.000	Range	10 - 59	Recovery	=	53.36%
25) Nitrobenzene-d5	5.189	82	594484	25.32	ppm	-0.10
Spiked Amount	50.000	Range	19 - 61	Recovery	=	50.64%
51) 2-Fluorobiphenyl	6.654	172	795412	25.02	ppm	-0.11
Spiked Amount	50.000	Range	21 - 58	Recovery	=	50.04%
73) 2,4,6-Tribromophenol	7.857	330	114128	20.50	ppm	-0.12
Spiked Amount	50.000	Range	12 - 68	Recovery	=	41.00%
85) Terphenyl-d14	10.291	244	909592	25.00	ppm	-0.17
Spiked Amount	50.000	Range	16 - 65	Recovery	=	50.00%
111) 1-Chlorooctadecane	0.000	57	0d	0.00	ppm	
Spiked Amount	50.000	Range	20 - 70	Recovery	=	0.00%#
112) o-terphenyl	9.141	230	128	0.01	ppm	0.04
Spiked Amount	50.000	Range	20 - 70	Recovery	=	0.02%#
Target Compounds						
2) 1,4-Dioxane	2.017	88	399400	26.83	ppm	95
3) Pyridine	2.380	79	957446	26.78	ppm	99
4) N-Nitrosodimethylamine	2.364	74	562093	25.11	ppm	100
6) Indene	4.942	116	725828	25.96	ppm	96
7) Cumene	4.081	105	1728398	26.16	ppm	97
9) Phenol	4.493	94	816928	27.29	ppm	98
10) Aniline	4.472	93	1015636	30.54	ppm	99
11) bis(2-Chloroethyl)ether	4.531	93	546748	25.56	ppm	99
12) 2-Chlorophenol	4.573	128	497646	25.89	ppm	96
13) Decane	4.622	57	486693	26.73	ppm	98
14) 1,3-Dichlorobenzene	4.686	146	528008	24.90	ppm	95
15) 1,4-Dichlorobenzene	4.745	146	488905	25.79	ppm	96
16) Benzyl alcohol	4.862	108	290154	27.61	ppm	92
17) 1,2-Dichlorobenzene	4.868	146	461798	25.34	ppm	97
18) Acetophenone	5.066	105	691346	26.37	ppm	99
19) 2-Methylphenol	4.969	108	414849	27.17	ppm	98
20) 2,2'-oxybis(1-Chloropr...	4.969	121	109588	24.82	ppm	# 25
21) 3&4-Methylphenol	5.098	108	424791	27.45	ppm	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3823\
 Data File : 2p86487.D
 Acq On : 12 Apr 2019 9:21 am
 Operator : angelar
 Sample : cc3816-25
 Misc : op13652,e2p3823,1000,,,1,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 12 14:34:52 2019
 Quant Method : C:\MSDCHEM\1\METHODS\M2P3816.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Fri Apr 05 14:12:48 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
22) n-Nitroso-di-n-propyla...	5.076	70	375624	27.16	ppm	98
23) Hexachloroethane	5.140	201	154867	24.15	ppm #	80
26) Nitrobenzene	5.205	77	585641	25.47	ppm	100
27) Quinoline	6.060	129	776248	25.13	ppm	97
28) Isophorone	5.397	82	1036726	25.67	ppm	94
29) 2-Nitrophenol	5.461	139	240547	25.62	ppm	82
30) 2,4-Dimethylphenol	5.520	107	494434	29.72	ppm	98
31) Benzoic acid	5.643	105	370104	25.27	ppm	92
32) bis(2-Chloroethoxy)met...	5.579	93	562789	25.03	ppm	98
33) 2,4-Dichlorophenol	5.670	162	339928	25.89	ppm	94
34) 2,6-Dichlorophenol	5.846	162	301778	25.62	ppm	96
35) 1,3,5-Trichlorobenzene	5.472	180	379594	23.86	ppm	98
36) 1,2,4-Trichlorobenzene	5.729	180	350243	23.95	ppm	99
37) 1,2,3-Trichlorobenzene	5.905	180	317280	24.66	ppm	98
38) Naphthalene	5.788	128	1087092	26.02	ppm	99
39) 4-Chloroaniline	5.841	127	483904	28.22	ppm	95
40) 2,3-Dichloroaniline	6.585	161	411453	24.93	ppm	96
41) Caprolactam	6.135	113	133801	24.84	ppm	83
42) Hexachlorobutadiene	5.895	225	201281	24.00	ppm	98
43) 4-Chloro-3-methylphenol	6.258	107	459875	27.06	ppm	81
44) 2-Methylnaphthalene	6.349	141	667146	25.11	ppm	96
45) 1-Methylnaphthalene	6.429	141	731405	25.12	ppm	97
46) Dimethylnaphthalene	6.863	156	622928	23.19	ppm	96
48) Hexachlorocyclopentadiene	6.488	237	373801	44.16	ppm	99
49) 2,4,6-Trichlorophenol	6.595	196	222441	25.87	ppm	94
50) 2,4,5-Trichlorophenol	6.633	196	231972	25.92	ppm	96
52) 2-Chloronaphthalene	6.750	162	650762	24.71	ppm	99
53) Biphenyl	6.734	154	907807	24.66	ppm	100
54) 2-Nitroaniline	6.841	65	374863	33.15	ppm	87
55) Dimethylphthalate	6.991	163	790569	24.25	ppm	99
56) Acenaphthylene	7.087	152	1121607	24.96	ppm	99
57) 2,6-Dinitrotoluene	7.039	165	178983	25.04	ppm	88
58) 3-Nitroaniline	7.178	138	220714	27.36	ppm	100
59) Acenaphthene	7.226	153	685990	26.01	ppm	96
60) 2,4-Dinitrophenol	7.269	184	171952	48.41	ppm #	55
61) 4-Nitrophenol	7.349	109	172075	28.96	ppm	86
62) Dibenzofuran	7.371	168	936565	25.75	ppm	98
63) 2,4-Dinitrotoluene	7.371	165	248472	27.03	ppm	71
64) 2,3,4,6-Tetrachlorophenol	7.483	232	190098	22.85	ppm	92
65) Diethylphthalate	7.569	149	876386	25.87	ppm	98
66) Fluorene	7.649	166	832131	26.68	ppm	98
67) 4-Chlorophenyl-phenyle...	7.654	204	377069	25.16	ppm	90
68) 4-Nitroaniline	7.681	138	196086	28.20	ppm	92
70) 4,6-Dinitro-2-methylph...	7.713	198	126613	26.72	ppm	86
71) n-Nitrosodiphenylamine	7.756	169	535196	24.98	ppm	98
72) 1,2-Diphenylhydrazine	7.783	77	1112478	26.63	ppm	93
74) 4-Bromophenyl-phenylether	8.066	248	223461	23.56	ppm	92
75) Hexachlorobenzene	8.125	284	249735	23.77	ppm	80
76) Pentachlorophenol	8.312	266	326892	45.20	ppm	96
77) Phenanthrene	8.494	178	1042233	26.36	ppm	99

9.6.27
9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3823\
 Data File : 2p86487.D
 Acq On : 12 Apr 2019 9:21 am
 Operator : angelar
 Sample : cc3816-25
 Misc : op13652,e2p3823,1000,,,1,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 12 14:34:52 2019
 Quant Method : C:\MSDCHEM\1\METHODS\M2P3816.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Fri Apr 05 14:12:48 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
78) Anthracene	8.542	178	1073429	26.70	ppm	100
79) Carbazole	8.713	167	1110972	26.73	ppm	98
80) Di-n-butylphthalate	9.098	149	1748485	27.73	ppm	100
81) Fluoranthene	9.788	202	1479507	26.33	ppm	98
82) Octadecane	8.392	43	366469	28.04	ppm	94
84) Pyrene	10.061	202	1432678	25.18	ppm	99
86) Butylbenzylphthalate	10.986	149	841171	26.37	ppm	94
87) Benzo[a]anthracene	11.692	228	1373665	25.01	ppm	99
88) 3,3'-Dichlorobenzidine	11.698	252	507861	23.31	ppm	96
89) Chrysene	11.751	228	1025838	26.33	ppm	99
90) bis(2-Ethylhexyl)phtha...	11.858	149	956754	29.14	ppm	99
92) Di-n-octylphthalate	12.794	149	1810361	26.91	ppm	99
93) Benzo[b]fluoranthene	13.201	252	1185564	25.71	ppm	97
94) Benzo[k]fluoranthene	13.238	252	1001062	26.54	ppm	98
95) Benzo[a]pyrene	13.618	252	994208	25.65	ppm	97
96) Indeno[1,2,3-cd]pyrene	15.041	276	1012009m	22.91	ppm	
97) Dibenz(a,h)acridine	14.752	279	745837	19.48	ppm	97
98) Dibenz[a,h]anthracene	15.078	278	818760	23.79	ppm	98
99) 7,12-Dimethylbenz(a)an...	13.201	256	563671	26.86	ppm	97
100) Benzo[g,h,i]perylene	15.404	276	807245	23.08	ppm	96

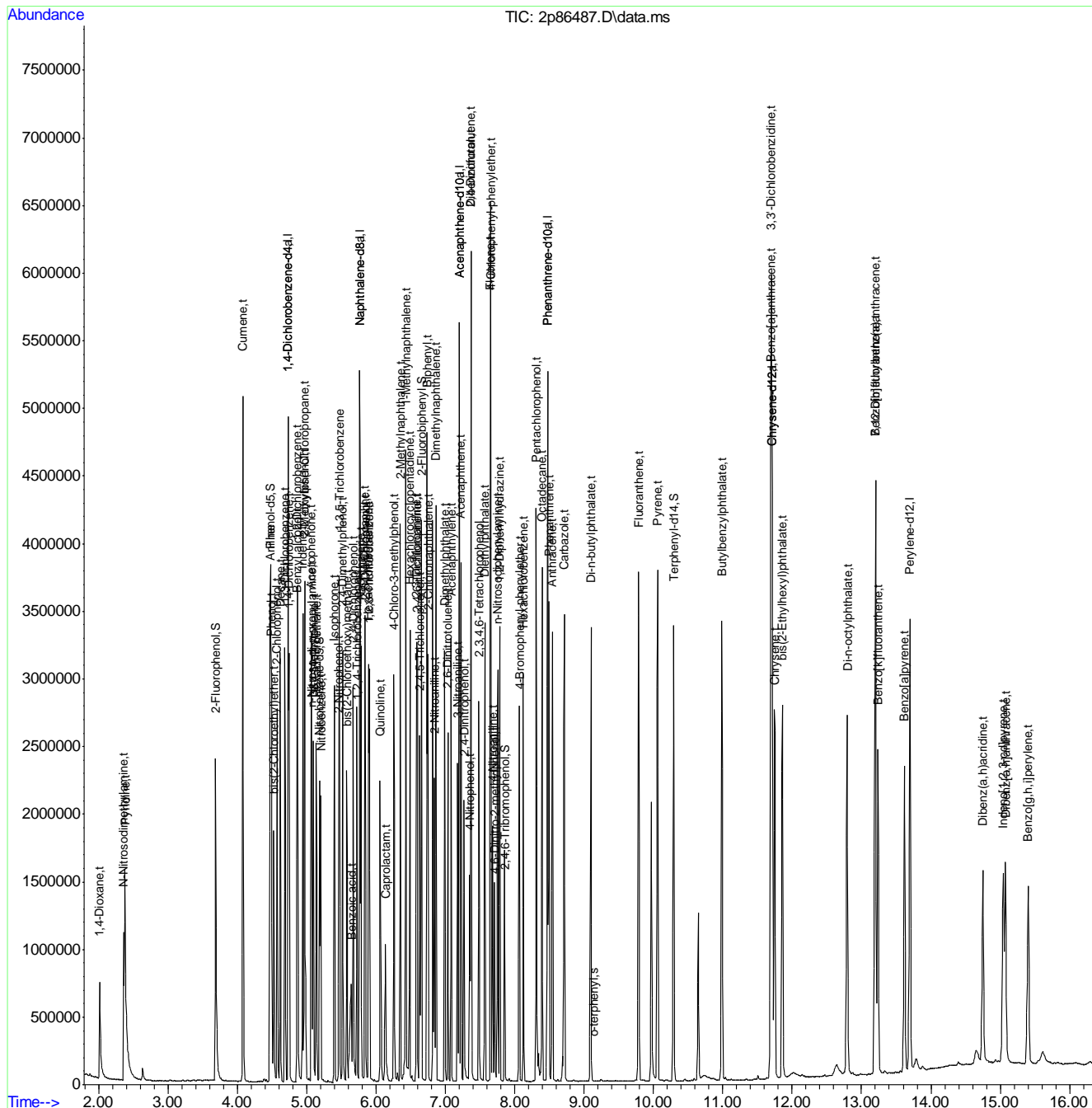
(#) = qualifier out of range (m) = manual integration (+) = signals summed

9.6.27
9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3823\
 Data File : 2p86487.D
 Acq On : 12 Apr 2019 9:21 am
 Operator : angelar
 Sample : cc3816-25
 Misc : op13652,e2p3823,1000,,,1,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 12 14:34:52 2019
 Quant Method : C:\MSDCHEM\1\METHODS\M2P3816.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Fri Apr 05 14:12:48 2019
 Response via : Initial Calibration



9.6-27
9

Manual Integration Approval Summary

Sample Number: E2P3823-CC3816 Method: SW846 8270D
Lab FileID: 2P86487.D Analyst approved: 04/12/19 14:40 Ying Li
Injection Time: 04/12/19 09:21 Supervisor approved: 04/12/19 15:46 Nina Pandya

Parameter	CAS	Sig#	R.T. (min.)	Reason
Indeno(1,2,3-cd)pyrene	193-39-5		15.04	Split peak

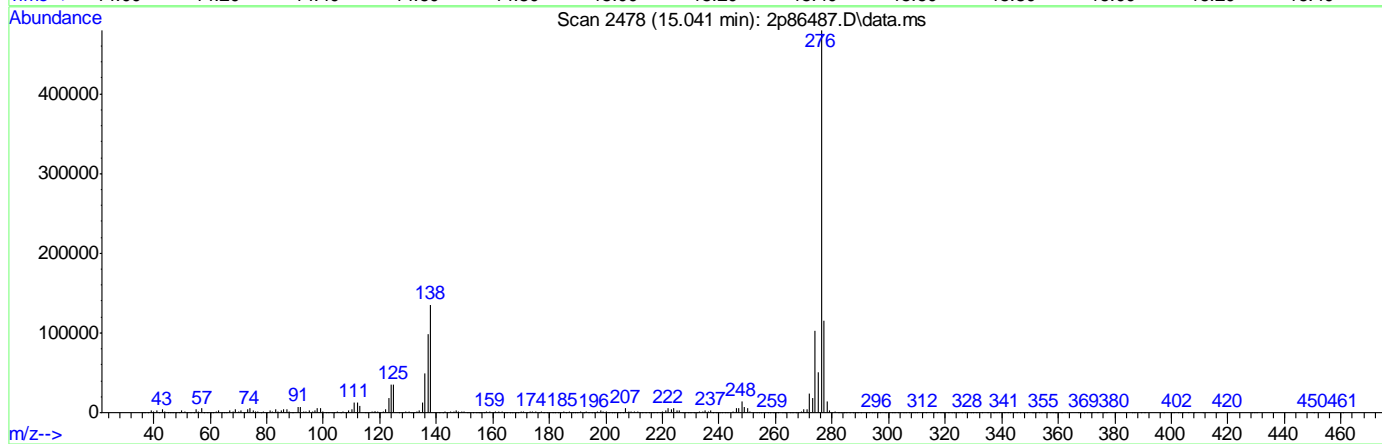
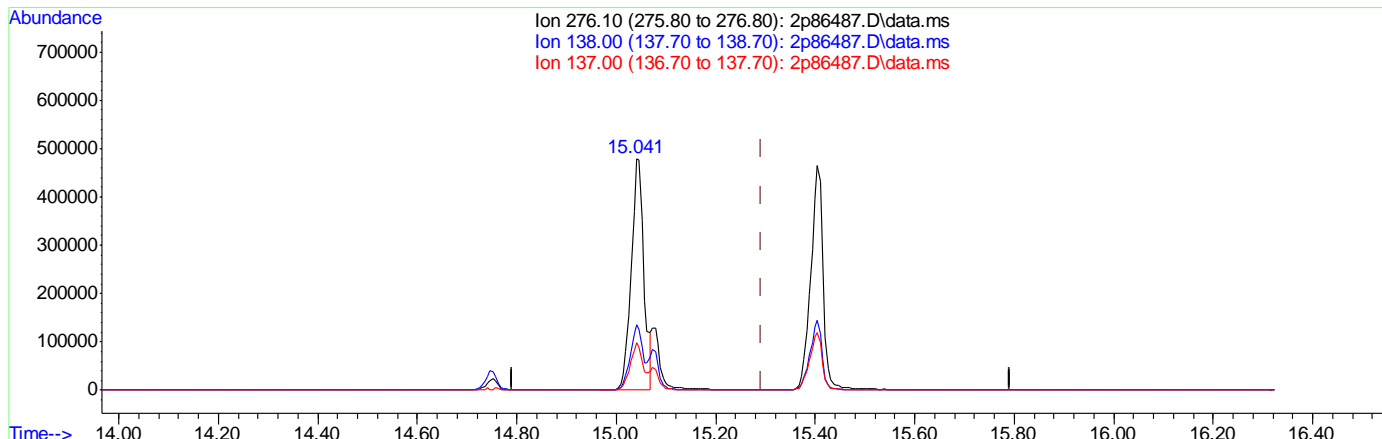
9.6.27.1

9

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2P3823\
 Data File : 2p86487.D
 Acq On : 12 Apr 2019 9:21 am
 Operator : angelar
 Sample : cc3816-25
 Misc : op13652,e2p3823,1000,,,1,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 12 09:36:17 2019
 Quant Method : C:\MSDCHEM\1\METHODS\M2P3816.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Fri Apr 05 14:12:48 2019
 Response via : Initial Calibration



(96) Indeno[1,2,3-cd]pyrene (t)

15.041min (-0.251) 19.09ppm

response 843344

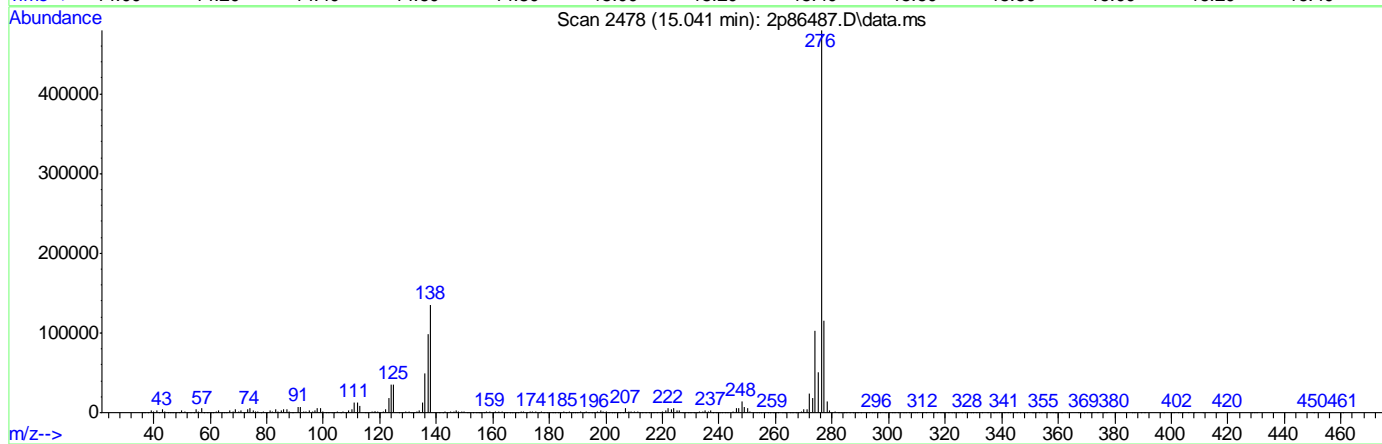
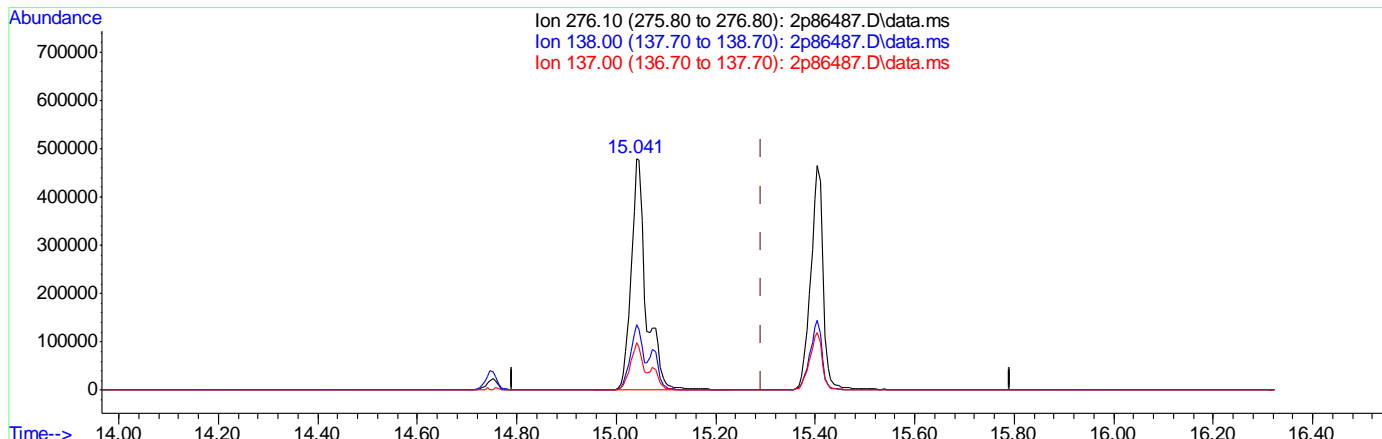
Ion	Exp%	Act%
276.10	100	100
138.00	25.30	24.10
137.00	18.50	18.87
0.00	0.00	0.00

9.6.27.2
9

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2P3823\
 Data File : 2p86487.D
 Acq On : 12 Apr 2019 9:21 am
 Operator : angelar
 Sample : cc3816-25
 Misc : op13652,e2p3823,1000,,,1,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 12 09:36:17 2019
 Quant Method : C:\MSDCHEM\1\METHODS\M2P3816.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Fri Apr 05 14:12:48 2019
 Response via : Initial Calibration



TIC: 2p86487.D\data.ms

(96) Indeno[1,2,3-cd]pyrene (t)

15.041min (-0.251) 22.91ppm m

response 1012009

Ion	Exp%	Act%
276.10	100	100
138.00	25.30	28.22
137.00	18.50	20.62
0.00	0.00	0.00

9.6.27.3
9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3823\
 Data File : 2p86488.D
 Acq On : 12 Apr 2019 9:42 am
 Operator : angelar
 Sample : cc3783-25
 Misc : op13652,e2p3823,1000,,,1,1
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Apr 12 14:36:12 2019
 Quant Method : C:\MSDCHEM\1\METHODS\M2P3816.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Fri Apr 05 14:12:48 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.734	152	761840	40.00	ppm	-0.10
24) Naphthalene-d8	5.766	136	2794681	40.00	ppm	-0.11
47) Acenaphthene-d10	7.200	164	1399416	40.00	ppm	-0.11
69) Phenanthrene-d10	8.473	188	2062163	40.00	ppm	-0.13
83) Chrysene-d12	11.709	240	1845206	40.00	ppm	-0.19
91) Perylene-d12	13.698	264	1673884	40.00	ppm	-0.20
101) 1,4-Dichlorobenzene-d4a	4.734	152	761840	40.00	ppm	-0.10
103) Naphthalene-d8a	5.766	136	2794681	40.00	ppm	-0.11
105) Acenaphthene-d10a	7.200	164	1399416	40.00	ppm	-0.11
108) Chrysene-d12a	11.709	240	1845778	40.00	ppm	-0.19
110) Phenanthrene-d10a	8.473	188	2062163	40.00	ppm	-0.13
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount	50.000	Range	11 - 58	Recovery	=	0.00%#
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount	50.000	Range	10 - 59	Recovery	=	0.00%#
25) Nitrobenzene-d5	0.000	82	0d	0.00	ppm	
Spiked Amount	50.000	Range	19 - 61	Recovery	=	0.00%#
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount	50.000	Range	21 - 58	Recovery	=	0.00%#
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount	50.000	Range	12 - 68	Recovery	=	0.00%#
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount	50.000	Range	16 - 65	Recovery	=	0.00%#
111) 1-Chlorooctadecane	9.698	57	526018	33.93	ppm	0.00
Spiked Amount	50.000	Range	20 - 70	Recovery	=	67.86%
112) o-terphenyl	8.863	230	736334	26.57	ppm	-0.24
Spiked Amount	50.000	Range	20 - 70	Recovery	=	53.14%
Target Compounds						
102) Benzaldehyde	4.376	105	671125	24.36	ppm	90
104) Hydroquinone	6.141	110	692383	32.84	ppm	91
106) Atrazine	8.227	215	161194	27.11	ppm	93
107) 1,2,4,5-Tetrachloroben...	6.494	216	505769	24.14	ppm	97
113) Pentachloronitrobenzene	8.318	295	61539	27.35	ppm	95

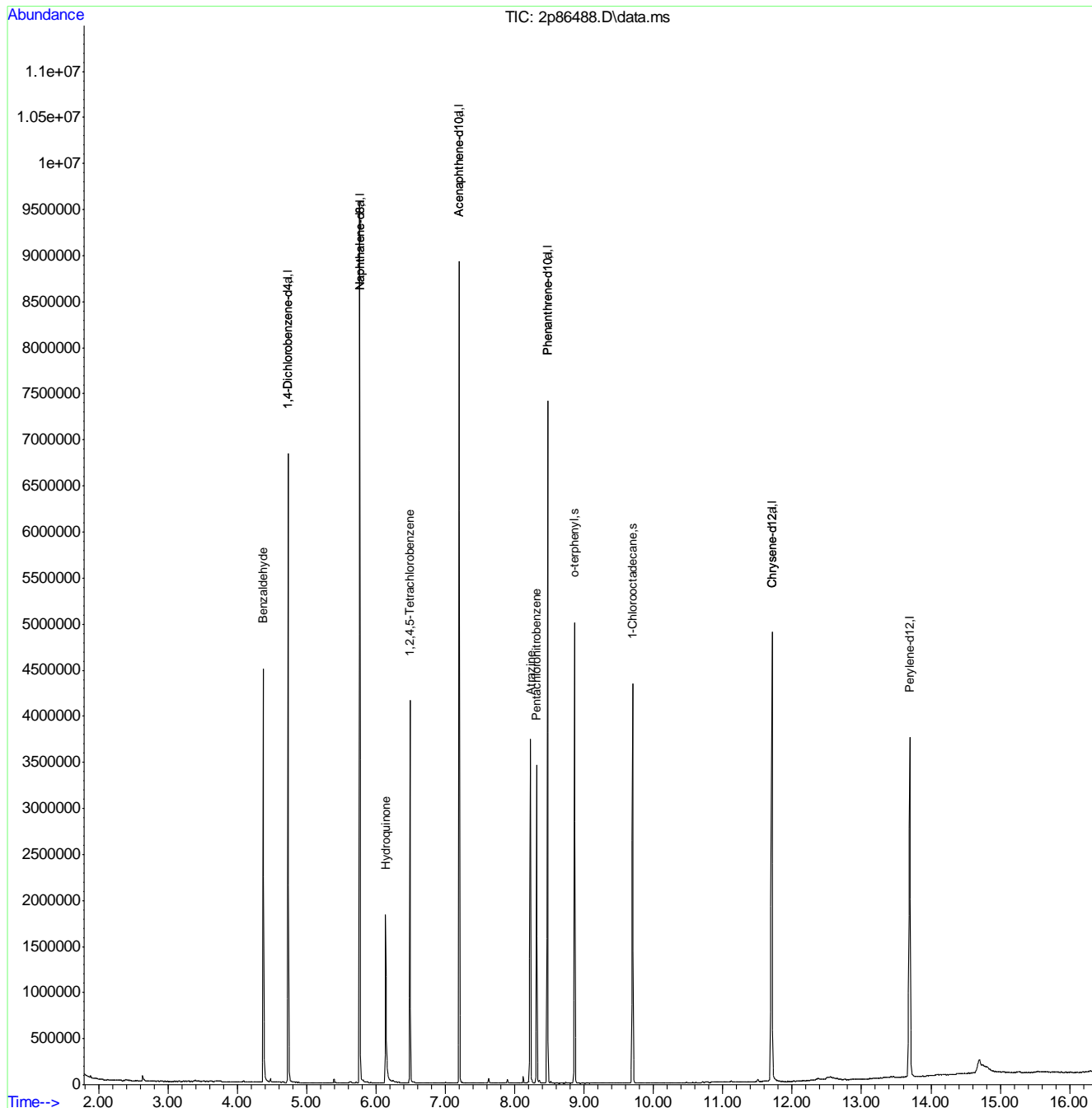
(#) = qualifier out of range (m) = manual integration (+) = signals summed

9.6.28
9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2P3823\
 Data File : 2p86488.D
 Acq On : 12 Apr 2019 9:42 am
 Operator : angelar
 Sample : cc3783-25
 Misc : op13652,e2p3823,1000,,,1,1
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Apr 12 14:36:12 2019
 Quant Method : C:\MSDCHEM\1\METHODS\M2P3816.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Fri Apr 05 14:12:48 2019
 Response via : Initial Calibration



9.6.28
9

Quantitation Report (QT Reviewed)

Data Path : Z:\svoa-gcms\completed\04_apr\04-15-2019\jeryllr\2p3823\
 Data File : 2p86517.d
 Acq On : 12 Apr 2019 8:35 pm
 Operator : angelar
 Sample : ecc3816-25
 Misc : op13652,e2p3823,1000,,,1,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 15 11:03:37 2019
 Quant Method : C:\MSDCHEM\1\METHODS\M2P3816.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Fri Apr 05 14:31:57 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.739	152	630143	40.00	ppm	-0.10
24) Naphthalene-d8	5.777	136	2103504	40.00	ppm	-0.10
47) Acenaphthene-d10	7.216	164	1105214	40.00	ppm	-0.10
69) Phenanthrene-d10	8.489	188	1850260	40.00	ppm	-0.12
83) Chrysene-d12	11.741	240	1289511	40.00	ppm	-0.16
91) Perylene-d12	13.730	264	1335875	40.00	ppm	-0.17
101) 1,4-Dichlorobenzene-d4a	4.739	152	630143	40.00	ppm	-0.10
103) Naphthalene-d8a	5.777	136	2103504	40.00	ppm	-0.10
105) Acenaphthene-d10a	7.216	164	1105214	40.00	ppm	-0.10
108) Chrysene-d12a	11.741	240	1289511	40.00	ppm	-0.15
110) Phenanthrene-d10a	8.489	188	1850260	40.00	ppm	-0.12

System Monitoring Compounds						
5) 2-Fluorophenol	3.696	112	762135	24.03	ppm	-0.09
Spiked Amount	50.000	Range	11 - 58	Recovery	=	48.06%
8) Phenol-d5	4.493	99	886950	25.52	ppm	-0.09
Spiked Amount	50.000	Range	10 - 59	Recovery	=	51.04%
25) Nitrobenzene-d5	5.194	82	693040	24.51	ppm	-0.10
Spiked Amount	50.000	Range	19 - 61	Recovery	=	49.02%
51) 2-Fluorobiphenyl	6.665	172	962395	25.16	ppm	-0.10
Spiked Amount	50.000	Range	21 - 58	Recovery	=	50.32%
73) 2,4,6-Tribromophenol	7.868	330	153926	23.72	ppm	-0.11
Spiked Amount	50.000	Range	12 - 68	Recovery	=	47.44%
85) Terphenyl-d14	10.313	244	888472	27.69	ppm	-0.14
Spiked Amount	50.000	Range	16 - 65	Recovery	=	55.38%
111) 1-Chlorooctadecane	0.000	57	0d	0.00	ppm	
Spiked Amount	50.000	Range	20 - 70	Recovery	=	0.00%#
112) o-terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount	50.000	Range	20 - 70	Recovery	=	0.00%#

Target Compounds						Qvalue
2) 1,4-Dioxane	2.027	88	453363	25.43	ppm	98
3) Pyridine	2.391	79	1046643	24.16	ppm	99
4) N-Nitrosodimethylamine	2.375	74	616414	22.72	ppm	98
6) Indene	4.948	116	839791	24.79	ppm	98
7) Cumene	4.087	105	2004476	25.04	ppm	97
9) Phenol	4.504	94	981514	27.06	ppm	97
10) Aniline	4.477	93	1197145	29.71	ppm	99
11) bis(2-Chloroethyl)ether	4.536	93	619807	23.91	ppm	100
12) 2-Chlorophenol	4.584	128	593690	25.49	ppm	98
13) Decane	4.627	57	534030	24.21	ppm	97
14) 1,3-Dichlorobenzene	4.696	146	628704	24.47	ppm	98
15) 1,4-Dichlorobenzene	4.755	146	574970	25.03	ppm	99
16) Benzyl alcohol	4.868	108	329709	25.89	ppm	88
17) 1,2-Dichlorobenzene	4.878	146	548958	24.86	ppm	98
18) Acetophenone	5.076	105	810654	25.52	ppm	99
19) 2-Methylphenol	4.980	108	477813	25.83	ppm	98
20) 2,2'-oxybis(1-Chloropr...	4.975	121	128287	23.98	ppm	95
21) 3&4-Methylphenol	5.108	108	494054	26.35	ppm	99

Quantitation Report (QT Reviewed)

Data Path : Z:\svoa-gcms\completed\04_apr\04-15-2019\jeryllr\2p3823\
 Data File : 2p86517.d
 Acq On : 12 Apr 2019 8:35 pm
 Operator : angelar
 Sample : ecc3816-25
 Misc : op13652,e2p3823,1000,,,1,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 15 11:03:37 2019
 Quant Method : C:\MSDCHEM\1\METHODS\M2P3816.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Fri Apr 05 14:31:57 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
22) n-Nitroso-di-n-propyla...	5.082	70	432438	25.80	ppm	95
23) Hexachloroethane	5.146	201	147318	18.96	ppm #	82
26) Nitrobenzene	5.210	77	673347	24.31	ppm	100
27) Quinoline	6.071	129	930479	25.01	ppm	99
28) Isophorone	5.408	82	1208768	24.85	ppm	97
29) 2-Nitrophenol	5.472	139	242120	21.41	ppm	92
30) 2,4-Dimethylphenol	5.531	107	582838	29.09	ppm	97
31) Benzoic acid	5.659	105	425052	24.10	ppm	95
32) bis(2-Chloroethoxy)met...	5.590	93	655400	24.21	ppm	98
33) 2,4-Dichlorophenol	5.681	162	406417	25.71	ppm	94
34) 2,6-Dichlorophenol	5.857	162	362496	25.56	ppm	98
35) 1,3,5-Trichlorobenzene	5.483	180	484689	25.30	ppm	99
36) 1,2,4-Trichlorobenzene	5.734	180	436442	24.78	ppm	99
37) 1,2,3-Trichlorobenzene	5.916	180	379597	24.50	ppm	99
38) Naphthalene	5.793	128	1248322	24.81	ppm	99
39) 4-Chloroaniline	5.846	127	565913	27.41	ppm	92
40) 2,3-Dichloroaniline	6.595	161	515117	25.92	ppm	100
41) Caprolactam	6.151	113	163222	25.16	ppm	91
42) Hexachlorobutadiene	5.900	225	252058	24.96	ppm	98
43) 4-Chloro-3-methylphenol	6.274	107	551522	26.94	ppm	76
44) 2-Methylnaphthalene	6.360	141	805743	25.18	ppm	97
45) 1-Methylnaphthalene	6.440	141	870466	24.83	ppm	97
46) Dimethylnaphthalene	6.873	156	747648	23.11	ppm	96
48) Hexachlorocyclopentadiene	6.494	237	96457	12.34	ppm	96
49) 2,4,6-Trichlorophenol	6.606	196	290098	28.04	ppm	94
50) 2,4,5-Trichlorophenol	6.649	196	292527	27.17	ppm	99
52) 2-Chloronaphthalene	6.761	162	789149	24.90	ppm	98
53) Biphenyl	6.745	154	1105197	24.95	ppm	98
54) 2-Nitroaniline	6.852	65	331309	24.35	ppm	93
55) Dimethylphthalate	7.002	163	968240	24.69	ppm	99
56) Acenaphthylene	7.098	152	1329439	24.59	ppm	99
57) 2,6-Dinitrotoluene	7.050	165	190080	22.10	ppm	90
58) 3-Nitroaniline	7.189	138	251241	25.88	ppm	96
59) Acenaphthene	7.242	153	808865	25.49	ppm	96
60) 2,4-Dinitrophenol	7.285	184	30484	11.70	ppm #	50
61) 4-Nitrophenol	7.365	109	197326	27.60	ppm	88
62) Dibenzofuran	7.381	168	1150005	26.28	ppm	95
63) 2,4-Dinitrotoluene	7.381	165	243936	22.05	ppm #	50
64) 2,3,4,6-Tetrachlorophenol	7.499	232	240725	24.05	ppm	98
65) Diethylphthalate	7.579	149	1060384	26.02	ppm	98
66) Fluorene	7.665	166	1012157	26.97	ppm	98
67) 4-Chlorophenyl-phenyle...	7.665	204	482701	26.77	ppm	95
68) 4-Nitroaniline	7.697	138	222694	26.62	ppm	97
70) 4,6-Dinitro-2-methylph...	7.724	198	27063	4.90	ppm #	67
71) n-Nitrosodiphenylamine	7.767	169	663277	26.55	ppm	100
72) 1,2-Diphenylhydrazine	7.793	77	1228233	25.22	ppm	93
74) 4-Bromophenyl-phenylether	8.077	248	276703	25.02	ppm	93
75) Hexachlorobenzene	8.141	284	315856	25.79	ppm	87
76) Pentachlorophenol	8.328	266	397453	46.91	ppm	99
77) Phenanthrene	8.510	178	1178501	25.57	ppm	99

9.6.29
9

Quantitation Report (QT Reviewed)

Data Path : Z:\svoa-gcms\completed\04_apr\04-15-2019\jeryllr\2p3823\
 Data File : 2p86517.d
 Acq On : 12 Apr 2019 8:35 pm
 Operator : angelar
 Sample : ecc3816-25
 Misc : op13652,e2p3823,1000,,,1,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 15 11:03:37 2019
 Quant Method : C:\MSDCHEM\1\METHODS\M2P3816.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Fri Apr 05 14:31:57 2019
 Response via : Initial Calibration

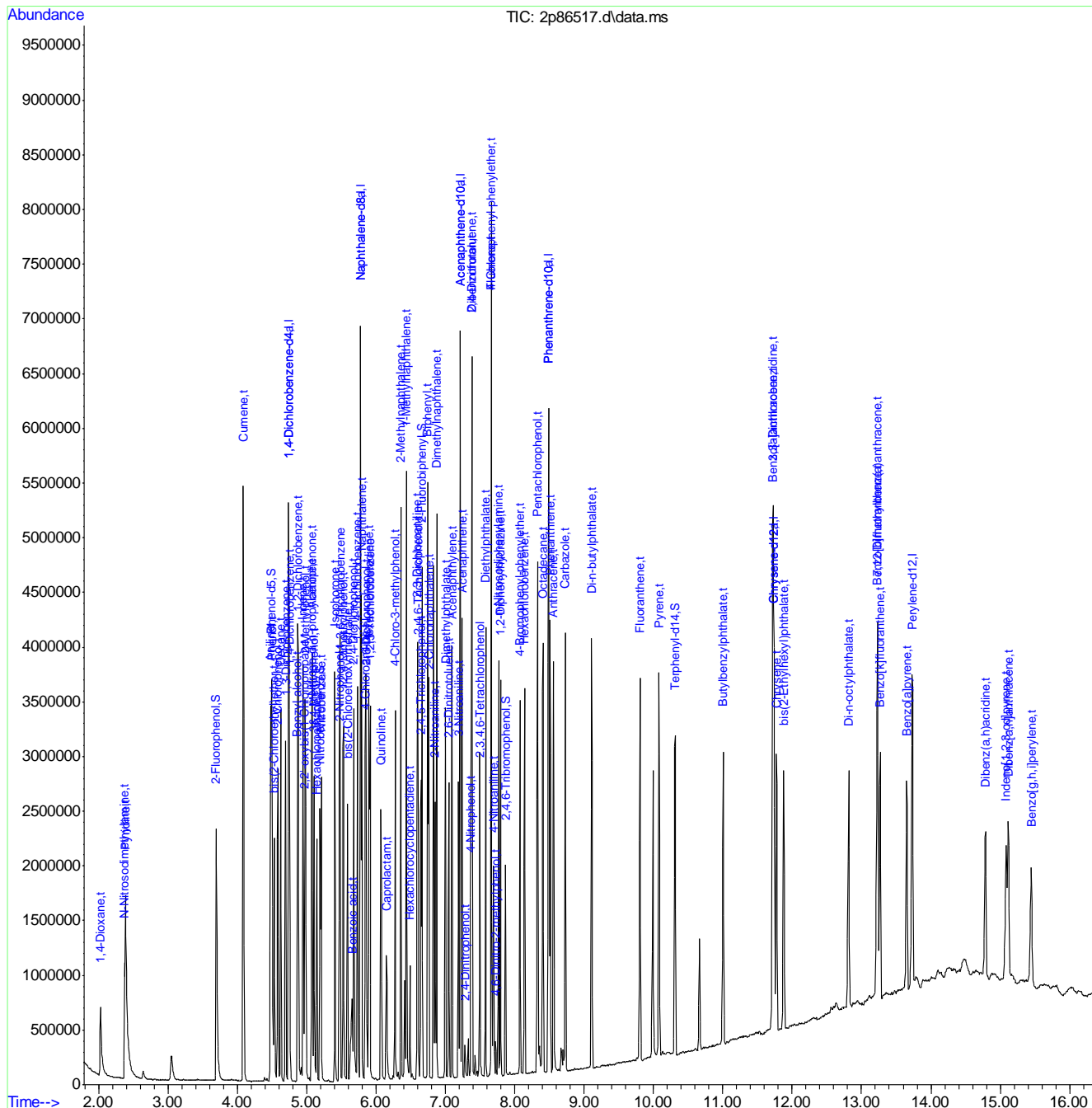
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
78) Anthracene	8.558	178	1249170	26.65	ppm	100
79) Carbazole	8.729	167	1266891	26.14	ppm	99
80) Di-n-butylphthalate	9.109	149	1885296	25.64	ppm	99
81) Fluoranthene	9.804	202	1401727	21.40	ppm	97
82) Octadecane	8.408	43	387357	25.42	ppm	98
84) Pyrene	10.083	202	1363575	27.18	ppm	98
86) Butylbenzylphthalate	11.003	149	721389	25.64	ppm	95
87) Benzo[a]anthracene	11.719	228	1146432	23.67	ppm	100
88) 3,3'-Dichlorobenzidine	11.725	252	472318	24.48	ppm	98
89) Chrysene	11.773	228	958445	27.89	ppm	99
90) bis(2-Ethylhexyl)phtha...	11.880	149	875706	30.24	ppm	99
92) Di-n-octylphthalate	12.816	149	1442633	22.60	ppm	99
93) Benzo[b]fluoranthene	13.233	252	1059941	24.21	ppm	98
94) Benzo[k]fluoranthene	13.270	252	921081	25.73	ppm	99
95) Benzo[a]pyrene	13.650	252	890028	24.19	ppm	99
96) Indeno[1,2,3-cd]pyrene	15.084	276	936613	22.34	ppm	97
97) Dibenz(a,h)acridine	14.789	279	727830	20.03	ppm	99
98) Dibenz[a,h]anthracene	15.116	278	789893	24.19	ppm	97
99) 7,12-Dimethylbenz(a)an...	13.228	256	509375	25.58	ppm	98
100) Benzo[g,h,i]perylene	15.453	276	680656	20.51	ppm	97

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

Quantitation Report (QT Reviewed)

Data Path : Z:\svoa-gcms\completed\04_apr\04-15-2019\jeryllr\2p3823\
 Data File : 2p86517.d
 Acq On : 12 Apr 2019 8:35 pm
 Operator : angelar
 Sample : ecc3816-25
 Misc : op13652,e2p3823,1000,,,1,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 15 11:03:37 2019
 Quant Method : C:\MSDCHEM\1\METHODS\M2P3816.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Fri Apr 05 14:31:57 2019
 Response via : Initial Calibration



9.6-29
9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\jeryllr\2p3823\
 Data File : 2p86518.d
 Acq On : 12 Apr 2019 8:56 pm
 Operator : angelar
 Sample : ecc3783-25 Inst : MS2P
 Misc : op13652,e2p3823,1000,,,1,1
 ALS Vial : 3 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2P3816.M
 Quant Results File: M2P3816.RES
 Quant Time: Apr 15 03:22:35 2019
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Mon Apr 15 02:19:32 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
Internal Standards							
1) 1,4-Dichlorobenzene-d4	4.739	152	844685	40.00	ppm	0.00	
24) Naphthalene-d8	5.771	136	3065203	40.00	ppm	0.00	
47) Acenaphthene-d10	7.210	164	1567048	40.00	ppm	0.01	
69) Phenanthrene-d10	8.489	188	2286128	40.00	ppm	0.02	
83) Chrysene-d12	11.730	240	1356777	40.00	ppm	0.02	
91) Perylene-d12	13.725	264	1249637	40.00	ppm	0.03	
101) 1,4-Dichlorobenzene-d4a	4.739	152	844685	40.00	ppm	0.00	
103) Naphthalene-d8a	5.771	136	3065203	40.00	ppm	0.00	
105) Acenaphthene-d10a	7.210	164	1567048	40.00	ppm	0.01	
108) Chrysene-d12a	11.730	240	1356777	40.00	ppm	0.02	
110) Phenanthrene-d10a	8.489	188	2286128	40.00	ppm	0.02	
System Monitoring Compounds							
5) 2-Fluorophenol	0.000	112	0d	0.00	ppm		
Spiked Amount	50.000	Range 11 - 58	Recovery =	0.00%	#		
8) Phenol-d5	0.000	99	0d	0.00	ppm		
Spiked Amount	50.000	Range 10 - 59	Recovery =	0.00%	#		
25) Nitrobenzene-d5	0.000	82	0d	0.00	ppm		
Spiked Amount	50.000	Range 19 - 61	Recovery =	0.00%	#		
51) 2-Fluorobiphenyl	0.000	172	0d	0.00	ppm		
Spiked Amount	50.000	Range 21 - 58	Recovery =	0.00%	#		
73) 2,4,6-Tribromophenol	0.000	330	0d	0.00	ppm		
Spiked Amount	50.000	Range 12 - 68	Recovery =	0.00%	#		
85) Terphenyl-d14	0.000	244	0d	0.00	ppm		
Spiked Amount	50.000	Range 16 - 65	Recovery =	0.00%	#		
111) 1-Chlorooctadecane	9.713	57	490119	28.52	ppm	0.02	
Spiked Amount	50.000	Range 20 - 70	Recovery =	57.04%			
112) o-terphenyl	8.879	230	799521	26.02	ppm	0.02	
Spiked Amount	50.000	Range 20 - 70	Recovery =	52.04%			
Target Compounds							
102) Benzaldehyde	4.381	105	732173	23.97	ppm	96	Qvalue
104) Hydroquinone	6.151	110	777951	33.64	ppm	97	
106) Atrazine	8.237	215	170550	25.68	ppm	85	
107) 1,2,4,5-Tetrachloroben...	6.499	216	578004	24.64	ppm	99	
113) Pentachloronitrobenzene	8.333	295	29088	13.23	ppm	97	

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

9.6.30
9

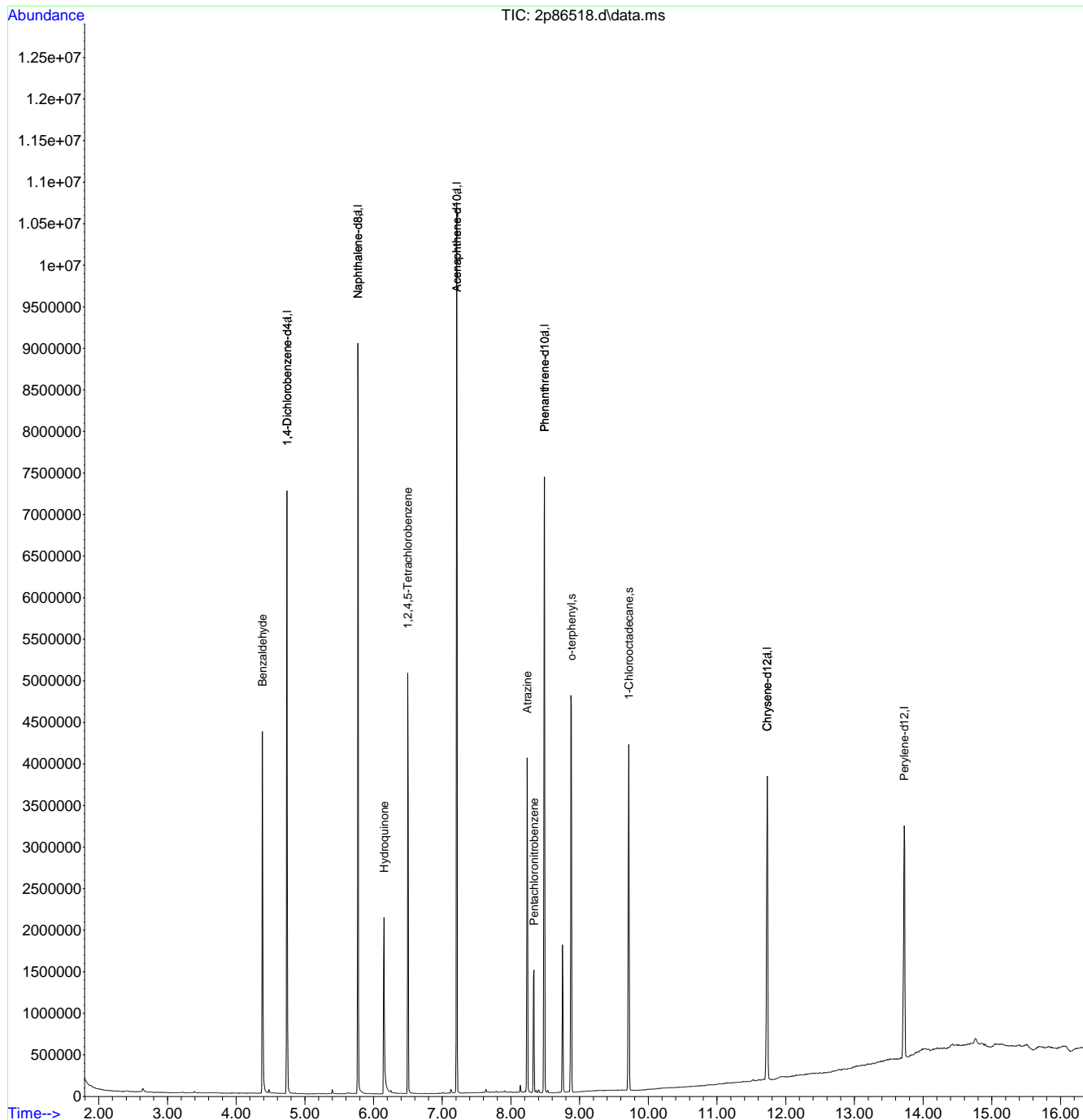


Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\jeryllr\2p3823\
 Data File : 2p86518.d
 Acq On : 12 Apr 2019 8:56 pm
 Operator : angelar
 Sample : ecc3783-25
 Misc : op13652,e2p3823,1000,,,1,1
 ALS Vial : 3 Sample Multiplier: 1

Inst : MS2P

Quant Method : C:\MSDCHEM\1\METHODS\M2P3816.M
 Quant Results File: M2P3816.RES
 Quant Time: Apr 15 03:22:35 2019
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Mon Apr 15 02:19:32 2019
 Response via : Initial Calibration



9.6-30
9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5819\
 Data File : p128676.D
 Acq On : 25 Mar 2019 10:18 am
 Operator : christc2
 Sample : ic5819-100
 Misc : op13894,ep5819,1000,,,1,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 25 11:53:04 2019
 Quant Method : C:\msdchem\1\METHODS\MP5819.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Mon Mar 25 11:47:04 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.390	152	176719	40.00	ppm	0.00
24) Naphthalene-d8	5.330	136	678746	40.00	ppm	0.00
47) Acenaphthene-d10	6.687	164	455311	40.00	ppm	0.00
69) Phenanthrene-d10	8.450	188	791216	40.00	ppm	0.00
83) Chrysene-d12	13.611	240	714197	40.00	ppm	0.02
91) Perylene-d12	16.635	264	716417	40.00	ppm	0.01
101) 1,4-Dichlorobenzene-d4A	4.390	152	176719	40.00	ppm	-0.06
111) Naphthalene-d8A	5.330	136	678746	40.00	ppm	-0.06
120) Acenaphthene-d10A	6.687	164	455311	40.00	ppm	-0.07
131) Phenanthrene-d10A	8.450	188	791216	40.00	ppm	-0.10
146) Chrysene-d12A	13.611	240	714197	40.00	ppm	-0.12
153) Perylene-d12A	16.635	264	716417	40.00	ppm	-0.14
157) 1,4-Dichlorobenzene-d4b	4.390	152	176719	40.00	ppm	-0.06
159) Phenanthrene-d10b	8.450	188	791216	40.00	ppm	-0.10
161) Chrysene-d12b	13.611	240	714197	40.00	ppm	-0.12
163) Naphthalene-d8b	5.330	136	678746	40.00	ppm	-0.06
165) Acenaphthene-d10b	6.687	164	455311	40.00	ppm	-0.07
167) Naphthalene-d8c	5.330	136	678746	40.00	ppm	-0.06
172) 1,4-Dichlorobenzene-d4c	4.390	152	176719	40.00	ppm	-0.06
174) Chrysene-d12c	13.611	240	714197	40.00	ppm	-0.12
176) Chrysene-d12d	13.611	240	714197	40.00	ppm	-0.12
178) Naphthalene-d8d	5.330	136	678746	40.00	ppm	-0.06
180) Chrysene-d12D	13.611	240	714197	40.00	ppm	-0.12
System Monitoring Compounds						
5) 2-Fluorophenol	3.439	112	713512	98.93	ppm	0.00
Spiked Amount	50.000		Recovery	=	197.86%	
8) Phenol-d5	4.198	99	900542	98.87	ppm	0.00
Spiked Amount	50.000		Recovery	=	197.74%	
25) Nitrobenzene-d5	4.812	82	861144	97.23	ppm	0.00
Spiked Amount	50.000		Recovery	=	194.46%	
51) 2-Fluorobiphenyl	6.121	172	1637338	92.71	ppm	0.00
Spiked Amount	50.000		Recovery	=	185.42%	
73) 2,4,6-Tribromophenol	7.537	330	257988	111.45	ppm	0.01
Spiked Amount	50.000		Recovery	=	222.90%	
85) Terphenyl-d14	11.410	244	1886735	101.52	ppm	0.02
Spiked Amount	50.000		Recovery	=	203.04%	
Target Compounds						
2) 1,4-Dioxane	1.826	88	360490	104.37	ppm	100
3) Pyridine	2.168	79	888199	98.82	ppm	100
4) N-Nitrosodimethylamine	2.157	42	487561	100.22	ppm	96
6) Indene	4.583	116	1073008	100.59	ppm	97
7) Cumene	3.770	105	1830596	96.26	ppm	98
9) Phenol	4.209	94	925471	97.08	ppm	86
10) Aniline	4.155	93	987526	94.61	ppm	99
11) bis(2-Chloroethyl)ether	4.198	93	685268	98.72	ppm	88
12) 2-Chlorophenol	4.257	128	645446	101.37	ppm	95
13) Decane	4.273	43	509392	77.05	ppm	88

9.6.31
 9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5819\
 Data File : p128676.D
 Acq On : 25 Mar 2019 10:18 am
 Operator : christc2
 Sample : ic5819-100
 Misc : op13894,ep5819,1000,,,1,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 25 11:53:04 2019
 Quant Method : C:\msdchem\1\METHODS\MP5819.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Mon Mar 25 11:47:04 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
14) 1,3-Dichlorobenzene	4.347	146	723289	98.48	ppm	98
15) 1,4-Dichlorobenzene	4.401	146	737080	102.23	ppm	98
16) Benzyl alcohol	4.529	108	431847	95.47	ppm	96
17) 1,2-Dichlorobenzene	4.513	146	761499	102.72	ppm	99
18) Acetophenone	4.700	105	998814	98.09	ppm	96
19) 2-Methylphenol	4.636	108	597451	98.89	ppm	98
20) 2,2'-oxybis(1-Chloropr...	4.604	121	166328	94.04	ppm #	78
21) 3&4-Methylphenol	4.748	108	687378	103.78	ppm	97
22) n-Nitroso-di-n-propyla...	4.721	70	475540	91.40	ppm	91
23) Hexachloroethane	4.764	201	281747	110.35	ppm	85
26) Nitrobenzene	4.828	77	839362	94.53	ppm	100
27) Quinoline	5.614	129	1322922	97.49	ppm	99
28) Isophorone	5.010	82	1563745	97.91	ppm	98
29) 2-Nitrophenol	5.063	139	411714	104.71	ppm	78
30) 2,4-Dimethylphenol	5.122	107	777800	104.24	ppm	98
31) Benzoic acid	5.314	105	596003	107.84	ppm	89
32) bis(2-Chloroethoxy)met...	5.165	93	822930	99.09	ppm	98
33) 2,4-Dichlorophenol	5.261	162	664134	112.21	ppm	91
34) 2,6-Dichlorophenol	5.411	162	629878	107.39	ppm	98
35) 1,3,5-Trichlorobenzene	5.063	180	726109	103.62	ppm	98
36) 1,2,4-Trichlorobenzene	5.293	180	669047	110.26	ppm	97
37) 1,2,3-Trichlorobenzene	5.453	180	652383	110.35	ppm	99
38) Naphthalene	5.346	128	1907234	105.84	ppm	99
39) 4-Chloroaniline	5.405	127	814995	104.83	ppm	95
40) 2,3-Dichloroaniline	6.062	161	788778	106.61	ppm	96
41) Caprolactam	5.726	55	422099m	97.45	ppm	
42) Hexachlorobutadiene	5.437	225	444411	107.70	ppm	99
43) 4-Chloro-3-methylphenol	5.790	107	716102	99.22	ppm	96
44) 2-Methylnaphthalene	5.843	141	1116179	102.42	ppm	97
45) 1-Methylnaphthalene	5.918	142	1431365	104.86	ppm	96
46) Dimethylnaphthalene	6.329	156	1372286	109.95	ppm	94
48) Hexachlorocyclopentadiene	5.961	237	880718	213.86	ppm	98
49) 2,4,6-Trichlorophenol	6.078	196	488140	102.13	ppm	98
50) 2,4,5-Trichlorophenol	6.126	196	531126	89.31	ppm	99
52) 2-Chloronaphthalene	6.217	162	1348461	101.34	ppm	97
53) Biphenyl	6.201	154	1848638	97.72	ppm	99
54) 2-Nitroaniline	6.319	65	476109	78.25	ppm #	67
55) Dimethylphthalate	6.458	163	1629691	94.28	ppm	99
56) Acenaphthylene	6.564	152	2153822	96.54	ppm	100
57) 2,6-Dinitrotoluene	6.516	165	337109	91.00	ppm	98
58) 3-Nitroaniline	6.682	138	386715	94.73	ppm	88
59) Acenaphthene	6.725	153	1374041	97.26	ppm	95
60) 2,4-Dinitrophenol	6.778	184	372584	202.95	ppm	90
61) 4-Nitrophenol	6.906	109	305993	88.65	ppm	87
62) Dibenzofuran	6.890	168	2063177	96.34	ppm	94
63) 2,4-Dinitrotoluene	6.896	165	526062	90.92	ppm	88
64) 2,3,4,6-Tetrachlorophenol	7.035	232	453756	104.60	ppm	96
65) Diethylphthalate	7.141	149	1713922	91.72	ppm	96
66) Fluorene	7.248	166	1664116	92.75	ppm	100
67) 4-Chlorophenyl-phenyle...	7.243	204	935716	95.19	ppm	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5819\
 Data File : p128676.D
 Acq On : 25 Mar 2019 10:18 am
 Operator : christc2
 Sample : ic5819-100
 Misc : op13894,ep5819,1000,,,1,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 25 11:53:04 2019
 Quant Method : C:\msdchem\1\METHODS\MP5819.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Mon Mar 25 11:47:04 2019
 Response via : Initial Calibration

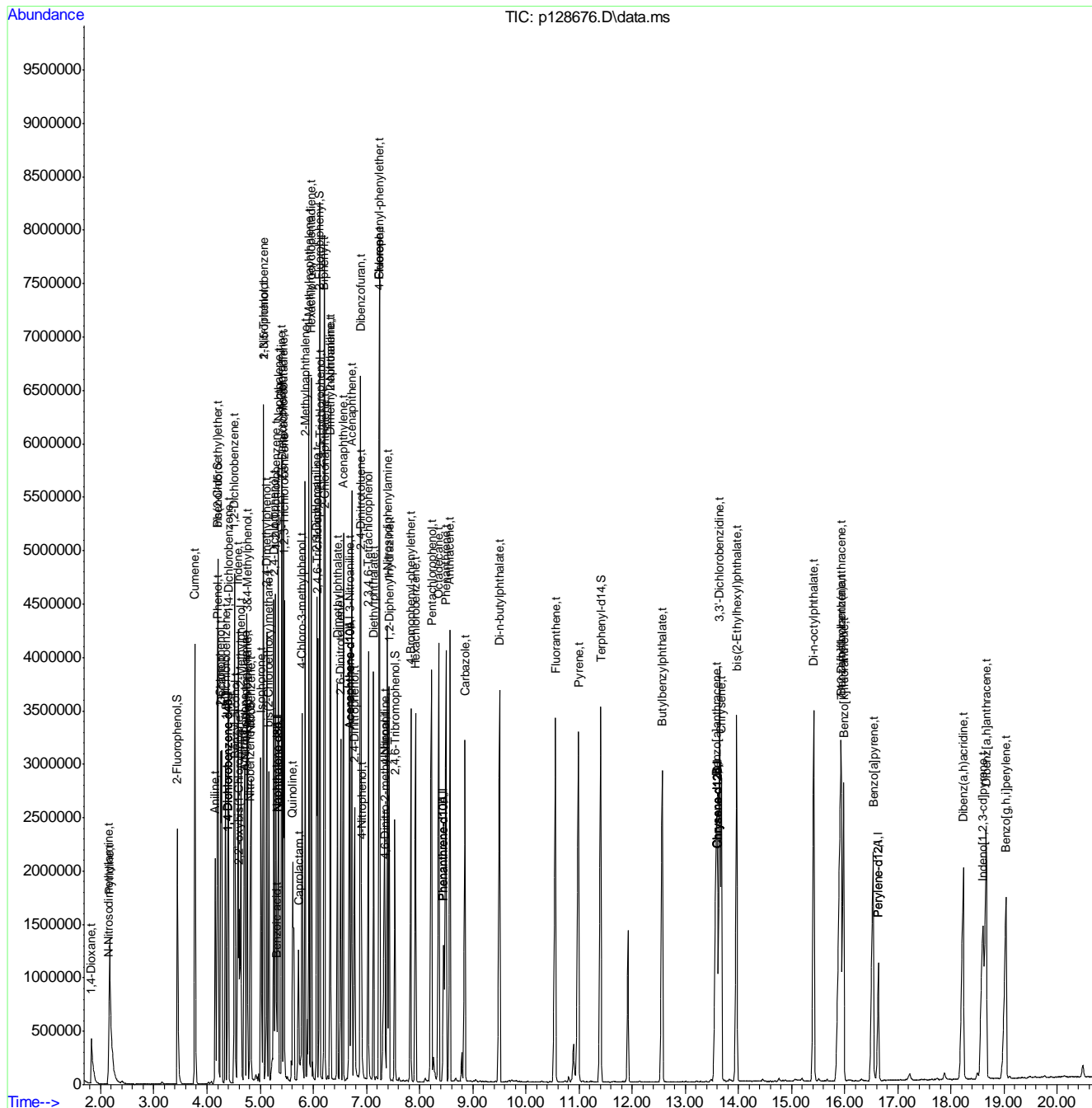
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
68) 4-Nitroaniline	7.339	138	338057	89.59	ppm	95
70) 4,6-Dinitro-2-methylph...	7.350	198	275423	101.09	ppm	89
71) n-Nitrosodiphenylamine	7.398	169	1125234	103.24	ppm	96
72) 1,2-Diphenylhydrazine	7.430	77	1935314	98.08	ppm	94
74) 4-Bromophenyl-phenylether	7.836	248	515044	106.50	ppm	95
75) Hexachlorobenzene	7.927	284	535413	106.85	ppm	88
76) Pentachlorophenol	8.226	266	685415	229.10	ppm	97
77) Phenanthrene	8.498	178	2279220	101.79	ppm	100
78) Anthracene	8.573	178	2373423	102.06	ppm	99
79) Carbazole	8.856	167	2107080	97.71	ppm	99
80) Di-n-butylphthalate	9.508	149	3122314	95.95	ppm	99
81) Fluoranthene	10.560	202	2683410	97.82	ppm	99
82) Octadecane	8.359	57	993292	85.94	ppm	92
84) Pyrene	10.993	202	2713845	98.44	ppm	99
86) Butylbenzylphthalate	12.569	149	1361916	92.98	ppm	97
87) Benzo[a]anthracene	13.590	228	2416251	96.32	ppm	98
88) 3,3'-Dichlorobenzidine	13.648	252	895428	104.45	ppm	98
89) Chrysene	13.680	228	2196552	99.76	ppm	98
90) bis(2-Ethylhexyl)phtha...	13.969	149	1888916	93.96	ppm	100
92) Di-n-octylphthalate	15.422	149	3278098	93.28	ppm	97
93) Benzo[b]fluoranthene	15.935	252	2582341	106.26	ppm	99
94) Benzo[k]fluoranthene	15.983	252	1881581	94.26	ppm	99
95) Benzo[a]pyrene	16.538	252	2015535	99.18	ppm	98
96) Indeno[1,2,3-cd]pyrene	18.601	276	1963410	105.49	ppm	95
97) Dibenz(a,h)acridine	18.232	279	1836340	104.48	ppm	98
98) Dibenz[a,h]anthracene	18.665	278	2037759	107.47	ppm	98
99) 7,12-Dimethylbenz(a)an...	15.929	256	1097943	101.56	ppm	98
100) Benzo[g,h,i]perylene	19.039	276	1879041	103.85	ppm	98

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5819\
 Data File : pl28676.D
 Acq On : 25 Mar 2019 10:18 am
 Operator : christc2
 Sample : ic5819-100
 Misc : op13894,ep5819,1000,,,1,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 25 11:53:04 2019
 Quant Method : C:\msdchem\1\METHODS\MP5819.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Mon Mar 25 11:47:04 2019
 Response via : Initial Calibration



9.6:31
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Manual Integration Approval Summary

Sample Number: EP5819-IC5819 Method: SW846 8270D
Lab FileID: P128676.D Analyst approved: 03/25/19 17:27 Ying Li
Injection Time: 03/25/19 10:18 Supervisor approved: 03/28/19 17:53 Kristi Schollenberger

Parameter	CAS	Sig#	R.T. (min.)	Reason
Caprolactam	105-60-2		5.73	Split peak

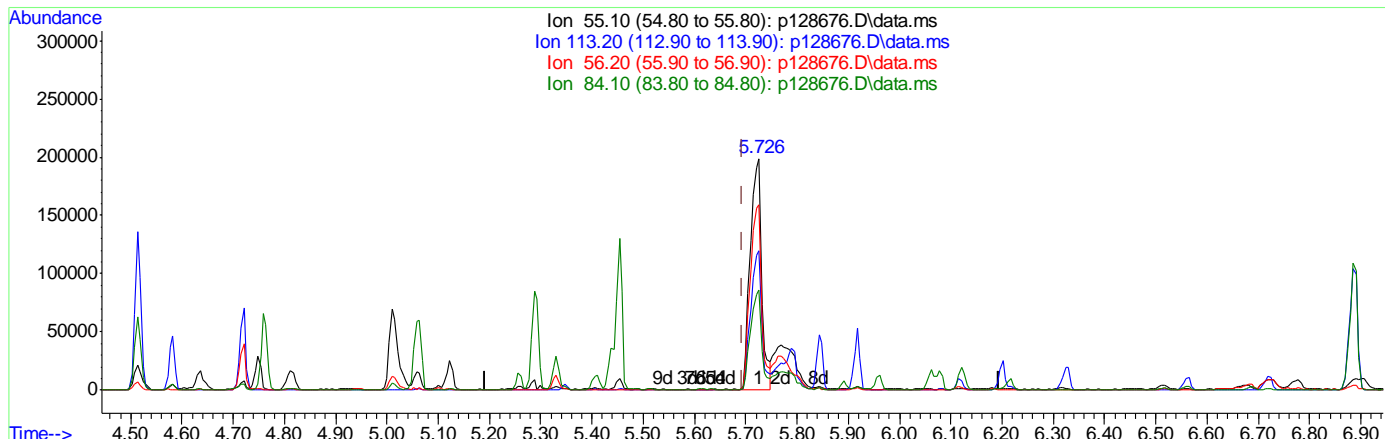
9.6.31.1

9

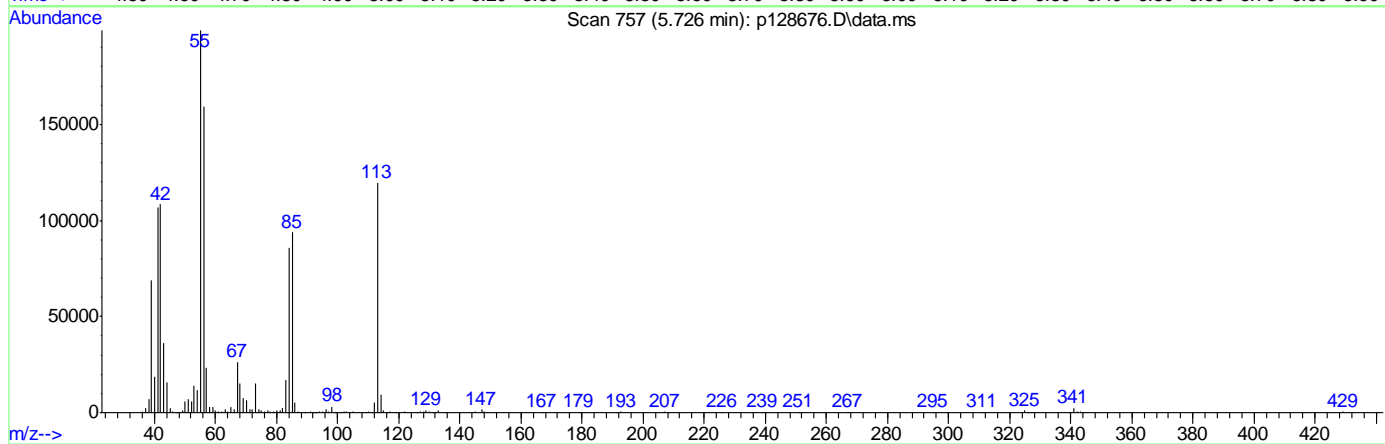
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EP5819\
 Data File : p128676.D
 Acq On : 25 Mar 2019 10:18 am
 Operator : christc2
 Sample : ic5819-100
 Misc : op13894,ep5819,1000,,,1,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 25 11:49:33 2019
 Quant Method : C:\msdchem\1\METHODS\MP5819.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Mon Mar 25 11:47:04 2019
 Response via : Initial Calibration



9.6.31.2
9



TIC: p128676.D\data.ms

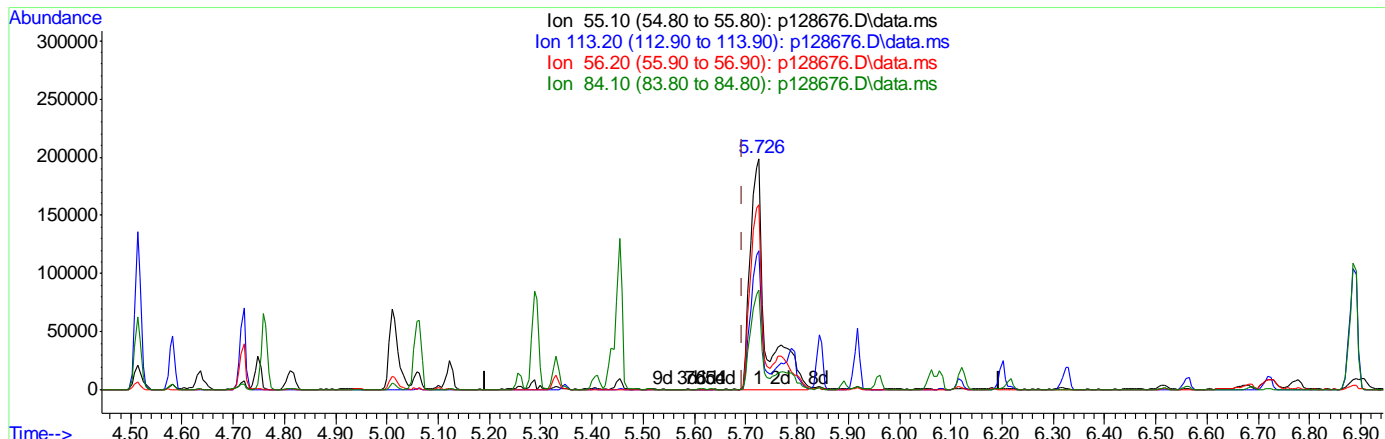
(41) Caprolactam (t)
 5.726min (+0.032) 70.64ppm
 response 305993

Ion	Exp%	Act%
55.10	100	100
113.20	58.90	60.52
56.20	79.90	80.49
84.10	42.00	43.29

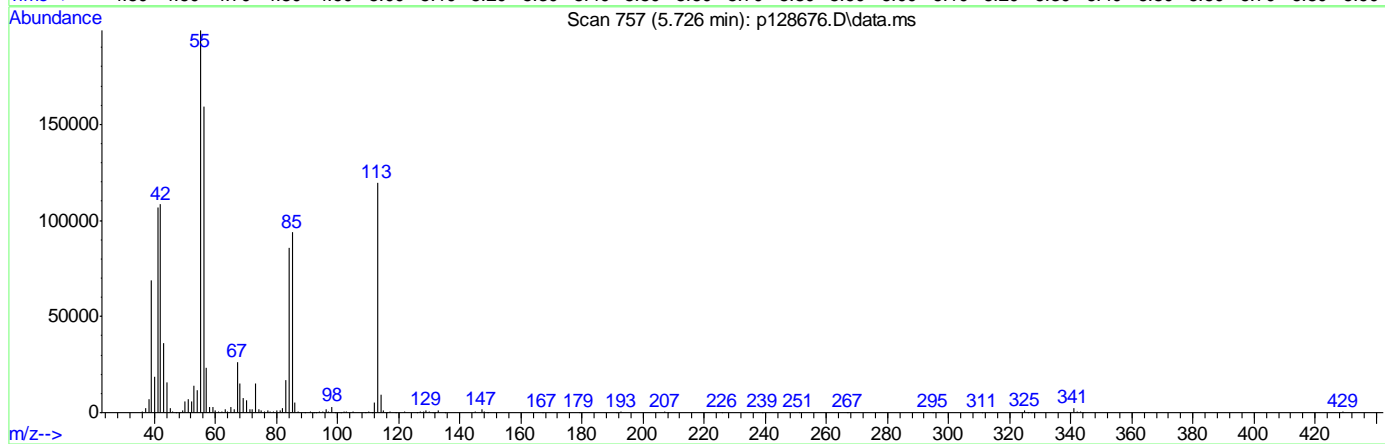
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EP5819\
 Data File : p128676.D
 Acq On : 25 Mar 2019 10:18 am
 Operator : christc2
 Sample : ic5819-100
 Misc : op13894,ep5819,1000,,,1,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 25 11:53:04 2019
 Quant Method : C:\msdchem\1\METHODS\MP5819.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Mon Mar 25 11:47:04 2019
 Response via : Initial Calibration



9.6.31.3
9



TIC: p128676.D\data.ms

(41) Caprolactam (t)
 5.726min (+0.032) 97.45ppm m
 response 422099

Ion	Exp%	Act%
55.10	100	100
113.20	58.90	60.08
56.20	79.90	80.14
84.10	42.00	43.14

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5819\
 Data File : p128677.D
 Acq On : 25 Mar 2019 10:45 am
 Operator : christc2
 Sample : ic5819-80
 Misc : op13894,ep5819,1000,,,1,1
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 25 13:06:19 2019
 Quant Method : C:\msdchem\1\METHODS\MP5819.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Mon Mar 25 11:47:04 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.390	152	169600	40.00	ppm	0.00
24) Naphthalene-d8	5.330	136	667165	40.00	ppm	0.00
47) Acenaphthene-d10	6.682	164	431286	40.00	ppm	0.00
69) Phenanthrene-d10	8.450	188	776945	40.00	ppm	0.00
83) Chrysene-d12	13.606	240	728174	40.00	ppm	0.01
91) Perylene-d12	16.635	264	729307	40.00	ppm	0.01
101) 1,4-Dichlorobenzene-d4A	4.390	152	169600	40.00	ppm	-0.06
111) Naphthalene-d8A	5.330	136	667165	40.00	ppm	-0.06
120) Acenaphthene-d10A	6.682	164	431286	40.00	ppm	-0.08
131) Phenanthrene-d10A	8.450	188	776945	40.00	ppm	-0.10
146) Chrysene-d12A	13.606	240	728174	40.00	ppm	-0.13
153) Perylene-d12A	16.635	264	729307	40.00	ppm	-0.14
157) 1,4-Dichlorobenzene-d4b	4.390	152	169600	40.00	ppm	-0.06
159) Phenanthrene-d10b	8.450	188	776945	40.00	ppm	-0.10
161) Chrysene-d12b	13.606	240	728174	40.00	ppm	-0.13
163) Naphthalene-d8b	5.330	136	667165	40.00	ppm	-0.06
165) Acenaphthene-d10b	6.682	164	431286	40.00	ppm	-0.08
167) Naphthalene-d8c	5.330	136	667165	40.00	ppm	-0.06
172) 1,4-Dichlorobenzene-d4c	4.390	152	169600	40.00	ppm	-0.06
174) Chrysene-d12c	13.606	240	728174	40.00	ppm	-0.13
176) Chrysene-d12d	13.606	240	728174	40.00	ppm	-0.13
178) Naphthalene-d8d	5.330	136	667165	40.00	ppm	-0.06
180) Chrysene-d12D	13.606	240	728174	40.00	ppm	-0.13
System Monitoring Compounds						
5) 2-Fluorophenol	3.439	112	541051	78.17	ppm	0.00
Spiked Amount	50.000		Recovery	=	156.34%	
8) Phenol-d5	4.198	99	692879	79.26	ppm	0.00
Spiked Amount	50.000		Recovery	=	158.52%	
25) Nitrobenzene-d5	4.812	82	675965	77.65	ppm	0.00
Spiked Amount	50.000		Recovery	=	155.30%	
51) 2-Fluorobiphenyl	6.116	172	1304734	77.99	ppm	0.00
Spiked Amount	50.000		Recovery	=	155.98%	
73) 2,4,6-Tribromophenol	7.531	330	195201	85.87	ppm	0.00
Spiked Amount	50.000		Recovery	=	171.74%	
85) Terphenyl-d14	11.405	244	1529058	80.70	ppm	0.01
Spiked Amount	50.000		Recovery	=	161.40%	
Target Compounds						
2) 1,4-Dioxane	1.831	88	262768	79.27	ppm	98
3) Pyridine	2.173	79	668776	77.53	ppm	98
4) N-Nitrosodimethylamine	2.157	42	359652	77.03	ppm	91
6) Indene	4.583	116	829014	80.98	ppm	98
7) Cumene	3.771	105	1418410	77.71	ppm	99
9) Phenol	4.203	94	727330	79.50	ppm	91
10) Aniline	4.155	93	761551	76.02	ppm	99
11) bis(2-Chloroethyl)ether	4.198	93	540088	81.07	ppm	92
12) 2-Chlorophenol	4.257	128	490149	80.21	ppm	97
13) Decane	4.273	43	428346	67.51	ppm	94

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5819\
 Data File : p128677.D
 Acq On : 25 Mar 2019 10:45 am
 Operator : christc2
 Sample : ic5819-80
 Misc : op13894,ep5819,1000,,,1,1
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 25 13:06:19 2019
 Quant Method : C:\msdchem\1\METHODS\MP5819.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Mon Mar 25 11:47:04 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
14) 1,3-Dichlorobenzene	4.347	146	558027	79.17	ppm	99
15) 1,4-Dichlorobenzene	4.401	146	564385	81.56	ppm	98
16) Benzyl alcohol	4.524	108	337805	77.81	ppm	94
17) 1,2-Dichlorobenzene	4.513	146	584669	82.18	ppm	99
18) Acetophenone	4.700	105	785097	80.34	ppm	94
19) 2-Methylphenol	4.631	108	456654	78.76	ppm	99
20) 2,2'-oxybis(1-Chloropr...	4.599	121	132959	78.33	ppm #	90
21) 3&4-Methylphenol	4.748	108	513617	80.80	ppm	97
22) n-Nitroso-di-n-propyla...	4.716	70	380172	76.14	ppm	92
23) Hexachloroethane	4.764	201	208377	85.04	ppm	85
26) Nitrobenzene	4.828	77	654533	75.00	ppm	97
27) Quinoline	5.608	129	1039984	77.97	ppm	98
28) Isophorone	5.010	82	1218707	77.63	ppm	95
29) 2-Nitrophenol	5.058	139	322454	83.44	ppm	84
30) 2,4-Dimethylphenol	5.122	107	602514	82.15	ppm	97
31) Benzoic acid	5.293	105	453838	83.54	ppm	93
32) bis(2-Chloroethoxy)met...	5.159	93	637452	78.09	ppm	98
33) 2,4-Dichlorophenol	5.256	162	491088	84.41	ppm	96
34) 2,6-Dichlorophenol	5.411	162	478491	83.00	ppm	98
35) 1,3,5-Trichlorobenzene	5.063	180	575117	83.50	ppm	98
36) 1,2,4-Trichlorobenzene	5.288	180	513101	86.02	ppm	99
37) 1,2,3-Trichlorobenzene	5.453	180	493732	84.96	ppm	98
38) Naphthalene	5.346	128	1464275	82.67	ppm	99
39) 4-Chloroaniline	5.405	127	632544	82.78	ppm	95
40) 2,3-Dichloroaniline	6.062	161	612237	84.18	ppm	96
41) Caprolactam	5.710	55	335704m	78.85	ppm	
42) Hexachlorobutadiene	5.437	225	341480	84.19	ppm	99
43) 4-Chloro-3-methylphenol	5.790	107	556694	78.47	ppm #	56
44) 2-Methylnaphthalene	5.843	141	869348	81.16	ppm	97
45) 1-Methylnaphthalene	5.918	142	1113134	82.96	ppm	97
46) Dimethylnaphthalene	6.324	156	1037191	84.55	ppm	95
48) Hexachlorocyclopentadiene	5.961	237	663667	170.13	ppm	98
49) 2,4,6-Trichlorophenol	6.078	196	372111	82.19	ppm	98
50) 2,4,5-Trichlorophenol	6.121	196	425006	75.45	ppm	97
52) 2-Chloronaphthalene	6.217	162	1032199	81.90	ppm	98
53) Biphenyl	6.196	154	1475182	82.32	ppm	99
54) 2-Nitroaniline	6.313	65	401465	69.66	ppm	88
55) Dimethylphthalate	6.452	163	1281776	78.28	ppm	99
56) Acenaphthylene	6.559	152	1667172	78.89	ppm	100
57) 2,6-Dinitrotoluene	6.511	165	265978	75.80	ppm	97
58) 3-Nitroaniline	6.677	138	299593	77.48	ppm	96
59) Acenaphthene	6.719	153	1063065	79.44	ppm	98
60) 2,4-Dinitrophenol	6.773	184	289350	166.39	ppm	93
61) 4-Nitrophenol	6.901	109	246481	75.38	ppm	87
62) Dibenzofuran	6.885	168	1606064	79.18	ppm	97
63) 2,4-Dinitrotoluene	6.890	165	427432	77.99	ppm	88
64) 2,3,4,6-Tetrachlorophenol	7.029	232	338897	82.48	ppm	99
65) Diethylphthalate	7.131	149	1357571	76.70	ppm	99
66) Fluorene	7.243	166	1328774	78.18	ppm	99
67) 4-Chlorophenyl-phenyle...	7.243	204	738141	79.28	ppm	96

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5819\
 Data File : p128677.D
 Acq On : 25 Mar 2019 10:45 am
 Operator : christc2
 Sample : ic5819-80
 Misc : op13894,ep5819,1000,,,1,1
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 25 13:06:19 2019
 Quant Method : C:\msdchem\1\METHODS\MP5819.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Mon Mar 25 11:47:04 2019
 Response via : Initial Calibration

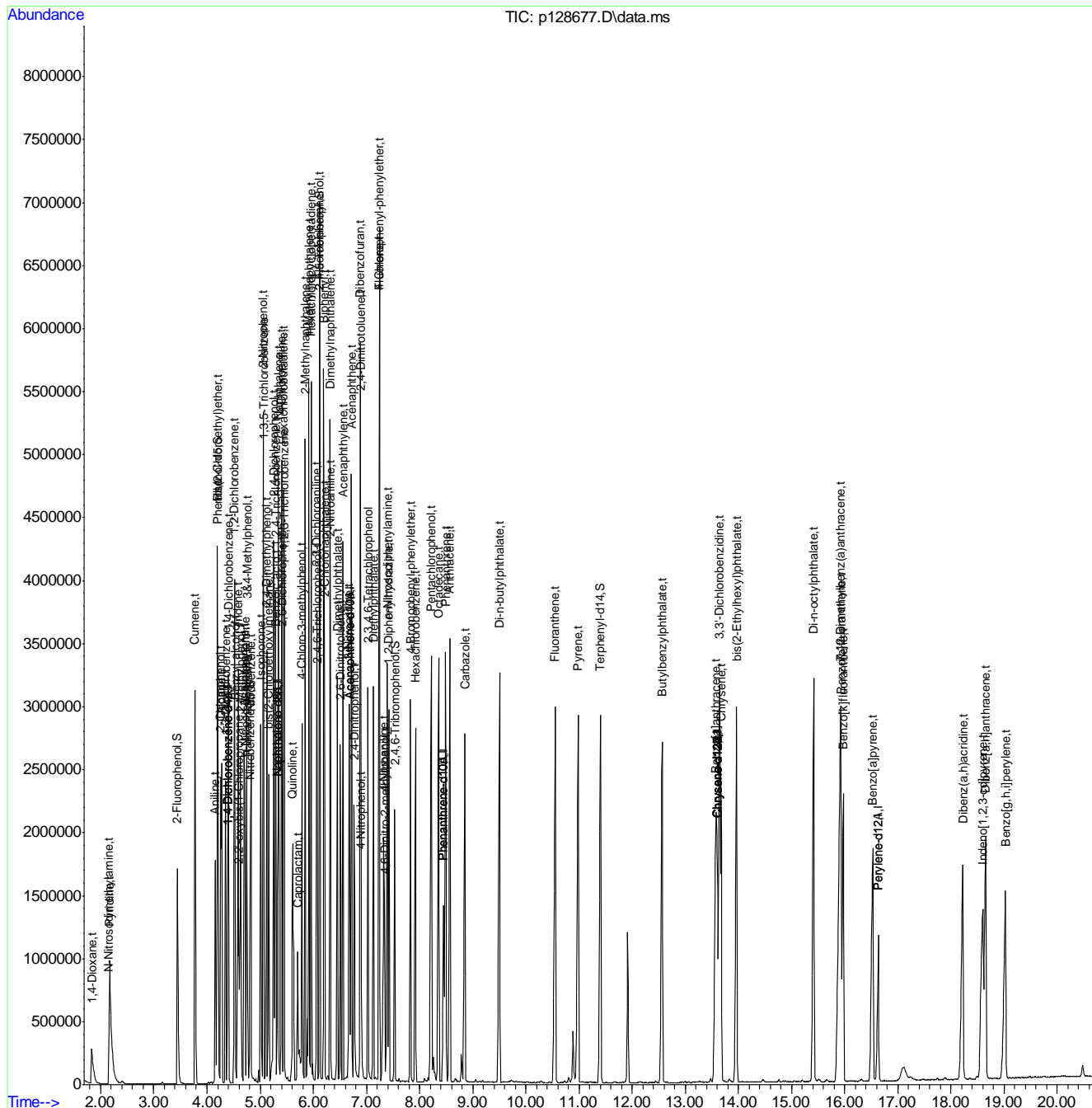
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
68) 4-Nitroaniline	7.328	138	270600	75.71	ppm	92
70) 4,6-Dinitro-2-methylph...	7.344	198	215376	80.51	ppm	85
71) n-Nitrosodiphenylamine	7.393	169	868999	81.19	ppm	97
72) 1,2-Diphenylhydrazine	7.425	77	1436601	74.14	ppm	98
74) 4-Bromophenyl-phenylether	7.831	248	400937	84.43	ppm	98
75) Hexachlorobenzene	7.921	284	410236	83.38	ppm	91
76) Pentachlorophenol	8.221	266	507988	172.91	ppm	93
77) Phenanthrene	8.493	178	1792934	81.54	ppm	99
78) Anthracene	8.568	178	1864810	81.66	ppm	99
79) Carbazole	8.851	167	1693471	79.97	ppm	99
80) Di-n-butylphthalate	9.503	149	2547474	79.73	ppm	99
81) Fluoranthene	10.555	202	2169991	80.55	ppm	99
82) Octadecane	8.354	57	822480	72.47	ppm	95
84) Pyrene	10.988	202	2185028	77.74	ppm	99
86) Butylbenzylphthalate	12.564	149	1152835	77.20	ppm	97
87) Benzo[a]anthracene	13.579	228	2009377	78.56	ppm	98
88) 3,3'-Dichlorobenzidine	13.643	252	737428	84.37	ppm	98
89) Chrysene	13.675	228	1839808	81.95	ppm	98
90) bis(2-Ethylhexyl)phtha...	13.969	149	1593729	77.75	ppm	99
92) Di-n-octylphthalate	15.417	149	2858199	79.89	ppm	98
93) Benzo[b]fluoranthene	15.929	252	2163630	87.46	ppm	98
94) Benzo[k]fluoranthene	15.978	252	1527932	75.19	ppm	98
95) Benzo[a]pyrene	16.528	252	1655862	80.04	ppm	99
96) Indeno[1,2,3-cd]pyrene	18.601	276	1558377	82.25	ppm	95
97) Dibenz(a,h)acridine	18.227	279	1476309	82.51	ppm	99
98) Dibenz[a,h]anthracene	18.654	278	1588588	82.30	ppm	99
99) 7,12-Dimethylbenz(a)an...	15.924	256	918985	83.51	ppm	99
100) Benzo[g,h,i]perylene	19.028	276	1481791	80.45	ppm	98

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5819\
Data File : p128677.D
Acq On : 25 Mar 2019 10:45 am
Operator : christc2
Sample : ic5819-80
Misc : op13894,ep5819,1000,,,1,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 25 13:06:19 2019
Quant Method : C:\msdchem\1\METHODS\MP5819.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 25 11:47:04 2019
Response via : Initial Calibration



9.6-32
9

Manual Integration Approval Summary

Sample Number: EP5819-IC5819 Method: SW846 8270D
Lab FileID: P128677.D Analyst approved: 03/25/19 17:27 Ying Li
Injection Time: 03/25/19 10:45 Supervisor approved: 03/28/19 17:53 Kristi Schollenberger

Parameter	CAS	Sig#	R.T. (min.)	Reason
Caprolactam	105-60-2		5.71	Split peak

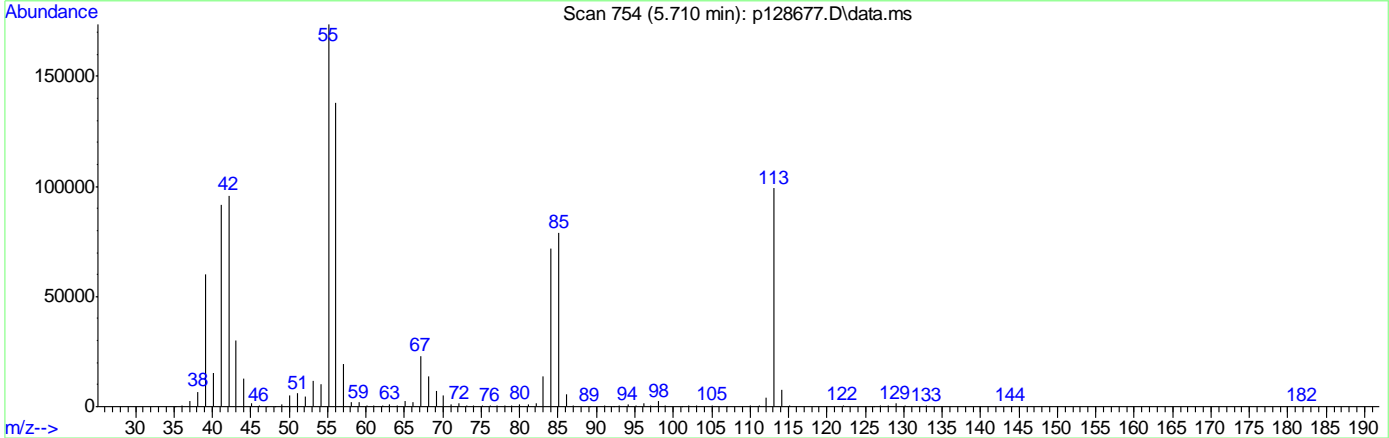
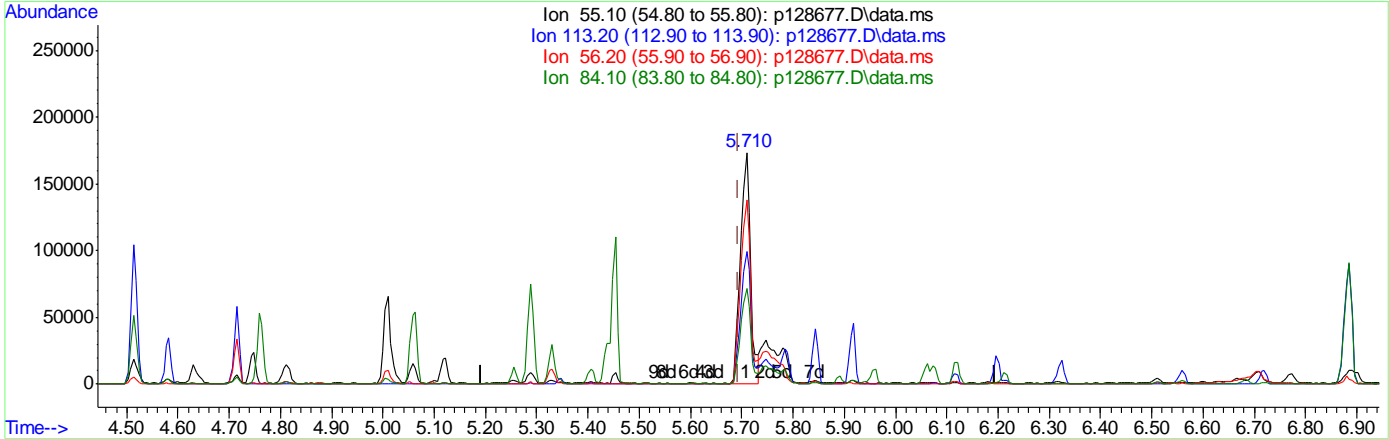
9.6.32.1

9

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EP5819\
 Data File : p128677.D
 Acq On : 25 Mar 2019 10:45 am
 Operator : christc2
 Sample : ic5819-80
 Misc : op13894,ep5819,1000,,,1,1
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 25 11:53:36 2019
 Quant Method : C:\msdchem\1\METHODS\MP5819.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Mon Mar 25 11:47:04 2019
 Response via : Initial Calibration



TIC: p128677.D\data.ms

(41) Caprolactam (t)
 5.710min (+0.016) 56.33ppm
 response 239830

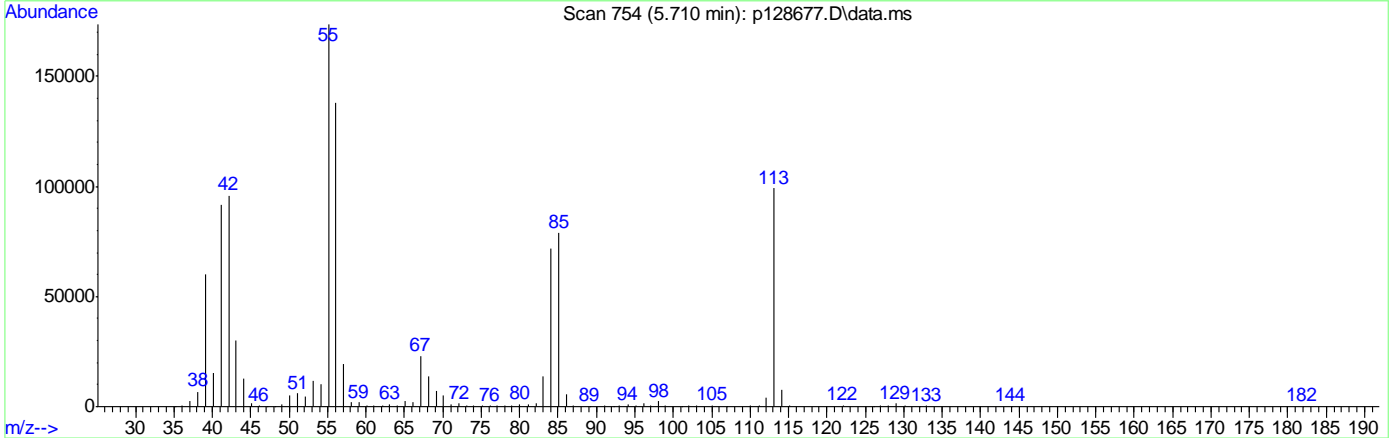
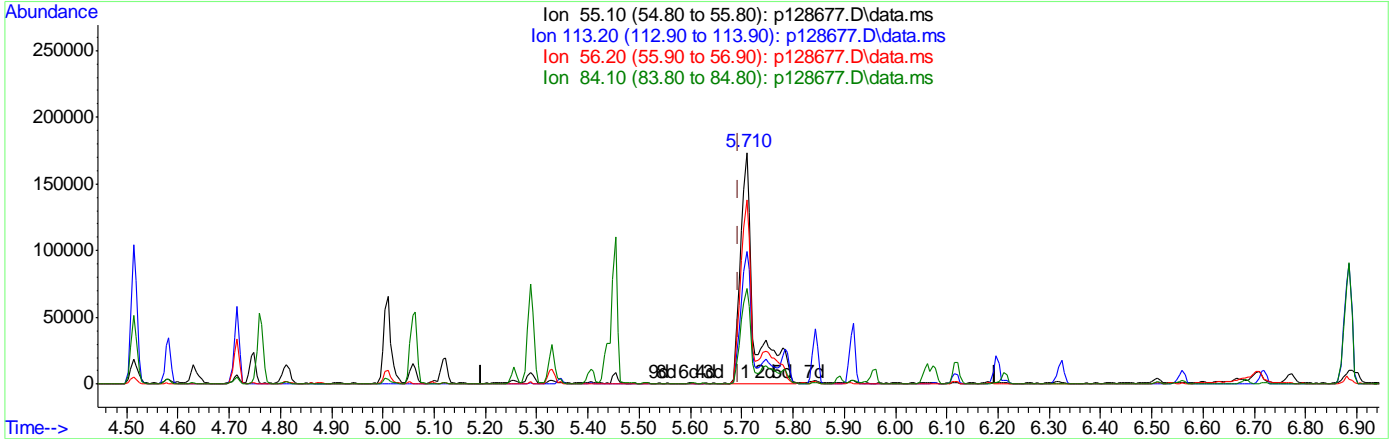
Ion	Exp%	Act%
55.10	100	100
113.20	58.90	57.26
56.20	79.90	79.26
84.10	42.00	41.56

9.6.32.2
 9

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EP5819\
 Data File : p128677.D
 Acq On : 25 Mar 2019 10:45 am
 Operator : christc2
 Sample : ic5819-80
 Misc : op13894,ep5819,1000,,,1,1
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 25 11:53:36 2019
 Quant Method : C:\msdchem\1\METHODS\MP5819.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Mon Mar 25 11:47:04 2019
 Response via : Initial Calibration



TIC: p128677.D\data.ms

(41) Caprolactam (t)
 5.710min (+0.016) 78.85ppm m
 response 335704

Ion	Exp%	Act%
55.10	100	100
113.20	58.90	57.15
56.20	79.90	79.35
84.10	42.00	41.33

9.6.32.3
 9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5819\
 Data File : p128678.D
 Acq On : 25 Mar 2019 11:12 am
 Operator : christc2
 Sample : icc5819-50
 Misc : op13894,ep5819,1000,,,1,1
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 25 11:48:32 2019
 Quant Method : C:\msdchem\1\METHODS\MP5819.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Mon Mar 25 11:47:04 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.385	152	177833	40.00	ppm	0.00
24) Naphthalene-d8	5.325	136	691826	40.00	ppm	0.00
47) Acenaphthene-d10	6.682	164	433118	40.00	ppm	0.00
69) Phenanthrene-d10	8.445	188	805538	40.00	ppm	0.00
83) Chrysene-d12	13.595	240	737519	40.00	ppm	0.00
91) Perylene-d12	16.624	264	762319	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4A	4.385	152	177833	40.00	ppm	-0.06
111) Naphthalene-d8A	5.325	136	691826	40.00	ppm	-0.06
120) Acenaphthene-d10A	6.682	164	433118	40.00	ppm	-0.08
131) Phenanthrene-d10A	8.445	188	805538	40.00	ppm	-0.11
146) Chrysene-d12A	13.595	240	737519	40.00	ppm	-0.14
153) Perylene-d12A	16.624	264	762319	40.00	ppm	-0.15
157) 1,4-Dichlorobenzene-d4b	4.385	152	177833	40.00	ppm	-0.06
159) Phenanthrene-d10b	8.445	188	805538	40.00	ppm	-0.11
161) Chrysene-d12b	13.595	240	737519	40.00	ppm	-0.14
163) Naphthalene-d8b	5.325	136	691826	40.00	ppm	-0.06
165) Acenaphthene-d10b	6.682	164	433118	40.00	ppm	-0.08
167) Naphthalene-d8c	5.325	136	691826	40.00	ppm	-0.06
172) 1,4-Dichlorobenzene-d4c	4.385	152	177833	40.00	ppm	-0.06
174) Chrysene-d12c	13.595	240	737519	40.00	ppm	-0.14
176) Chrysene-d12d	13.595	240	737519	40.00	ppm	-0.14
178) Naphthalene-d8d	5.325	136	691826	40.00	ppm	-0.06
180) Chrysene-d12D	13.595	240	737519	40.00	ppm	-0.14
System Monitoring Compounds						
5) 2-Fluorophenol	3.439	112	362873	50.00	ppm	0.00
Spiked Amount	50.000		Recovery	=	100.00%	
8) Phenol-d5	4.193	99	458295	50.00	ppm	0.00
Spiked Amount	50.000		Recovery	=	100.00%	
25) Nitrobenzene-d5	4.807	82	451369	50.00	ppm	0.00
Spiked Amount	50.000		Recovery	=	100.00%	
51) 2-Fluorobiphenyl	6.116	172	840040	50.00	ppm	0.00
Spiked Amount	50.000		Recovery	=	100.00%	
73) 2,4,6-Tribromophenol	7.526	330	117838	50.00	ppm	0.00
Spiked Amount	50.000		Recovery	=	100.00%	
85) Terphenyl-d14	11.394	244	959554	50.00	ppm	0.00
Spiked Amount	50.000		Recovery	=	100.00%	
Target Compounds						
2) 1,4-Dioxane	1.837	88	173783	50.00	ppm	100
3) Pyridine	2.173	79	447738	49.50	ppm	100
4) N-Nitrosodimethylamine	2.163	42	240494	49.13	ppm	100
6) Indene	4.577	116	536700	50.00	ppm	100
7) Cumene	3.776	105	956878	50.00	ppm	100
9) Phenol	4.198	94	479639	50.00	ppm	100
10) Aniline	4.155	93	525185	50.00	ppm	100
11) bis(2-Chloroethyl)ether	4.198	93	349282	50.00	ppm	100
12) 2-Chlorophenol	4.257	128	320380	50.00	ppm	100
13) Decane	4.273	43	332624	50.00	ppm	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5819\
 Data File : p128678.D
 Acq On : 25 Mar 2019 11:12 am
 Operator : christc2
 Sample : icc5819-50
 Misc : op13894,ep5819,1000,,,1,1
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 25 11:48:32 2019
 Quant Method : C:\msdchem\1\METHODS\MP5819.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Mon Mar 25 11:47:04 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
14) 1,3-Dichlorobenzene	4.342	146	369526	50.00	ppm	100
15) 1,4-Dichlorobenzene	4.401	146	362788	50.00	ppm	100
16) Benzyl alcohol	4.519	108	227606	50.00	ppm	100
17) 1,2-Dichlorobenzene	4.513	146	372997	50.00	ppm	100
18) Acetophenone	4.695	105	512335	50.00	ppm	100
19) 2-Methylphenol	4.625	108	303616	49.94	ppm	100
20) 2,2'-oxybis(1-Chloropr...	4.599	121	88988	50.00	ppm	100
21) 3&4-Methylphenol	4.743	108	329973	49.51	ppm	100
22) n-Nitroso-di-n-propyla...	4.706	70	257674	49.22	ppm	99
23) Hexachloroethane	4.759	201	128463	50.00	ppm	100
26) Nitrobenzene	4.823	77	452508	50.00	ppm	100
27) Quinoline	5.598	129	691519	50.00	ppm	100
28) Isophorone	4.999	82	813968	50.00	ppm	100
29) 2-Nitrophenol	5.058	139	200378	50.00	ppm	100
30) 2,4-Dimethylphenol	5.117	107	380630	50.05	ppm	100
31) Benzoic acid	5.272	105	281655	50.00	ppm	100
32) bis(2-Chloroethoxy)met...	5.154	93	423225	50.00	ppm	100
33) 2,4-Dichlorophenol	5.250	162	301645	50.00	ppm	100
34) 2,6-Dichlorophenol	5.405	162	298911	50.00	ppm	100
35) 1,3,5-Trichlorobenzene	5.058	180	357119	50.00	ppm	100
36) 1,2,4-Trichlorobenzene	5.288	180	309254	50.00	ppm	100
37) 1,2,3-Trichlorobenzene	5.448	180	301298	50.00	ppm	100
38) Naphthalene	5.341	128	918356	50.00	ppm	100
39) 4-Chloroaniline	5.400	127	396199	50.00	ppm	100
40) 2,3-Dichloroaniline	6.057	161	377067	50.00	ppm	100
41) Caprolactam	5.694	55	220033m	49.84	ppm	
42) Hexachlorobutadiene	5.437	225	210298	50.00	ppm	100
43) 4-Chloro-3-methylphenol	5.779	107	368432	50.08	ppm	100
44) 2-Methylnaphthalene	5.843	141	555392	50.00	ppm	100
45) 1-Methylnaphthalene	5.913	142	695698	50.00	ppm	100
46) Dimethylnaphthalene	6.319	156	636068	50.00	ppm	100
48) Hexachlorocyclopentadiene	5.956	237	391751	100.00	ppm	100
49) 2,4,6-Trichlorophenol	6.073	196	227338	50.00	ppm	100
50) 2,4,5-Trichlorophenol	6.116	196	280599	49.60	ppm	100
52) 2-Chloronaphthalene	6.212	162	632856	50.00	ppm	100
53) Biphenyl	6.191	154	899785	50.00	ppm	100
54) 2-Nitroaniline	6.308	65	287615	49.70	ppm	100
55) Dimethylphthalate	6.447	163	822145	50.00	ppm	100
56) Acenaphthylene	6.554	152	1061000	50.00	ppm	100
57) 2,6-Dinitrotoluene	6.506	165	176452	50.07	ppm	100
58) 3-Nitroaniline	6.666	138	194156	50.00	ppm	100
59) Acenaphthene	6.714	153	671977	50.00	ppm	100
60) 2,4-Dinitrophenol	6.762	184	174636	100.00	ppm	100
61) 4-Nitrophenol	6.891	109	164181	50.00	ppm	100
62) Dibenzofuran	6.880	168	1018551	50.00	ppm	100
63) 2,4-Dinitrotoluene	6.880	165	275186	50.00	ppm	100
64) 2,3,4,6-Tetrachlorophenol	7.024	232	206319	50.00	ppm	100
65) Diethylphthalate	7.126	149	888769	50.00	ppm	100
66) Fluorene	7.238	166	853380	50.00	ppm	100
67) 4-Chlorophenyl-phenyle...	7.238	204	467525	50.00	ppm	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5819\
 Data File : p128678.D
 Acq On : 25 Mar 2019 11:12 am
 Operator : christc2
 Sample : icc5819-50
 Misc : op13894,ep5819,1000,,,1,1
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 25 11:48:32 2019
 Quant Method : C:\msdchem\1\METHODS\MP5819.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Mon Mar 25 11:47:04 2019
 Response via : Initial Calibration

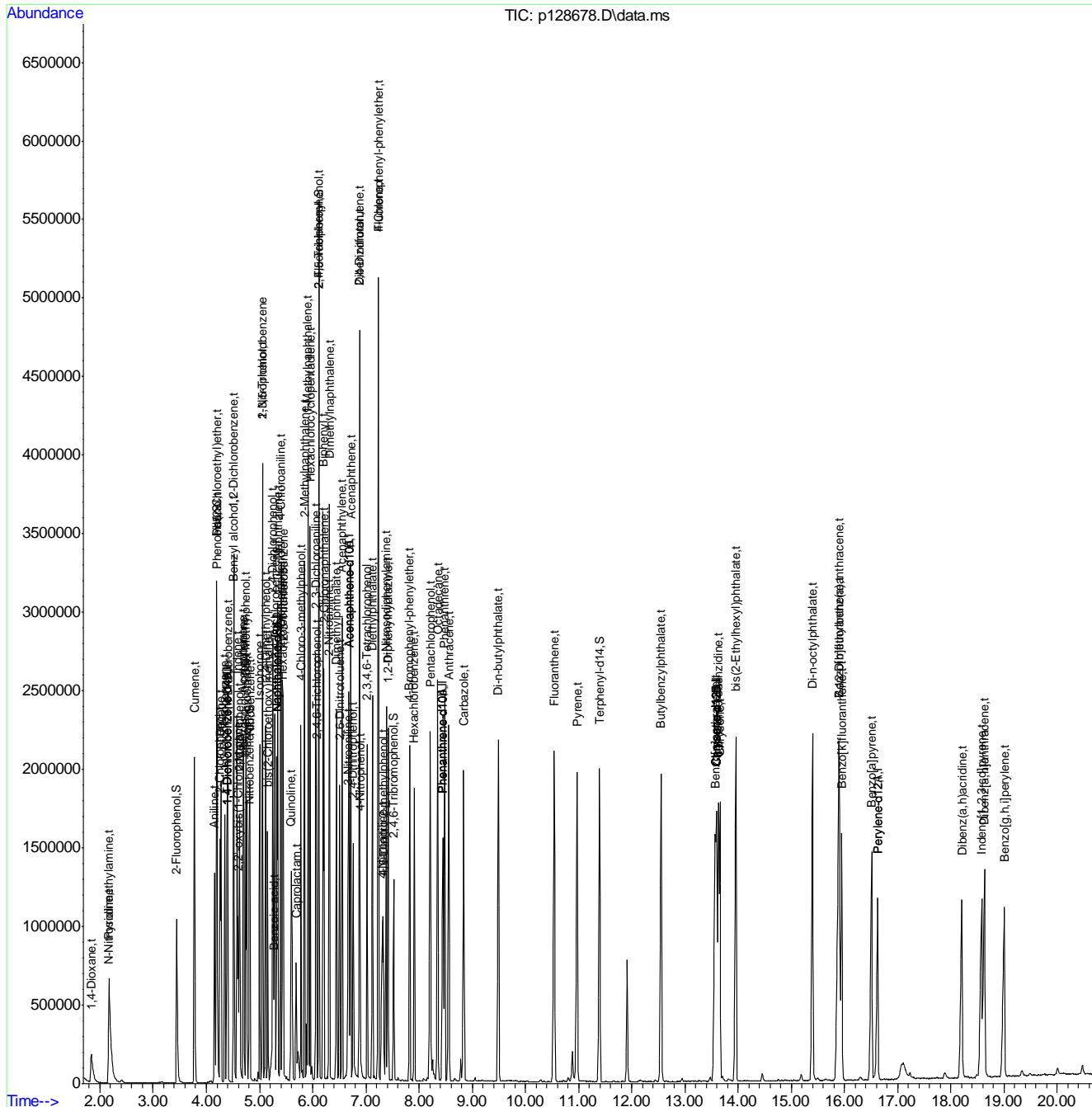
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
68) 4-Nitroaniline	7.307	138	179492	50.01	ppm	100
70) 4,6-Dinitro-2-methylph...	7.329	198	138687	50.00	ppm	100
71) n-Nitrosodiphenylamine	7.382	169	554831	50.00	ppm	100
72) 1,2-Diphenylhydrazine	7.419	77	1004449	50.00	ppm	100
74) 4-Bromophenyl-phenylether	7.825	248	246182	50.00	ppm	100
75) Hexachlorobenzene	7.911	284	255068	50.00	ppm	100
76) Pentachlorophenol	8.210	266	304598	100.00	ppm	100
77) Phenanthrene	8.482	178	1139854	50.00	ppm	100
78) Anthracene	8.557	178	1183763	50.00	ppm	100
79) Carbazole	8.840	167	1097676	50.00	ppm	100
80) Di-n-butylphthalate	9.492	149	1656424	50.00	ppm	100
81) Fluoranthene	10.545	202	1396499	50.00	ppm	100
82) Octadecane	8.349	57	588339	50.00	ppm	100
84) Pyrene	10.977	202	1421523	49.93	ppm	100
86) Butylbenzylphthalate	12.553	149	756264	50.00	ppm	100
87) Benzo[a]anthracene	13.568	228	1295307	50.00	ppm	100
88) 3,3'-Dichlorobenzidine	13.627	252	442646	50.00	ppm	100
89) Chrysene	13.659	228	1133834	49.87	ppm	100
90) bis(2-Ethylhexyl)phtha...	13.958	149	1036462	49.93	ppm	100
92) Di-n-octylphthalate	15.401	149	1861402	49.78	ppm	100
93) Benzo[b]fluoranthene	15.903	252	1292982	50.00	ppm	99
94) Benzo[k]fluoranthene	15.951	252	1059727	49.89	ppm	100
95) Benzo[a]pyrene	16.512	252	1075665	49.75	ppm	100
96) Indeno[1,2,3-cd]pyrene	18.579	276	1006102	50.80	ppm	96
97) Dibenz(a,h)acridine	18.211	279	932238	49.85	ppm	100
98) Dibenz[a,h]anthracene	18.633	278	1007506	49.93	ppm	100
99) 7,12-Dimethylbenz(a)an...	15.903	256	574795	49.97	ppm	100
100) Benzo[g,h,i]perylene	19.007	276	958085	49.76	ppm	100

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5819\
 Data File : p128678.D
 Acq On : 25 Mar 2019 11:12 am
 Operator : christc2
 Sample : icc5819-50
 Misc : op13894,ep5819,1000,,,1,1
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 25 11:48:32 2019
 Quant Method : C:\msdchem\1\METHODS\MP5819.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Mon Mar 25 11:47:04 2019
 Response via : Initial Calibration



9.6:33
9

Manual Integration Approval Summary

Sample Number: EP5819-ICC5819 Method: SW846 8270D
Lab FileID: P128678.D Analyst approved: 03/25/19 17:27 Ying Li
Injection Time: 03/25/19 11:12 Supervisor approved: 03/28/19 17:53 Kristi Schollenberger

Parameter	CAS	Sig#	R.T. (min.)	Reason
Caprolactam	105-60-2		5.69	Split peak

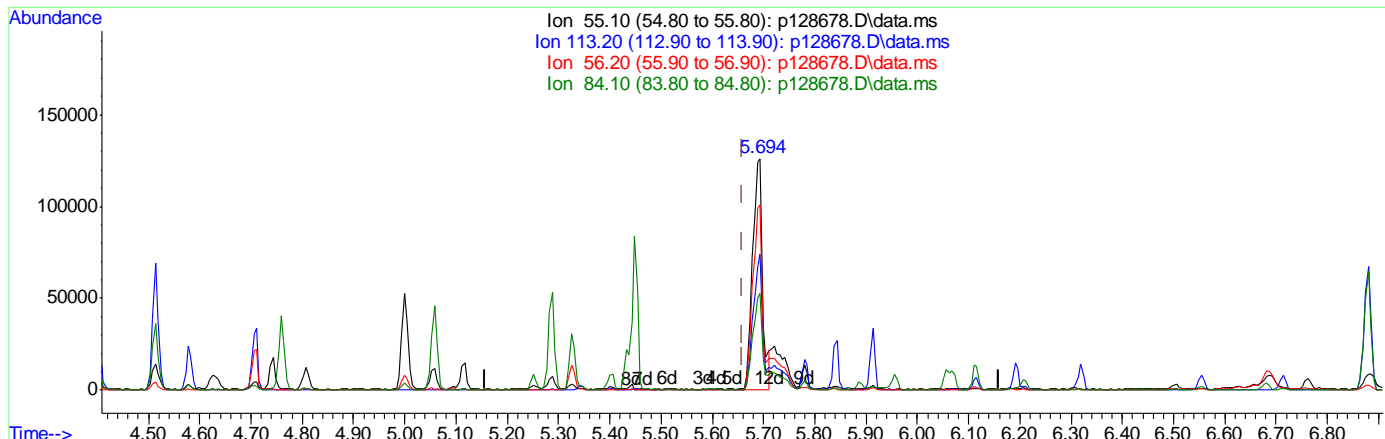
9.6.33.1

9

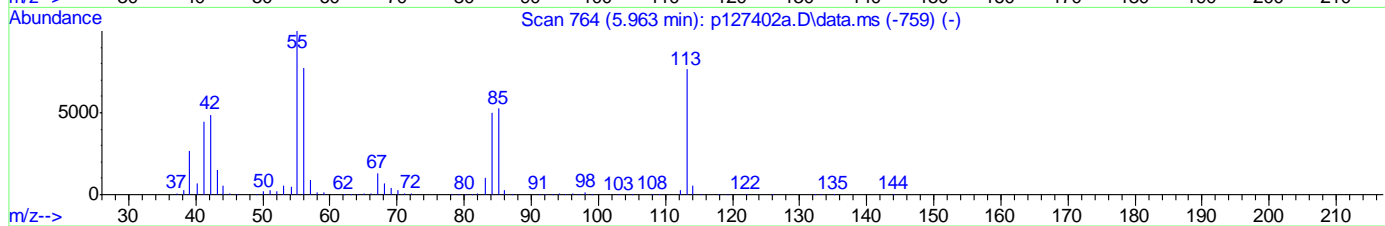
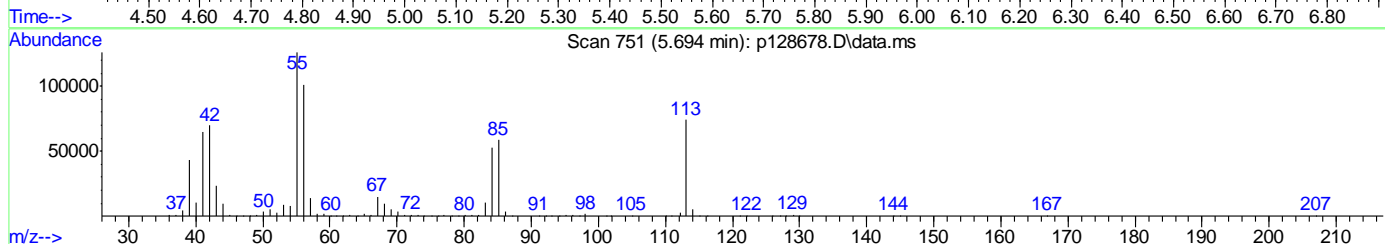
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EP5819\
 Data File : p128678.D
 Acq On : 25 Mar 2019 11:12 am
 Operator : christc2
 Sample : icc5819-50
 Misc : op13894,ep5819,1000,,,1,1
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 25 11:33:24 2019
 Quant Method : C:\msdchem\1\METHODS\MP5819.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Tue Mar 19 05:39:17 2019
 Response via : Initial Calibration



9.6.33.2
9



TIC: p128678.D\data.ms

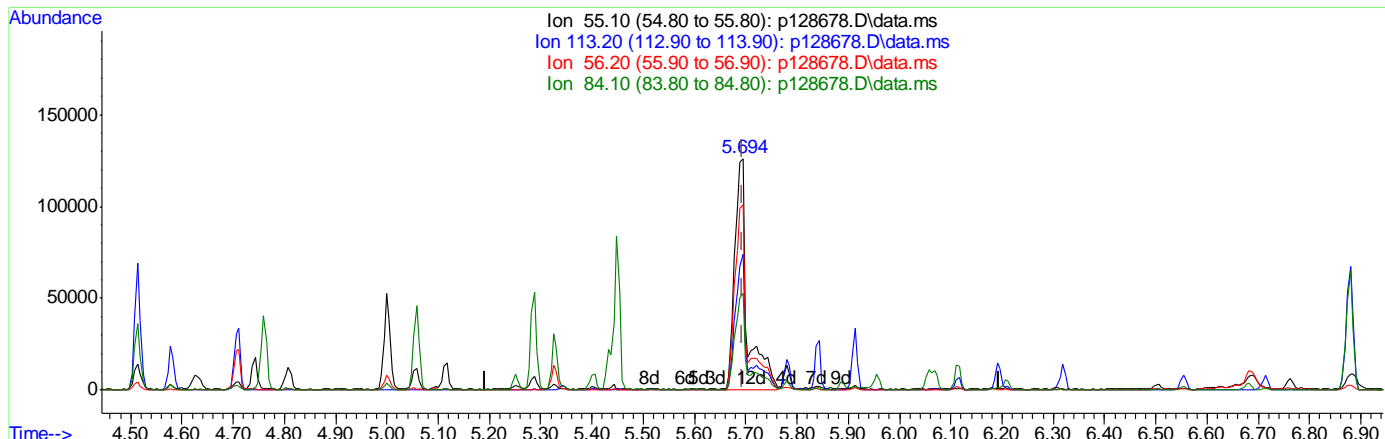
(41) Caprolactam (t)
 5.694min (+0.035) 65.26ppm
 response 172303

Ion	Exp%	Act%
55.10	100	100
113.20	85.00	59.08
56.20	80.80	79.75
84.10	51.90	42.26

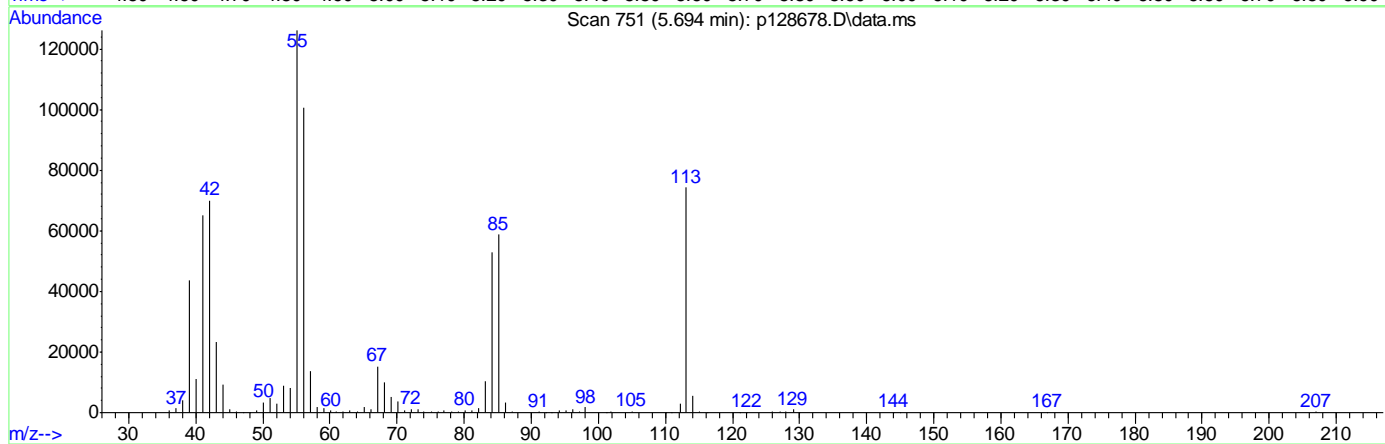
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EP5819\
 Data File : p128678.D
 Acq On : 25 Mar 2019 11:12 am
 Operator : christc2
 Sample : icc5819-50
 Misc : op13894,ep5819,1000,,,1,1
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 25 11:48:32 2019
 Quant Method : C:\msdchem\1\METHODS\MP5819.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Mon Mar 25 11:47:04 2019
 Response via : Initial Calibration



9.6.33.3
 9



(41) Caprolactam (t)

5.694min (0.000) 49.84ppm m

response 220033

Ion	Exp%	Act%
55.10	100	100
113.20	58.90	58.86
56.20	79.90	79.86
84.10	42.00	41.96

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5819\
 Data File : p128679.D
 Acq On : 25 Mar 2019 11:39 am
 Operator : christc2
 Sample : ic5819-25
 Misc : op13894,ep5819,1000,,,1,1
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 25 13:09:30 2019
 Quant Method : C:\msdchem\1\METHODS\MP5819.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Mon Mar 25 13:08:22 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.385	152	203602	40.00	ppm	0.00
24) Naphthalene-d8	5.325	136	802307	40.00	ppm	0.00
47) Acenaphthene-d10	6.682	164	498306	40.00	ppm	0.00
69) Phenanthrene-d10	8.440	188	916066	40.00	ppm	0.00
83) Chrysene-d12	13.590	240	858367	40.00	ppm	0.00
91) Perylene-d12	16.624	264	880257	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4A	4.385	152	203602	40.00	ppm	-0.06
111) Naphthalene-d8A	5.325	136	802307	40.00	ppm	-0.06
120) Acenaphthene-d10A	6.682	164	498306	40.00	ppm	-0.08
131) Phenanthrene-d10A	8.440	188	916066	40.00	ppm	-0.11
146) Chrysene-d12A	13.590	240	858367	40.00	ppm	-0.14
153) Perylene-d12A	16.624	264	880257	40.00	ppm	-0.15
157) 1,4-Dichlorobenzene-d4b	4.385	152	203602	40.00	ppm	-0.06
159) Phenanthrene-d10b	8.440	188	916066	40.00	ppm	-0.11
161) Chrysene-d12b	13.590	240	858367	40.00	ppm	-0.14
163) Naphthalene-d8b	5.325	136	802307	40.00	ppm	-0.06
165) Acenaphthene-d10b	6.682	164	498306	40.00	ppm	-0.08
167) Naphthalene-d8c	5.325	136	802307	40.00	ppm	-0.06
172) 1,4-Dichlorobenzene-d4c	4.385	152	203602	40.00	ppm	-0.06
174) Chrysene-d12c	13.590	240	858367	40.00	ppm	-0.14
176) Chrysene-d12d	13.590	240	858367	40.00	ppm	-0.14
178) Naphthalene-d8d	5.325	136	802307	40.00	ppm	-0.06
180) Chrysene-d12D	13.590	240	858367	40.00	ppm	-0.14
System Monitoring Compounds						
5) 2-Fluorophenol	3.439	112	197722	23.80	ppm	0.00
Spiked Amount	50.000		Recovery	=	47.60%	
8) Phenol-d5	4.187	99	253936	24.20	ppm	0.00
Spiked Amount	50.000		Recovery	=	48.40%	
25) Nitrobenzene-d5	4.802	82	260930	24.92	ppm	0.00
Spiked Amount	50.000		Recovery	=	49.84%	
51) 2-Fluorobiphenyl	6.110	172	431766	22.34	ppm	0.00
Spiked Amount	50.000		Recovery	=	44.68%	
73) 2,4,6-Tribromophenol	7.521	330	61966	23.12	ppm	0.00
Spiked Amount	50.000		Recovery	=	46.24%	
85) Terphenyl-d14	11.389	244	527651	23.62	ppm	0.00
Spiked Amount	50.000		Recovery	=	47.24%	
Target Compounds						
2) 1,4-Dioxane	1.837	88	94912	23.85	ppm	97
3) Pyridine	2.173	79	240934	23.27	ppm	98
4) N-Nitrosodimethylamine	2.163	42	131563	23.47	ppm	94
6) Indene	4.577	116	304716	24.79	ppm	98
7) Cumene	3.771	105	531369	24.25	ppm	99
9) Phenol	4.193	94	275052	25.04	ppm	88
10) Aniline	4.150	93	304641	25.33	ppm	98
11) bis(2-Chloroethyl)ether	4.193	93	202111	25.27	ppm	90
12) 2-Chlorophenol	4.251	128	185256	25.25	ppm	96
13) Decane	4.273	43	214519	28.17	ppm	96

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5819\
 Data File : p128679.D
 Acq On : 25 Mar 2019 11:39 am
 Operator : christc2
 Sample : ic5819-25
 Misc : op13894,ep5819,1000,,,1,1
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 25 13:09:30 2019
 Quant Method : C:\msdchem\1\METHODS\MP5819.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Mon Mar 25 13:08:22 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
14) 1,3-Dichlorobenzene	4.342	146	209492	24.76	ppm	99
15) 1,4-Dichlorobenzene	4.396	146	197777	23.81	ppm	98
16) Benzyl alcohol	4.513	108	124808	23.95	ppm	93
17) 1,2-Dichlorobenzene	4.513	146	196866	23.05	ppm	99
18) Acetophenone	4.695	105	293078	24.98	ppm	96
19) 2-Methylphenol	4.625	108	177410	25.49	ppm	100
20) 2,2'-oxybis(1-Chloropr...	4.599	121	53186	26.10	ppm	97
21) 3&4-Methylphenol	4.737	108	190704	24.99	ppm	98
22) n-Nitroso-di-n-propyla...	4.700	70	152114	25.38	ppm	98
23) Hexachloroethane	4.759	201	71943	24.46	ppm	99
26) Nitrobenzene	4.818	77	266638	25.41	ppm	97
27) Quinoline	5.592	129	396431	24.71	ppm	98
28) Isophorone	4.994	82	465181	24.64	ppm	99
29) 2-Nitrophenol	5.053	139	104200	22.42	ppm	88
30) 2,4-Dimethylphenol	5.111	107	209341	23.74	ppm	99
31) Benzoic acid	5.245	105	182790	27.98	ppm	99
32) bis(2-Chloroethoxy)met...	5.154	93	242789	24.73	ppm	98
33) 2,4-Dichlorophenol	5.250	162	164546	23.52	ppm	98
34) 2,6-Dichlorophenol	5.400	162	154280	22.25	ppm	98
35) 1,3,5-Trichlorobenzene	5.058	180	185044	22.34	ppm	98
36) 1,2,4-Trichlorobenzene	5.288	180	172720	24.08	ppm	98
37) 1,2,3-Trichlorobenzene	5.448	180	162858	23.30	ppm	98
38) Naphthalene	5.341	128	500573	23.50	ppm	99
39) 4-Chloroaniline	5.395	127	210583	22.92	ppm	93
40) 2,3-Dichloroaniline	6.052	161	203956	23.32	ppm	96
41) Caprolactam	5.667	55	122544	23.93	ppm	99
42) Hexachlorobutadiene	5.432	225	108451	22.23	ppm	97
43) 4-Chloro-3-methylphenol	5.774	107	212384	24.89	ppm	100
44) 2-Methylnaphthalene	5.838	141	301258	23.39	ppm	96
45) 1-Methylnaphthalene	5.913	142	378382	23.45	ppm	97
46) Dimethylnaphthalene	6.313	156	333156	22.58	ppm	96
48) Hexachlorocyclopentadiene	5.956	237	173180	38.42	ppm	100
49) 2,4,6-Trichlorophenol	6.068	196	121056	23.14	ppm	99
50) 2,4,5-Trichlorophenol	6.110	196	137998	21.20	ppm	98
52) 2-Chloronaphthalene	6.207	162	351452	24.13	ppm	99
53) Biphenyl	6.191	154	465046	22.46	ppm	99
54) 2-Nitroaniline	6.303	65	168271	25.27	ppm	98
55) Dimethylphthalate	6.442	163	459192	24.27	ppm	99
56) Acenaphthylene	6.548	152	585306	23.97	ppm	99
57) 2,6-Dinitrotoluene	6.500	165	99860	24.63	ppm	94
58) 3-Nitroaniline	6.661	138	108908	24.38	ppm	97
59) Acenaphthene	6.709	153	359082	23.22	ppm	99
60) 2,4-Dinitrophenol	6.757	184	85858	42.73	ppm	90
61) 4-Nitrophenol	6.880	109	92337	24.44	ppm	# 24
62) Dibenzofuran	6.874	168	515796	22.01	ppm	93
63) 2,4-Dinitrotoluene	6.874	165	141676	22.37	ppm	78
64) 2,3,4,6-Tetrachlorophenol	7.019	232	107147	22.57	ppm	95
65) Diethylphthalate	7.115	149	491967	24.06	ppm	99
66) Fluorene	7.232	166	454303	23.14	ppm	97
67) 4-Chlorophenyl-phenyle...	7.232	204	226185	21.03	ppm	91

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5819\
 Data File : p128679.D
 Acq On : 25 Mar 2019 11:39 am
 Operator : christc2
 Sample : ic5819-25
 Misc : op13894,ep5819,1000,,,1,1
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 25 13:09:30 2019
 Quant Method : C:\msdchem\1\METHODS\MP5819.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Mon Mar 25 13:08:22 2019
 Response via : Initial Calibration

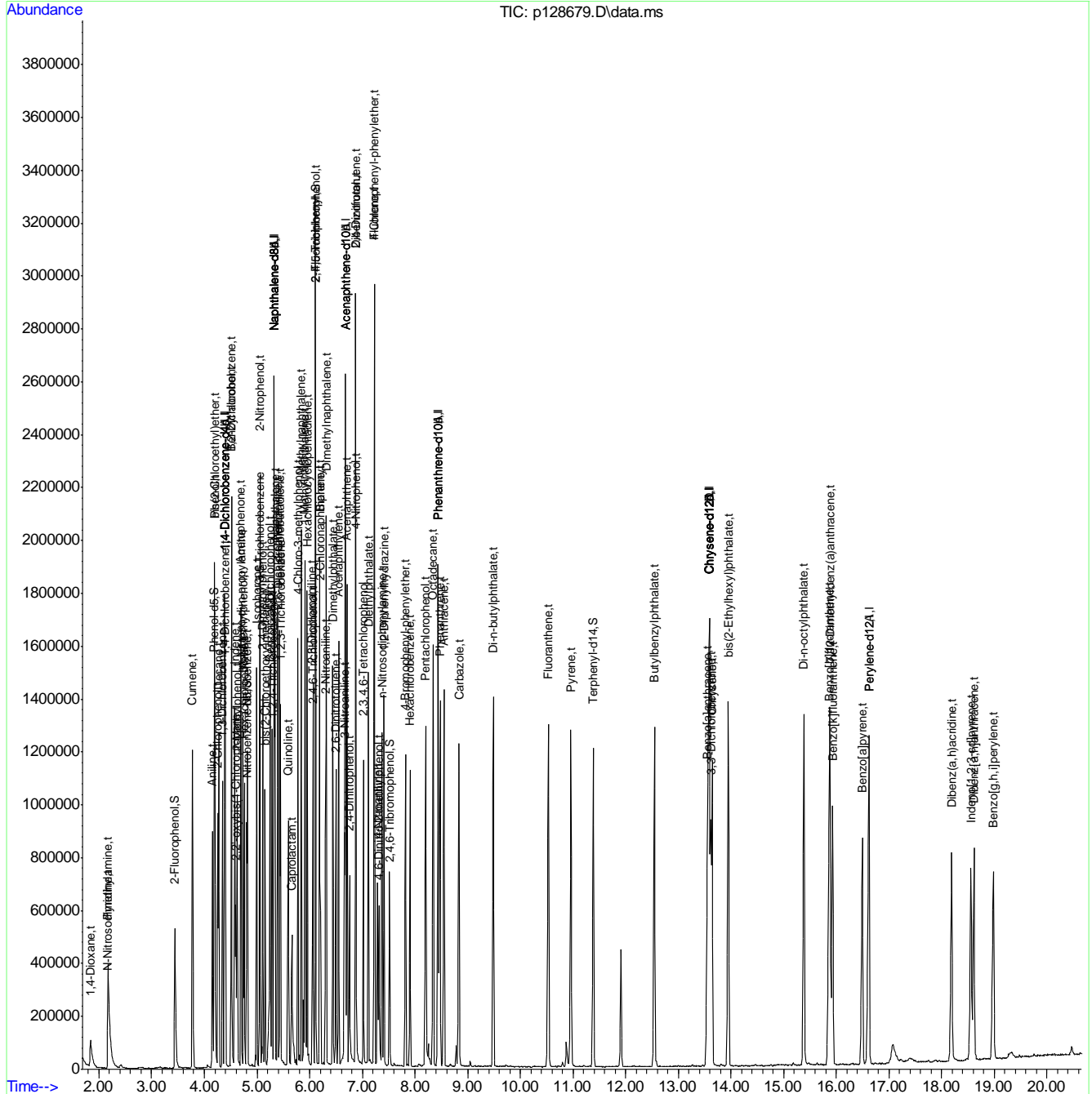
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
68) 4-Nitroaniline	7.291	138	101841	24.66	ppm	98
70) 4,6-Dinitro-2-methylph...	7.318	198	74339	23.57	ppm	85
71) n-Nitrosodiphenylamine	7.377	169	308938	24.48	ppm	98
72) 1,2-Diphenylhydrazine	7.414	77	594910	26.04	ppm	98
74) 4-Bromophenyl-phenylether	7.820	248	134617	24.04	ppm	96
75) Hexachlorobenzene	7.905	284	137341	23.67	ppm	99
76) Pentachlorophenol	8.205	266	146489	42.29	ppm	95
77) Phenanthrene	8.477	178	623238	24.04	ppm	99
78) Anthracene	8.552	178	666397	24.75	ppm	99
79) Carbazole	8.835	167	617083	24.72	ppm	99
80) Di-n-butylphthalate	9.487	149	939254	24.93	ppm	99
81) Fluoranthene	10.534	202	784477	24.70	ppm	97
82) Octadecane	8.344	57	357006	26.68	ppm	94
84) Pyrene	10.967	202	804906	24.29	ppm	99
86) Butylbenzylphthalate	12.548	149	444650	25.26	ppm	99
87) Benzo[a]anthracene	13.558	228	735559	24.40	ppm	98
88) 3,3'-Dichlorobenzidine	13.616	252	237674	23.07	ppm	96
89) Chrysene	13.643	228	641137	24.23	ppm	100
90) bis(2-Ethylhexyl)phtha...	13.948	149	600431	24.85	ppm	96
92) Di-n-octylphthalate	15.385	149	1078380	24.97	ppm	98
93) Benzo[b]fluoranthene	15.871	252	728820	24.41	ppm	97
94) Benzo[k]fluoranthene	15.929	252	613827	25.03	ppm	98
95) Benzo[a]pyrene	16.496	252	611674	24.50	ppm	98
96) Indeno[1,2,3-cd]pyrene	18.558	276	548674	23.99	ppm	96
97) Dibenz(a,h)acridine	18.195	279	529402	24.51	ppm	100
98) Dibenz[a,h]anthracene	18.617	278	562860	24.16	ppm	99
99) 7,12-Dimethylbenz(a)an...	15.881	256	306960	23.11	ppm	95
100) Benzo[g,h,i]perylene	18.985	276	534581	24.05	ppm	99

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5819\
 Data File : p128679.D
 Acq On : 25 Mar 2019 11:39 am
 Operator : christc2
 Sample : ic5819-25
 Misc : op13894,ep5819,1000,,,1,1
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 25 13:09:30 2019
 Quant Method : C:\msdchem\1\METHODS\MP5819.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Mon Mar 25 13:08:22 2019
 Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5819\
 Data File : p128680.D
 Acq On : 25 Mar 2019 12:06 pm
 Operator : christc2
 Sample : ic5819-10
 Misc : op13894,ep5819,1000,,,1,1
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 25 13:12:27 2019
 Quant Method : C:\msdchem\1\METHODS\MP5819.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Mon Mar 25 13:08:22 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.385	152	208553	40.00	ppm	0.00
24) Naphthalene-d8	5.325	136	844670	40.00	ppm	0.00
47) Acenaphthene-d10	6.682	164	530981	40.00	ppm	0.00
69) Phenanthrene-d10	8.440	188	971044	40.00	ppm	0.00
83) Chrysene-d12	13.590	240	944615	40.00	ppm	0.00
91) Perylene-d12	16.624	264	948297	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4A	4.385	152	208553	40.00	ppm	-0.06
111) Naphthalene-d8A	5.325	136	844670	40.00	ppm	-0.06
120) Acenaphthene-d10A	6.682	164	530981	40.00	ppm	-0.08
131) Phenanthrene-d10A	8.440	188	971044	40.00	ppm	-0.11
146) Chrysene-d12A	13.590	240	944615	40.00	ppm	-0.14
153) Perylene-d12A	16.624	264	948297	40.00	ppm	-0.15
157) 1,4-Dichlorobenzene-d4b	4.385	152	208553	40.00	ppm	-0.06
159) Phenanthrene-d10b	8.440	188	971044	40.00	ppm	-0.11
161) Chrysene-d12b	13.590	240	944615	40.00	ppm	-0.14
163) Naphthalene-d8b	5.325	136	844670	40.00	ppm	-0.06
165) Acenaphthene-d10b	6.682	164	530981	40.00	ppm	-0.08
167) Naphthalene-d8c	5.325	136	844670	40.00	ppm	-0.06
172) 1,4-Dichlorobenzene-d4c	4.385	152	208553	40.00	ppm	-0.06
174) Chrysene-d12c	13.590	240	944615	40.00	ppm	-0.14
176) Chrysene-d12d	13.590	240	944615	40.00	ppm	-0.14
178) Naphthalene-d8d	5.325	136	844670	40.00	ppm	-0.06
180) Chrysene-d12D	13.590	240	944615	40.00	ppm	-0.14
System Monitoring Compounds						
5) 2-Fluorophenol	3.439	112	77639	9.12	ppm	0.00
Spiked Amount	50.000		Recovery	=	18.24%	
8) Phenol-d5	4.187	99	108016	10.05	ppm	0.00
Spiked Amount	50.000		Recovery	=	20.10%	
25) Nitrobenzene-d5	4.802	82	112506	10.21	ppm	0.00
Spiked Amount	50.000		Recovery	=	20.42%	
51) 2-Fluorobiphenyl	6.110	172	179637	8.72	ppm	0.00
Spiked Amount	50.000		Recovery	=	17.44%	
73) 2,4,6-Tribromophenol	7.515	330	25071	8.82	ppm	-0.01
Spiked Amount	50.000		Recovery	=	17.64%	
85) Terphenyl-d14	11.383	244	222418	9.05	ppm	-0.01
Spiked Amount	50.000		Recovery	=	18.10%	
Target Compounds						
2) 1,4-Dioxane	1.837	88	37570	9.22	ppm	100
3) Pyridine	2.179	79	94231	8.88	ppm	98
4) N-Nitrosodimethylamine	2.163	42	51733	9.01	ppm	94
6) Indene	4.577	116	130403	10.36	ppm	100
7) Cumene	3.771	105	221512	9.87	ppm	98
9) Phenol	4.198	94	118300	10.52	ppm	94
10) Aniline	4.150	93	129537	10.52	ppm	97
11) bis(2-Chloroethyl)ether	4.193	93	90631	11.06	ppm	90
12) 2-Chlorophenol	4.251	128	80333	10.69	ppm	94
13) Decane	4.273	43	101529	13.01	ppm	90

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5819\
 Data File : p128680.D
 Acq On : 25 Mar 2019 12:06 pm
 Operator : christc2
 Sample : ic5819-10
 Misc : op13894,ep5819,1000,,,1,1
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 25 13:12:27 2019
 Quant Method : C:\msdchem\1\METHODS\MP5819.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Mon Mar 25 13:08:22 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
14) 1,3-Dichlorobenzene	4.342	146	89792	10.36	ppm	96
15) 1,4-Dichlorobenzene	4.396	146	83814	9.85	ppm	99
16) Benzyl alcohol	4.513	108	54111	10.14	ppm	97
17) 1,2-Dichlorobenzene	4.513	146	82956	9.48	ppm	99
18) Acetophenone	4.689	105	125288	10.43	ppm	99
19) 2-Methylphenol	4.625	108	77840	10.92	ppm	98
20) 2,2'-oxybis(1-Chloropr...	4.599	121	23149	11.09	ppm	99
21) 3&4-Methylphenol	4.738	108	84980	10.87	ppm	99
22) n-Nitroso-di-n-propyla...	4.695	70	68299	11.12	ppm	95
23) Hexachloroethane	4.759	201	30342	10.07	ppm	94
26) Nitrobenzene	4.812	77	117199	10.61	ppm	96
27) Quinoline	5.582	129	166854	9.88	ppm	98
28) Isophorone	4.989	82	199123	10.02	ppm	98
29) 2-Nitrophenol	5.053	139	44078	9.01	ppm	78
30) 2,4-Dimethylphenol	5.106	107	85164	9.17	ppm	98
31) Benzoic acid	5.224	105	78240	11.38	ppm	98
32) bis(2-Chloroethoxy)met...	5.149	93	108182	10.47	ppm	98
33) 2,4-Dichlorophenol	5.250	162	69974	9.50	ppm	97
34) 2,6-Dichlorophenol	5.400	162	64087	8.78	ppm	99
35) 1,3,5-Trichlorobenzene	5.053	180	77303	8.86	ppm	94
36) 1,2,4-Trichlorobenzene	5.282	180	70950	9.40	ppm	97
37) 1,2,3-Trichlorobenzene	5.443	180	70575	9.59	ppm	95
38) Naphthalene	5.336	128	214704	9.57	ppm	99
39) 4-Chloroaniline	5.389	127	92684	9.58	ppm	88
40) 2,3-Dichloroaniline	6.052	161	86176	9.36	ppm	98
41) Caprolactam	5.640	55	53260	9.88	ppm	98
42) Hexachlorobutadiene	5.432	225	43011	8.38	ppm	96
43) 4-Chloro-3-methylphenol	5.769	107	89552	9.97	ppm	# 59
44) 2-Methylnaphthalene	5.838	141	128911	9.51	ppm	97
45) 1-Methylnaphthalene	5.907	142	162998	9.59	ppm	95
46) Dimethylnaphthalene	6.313	156	144018	9.27	ppm	95
48) Hexachlorocyclopentadiene	5.956	237	55280	11.51	ppm	95
49) 2,4,6-Trichlorophenol	6.062	196	52416	9.40	ppm	94
50) 2,4,5-Trichlorophenol	6.105	196	54264	7.82	ppm	99
52) 2-Chloronaphthalene	6.201	162	152140	9.80	ppm	95
53) Biphenyl	6.185	154	198572	9.00	ppm	98
54) 2-Nitroaniline	6.297	65	74246	10.46	ppm	93
55) Dimethylphthalate	6.436	163	194399	9.64	ppm	100
56) Acenaphthylene	6.549	152	253554	9.75	ppm	99
57) 2,6-Dinitrotoluene	6.495	165	41919	9.70	ppm	99
58) 3-Nitroaniline	6.655	138	46018	9.67	ppm	93
59) Acenaphthene	6.709	153	151103	9.17	ppm	98
60) 2,4-Dinitrophenol	6.752	184	28144	13.15	ppm	# 80
61) 4-Nitrophenol	6.880	109	39122	9.72	ppm	# 57
62) Dibenzofuran	6.869	168	216615	8.67	ppm	91
63) 2,4-Dinitrotoluene	6.869	165	58664	8.69	ppm	68
64) 2,3,4,6-Tetrachlorophenol	7.019	232	44914	8.88	ppm	99
65) Diethylphthalate	7.109	149	209561	9.62	ppm	99
66) Fluorene	7.227	166	188437	9.01	ppm	97
67) 4-Chlorophenyl-phenyle...	7.227	204	87546	7.64	ppm	79

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5819\
 Data File : p128680.D
 Acq On : 25 Mar 2019 12:06 pm
 Operator : christc2
 Sample : ic5819-10
 Misc : op13894,ep5819,1000,,,1,1
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 25 13:12:27 2019
 Quant Method : C:\msdchem\1\METHODS\MP5819.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Mon Mar 25 13:08:22 2019
 Response via : Initial Calibration

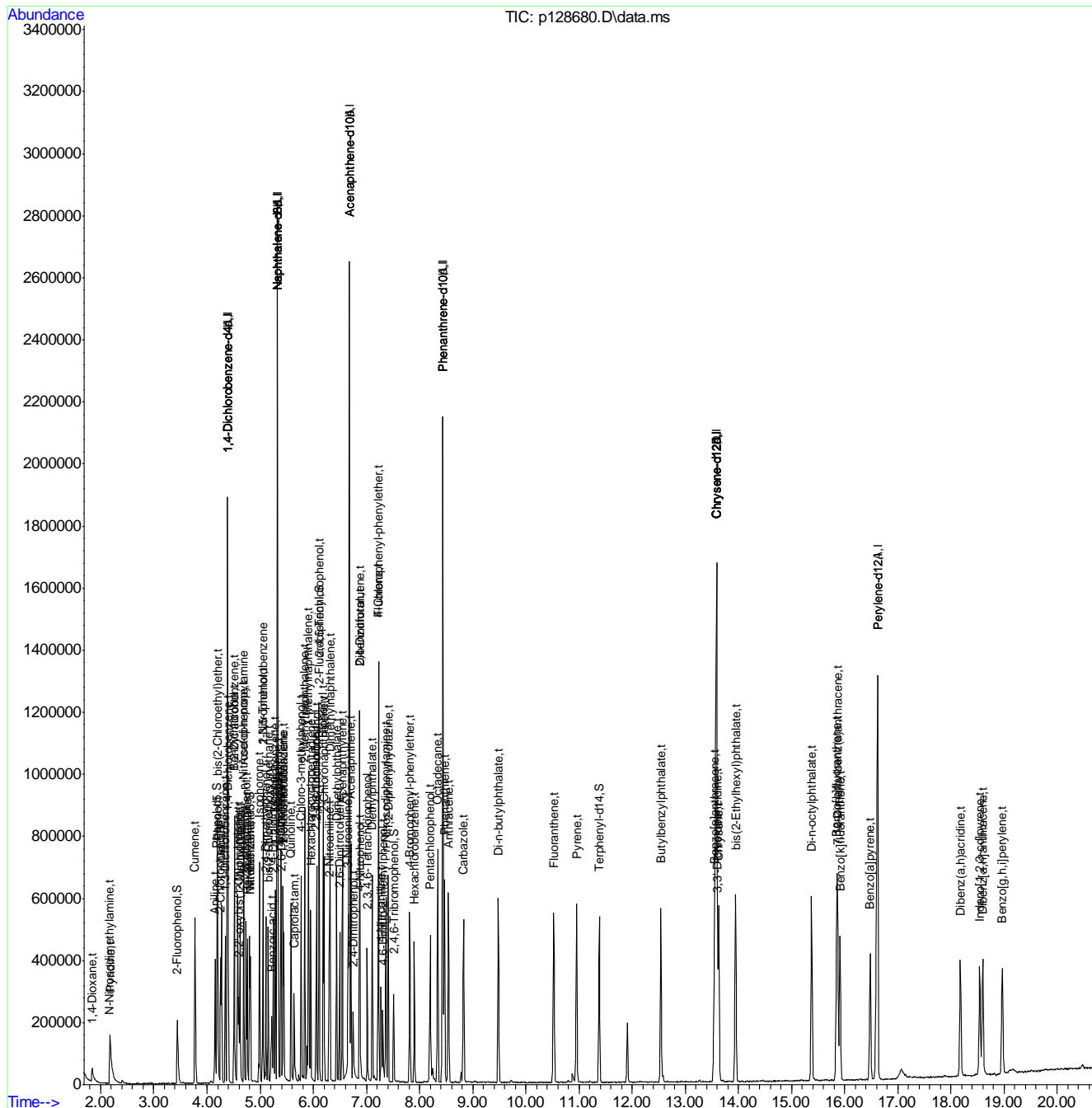
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
68) 4-Nitroaniline	7.280	138	44432	10.10	ppm	92
70) 4,6-Dinitro-2-methylph...	7.307	198	28353	8.48	ppm #	72
71) n-Nitrosodiphenylamine	7.366	169	133436	9.98	ppm	99
72) 1,2-Diphenylhydrazine	7.409	77	268085	11.07	ppm	98
74) 4-Bromophenyl-phenylether	7.815	248	55316	9.32	ppm	97
75) Hexachlorobenzene	7.905	284	56024	9.11	ppm	91
76) Pentachlorophenol	8.199	266	53727	14.63	ppm	94
77) Phenanthrene	8.472	178	264117	9.61	ppm	99
78) Anthracene	8.547	178	286123	10.03	ppm	100
79) Carbazole	8.830	167	269555	10.18	ppm	100
80) Di-n-butylphthalate	9.487	149	398665	9.98	ppm	99
81) Fluoranthene	10.529	202	327158	9.72	ppm	94
82) Octadecane	8.344	57	164204	11.58	ppm	93
84) Pyrene	10.956	202	339986	9.32	ppm	94
86) Butylbenzylphthalate	12.543	149	190858	9.85	ppm	98
87) Benzo[a]anthracene	13.552	228	311512	9.39	ppm	98
88) 3,3'-Dichlorobenzidine	13.606	252	98064	8.65	ppm	98
89) Chrysene	13.632	228	280638	9.64	ppm	98
90) bis(2-Ethylhexyl)phtha...	13.948	149	264866	9.96	ppm	97
92) Di-n-octylphthalate	15.379	149	465391	10.00	ppm	97
93) Benzo[b]fluoranthene	15.855	252	304223	9.46	ppm	96
94) Benzo[k]fluoranthene	15.914	252	276321	10.46	ppm	97
95) Benzo[a]pyrene	16.480	252	268324	9.98	ppm	96
96) Indeno[1,2,3-cd]pyrene	18.542	276	237962	9.66	ppm	90
97) Dibenz(a,h)acridine	18.179	279	226337	9.73	ppm	98
98) Dibenz[a,h]anthracene	18.601	278	237599	9.47	ppm	96
99) 7,12-Dimethylbenz(a)an...	15.865	256	121492	8.49	ppm	98
100) Benzo[g,h,i]perylene	18.969	276	232024	9.69	ppm	95

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5819\
Data File : pl28680.D
Acq On : 25 Mar 2019 12:06 pm
Operator : christc2
Sample : ic5819-10
Misc : op13894,ep5819,1000,,,1,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 25 13:12:27 2019
Quant Method : C:\msdchem\1\METHODS\MP5819.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 25 13:08:22 2019
Response via : Initial Calibration



9.6:35
9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5819\
 Data File : p128681.D
 Acq On : 25 Mar 2019 12:33 pm
 Operator : christc2
 Sample : ic5819-5
 Misc : op13894,ep5819,1000,,,1,1
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 25 13:16:13 2019
 Quant Method : C:\msdchem\1\METHODS\MP5819.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Mon Mar 25 13:13:57 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.385	152	210685	40.00	ppm	0.00
24) Naphthalene-d8	5.325	136	850930	40.00	ppm	0.00
47) Acenaphthene-d10	6.677	164	542736	40.00	ppm	0.00
69) Phenanthrene-d10	8.440	188	1003322	40.00	ppm	0.00
83) Chrysene-d12	13.584	240	960529	40.00	ppm	-0.01
91) Perylene-d12	16.619	264	995899	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4A	4.385	152	210685	40.00	ppm	-0.06
111) Naphthalene-d8A	5.325	136	850930	40.00	ppm	-0.06
120) Acenaphthene-d10A	6.677	164	542736	40.00	ppm	-0.09
131) Phenanthrene-d10A	8.440	188	1003322	40.00	ppm	-0.11
146) Chrysene-d12A	13.584	240	960529	40.00	ppm	-0.15
153) Perylene-d12A	16.619	264	995899	40.00	ppm	-0.15
157) 1,4-Dichlorobenzene-d4b	4.385	152	210685	40.00	ppm	-0.06
159) Phenanthrene-d10b	8.440	188	1003322	40.00	ppm	-0.11
161) Chrysene-d12b	13.584	240	960529	40.00	ppm	-0.15
163) Naphthalene-d8b	5.325	136	850930	40.00	ppm	-0.06
165) Acenaphthene-d10b	6.677	164	542736	40.00	ppm	-0.09
167) Naphthalene-d8c	5.325	136	850930	40.00	ppm	-0.06
172) 1,4-Dichlorobenzene-d4c	4.385	152	210685	40.00	ppm	-0.06
174) Chrysene-d12c	13.584	240	960529	40.00	ppm	-0.15
176) Chrysene-d12d	13.584	240	960529	40.00	ppm	-0.15
178) Naphthalene-d8d	5.325	136	850930	40.00	ppm	-0.06
180) Chrysene-d12D	13.584	240	960529	40.00	ppm	-0.15
System Monitoring Compounds						
5) 2-Fluorophenol	3.439	112	36428	4.24	ppm	0.00
Spiked Amount	50.000		Recovery	=	8.48%	
8) Phenol-d5	4.187	99	52144	4.80	ppm	0.00
Spiked Amount	50.000		Recovery	=	9.60%	
25) Nitrobenzene-d5	4.801	82	56771	5.11	ppm	0.00
Spiked Amount	50.000		Recovery	=	10.22%	
51) 2-Fluorobiphenyl	6.105	172	91565	4.35	ppm	-0.01
Spiked Amount	50.000		Recovery	=	8.70%	
73) 2,4,6-Tribromophenol	7.510	330	12351	4.21	ppm	-0.02
Spiked Amount	50.000		Recovery	=	8.42%	
85) Terphenyl-d14	11.378	244	114376	4.58	ppm	-0.02
Spiked Amount	50.000		Recovery	=	9.16%	
Target Compounds						
2) 1,4-Dioxane	1.842	88	17879	4.34	ppm	96
3) Pyridine	2.178	79	45178	4.22	ppm	97
4) N-Nitrosodimethylamine	2.168	42	25743	4.44	ppm	88
6) Indene	4.577	116	64677	5.09	ppm	97
7) Cumene	3.770	105	106537	4.70	ppm	96
9) Phenol	4.198	94	57299	5.04	ppm	94
10) Aniline	4.150	93	64998	5.22	ppm	98
11) bis(2-Chloroethyl)ether	4.192	93	45354	5.48	ppm	86
12) 2-Chlorophenol	4.251	128	38601	5.08	ppm	98
13) Decane	4.267	43	54118	6.87	ppm	86

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5819\
 Data File : p128681.D
 Acq On : 25 Mar 2019 12:33 pm
 Operator : christc2
 Sample : ic5819-5
 Misc : op13894,ep5819,1000,,,1,1
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 25 13:16:13 2019
 Quant Method : C:\msdchem\1\METHODS\MP5819.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Mon Mar 25 13:13:57 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
14) 1,3-Dichlorobenzene	4.342	146	43633	4.98	ppm	96
15) 1,4-Dichlorobenzene	4.395	146	42153	4.90	ppm	97
16) Benzyl alcohol	4.513	108	26636	4.94	ppm	93
17) 1,2-Dichlorobenzene	4.513	146	42078	4.76	ppm	91
18) Acetophenone	4.689	105	63722	5.25	ppm	98
19) 2-Methylphenol	4.620	108	38320	5.32	ppm	97
20) 2,2'-oxybis(1-Chloropr...	4.593	121	11143	5.28	ppm #	77
21) 3&4-Methylphenol	4.737	108	41494	5.25	ppm	98
22) n-Nitroso-di-n-propyla...	4.689	70	35155	5.67	ppm	88
23) Hexachloroethane	4.759	201	15026	4.94	ppm	97
26) Nitrobenzene	4.812	77	60398	5.43	ppm	97
27) Quinoline	5.581	129	82093	4.83	ppm	99
28) Isophorone	4.988	82	100679	5.03	ppm	97
29) 2-Nitrophenol	5.047	139	21827	4.43	ppm #	69
30) 2,4-Dimethylphenol	5.106	107	43405	4.64	ppm	99
31) Benzoic acid	5.207	105	37081	5.35	ppm	95
32) bis(2-Chloroethoxy)met...	5.149	93	54947	5.28	ppm	97
33) 2,4-Dichlorophenol	5.250	162	35062	4.73	ppm	96
34) 2,6-Dichlorophenol	5.394	162	31731	4.32	ppm	95
35) 1,3,5-Trichlorobenzene	5.053	180	38250	4.35	ppm	97
36) 1,2,4-Trichlorobenzene	5.282	180	36619	4.81	ppm	98
37) 1,2,3-Trichlorobenzene	5.443	180	33878	4.57	ppm	99
38) Naphthalene	5.336	128	107458	4.76	ppm	99
39) 4-Chloroaniline	5.389	127	45881	4.71	ppm	89
40) 2,3-Dichloroaniline	6.052	161	45655	4.92	ppm	98
41) Caprolactam	5.635	55	26236	4.83	ppm	93
42) Hexachlorobutadiene	5.432	225	20920	4.04	ppm	97
43) 4-Chloro-3-methylphenol	5.768	107	44170	4.88	ppm	99
44) 2-Methylnaphthalene	5.838	141	64823	4.74	ppm	98
45) 1-Methylnaphthalene	5.907	142	84303	4.93	ppm	97
46) Dimethylnaphthalene	6.313	156	73237	4.68	ppm	96
48) Hexachlorocyclopentadiene	5.955	237	21424	4.36	ppm	98
49) 2,4,6-Trichlorophenol	6.062	196	25309	4.44	ppm	96
50) 2,4,5-Trichlorophenol	6.105	196	28007	3.95	ppm	94
52) 2-Chloronaphthalene	6.201	162	77550	4.89	ppm	96
53) Biphenyl	6.185	154	103729	4.60	ppm	98
54) 2-Nitroaniline	6.297	65	38050	5.25	ppm	98
55) Dimethylphthalate	6.436	163	97161	4.72	ppm	99
56) Acenaphthylene	6.548	152	129208	4.86	ppm	99
57) 2,6-Dinitrotoluene	6.490	165	20572	4.66	ppm	86
58) 3-Nitroaniline	6.650	138	22921	4.71	ppm	100
59) Acenaphthene	6.703	153	75485	4.48	ppm	95
60) 2,4-Dinitrophenol	6.751	184	9092	4.15	ppm	90
61) 4-Nitrophenol	6.880	109	18760	4.56	ppm #	69
62) Dibenzofuran	6.869	168	112186	4.39	ppm	99
63) 2,4-Dinitrotoluene	6.869	165	29072	4.22	ppm	79
64) 2,3,4,6-Tetrachlorophenol	7.013	232	20542	3.97	ppm	95
65) Diethylphthalate	7.109	149	104304	4.68	ppm	97
66) Fluorene	7.227	166	95103	4.45	ppm	100
67) 4-Chlorophenyl-phenyle...	7.227	204	44080	3.76	ppm	82

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5819\
 Data File : p128681.D
 Acq On : 25 Mar 2019 12:33 pm
 Operator : christc2
 Sample : ic5819-5
 Misc : op13894,ep5819,1000,,,1,1
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 25 13:16:13 2019
 Quant Method : C:\msdchem\1\METHODS\MP5819.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Mon Mar 25 13:13:57 2019
 Response via : Initial Calibration

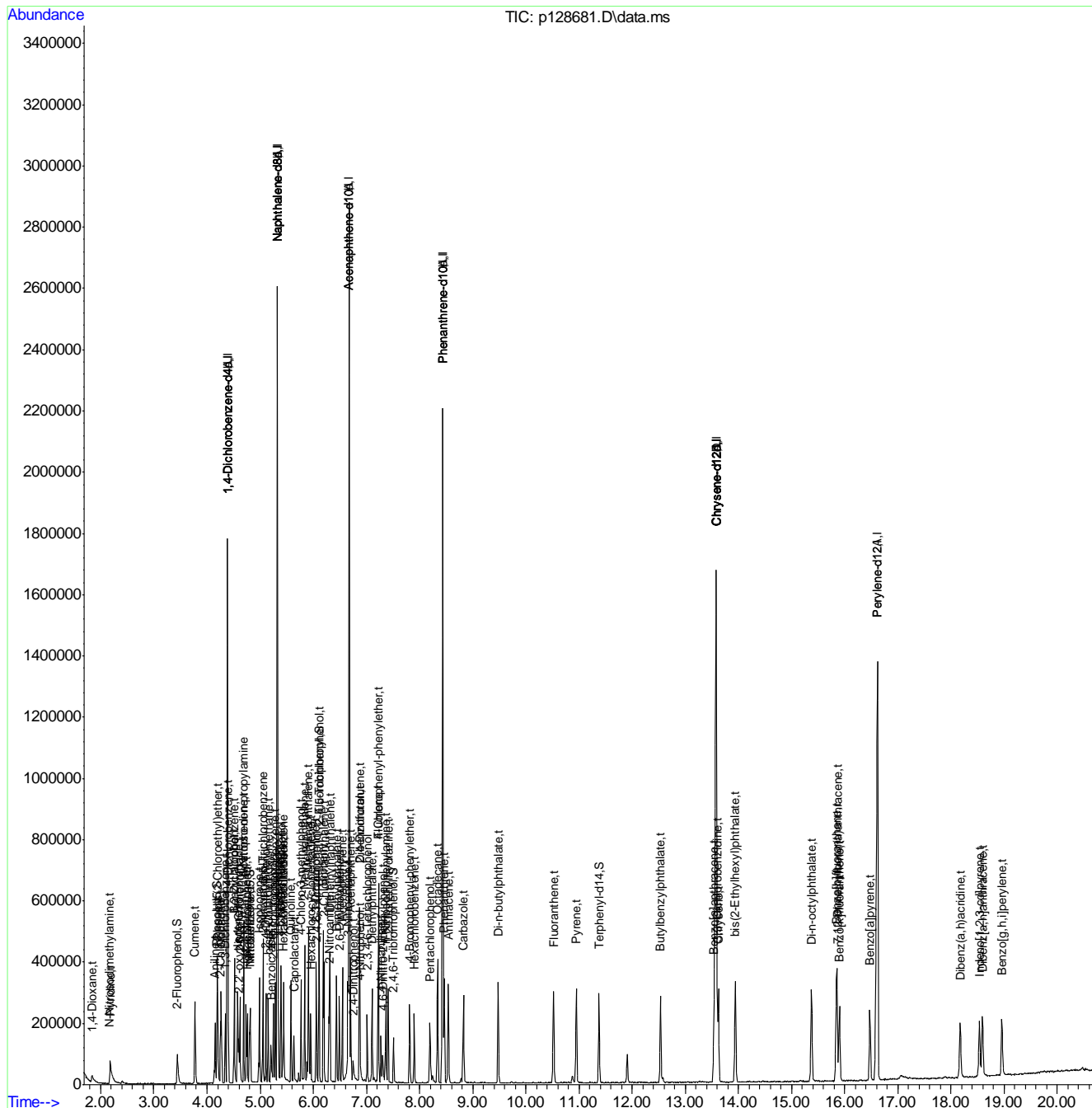
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
68) 4-Nitroaniline	7.275	138	23111	5.14	ppm	89
70) 4,6-Dinitro-2-methylph...	7.307	198	12307	3.56	ppm #	73
71) n-Nitrosodiphenylamine	7.366	169	70664	5.11	ppm	98
72) 1,2-Diphenylhydrazine	7.409	77	137956	5.51	ppm	99
74) 4-Bromophenyl-phenylether	7.815	248	26297	4.29	ppm	98
75) Hexachlorobenzene	7.900	284	27940	4.40	ppm	95
76) Pentachlorophenol	8.199	266	23101	6.09	ppm	92
77) Phenanthrene	8.466	178	135420	4.77	ppm	99
78) Anthracene	8.541	178	148220	5.03	ppm	100
79) Carbazole	8.824	167	140977	5.16	ppm	99
80) Di-n-butylphthalate	9.481	149	203867	4.94	ppm	99
81) Fluoranthene	10.523	202	167796	4.82	ppm	94
82) Octadecane	8.338	57	85716	5.85	ppm	91
84) Pyrene	10.950	202	174589	4.71	ppm	93
86) Butylbenzylphthalate	12.537	149	94717	4.81	ppm	97
87) Benzo[a]anthracene	13.541	228	159602	4.73	ppm	97
88) 3,3'-Dichlorobenzidine	13.600	252	47064	4.08	ppm	97
89) Chrysene	13.627	228	146218	4.94	ppm	98
90) bis(2-Ethylhexyl)phtha...	13.942	149	134092	4.96	ppm	96
92) Di-n-octylphthalate	15.374	149	237496	4.86	ppm	95
93) Benzo[b]fluoranthene	15.849	252	155994	4.62	ppm	95
94) Benzo[k]fluoranthene	15.903	252	147155	5.30	ppm	97
95) Benzo[a]pyrene	16.474	252	136470	4.83	ppm	95
96) Indeno[1,2,3-cd]pyrene	18.536	276	120305	4.65	ppm	88
97) Dibenz(a,h)acridine	18.173	279	113626	4.65	ppm	95
98) Dibenz[a,h]anthracene	18.595	278	124884	4.74	ppm	94
99) 7,12-Dimethylbenz(a)an...	15.860	256	61430	4.09	ppm	95
100) Benzo[g,h,i]perylene	18.964	276	117563	4.67	ppm	95

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5819\
Data File : pl28681.D
Acq On : 25 Mar 2019 12:33 pm
Operator : christc2
Sample : ic5819-5
Misc : op13894,ep5819,1000,,,1,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 25 13:16:13 2019
Quant Method : C:\msdchem\1\METHODS\MP5819.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 25 13:13:57 2019
Response via : Initial Calibration



9.6:36
9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5819\
 Data File : p128682.D
 Acq On : 25 Mar 2019 1:00 pm
 Operator : christc2
 Sample : ic5819-2
 Misc : op13894,ep5819,1000,,,1,1
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 25 13:24:12 2019
 Quant Method : C:\msdchem\1\METHODS\MP5819.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Mon Mar 25 13:13:57 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.385	152	226273	40.00	ppm	0.00
24) Naphthalene-d8	5.325	136	877040	40.00	ppm	0.00
47) Acenaphthene-d10	6.677	164	535539	40.00	ppm	0.00
69) Phenanthrene-d10	8.434	188	964812	40.00	ppm	-0.01
83) Chrysene-d12	13.579	240	879297	40.00	ppm	-0.02
91) Perylene-d12	16.619	264	900833	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4A	4.385	152	226273	40.00	ppm	-0.06
111) Naphthalene-d8A	5.325	136	877040	40.00	ppm	-0.06
120) Acenaphthene-d10A	6.677	164	535539	40.00	ppm	-0.09
131) Phenanthrene-d10A	8.434	188	964812	40.00	ppm	-0.12
146) Chrysene-d12A	13.579	240	879297	40.00	ppm	-0.15
153) Perylene-d12A	16.619	264	900833	40.00	ppm	-0.15
157) 1,4-Dichlorobenzene-d4b	4.385	152	226273	40.00	ppm	-0.06
159) Phenanthrene-d10b	8.434	188	964812	40.00	ppm	-0.12
161) Chrysene-d12b	13.579	240	879297	40.00	ppm	-0.15
163) Naphthalene-d8b	5.325	136	877040	40.00	ppm	-0.06
165) Acenaphthene-d10b	6.677	164	535539	40.00	ppm	-0.09
167) Naphthalene-d8c	5.325	136	877040	40.00	ppm	-0.06
172) 1,4-Dichlorobenzene-d4c	4.385	152	226273	40.00	ppm	-0.06
174) Chrysene-d12c	13.579	240	879297	40.00	ppm	-0.15
176) Chrysene-d12d	13.579	240	879297	40.00	ppm	-0.15
178) Naphthalene-d8d	5.325	136	877040	40.00	ppm	-0.06
180) Chrysene-d12D	13.579	240	879297	40.00	ppm	-0.15
System Monitoring Compounds						
5) 2-Fluorophenol	3.439	112	15292	1.66	ppm	0.00
Spiked Amount	50.000		Recovery	=	3.32%	
8) Phenol-d5	4.193	99	22220	1.91	ppm	0.00
Spiked Amount	50.000		Recovery	=	3.82%	
25) Nitrobenzene-d5	4.802	82	23887	2.09	ppm	0.00
Spiked Amount	50.000		Recovery	=	4.18%	
51) 2-Fluorobiphenyl	6.105	172	38581	1.86	ppm	-0.01
Spiked Amount	50.000		Recovery	=	3.72%	
73) 2,4,6-Tribromophenol	7.510	330	4821	1.71	ppm	-0.02
Spiked Amount	50.000		Recovery	=	3.42%	
85) Terphenyl-d14	11.378	244	41288	1.80	ppm	-0.02
Spiked Amount	50.000		Recovery	=	3.60%	
Target Compounds						
2) 1,4-Dioxane	1.842	88	7625	1.72	ppm	96
3) Pyridine	2.195	79	18190	1.58	ppm	94
4) N-Nitrosodimethylamine	2.173	42	10845	1.74	ppm	93
6) Indene	4.577	116	27694	2.03	ppm	97
7) Cumene	3.771	105	45443	1.87	ppm	98
9) Phenol	4.198	94	25848	2.12	ppm	97
10) Aniline	4.155	93	27068	2.03	ppm	99
11) bis(2-Chloroethyl)ether	4.193	93	19550	2.20	ppm	91
12) 2-Chlorophenol	4.257	128	16297	2.00	ppm	95
13) Decane	4.267	43	22924	2.71	ppm	90

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5819\
 Data File : p128682.D
 Acq On : 25 Mar 2019 1:00 pm
 Operator : christc2
 Sample : ic5819-2
 Misc : op13894,ep5819,1000,,,1,1
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 25 13:24:12 2019
 Quant Method : C:\msdchem\1\METHODS\MP5819.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Mon Mar 25 13:13:57 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
14) 1,3-Dichlorobenzene	4.342	146	18249	1.94	ppm	97
15) 1,4-Dichlorobenzene	4.396	146	18408	1.99	ppm	93
16) Benzyl alcohol	4.513	108	10735	1.85	ppm	81
17) 1,2-Dichlorobenzene	4.513	146	17487	1.84	ppm	98
18) Acetophenone	4.689	105	27158	2.08	ppm	97
19) 2-Methylphenol	4.620	108	16659	2.15	ppm	97
20) 2,2'-oxybis(1-Chloropr...	4.599	121	4901	2.16	ppm #	88
21) 3&4-Methylphenol	4.738	108	16704	1.97	ppm	99
22) n-Nitroso-di-n-propyla...	4.689	70	14779	2.22	ppm	88
23) Hexachloroethane	4.759	201	6333	1.94	ppm	95
26) Nitrobenzene	4.812	77	25472	2.22	ppm	99
27) Quinoline	5.582	129	35361	2.02	ppm	97
28) Isophorone	4.989	82	42893	2.08	ppm	96
29) 2-Nitrophenol	5.047	139	9028	1.78	ppm #	69
30) 2,4-Dimethylphenol	5.106	107	17196	1.78	ppm	96
31) Benzoic acid	5.197	105	13744	1.92	ppm	91
32) bis(2-Chloroethoxy)met...	5.149	93	22989	2.14	ppm	99
33) 2,4-Dichlorophenol	5.250	162	14836	1.94	ppm	97
34) 2,6-Dichlorophenol	5.395	162	13839	1.83	ppm	94
35) 1,3,5-Trichlorobenzene	5.053	180	16178	1.79	ppm	96
36) 1,2,4-Trichlorobenzene	5.282	180	15175	1.94	ppm	98
37) 1,2,3-Trichlorobenzene	5.443	180	14290	1.87	ppm	96
38) Naphthalene	5.336	128	46233	1.99	ppm	99
39) 4-Chloroaniline	5.389	127	18970	1.89	ppm	87
40) 2,3-Dichloroaniline	6.052	161	18848	1.97	ppm	96
41) Caprolactam	5.624	55	11924	2.13	ppm	94
42) Hexachlorobutadiene	5.432	225	9091	1.70	ppm	93
43) 4-Chloro-3-methylphenol	5.769	107	17314	1.86	ppm	96
44) 2-Methylnaphthalene	5.838	141	27269	1.94	ppm	96
45) 1-Methylnaphthalene	5.907	142	35345	2.00	ppm	98
46) Dimethylnaphthalene	6.308	156	30994	1.92	ppm	99
48) Hexachlorocyclopentadiene	5.956	237	6065	1.25	ppm	91
49) 2,4,6-Trichlorophenol	6.062	196	10639	1.89	ppm	97
50) 2,4,5-Trichlorophenol	6.105	196	10456	1.49	ppm	97
52) 2-Chloronaphthalene	6.201	162	32625	2.08	ppm	96
53) Biphenyl	6.185	154	44686	2.01	ppm	98
54) 2-Nitroaniline	6.297	65	15178	2.12	ppm	95
55) Dimethylphthalate	6.436	163	41049	2.02	ppm	97
56) Acenaphthylene	6.549	152	55223	2.10	ppm	98
57) 2,6-Dinitrotoluene	6.490	165	8725	2.00	ppm	88
58) 3-Nitroaniline	6.650	138	9246	1.93	ppm	96
59) Acenaphthene	6.703	153	31789	1.91	ppm	96
60) 2,4-Dinitrophenol	6.762	184	2445	1.13	ppm	79
61) 4-Nitrophenol	6.885	109	7201	1.77	ppm	89
62) Dibenzofuran	6.869	168	46216	1.83	ppm	96
63) 2,4-Dinitrotoluene	6.869	165	11860	1.74	ppm	90
64) 2,3,4,6-Tetrachlorophenol	7.013	232	8032	1.57	ppm	95
65) Diethylphthalate	7.104	149	42431	1.93	ppm	98
66) Fluorene	7.227	166	38651	1.83	ppm	99
67) 4-Chlorophenyl-phenyle...	7.227	204	18107	1.57	ppm	89

9.6.37
9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5819\
 Data File : p128682.D
 Acq On : 25 Mar 2019 1:00 pm
 Operator : christc2
 Sample : ic5819-2
 Misc : op13894,ep5819,1000,,,1,1
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 25 13:24:12 2019
 Quant Method : C:\msdchem\1\METHODS\MP5819.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Mon Mar 25 13:13:57 2019
 Response via : Initial Calibration

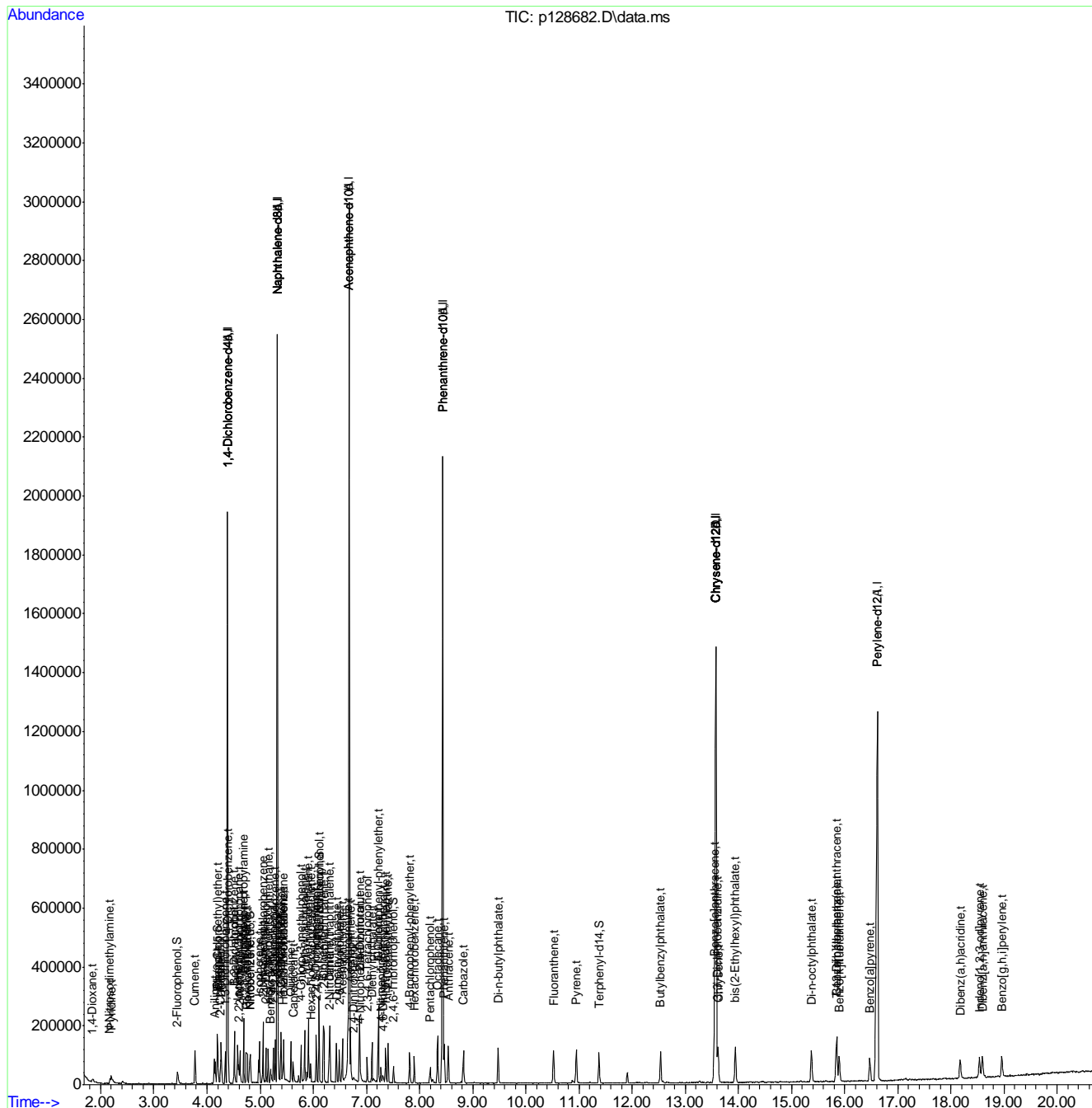
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
68) 4-Nitroaniline	7.275	138	8273	1.86	ppm #	76
70) 4,6-Dinitro-2-methylph...	7.307	198	3641	1.10	ppm #	79
71) n-Nitrosodiphenylamine	7.366	169	27601	2.08	ppm	97
72) 1,2-Diphenylhydrazine	7.403	77	56197	2.34	ppm	95
74) 4-Bromophenyl-phenylether	7.815	248	10911	1.85	ppm	96
75) Hexachlorobenzene	7.900	284	10823	1.77	ppm	98
76) Pentachlorophenol	8.199	266	7089	1.94	ppm	94
77) Phenanthrene	8.466	178	54055	1.98	ppm	98
78) Anthracene	8.541	178	58091	2.05	ppm	98
79) Carbazole	8.824	167	55389	2.11	ppm	98
80) Di-n-butylphthalate	9.481	149	78814	1.99	ppm	99
81) Fluoranthene	10.523	202	61561	1.84	ppm	88
82) Octadecane	8.338	57	34124	2.42	ppm	89
84) Pyrene	10.951	202	66396	1.96	ppm	89
86) Butylbenzylphthalate	12.537	149	35814	1.99	ppm	99
87) Benzo[a]anthracene	13.547	228	61943	2.01	ppm	98
88) 3,3'-Dichlorobenzidine	13.600	252	16999	1.61	ppm	97
89) Chrysene	13.622	228	53551	1.98	ppm	94
90) bis(2-Ethylhexyl)phtha...	13.942	149	49172	1.99	ppm	95
92) Di-n-octylphthalate	15.374	149	83643	1.89	ppm	94
93) Benzo[b]fluoranthene	15.844	252	56075	1.84	ppm	96
94) Benzo[k]fluoranthene	15.903	252	53233	2.12	ppm	98
95) Benzo[a]pyrene	16.474	252	49353	1.93	ppm	97
96) Indeno[1,2,3-cd]pyrene	18.537	276	42322	1.81	ppm	88
97) Dibenz(a,h)acridine	18.173	279	40058	1.81	ppm	96
98) Dibenz[a,h]anthracene	18.590	278	45155	1.89	ppm	92
99) 7,12-Dimethylbenz(a)an...	15.855	256	22443	1.65	ppm	97
100) Benzo[g,h,i]perylene	18.959	276	43049	1.89	ppm	91

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5819\
Data File : pl28682.D
Acq On : 25 Mar 2019 1:00 pm
Operator : christc2
Sample : ic5819-2
Misc : op13894,ep5819,1000,,1,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 25 13:24:12 2019
Quant Method : C:\msdchem\1\METHODS\MP5819.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 25 13:13:57 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5819\
 Data File : p128683.D
 Acq On : 25 Mar 2019 1:27 pm
 Operator : christc2
 Sample : ic5819-1
 Misc : op13894,ep5819,1000,,,1,1
 ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 25 14:29:43 2019
 Quant Method : C:\msdchem\1\METHODS\MP5819.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Mon Mar 25 13:34:33 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.385	152	213431	40.00	ppm	0.00
24) Naphthalene-d8	5.320	136	871713	40.00	ppm	0.00
47) Acenaphthene-d10	6.677	164	550873	40.00	ppm	0.00
69) Phenanthrene-d10	8.440	188	993737	40.00	ppm	0.00
83) Chrysene-d12	13.579	240	917682	40.00	ppm	0.00
91) Perylene-d12	16.619	264	929537	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4A	4.385	152	213431	40.00	ppm	0.00
111) Naphthalene-d8A	5.320	136	871713	40.00	ppm	0.00
120) Acenaphthene-d10A	6.677	164	550873	40.00	ppm	0.00
131) Phenanthrene-d10A	8.440	188	993737	40.00	ppm	0.00
146) Chrysene-d12A	13.579	240	917682	40.00	ppm	0.00
153) Perylene-d12A	16.619	264	929537	40.00	ppm	0.00
157) 1,4-Dichlorobenzene-d4b	4.385	152	213431	40.00	ppm	0.00
159) Phenanthrene-d10b	8.440	188	993737	40.00	ppm	0.00
161) Chrysene-d12b	13.579	240	917682	40.00	ppm	0.00
163) Naphthalene-d8b	5.320	136	871713	40.00	ppm	0.00
165) Acenaphthene-d10b	6.677	164	550873	40.00	ppm	0.00
167) Naphthalene-d8c	5.320	136	871713	40.00	ppm	0.00
172) 1,4-Dichlorobenzene-d4c	4.385	152	213431	40.00	ppm	0.00
174) Chrysene-d12c	13.579	240	917682	40.00	ppm	0.00
176) Chrysene-d12d	13.579	240	917682	40.00	ppm	0.00
178) Naphthalene-d8d	5.320	136	871713	40.00	ppm	0.00
180) Chrysene-d12D	13.579	240	917682	40.00	ppm	-0.15
System Monitoring Compounds						
5) 2-Fluorophenol	3.445	112	7292	0.90	ppm	0.00
Spiked Amount	50.000		Recovery	=	1.80%	
8) Phenol-d5	4.193	99	10210	0.95	ppm	0.00
Spiked Amount	50.000		Recovery	=	1.90%	
25) Nitrobenzene-d5	4.802	82	11126	0.97	ppm	0.00
Spiked Amount	50.000		Recovery	=	1.94%	
51) 2-Fluorobiphenyl	6.105	172	19153	0.97	ppm	0.00
Spiked Amount	50.000		Recovery	=	1.94%	
73) 2,4,6-Tribromophenol	7.510	330	2584	0.93	ppm	0.00
Spiked Amount	50.000		Recovery	=	1.86%	
85) Terphenyl-d14	11.373	244	21543	0.94	ppm	0.00
Spiked Amount	50.000		Recovery	=	1.88%	
Target Compounds						
2) 1,4-Dioxane	1.842	88	3241	0.82	ppm	96
3) Pyridine	2.205	79	8632	0.87	ppm	95
4) N-Nitrosodimethylamine	2.184	42	4382	0.80	ppm	81
6) Indene	4.577	116	14351	1.10	ppm	89
7) Cumene	3.771	105	22564	1.02	ppm	99
9) Phenol	4.198	94	11731	1.01	ppm	91
10) Aniline	4.155	93	12699	1.00	ppm	94
11) bis(2-Chloroethyl)ether	4.193	93	9523	1.09	ppm	89
12) 2-Chlorophenol	4.257	128	8163	1.04	ppm	98
13) Decane	4.267	43	11424	1.29	ppm	91

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5819\
 Data File : p128683.D
 Acq On : 25 Mar 2019 1:27 pm
 Operator : christc2
 Sample : ic5819-1
 Misc : op13894,ep5819,1000,,,1,1
 ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 25 14:29:43 2019
 Quant Method : C:\msdchem\1\METHODS\MP5819.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Mon Mar 25 13:34:33 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
14) 1,3-Dichlorobenzene	4.342	146	9592	1.09	ppm	97
15) 1,4-Dichlorobenzene	4.396	146	9609	1.11	ppm	91
16) Benzyl alcohol	4.513	108	4943	0.93	ppm #	74
17) 1,2-Dichlorobenzene	4.513	146	8992	1.03	ppm	95
18) Acetophenone	4.690	105	13270	1.06	ppm	94
19) 2-Methylphenol	4.625	108	8149	1.08	ppm	96
20) 2,2'-oxybis(1-Chloropr...	4.599	121	2199	1.00	ppm	90
21) 3&4-Methylphenol	4.738	108	8380	1.02	ppm	91
22) n-Nitroso-di-n-propyla...	4.690	70	7397	1.14	ppm #	79
23) Hexachloroethane	4.759	201	3151	1.01	ppm	99
26) Nitrobenzene	4.812	77	14061	1.21	ppm	97
27) Quinoline	5.582	129	17028	0.99	ppm	94
28) Isophorone	4.989	82	21207	1.04	ppm	98
29) 2-Nitrophenol	5.053	139	4494	0.94	ppm #	63
30) 2,4-Dimethylphenol	5.106	107	8551	0.92	ppm	98
31) Benzoic acid	5.197	105	6944	0.92	ppm	94
32) bis(2-Chloroethoxy)met...	5.149	93	11648	1.07	ppm	98
33) 2,4-Dichlorophenol	5.250	162	7148	0.94	ppm	95
34) 2,6-Dichlorophenol	5.395	162	6642	0.93	ppm	93
35) 1,3,5-Trichlorobenzene	5.053	180	7834	0.92	ppm	100
36) 1,2,4-Trichlorobenzene	5.283	180	7419	0.95	ppm	95
37) 1,2,3-Trichlorobenzene	5.443	180	7427	0.99	ppm	96
38) Naphthalene	5.336	128	23900	1.04	ppm	100
39) 4-Chloroaniline	5.389	127	8754	0.90	ppm	86
40) 2,3-Dichloroaniline	6.052	161	9396	0.99	ppm	99
41) Caprolactam	5.624	55	6148	1.12	ppm	88
42) Hexachlorobutadiene	5.427	225	4381	0.89	ppm	97
43) 4-Chloro-3-methylphenol	5.769	107	8534	0.94	ppm	97
44) 2-Methylnaphthalene	5.838	141	13404	0.98	ppm	95
45) 1-Methylnaphthalene	5.908	142	18323	1.05	ppm	98
46) Dimethylnaphthalene	6.308	156	15604	0.99	ppm	88
49) 2,4,6-Trichlorophenol	6.062	196	5073	0.91	ppm	94
50) 2,4,5-Trichlorophenol	6.105	196	5180	0.84	ppm	92
52) 2-Chloronaphthalene	6.201	162	16673	1.04	ppm	94
53) Biphenyl	6.185	154	21725	0.99	ppm	99
54) 2-Nitroaniline	6.298	65	7779	1.09	ppm	90
55) Dimethylphthalate	6.431	163	20099	0.99	ppm	97
56) Acenaphthylene	6.549	152	28051	1.05	ppm	99
57) 2,6-Dinitrotoluene	6.490	165	4307	1.00	ppm	99
58) 3-Nitroaniline	6.650	138	4352	0.91	ppm	93
59) Acenaphthene	6.704	153	16134	0.99	ppm	94
61) 4-Nitrophenol	6.891	109	3168	0.81	ppm #	66
62) Dibenzofuran	6.869	168	23038	0.96	ppm	94
63) 2,4-Dinitrotoluene	6.869	165	5448	0.86	ppm	71
64) 2,3,4,6-Tetrachlorophenol	7.019	232	4030	0.83	ppm	89
65) Diethylphthalate	7.104	149	21320	0.99	ppm	96
66) Fluorene	7.227	166	19273	0.95	ppm	99
67) 4-Chlorophenyl-phenyle...	7.227	204	8863	0.86	ppm	87
68) 4-Nitroaniline	7.275	138	3967	0.89	ppm	96
71) n-Nitrosodiphenylamine	7.366	169	13588	0.98	ppm	99

9.6.38
9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5819\
 Data File : p128683.D
 Acq On : 25 Mar 2019 1:27 pm
 Operator : christc2
 Sample : ic5819-1
 Misc : op13894,ep5819,1000,,,1,1
 ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 25 14:29:43 2019
 Quant Method : C:\msdchem\1\METHODS\MP5819.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Mon Mar 25 13:34:33 2019
 Response via : Initial Calibration

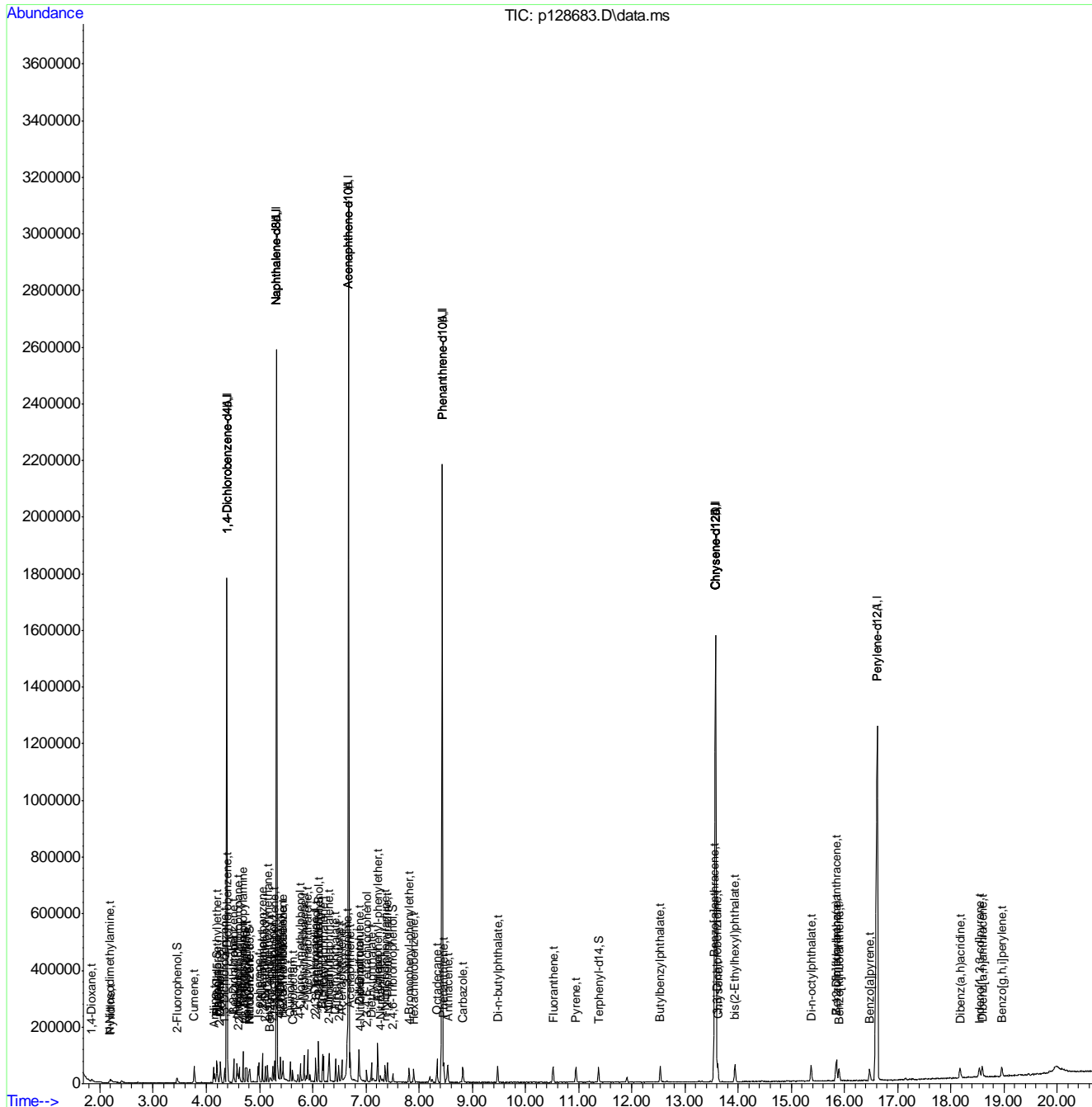
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
72) 1,2-Diphenylhydrazine	7.403	77	28812	1.11	ppm	96
74) 4-Bromophenyl-phenylether	7.815	248	5187	0.88	ppm	93
75) Hexachlorobenzene	7.900	284	5676	0.94	ppm	97
77) Phenanthrene	8.466	178	26507	0.96	ppm	97
78) Anthracene	8.541	178	28649	0.97	ppm	99
79) Carbazole	8.824	167	26303	0.96	ppm	96
80) Di-n-butylphthalate	9.482	149	38733	0.96	ppm	99
81) Fluoranthene	10.523	202	31075	0.92	ppm	90
82) Octadecane	8.338	57	18340	1.20	ppm	90
84) Pyrene	10.945	202	34310	1.00	ppm	92
86) Butylbenzylphthalate	12.532	149	18839	1.02	ppm	98
87) Benzo[a]anthracene	13.547	228	33168	1.06	ppm	98
88) 3,3'-Dichlorobenzidine	13.600	252	8016	0.78	ppm	93
89) Chrysene	13.622	228	27950	1.00	ppm	95
90) bis(2-Ethylhexyl)phtha...	13.942	149	25572	1.01	ppm	99
92) Di-n-octylphthalate	15.374	149	41766	0.94	ppm	92
93) Benzo[b]fluoranthene	15.844	252	28784	0.92	ppm	88
94) Benzo[k]fluoranthene	15.898	252	27099	1.04	ppm	95
95) Benzo[a]pyrene	16.475	252	26071	1.00	ppm	93
96) Indeno[1,2,3-cd]pyrene	18.537	276	22750	0.96	ppm	82
97) Dibenz(a,h)acridine	18.173	279	20278	0.91	ppm	92
98) Dibenz[a,h]anthracene	18.590	278	22311	0.92	ppm	93
99) 7,12-Dimethylbenz(a)an...	15.849	256	10703	0.82	ppm	99
100) Benzo[g,h,i]perylene	18.964	276	21922	0.95	ppm	95

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5819\
Data File : pl28683.D
Acq On : 25 Mar 2019 1:27 pm
Operator : christc2
Sample : ic5819-1
Misc : op13894,ep5819,1000,,,1,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 25 14:29:43 2019
Quant Method : C:\msdchem\1\METHODS\MP5819.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 25 13:34:33 2019
Response via : Initial Calibration



9.638
9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5819\
 Data File : p128684.D
 Acq On : 25 Mar 2019 1:54 pm
 Operator : christc2
 Sample : icv5819-50
 Misc : op13894,ep5819,1000,,,1,1
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Mar 25 14:41:01 2019
 Quant Method : C:\msdchem\1\METHODS\MP5819.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Mon Mar 25 14:35:38 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.385	152	166157	40.00	ppm	0.00
24) Naphthalene-d8	5.325	136	601903	40.00	ppm	0.00
47) Acenaphthene-d10	6.677	164	350777	40.00	ppm	0.00
69) Phenanthrene-d10	8.434	188	609607	40.00	ppm	0.00
83) Chrysene-d12	13.579	240	484626	40.00	ppm	0.00
91) Perylene-d12	16.613	264	524071	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4A	4.385	152	166157	40.00	ppm	0.00
111) Naphthalene-d8A	5.325	136	601903	40.00	ppm	0.00
120) Acenaphthene-d10A	6.677	164	350777	40.00	ppm	0.00
131) Phenanthrene-d10A	8.434	188	609607	40.00	ppm	0.00
146) Chrysene-d12A	13.579	240	484626	40.00	ppm	0.00
153) Perylene-d12A	16.613	264	524071	40.00	ppm	0.00
157) 1,4-Dichlorobenzene-d4b	4.385	152	166157	40.00	ppm	0.00
159) Phenanthrene-d10b	8.434	188	609607	40.00	ppm	0.00
161) Chrysene-d12b	13.579	240	484626	40.00	ppm	0.00
163) Naphthalene-d8b	5.325	136	601903	40.00	ppm	0.00
165) Acenaphthene-d10b	6.677	164	350777	40.00	ppm	0.00
167) Naphthalene-d8c	5.325	136	601903	40.00	ppm	0.00
172) 1,4-Dichlorobenzene-d4c	4.385	152	166157	40.00	ppm	0.00
174) Chrysene-d12c	13.579	240	484626	40.00	ppm	0.00
176) Chrysene-d12d	13.579	240	484626	40.00	ppm	0.00
178) Naphthalene-d8d	5.325	136	601903	40.00	ppm	0.00
180) Chrysene-d12D	13.579	240	484626	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	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	2.179	42	216431	51.91	ppm	93
11) bis(2-Chloroethyl)ether	4.193	93	333653	48.40	ppm	92
14) 1,3-Dichlorobenzene	4.342	146	333401	47.99	ppm	99
15) 1,4-Dichlorobenzene	4.401	146	321977	47.14	ppm	99
17) 1,2-Dichlorobenzene	4.513	146	303659	44.67	ppm	98
20) 2,2'-oxybis(1-Chloropr...	4.593	121	92727	54.13	ppm	99
22) n-Nitroso-di-n-propyla...	4.695	70	252202	49.12	ppm	99
23) Hexachloroethane	4.759	201	116054	47.57	ppm	93
26) Nitrobenzene	4.818	77	402576	48.76	ppm	100
28) Isophorone	4.989	82	666817	46.99	ppm	99

9.6.39
9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5819\
 Data File : p128684.D
 Acq On : 25 Mar 2019 1:54 pm
 Operator : christc2
 Sample : icv5819-50
 Misc : op13894,ep5819,1000,,,1,1
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Mar 25 14:41:01 2019
 Quant Method : C:\msdchem\1\METHODS\MP5819.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Mon Mar 25 14:35:38 2019
 Response via : Initial Calibration

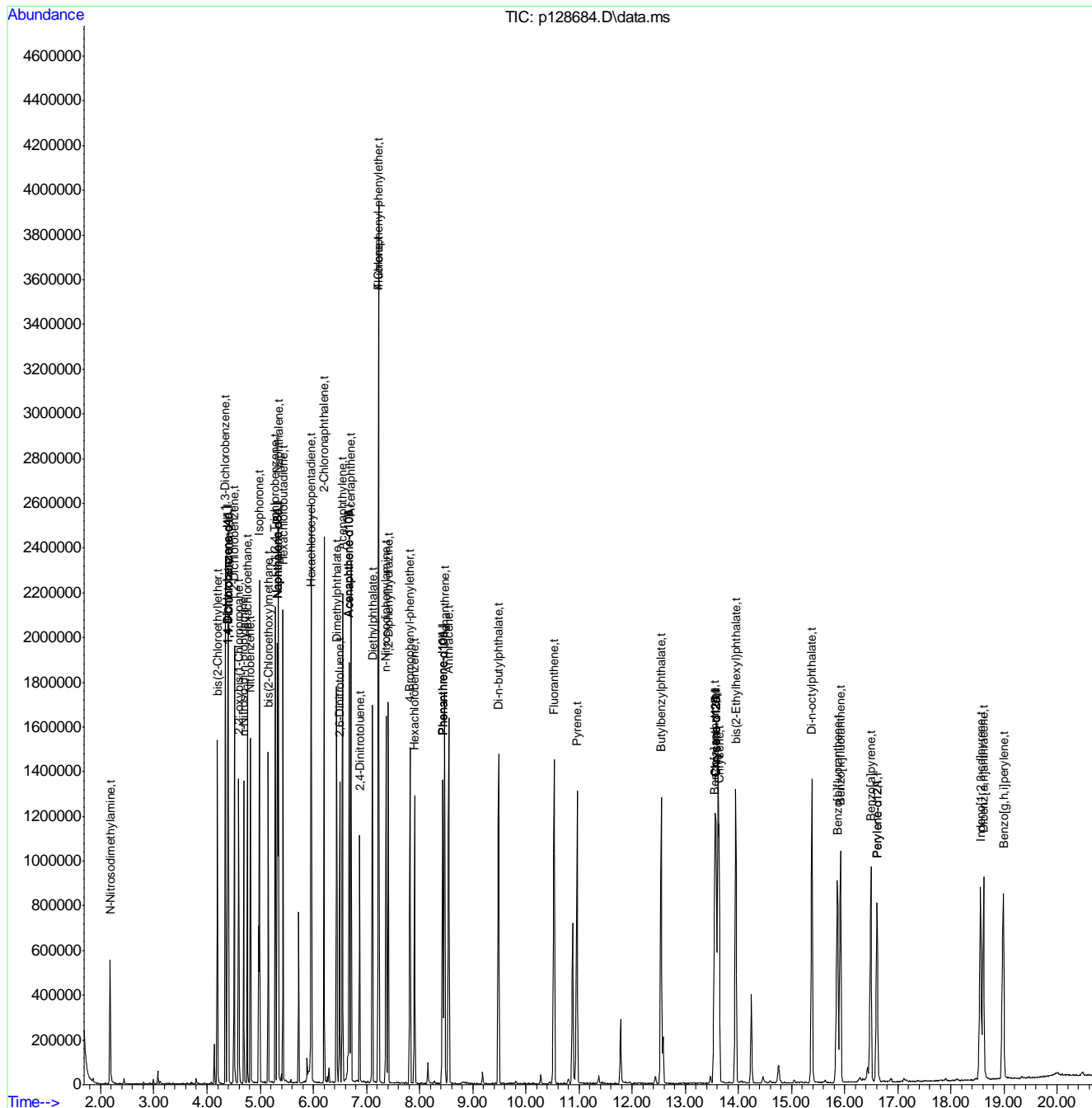
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
32) bis(2-Chloroethoxy)met...	5.149	93	378381	49.99	ppm	100
36) 1,2,4-Trichlorobenzene	5.283	180	264147	49.32	ppm	99
38) Naphthalene	5.341	128	770053	48.39	ppm	99
42) Hexachlorobutadiene	5.432	225	172204	51.26	ppm	99
48) Hexachlorocyclopentadiene	5.956	237	123580	45.19	ppm	99
52) 2-Chloronaphthalene	6.201	162	517600	50.25	ppm	96
55) Dimethylphthalate	6.442	163	569789	44.05	ppm	100
56) Acenaphthylene	6.549	152	773348	45.29	ppm	100
57) 2,6-Dinitrotoluene	6.495	165	118807	43.20	ppm	86
59) Acenaphthene	6.709	153	465695	44.99	ppm	96
63) 2,4-Dinitrotoluene	6.875	165	161540	40.60	ppm	89
65) Diethylphthalate	7.115	149	604859	43.97	ppm	99
66) Fluorene	7.232	166	600401	46.81	ppm	99
67) 4-Chlorophenyl-phenyle...	7.232	204	302994	46.88	ppm	93
71) n-Nitrosodiphenylamine	7.371	169	373909	44.10	ppm	99
72) 1,2-Diphenylhydrazine	7.414	77	772563	47.89	ppm	100
74) 4-Bromophenyl-phenylether	7.820	248	163248	45.81	ppm	99
75) Hexachlorobenzene	7.906	284	160420	43.54	ppm	98
77) Phenanthrene	8.472	178	780066	46.10	ppm	100
78) Anthracene	8.552	178	797356	44.26	ppm	100
80) Di-n-butylphthalate	9.487	149	1033802	41.86	ppm	100
81) Fluoranthene	10.534	202	880503	43.10	ppm	97
84) Pyrene	10.967	202	867084	47.86	ppm	98
86) Butylbenzylphthalate	12.548	149	450672	46.23	ppm	97
87) Benzo[a]anthracene	13.558	228	767884	46.04	ppm	98
89) Chrysene	13.643	228	692990	46.88	ppm	98
90) bis(2-Ethylhexyl)phtha...	13.953	149	592805	44.14	ppm	98
92) Di-n-octylphthalate	15.385	149	1051322	42.15	ppm	98
93) Benzo[b]fluoranthene	15.866	252	707144	40.63	ppm	97
94) Benzo[k]fluoranthene	15.924	252	693063	46.91	ppm	99
95) Benzo[a]pyrene	16.496	252	673283	45.95	ppm	98
96) Indeno[1,2,3-cd]pyrene	18.558	276	676365	50.95	ppm	93
98) Dibenz[a,h]anthracene	18.617	278	665013	49.07	ppm	99
100) Benzo[g,h,i]perylene	18.991	276	684316	53.13	ppm	99

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5819\
 Data File : pl28684.D
 Acq On : 25 Mar 2019 1:54 pm
 Operator : christc2
 Sample : icv5819-50
 Misc : op13894,ep5819,1000,,,1,1
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Mar 25 14:41:01 2019
 Quant Method : C:\msdchem\1\METHODS\MP5819.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Mon Mar 25 14:35:38 2019
 Response via : Initial Calibration



9.6-39
9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5819\
 Data File : p128685.D
 Acq On : 25 Mar 2019 2:21 pm
 Operator : christc2
 Sample : icv5819-50
 Misc : op13894,ep5819,1000,,,1,1
 ALS Vial : 11 Sample Multiplier: 1

Quant Time: Mar 28 18:09:52 2019
 Quant Method : C:\msdchem\1\METHODS\MP5819.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Mon Mar 25 14:35:38 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.385	152	216027	40.00	ppm	0.00
24) Naphthalene-d8	5.320	136	832487	40.00	ppm	0.00
47) Acenaphthene-d10	6.677	164	425440	40.00	ppm	0.00
69) Phenanthrene-d10	8.434	188	762317	40.00	ppm	0.00
83) Chrysene-d12	13.574	240	695037	40.00	ppm	0.00
91) Perylene-d12	16.608	264	615432	40.00	ppm	-0.01
101) 1,4-Dichlorobenzene-d4A	4.385	152	216027	40.00	ppm	0.00
111) Naphthalene-d8A	5.320	136	832487	40.00	ppm	0.00
120) Acenaphthene-d10A	6.677	164	425440	40.00	ppm	0.00
131) Phenanthrene-d10A	8.434	188	762317	40.00	ppm	0.00
146) Chrysene-d12A	13.574	240	695037	40.00	ppm	0.00
153) Perylene-d12A	16.608	264	615432	40.00	ppm	-0.01
157) 1,4-Dichlorobenzene-d4b	4.385	152	216027	40.00	ppm	0.00
159) Phenanthrene-d10b	8.434	188	762317	40.00	ppm	0.00
161) Chrysene-d12b	13.574	240	695037	40.00	ppm	0.00
163) Naphthalene-d8b	5.320	136	832487	40.00	ppm	0.00
165) Acenaphthene-d10b	6.677	164	425440	40.00	ppm	0.00
167) Naphthalene-d8c	5.320	136	832487	40.00	ppm	0.00
172) 1,4-Dichlorobenzene-d4c	4.385	152	216027	40.00	ppm	0.00
174) Chrysene-d12c	13.574	240	695037	40.00	ppm	0.00
176) Chrysene-d12d	13.574	240	695037	40.00	ppm	0.00
178) Naphthalene-d8d	5.320	136	832487	40.00	ppm	0.00
180) Chrysene-d12D	13.574	240	695037	40.00	ppm	-0.16
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	1.869	88	155652m	39.76	ppm	Qvalue
6) Indene	4.577	116	697409	52.24	ppm	99
7) Cumene	3.781	105	1044868	46.42	ppm	97
13) Decane	4.273	43	365626	44.26	ppm	95
82) Octadecane	8.344	57	550715	45.82	ppm	96

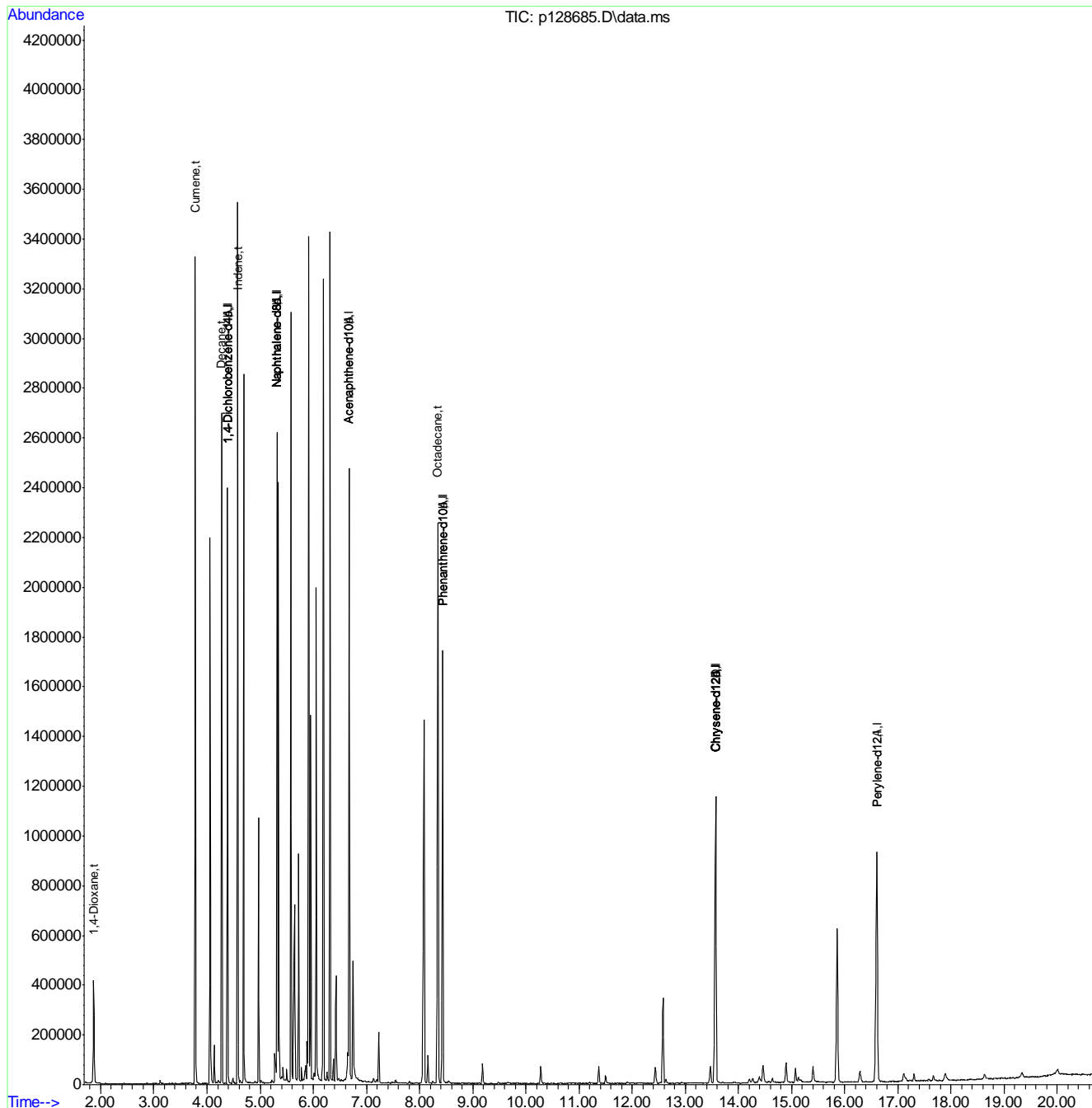
(#) = qualifier out of range (m) = manual integration (+) = signals summed

9.6.40
9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5819\
 Data File : p128685.D
 Acq On : 25 Mar 2019 2:21 pm
 Operator : christc2
 Sample : icv5819-50
 Misc : op13894,ep5819,1000,,,1,1
 ALS Vial : 11 Sample Multiplier: 1

Quant Time: Mar 28 18:09:52 2019
 Quant Method : C:\msdchem\1\METHODS\MP5819.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Mon Mar 25 14:35:38 2019
 Response via : Initial Calibration



9.6.40
 9

Manual Integration Approval Summary

Sample Number: EP5819-ICV5819 Method: SW846 8270D
Lab FileID: P128685.D Analyst approved: 03/28/19 18:15 Kristi Schollenberger
Injection Time: 03/25/19 14:21 Supervisor approved: 03/28/19 18:16 Kristi Schollenberger

Parameter	CAS	Sig#	R.T. (min.)	Reason
1,4-Dioxane	123-91-1		1.87	Poor instrument integration

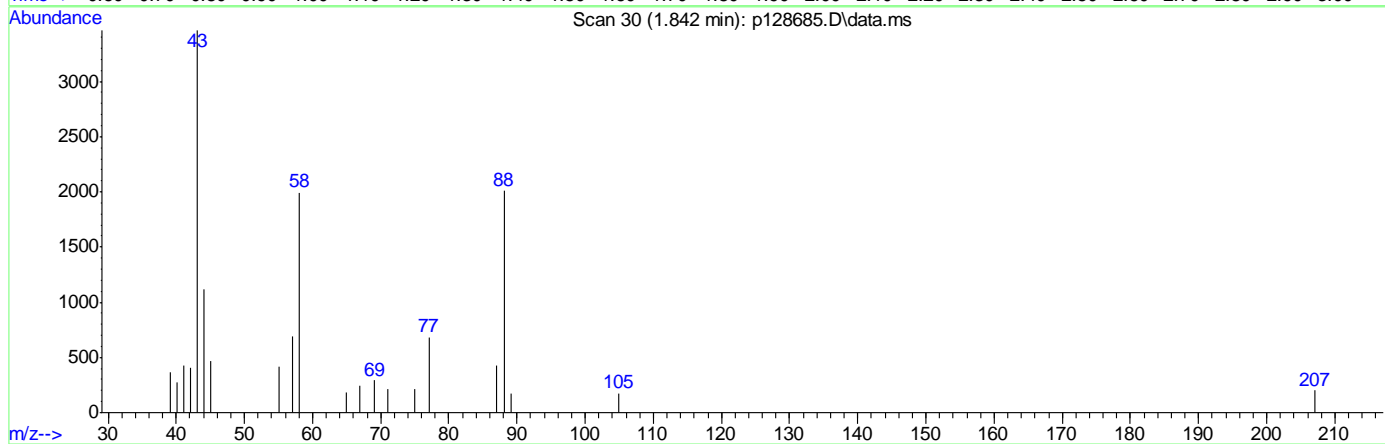
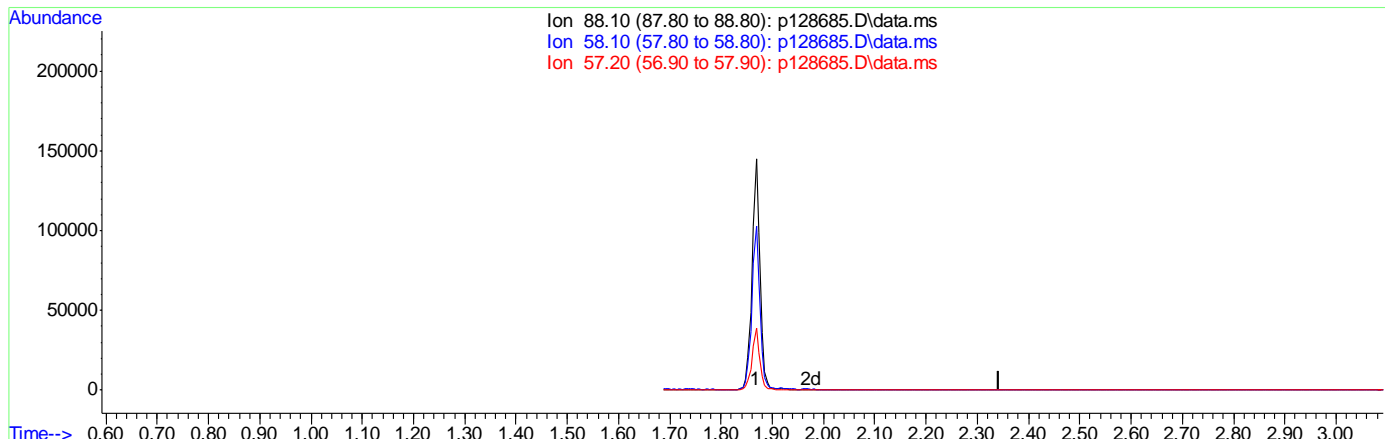
9.6.40.1

9

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EP5819\
 Data File : p128685.D
 Acq On : 25 Mar 2019 2:21 pm
 Operator : christc2
 Sample : icv5819-50
 Misc : op13894,ep5819,1000,,,1,1
 ALS Vial : 11 Sample Multiplier: 1

Quant Time: Mar 27 19:09:05 2019
 Quant Method : C:\msdchem\1\METHODS\MP5819.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Mon Mar 25 14:35:38 2019
 Response via : Initial Calibration



(2) 1,4-Dioxane (t)

1.842min 0.00ppm d

response 0

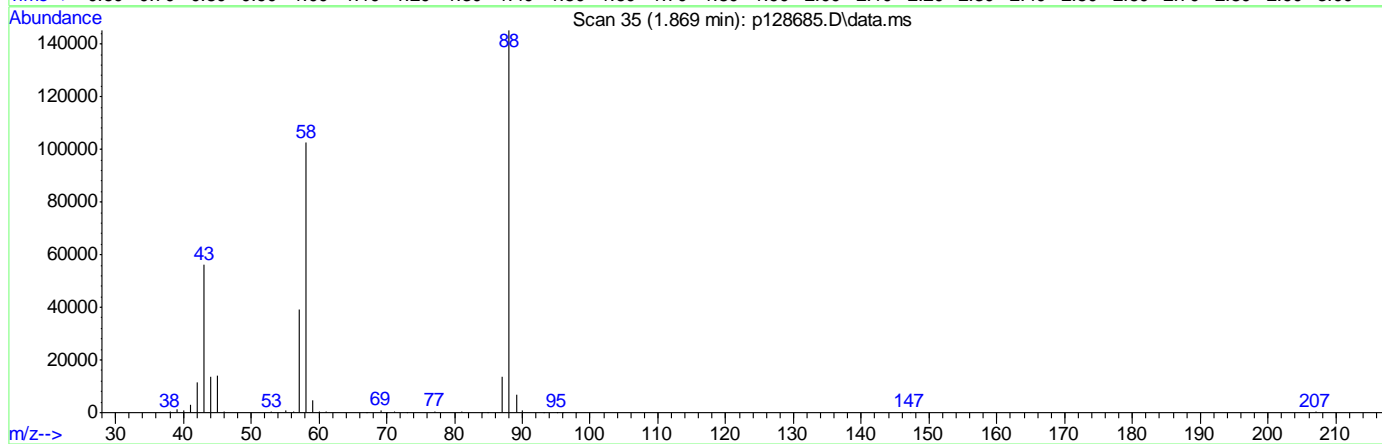
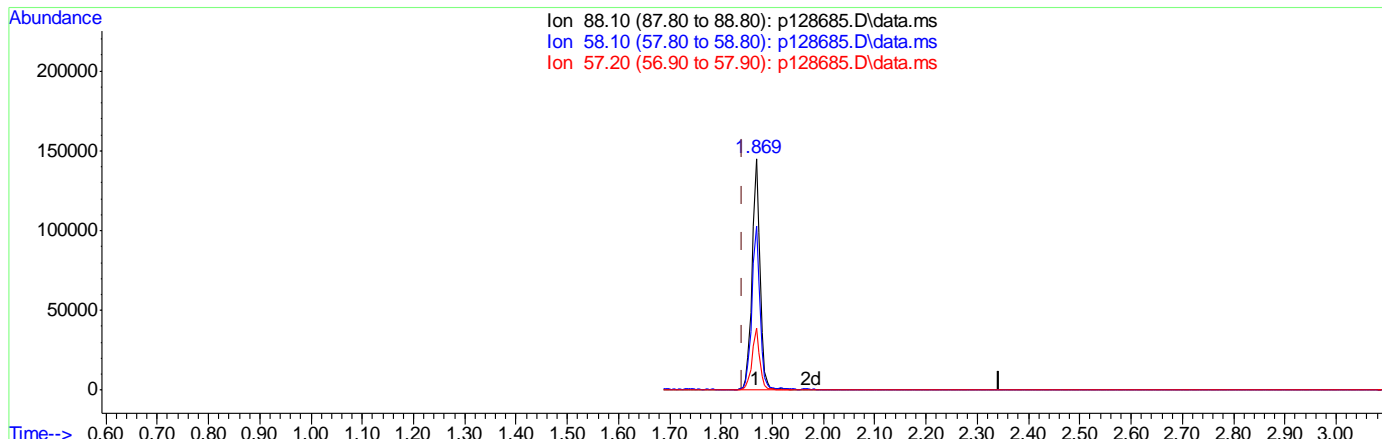
Ion	Exp%	Act%
88.10	100	0.00
58.10	69.50	0.00
57.20	24.90	0.00
0.00	0.00	0.00

9.6.40.2
9

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EP5819\
 Data File : p128685.D
 Acq On : 25 Mar 2019 2:21 pm
 Operator : christc2
 Sample : icv5819-50
 Misc : op13894,ep5819,1000,,,1,1
 ALS Vial : 11 Sample Multiplier: 1

Quant Time: Mar 27 19:09:05 2019
 Quant Method : C:\msdchem\1\METHODS\MP5819.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Mon Mar 25 14:35:38 2019
 Response via : Initial Calibration



(2) 1,4-Dioxane (t)

1.869min (+0.027) 39.76ppm m

response 155652

Ion	Exp%	Act%
88.10	100	100
58.10	69.50	70.67
57.20	24.90	26.96
0.00	0.00	0.00

9.6.40.3
9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5819\
 Data File : p128686.D
 Acq On : 25 Mar 2019 2:48 pm
 Operator : christc2
 Sample : icv5819-50
 Misc : op13894,ep5819,1000,,,1,1
 ALS Vial : 12 Sample Multiplier: 1

Quant Time: Mar 25 17:20:05 2019
 Quant Method : C:\msdchem\1\METHODS\MP5819.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Mon Mar 25 14:35:38 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.380	152	162280	40.00	ppm	0.00
24) Naphthalene-d8	5.320	136	683945	40.00	ppm	0.00
47) Acenaphthene-d10	6.677	164	345080	40.00	ppm	0.00
69) Phenanthrene-d10	8.434	188	672948	40.00	ppm	0.00
83) Chrysene-d12	13.574	240	601048	40.00	ppm	0.00
91) Perylene-d12	16.608	264	620974	40.00	ppm	-0.01
101) 1,4-Dichlorobenzene-d4A	4.380	152	162280	40.00	ppm	0.00
111) Naphthalene-d8A	5.320	136	683945	40.00	ppm	0.00
120) Acenaphthene-d10A	6.677	164	345080	40.00	ppm	0.00
131) Phenanthrene-d10A	8.434	188	672948	40.00	ppm	0.00
146) Chrysene-d12A	13.574	240	601048	40.00	ppm	0.00
153) Perylene-d12A	16.608	264	620974	40.00	ppm	-0.01
157) 1,4-Dichlorobenzene-d4b	4.380	152	162280	40.00	ppm	0.00
159) Phenanthrene-d10b	8.434	188	672948	40.00	ppm	0.00
161) Chrysene-d12b	13.574	240	601048	40.00	ppm	0.00
163) Naphthalene-d8b	5.320	136	683945	40.00	ppm	0.00
165) Acenaphthene-d10b	6.677	164	345080	40.00	ppm	0.00
167) Naphthalene-d8c	5.320	136	683945	40.00	ppm	0.00
172) 1,4-Dichlorobenzene-d4c	4.380	152	162280	40.00	ppm	0.00
174) Chrysene-d12c	13.574	240	601048	40.00	ppm	0.00
176) Chrysene-d12d	13.574	240	601048	40.00	ppm	0.00
178) Naphthalene-d8d	5.320	136	683945	40.00	ppm	0.00
180) Chrysene-d12D	13.574	240	601048	40.00	ppm	-0.16
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						
3) Pyridine	2.382	79	378751	51.02	ppm	Qvalue 100
10) Aniline	4.155	93	548508	57.04	ppm	100
16) Benzyl alcohol	4.519	108	217841	54.36	ppm	80
39) 4-Chloroaniline	5.389	127	331789	43.89	ppm	88
44) 2-Methylnaphthalene	5.838	141	491882m	45.94	ppm	
54) 2-Nitroaniline	6.297	65	230055	50.71	ppm	90
58) 3-Nitroaniline	6.661	138	143136	48.42	ppm	100
62) Dibenzofuran	6.874	168	739820	49.37	ppm	99
68) 4-Nitroaniline	7.280	138	146096	53.30	ppm	98
79) Carbazole	8.835	167	874585	47.45	ppm	99

9.6.41
 9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5819\
 Data File : p128686.D
 Acq On : 25 Mar 2019 2:48 pm
 Operator : christc2
 Sample : icv5819-50
 Misc : op13894,ep5819,1000,,,1,1
 ALS Vial : 12 Sample Multiplier: 1

Quant Time: Mar 25 17:20:05 2019
 Quant Method : C:\msdchem\1\METHODS\MP5819.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Mon Mar 25 14:35:38 2019
 Response via : Initial Calibration

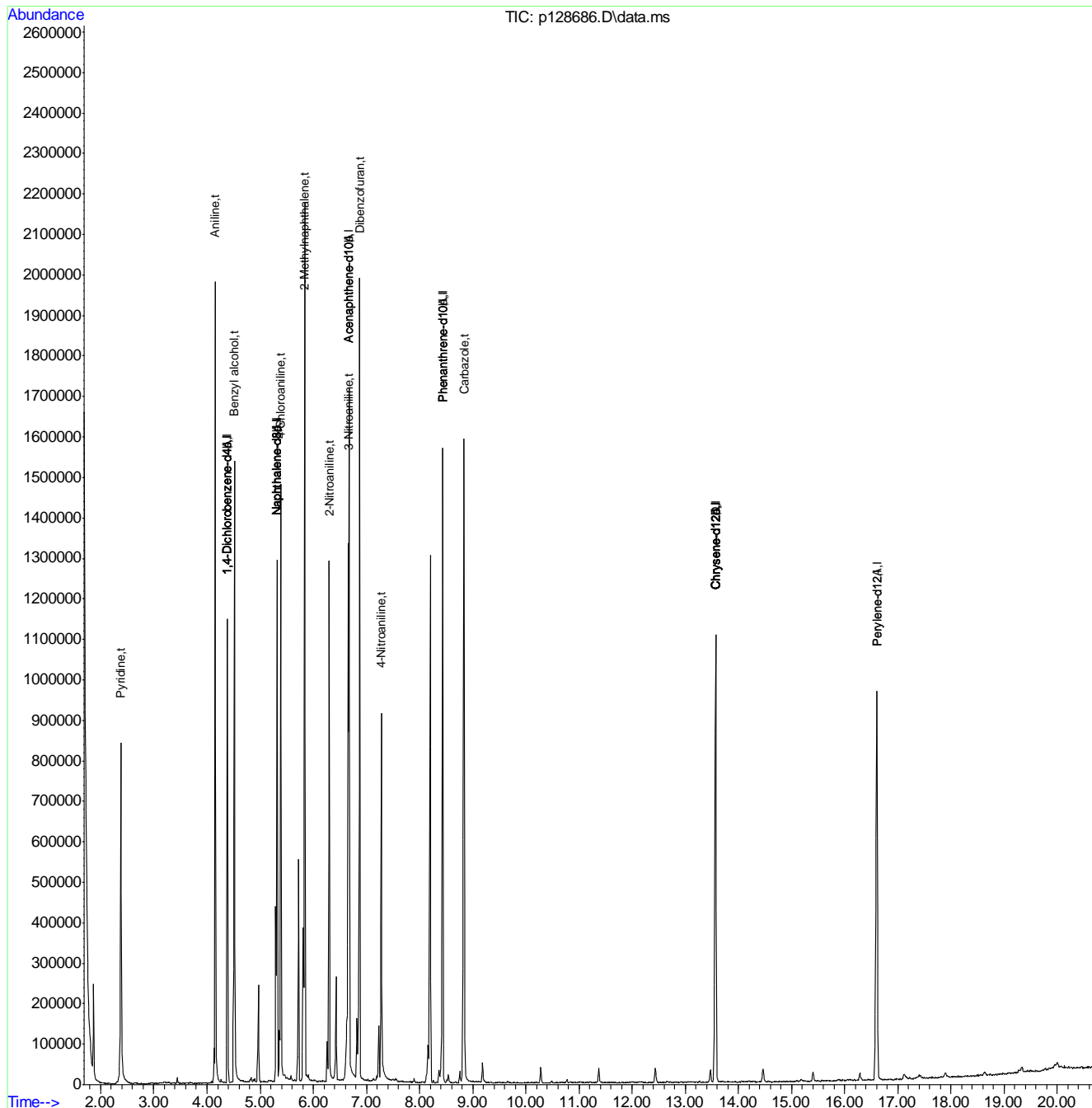
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
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(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5819\
 Data File : p128686.D
 Acq On : 25 Mar 2019 2:48 pm
 Operator : christc2
 Sample : icv5819-50
 Misc : op13894,ep5819,1000,,,1,1
 ALS Vial : 12 Sample Multiplier: 1

Quant Time: Mar 25 17:20:05 2019
 Quant Method : C:\msdchem\1\METHODS\MP5819.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Mon Mar 25 14:35:38 2019
 Response via : Initial Calibration



9.641
9

Manual Integration Approval Summary

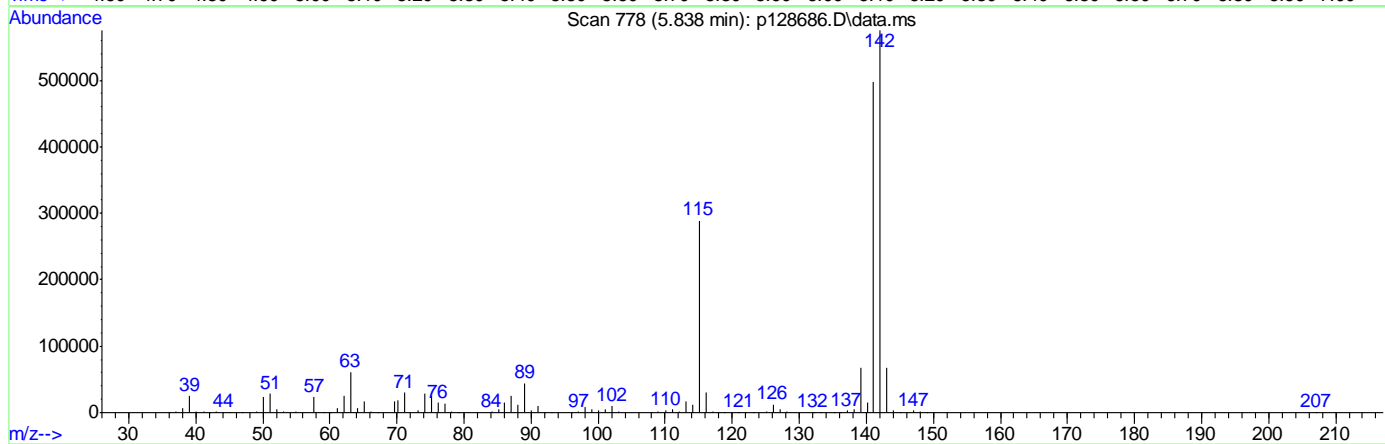
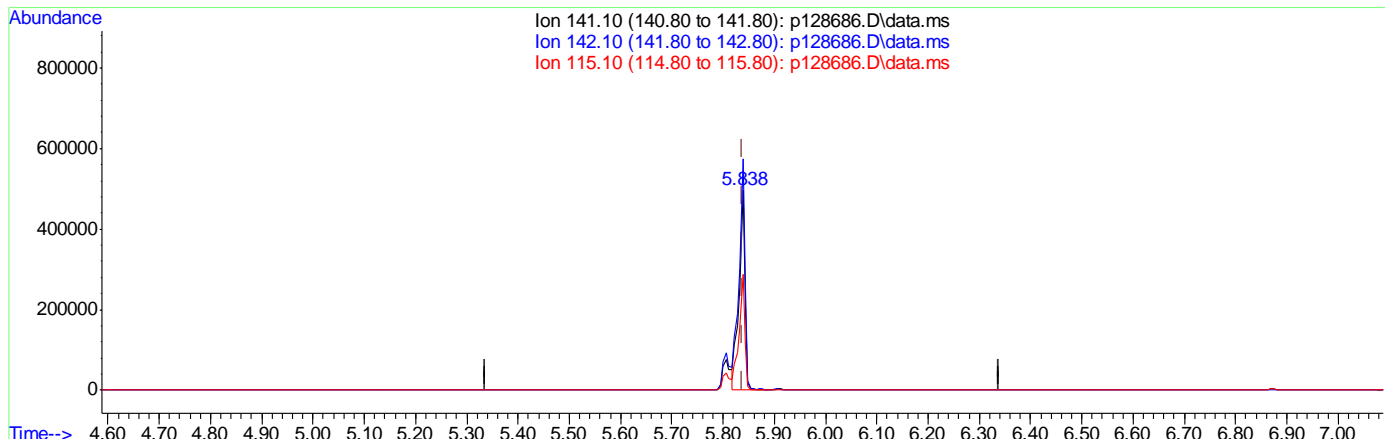
Sample Number: EP5819-ICV5819 Method: SW846 8270D
Lab FileID: P128686.D Analyst approved: 03/25/19 17:27 Ying Li
Injection Time: 03/25/19 14:48 Supervisor approved: 03/28/19 17:57 Kristi Schollenberger

Parameter	CAS	Sig#	R.T. (min.)	Reason
2-Methylnaphthalene	91-57-6		5.84	Split peak

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EP5819\
 Data File : p128686.D
 Acq On : 25 Mar 2019 2:48 pm
 Operator : christc2
 Sample : icv5819-50
 Misc : op13894,ep5819,1000,,,1,1
 ALS Vial : 12 Sample Multiplier: 1

Quant Time: Mar 25 16:22:48 2019
 Quant Method : C:\msdchem\1\METHODS\MP5819.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Mon Mar 25 14:35:38 2019
 Response via : Initial Calibration



(44) 2-Methylnaphthalene (t)

5.838min (-0.000) 38.26ppm

response 409579

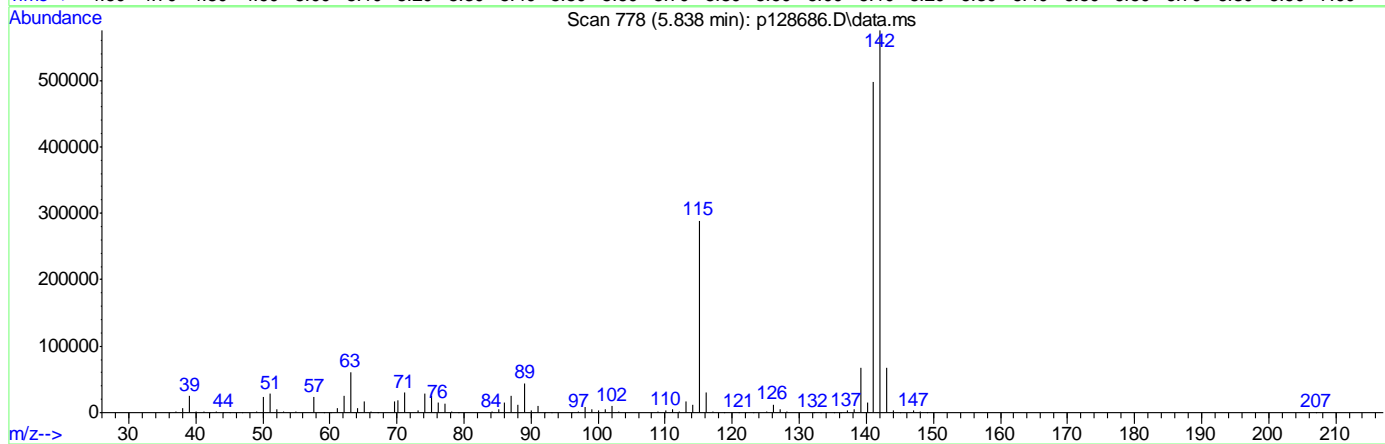
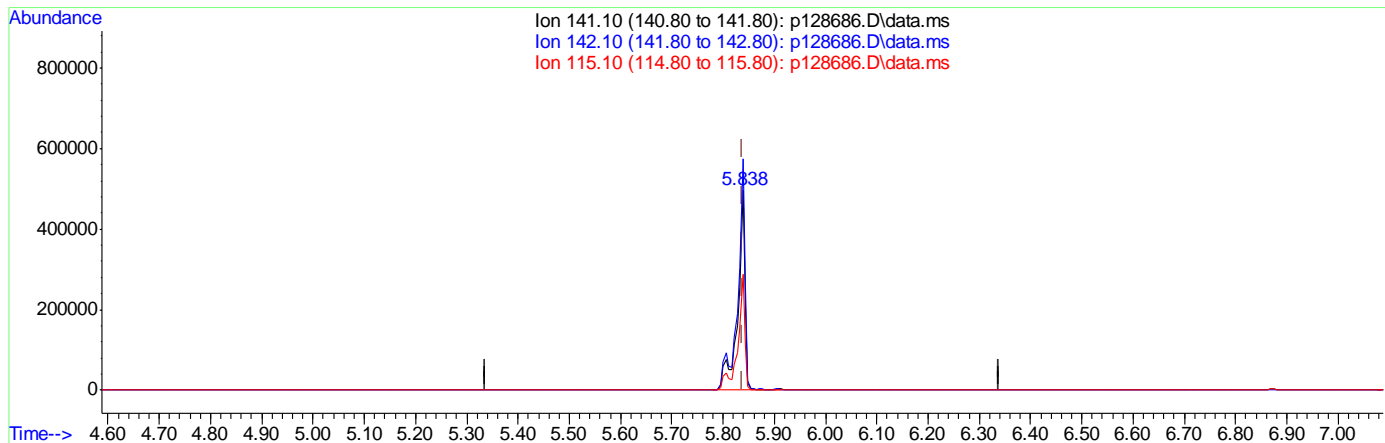
Ion	Exp%	Act%
141.10	100	100
142.10	117.80	115.81
115.10	52.30	58.14
0.00	0.00	0.00

9.6.41.2
9

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EP5819\
 Data File : p128686.D
 Acq On : 25 Mar 2019 2:48 pm
 Operator : christc2
 Sample : icv5819-50
 Misc : op13894,ep5819,1000,,,1,1
 ALS Vial : 12 Sample Multiplier: 1

Quant Time: Mar 25 16:22:48 2019
 Quant Method : C:\msdchem\1\METHODS\MP5819.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Mon Mar 25 14:35:38 2019
 Response via : Initial Calibration



(44) 2-Methylnaphthalene (t)

5.838min (-0.000) 45.94ppm m

response 491882

Ion	Exp%	Act%
141.10	100	100
142.10	117.80	115.63
115.10	52.30	57.99
0.00	0.00	0.00

9.6.41.3
9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5819\
 Data File : p128687.D
 Acq On : 25 Mar 2019 3:15 pm
 Operator : christc2
 Sample : icv5819-50
 Misc : op13894,ep5819,1000,,,1,1
 ALS Vial : 13 Sample Multiplier: 1

Quant Time: Mar 25 16:29:07 2019
 Quant Method : C:\msdchem\1\METHODS\MP5819.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Mon Mar 25 14:35:38 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.385	152	222400	40.00	ppm	0.00
24) Naphthalene-d8	5.325	136	876796	40.00	ppm	0.00
47) Acenaphthene-d10	6.677	164	476586	40.00	ppm	0.00
69) Phenanthrene-d10	8.434	188	794516	40.00	ppm	0.00
83) Chrysene-d12	13.574	240	691824	40.00	ppm	0.00
91) Perylene-d12	16.613	264	675890	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4A	4.385	152	222400	40.00	ppm	0.00
111) Naphthalene-d8A	5.325	136	876796	40.00	ppm	0.00
120) Acenaphthene-d10A	6.677	164	476586	40.00	ppm	0.00
131) Phenanthrene-d10A	8.434	188	794516	40.00	ppm	0.00
146) Chrysene-d12A	13.574	240	691824	40.00	ppm	0.00
153) Perylene-d12A	16.613	264	675890	40.00	ppm	0.00
157) 1,4-Dichlorobenzene-d4b	4.385	152	222400	40.00	ppm	0.00
159) Phenanthrene-d10b	8.434	188	794516	40.00	ppm	0.00
161) Chrysene-d12b	13.574	240	691824	40.00	ppm	0.00
163) Naphthalene-d8b	5.325	136	876796	40.00	ppm	0.00
165) Acenaphthene-d10b	6.677	164	476586	40.00	ppm	0.00
167) Naphthalene-d8c	5.325	136	876796	40.00	ppm	0.00
172) 1,4-Dichlorobenzene-d4c	4.385	152	222400	40.00	ppm	0.00
174) Chrysene-d12c	13.574	240	691824	40.00	ppm	0.00
176) Chrysene-d12d	13.574	240	691824	40.00	ppm	0.00
178) Naphthalene-d8d	5.325	136	876796	40.00	ppm	0.00
180) Chrysene-d12D	13.574	240	691824	40.00	ppm	-0.16
System Monitoring Compounds						
5) 2-Fluorophenol	3.445	112	390632	46.89	ppm	0.00
Spiked Amount	50.000		Recovery	=	93.78%	
8) Phenol-d5	4.187	99	515117	46.13	ppm	0.00
Spiked Amount	50.000		Recovery	=	92.26%	
25) Nitrobenzene-d5	4.802	82	571136	49.89	ppm	0.00
Spiked Amount	50.000		Recovery	=	99.78%	
51) 2-Fluorobiphenyl	6.110	172	877334	51.57	ppm	0.00
Spiked Amount	50.000		Recovery	=	103.14%	
73) 2,4,6-Tribromophenol	7.515	330	102184	46.40	ppm	0.00
Spiked Amount	50.000		Recovery	=	92.80%	
85) Terphenyl-d14	11.389	244	823105	48.17	ppm	0.02
Spiked Amount	50.000		Recovery	=	96.34%	

Target Compounds Qvalue

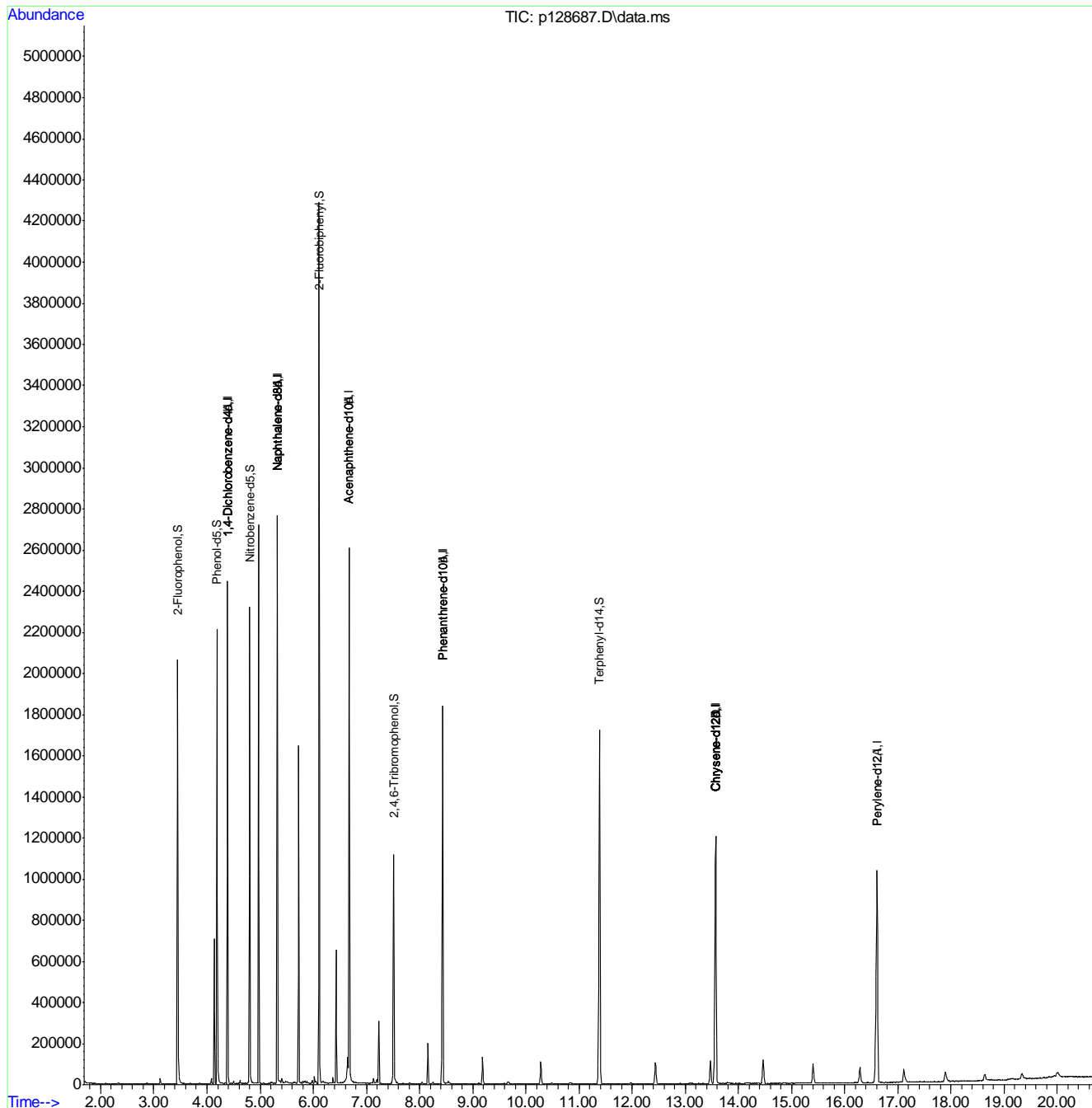
(#) = qualifier out of range (m) = manual integration (+) = signals summed

9.6.42
9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5819\
 Data File : p128687.D
 Acq On : 25 Mar 2019 3:15 pm
 Operator : christc2
 Sample : icv5819-50
 Misc : op13894,ep5819,1000,,,1,1
 ALS Vial : 13 Sample Multiplier: 1

Quant Time: Mar 25 16:29:07 2019
 Quant Method : C:\msdchem\1\METHODS\MP5819.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Mon Mar 25 14:35:38 2019
 Response via : Initial Calibration



9.6.42
9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5819\
 Data File : p128688.D
 Acq On : 25 Mar 2019 3:42 pm
 Operator : christc2
 Sample : icv5819-50
 Misc : op13894,ep5819,1000,,,1,1
 ALS Vial : 14 Sample Multiplier: 1

Quant Time: Mar 28 18:05:04 2019
 Quant Method : C:\msdchem\1\METHODS\MP5819.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Mon Mar 25 16:40:12 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.385	152	147871	40.00	ppm	0.00
24) Naphthalene-d8	5.320	136	527332	40.00	ppm	0.00
47) Acenaphthene-d10	6.677	164	323153	40.00	ppm	0.00
69) Phenanthrene-d10	8.434	188	541589	40.00	ppm	0.00
83) Chrysene-d12	13.568	240	453606	40.00	ppm	-0.01
91) Perylene-d12	16.603	264	488200	40.00	ppm	-0.02
101) 1,4-Dichlorobenzene-d4A	4.385	152	147871	40.00	ppm	0.00
111) Naphthalene-d8A	5.320	136	527332	40.00	ppm	0.00
120) Acenaphthene-d10A	6.677	164	323153	40.00	ppm	0.00
131) Phenanthrene-d10A	8.434	188	541589	40.00	ppm	0.00
146) Chrysene-d12A	13.568	240	453606	40.00	ppm	-0.01
153) Perylene-d12A	16.603	264	488200	40.00	ppm	-0.02
157) 1,4-Dichlorobenzene-d4b	4.385	152	147871	40.00	ppm	0.00
159) Phenanthrene-d10b	8.434	188	541589	40.00	ppm	0.00
161) Chrysene-d12b	13.568	240	453606	40.00	ppm	-0.01
163) Naphthalene-d8b	5.320	136	527332	40.00	ppm	0.00
165) Acenaphthene-d10b	6.677	164	323153	40.00	ppm	0.00
167) Naphthalene-d8c	5.320	136	527332	40.00	ppm	0.00
172) 1,4-Dichlorobenzene-d4c	4.385	152	147871	40.00	ppm	0.00
174) Chrysene-d12c	13.568	240	453606	40.00	ppm	-0.01
176) Chrysene-d12d	13.568	240	453606	40.00	ppm	-0.01
178) Naphthalene-d8d	5.320	136	527332	40.00	ppm	0.00
180) Chrysene-d12D	13.568	240	453606	40.00	ppm	-0.17
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	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
Target Compounds						
9) Phenol	4.193	94	406459	50.30	ppm	Qvalue 90
12) 2-Chlorophenol	4.251	128	271242	49.83	ppm	97
19) 2-Methylphenol	4.620	108	277912	52.73	ppm	99
21) 3&4-Methylphenol	4.737	108	285908	50.28	ppm	100
29) 2-Nitrophenol	5.047	139	142735	49.50	ppm	# 52
30) 2,4-Dimethylphenol	5.106	107	336269	59.34	ppm	94
31) Benzoic acid	5.250	105	210546	46.75	ppm	97
33) 2,4-Dichlorophenol	5.245	162	215514	47.32	ppm	99
34) 2,6-Dichlorophenol	5.395	162	217727	50.71	ppm	96
43) 4-Chloro-3-methylphenol	5.763	107	275024	50.35	ppm	99

9.6.43
9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5819\
 Data File : p128688.D
 Acq On : 25 Mar 2019 3:42 pm
 Operator : christc2
 Sample : icv5819-50
 Misc : op13894,ep5819,1000,,,1,1
 ALS Vial : 14 Sample Multiplier: 1

Quant Time: Mar 28 18:05:04 2019
 Quant Method : C:\msdchem\1\METHODS\MP5819.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Mon Mar 25 16:40:12 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
49) 2,4,6-Trichlorophenol	6.062	196	171545	53.04	ppm	99
50) 2,4,5-Trichlorophenol	6.100	196	170006	47.98	ppm	97
60) 2,4-Dinitrophenol	6.751	184	47737	40.75	ppm	89
61) 4-Nitrophenol	6.874	109	107488	47.85	ppm	86
64) 2,3,4,6-Tetrachlorophenol	7.013	232	124126	44.69	ppm	91
70) 4,6-Dinitro-2-methylph...	7.307	198	86062m	50.16	ppm	
76) Pentachlorophenol	8.194	266	87571	48.67	ppm	95

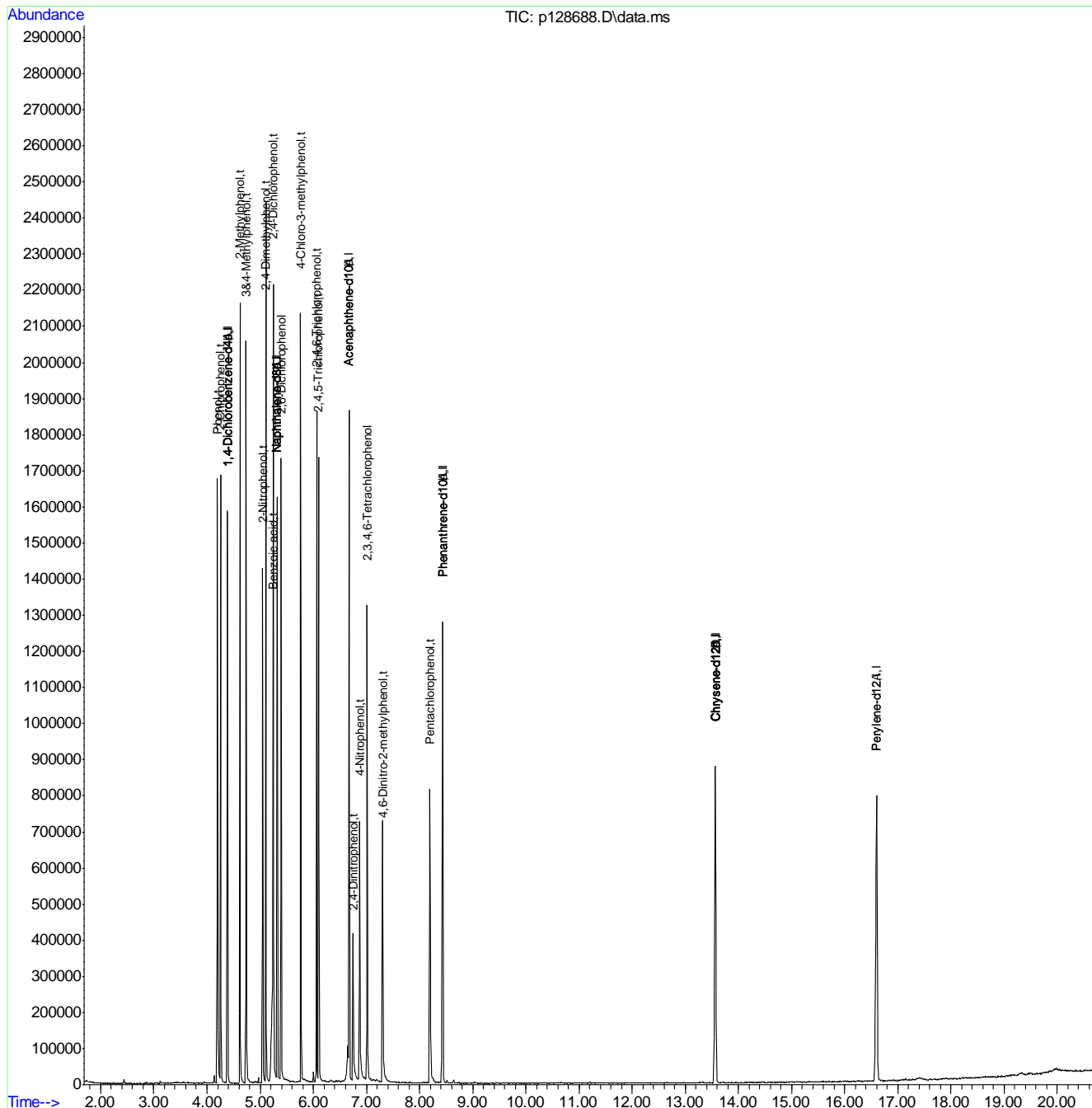
(#) = qualifier out of range (m) = manual integration (+) = signals summed

9.6.43
9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5819\
 Data File : p128688.D
 Acq On : 25 Mar 2019 3:42 pm
 Operator : christc2
 Sample : icv5819-50
 Misc : op13894,ep5819,1000,,,1,1
 ALS Vial : 14 Sample Multiplier: 1

Quant Time: Mar 28 18:05:04 2019
 Quant Method : C:\msdchem\1\METHODS\MP5819.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Mon Mar 25 16:40:12 2019
 Response via : Initial Calibration



9.6.43
9

Manual Integration Approval Summary

Sample Number: EP5819-ICV5819 Method: SW846 8270D
Lab FileID: P128688.D Analyst approved: 03/28/19 18:08 Kristi Schollenberger
Injection Time: 03/25/19 15:42 Supervisor approved: 03/28/19 18:08 Kristi Schollenberger

Parameter	CAS	Sig#	R.T. (min.)	Reason
4,6-Dinitro-o-cresol	534-52-1		7.31	Poor instrument integration

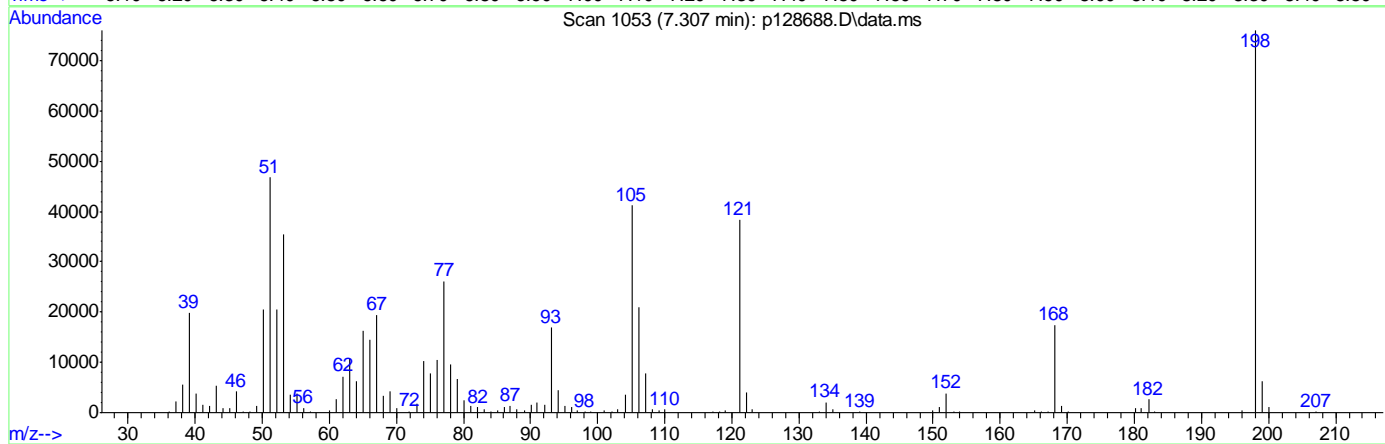
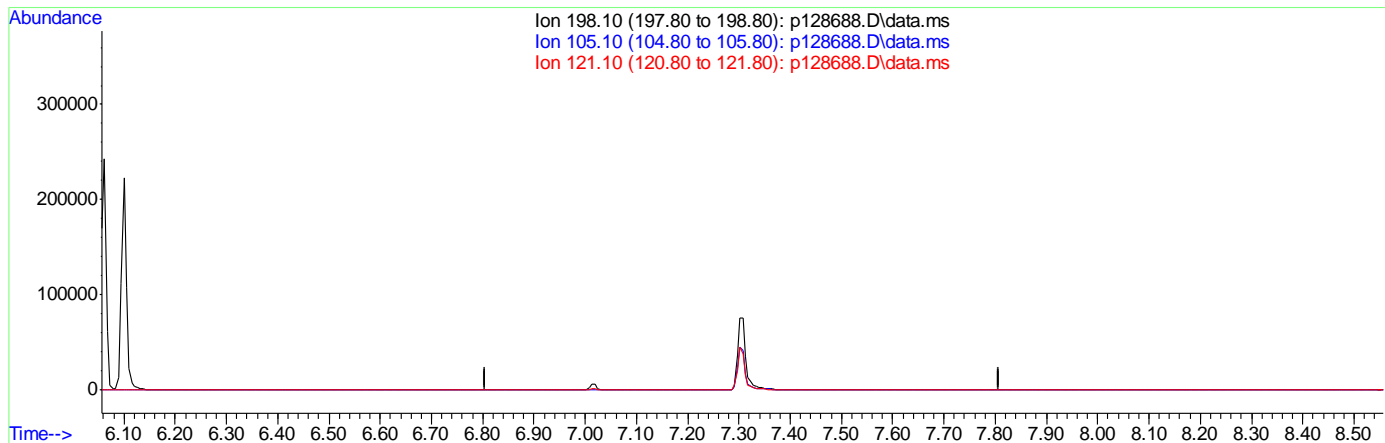
9.6.43.1

9

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EP5819\
 Data File : p128688.D
 Acq On : 25 Mar 2019 3:42 pm
 Operator : christc2
 Sample : icv5819-50
 Misc : op13894,ep5819,1000,,,1,1
 ALS Vial : 14 Sample Multiplier: 1

Quant Time: Mar 25 16:43:25 2019
 Quant Method : C:\msdchem\1\METHODS\MP5819.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Mon Mar 25 16:40:12 2019
 Response via : Initial Calibration



TIC: p128688.D\data.ms

(70) 4,6-Dinitro-2-methylphenol (t)

7.307min 0.00ppm d

response 0

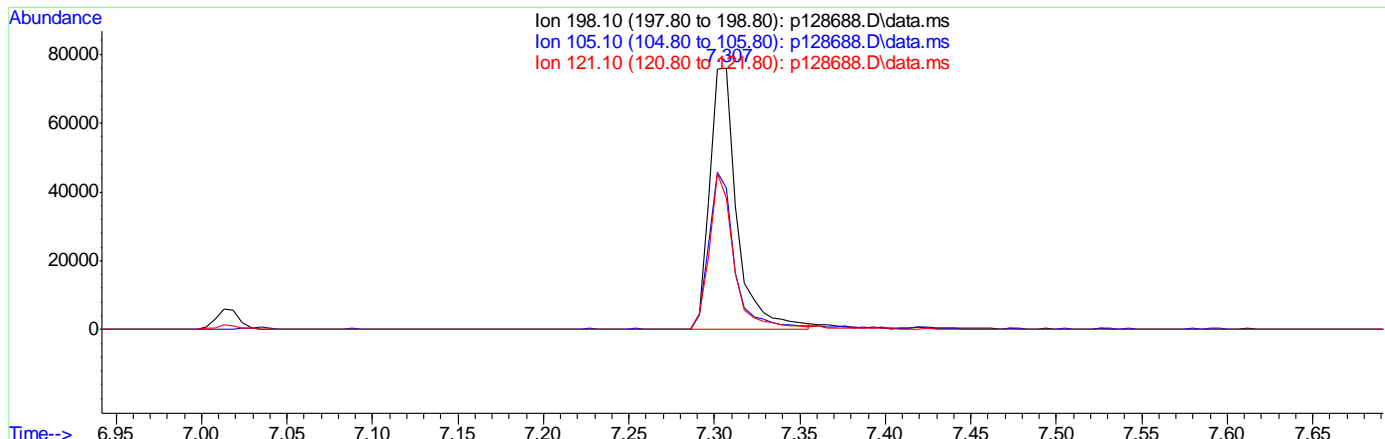
Ion	Exp%	Act%
198.10	100	0.00
105.10	13.00	0.00
121.10	51.00	0.00
0.00	0.00	0.00

9.6.43.2
9

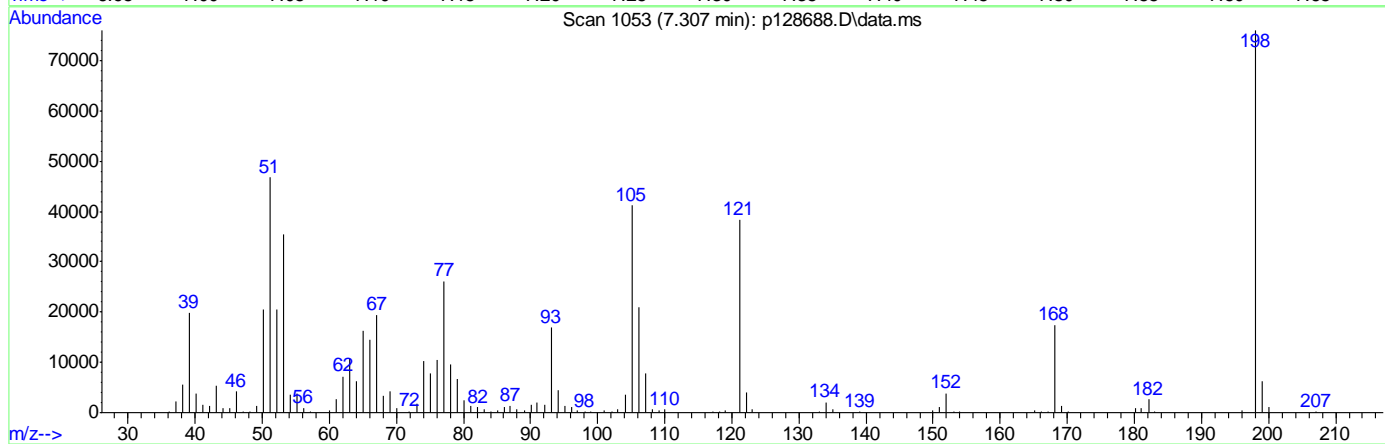
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EP5819\
 Data File : p128688.D
 Acq On : 25 Mar 2019 3:42 pm
 Operator : christc2
 Sample : icv5819-50
 Misc : op13894,ep5819,1000,,,1,1
 ALS Vial : 14 Sample Multiplier: 1

Quant Time: Mar 25 16:43:25 2019
 Quant Method : C:\msdchem\1\METHODS\MP5819.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Mon Mar 25 16:40:12 2019
 Response via : Initial Calibration



9.6.43.3
9



TIC: p128688.D\data.ms

(70) 4,6-Dinitro-2-methylphenol (t)

7.307min (+0.000) 50.16ppm m

response 86062

Ion	Exp%	Act%
198.10	100	100
105.10	13.00	54.24#
121.10	51.00	50.40
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5819\
 Data File : p128689.D
 Acq On : 25 Mar 2019 4:09 pm
 Operator : christc2
 Sample : icv5819-50
 Misc : op13894,ep5819,1000,,,1,1
 ALS Vial : 15 Sample Multiplier: 1

Quant Time: Mar 25 16:38:02 2019
 Quant Method : C:\msdchem\1\METHODS\MP5819.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Mon Mar 25 14:35:38 2019
 Response via : Initial Calibration

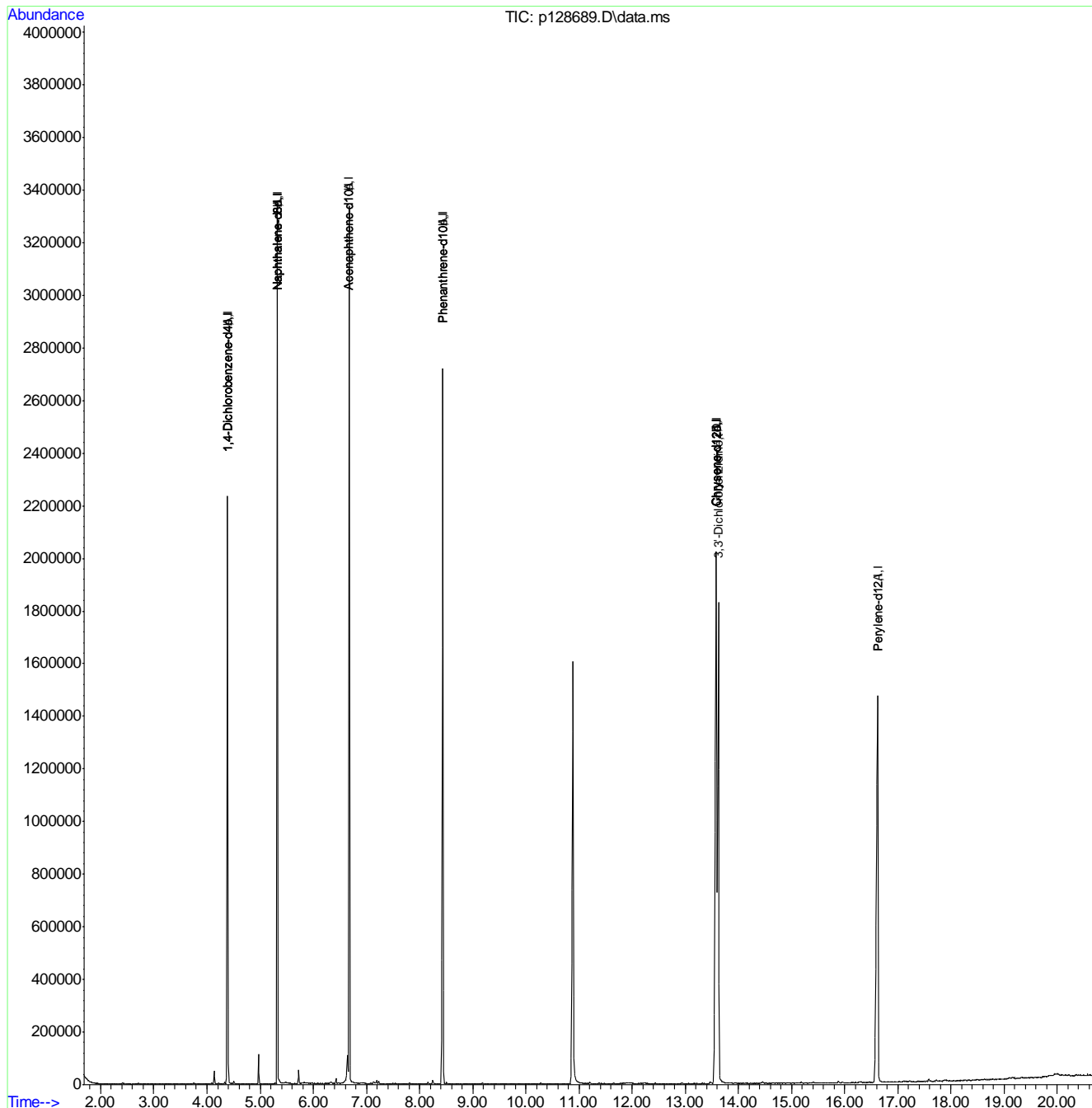
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.385	152	252073	40.00	ppm	0.00
24) Naphthalene-d8	5.325	136	1050035	40.00	ppm	0.00
47) Acenaphthene-d10	6.677	164	634265	40.00	ppm	0.00
69) Phenanthrene-d10	8.440	188	1224042	40.00	ppm	0.00
83) Chrysene-d12	13.584	240	1204875	40.00	ppm	0.00
91) Perylene-d12	16.624	264	1137327	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4A	4.385	152	252073	40.00	ppm	0.00
111) Naphthalene-d8A	5.325	136	1050035	40.00	ppm	0.00
120) Acenaphthene-d10A	6.677	164	634265	40.00	ppm	0.00
131) Phenanthrene-d10A	8.440	188	1224042	40.00	ppm	0.00
146) Chrysene-d12A	13.584	240	1204875	40.00	ppm	0.00
153) Perylene-d12A	16.624	264	1137327	40.00	ppm	0.00
157) 1,4-Dichlorobenzene-d4b	4.385	152	252073	40.00	ppm	0.00
159) Phenanthrene-d10b	8.440	188	1224042	40.00	ppm	0.00
161) Chrysene-d12b	13.584	240	1204875	40.00	ppm	0.00
163) Naphthalene-d8b	5.325	136	1050035	40.00	ppm	0.00
165) Acenaphthene-d10b	6.677	164	634265	40.00	ppm	0.00
167) Naphthalene-d8c	5.325	136	1050035	40.00	ppm	0.00
172) 1,4-Dichlorobenzene-d4c	4.385	152	252073	40.00	ppm	0.00
174) Chrysene-d12c	13.584	240	1204875	40.00	ppm	0.00
176) Chrysene-d12d	13.584	240	1204875	40.00	ppm	0.00
178) Naphthalene-d8d	5.325	136	1050035	40.00	ppm	0.00
180) Chrysene-d12D	13.584	240	1204875	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	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						
88) 3,3'-Dichlorobenzidine	13.627	252	628850	48.07	ppm	Qvalue 96

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5819\
 Data File : p128689.D
 Acq On : 25 Mar 2019 4:09 pm
 Operator : christc2
 Sample : icv5819-50
 Misc : op13894,ep5819,1000,,,1,1
 ALS Vial : 15 Sample Multiplier: 1

Quant Time: Mar 25 16:38:02 2019
 Quant Method : C:\msdchem\1\METHODS\MP5819.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Mon Mar 25 14:35:38 2019
 Response via : Initial Calibration



9.6.44
9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5821\
 Data File : p128703b.D
 Acq On : 26 Mar 2019 5:16 pm
 Operator : christc2
 Sample : ic5821-100
 Misc : op13894,ep5821,1000,,,1,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 27 08:48:00 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MP5819.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Wed Mar 27 07:55:22 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.376	152	195868	40.00	ppm	0.00
24) Naphthalene-d8	5.317	136	830629	40.00	ppm	0.00
47) Acenaphthene-d10	6.668	164	494705	40.00	ppm	0.00
69) Phenanthrene-d10	8.426	188	797789	40.00	ppm	-0.01
83) Chrysene-d12	13.560	240	718036	40.00	ppm	-0.02
91) Perylene-d12	16.594	264	768621	40.00	ppm	-0.02
101) 1,4-Dichlorobenzene-d4A	4.376	152	195868	40.00	ppm	0.00
111) Naphthalene-d8A	5.317	136	830629	40.00	ppm	0.00
120) Acenaphthene-d10A	6.668	164	494705	40.00	ppm	0.00
131) Phenanthrene-d10A	8.426	188	797789	40.00	ppm	-0.01
146) Chrysene-d12A	13.560	240	718036	40.00	ppm	-0.02
153) Perylene-d12A	16.594	264	768621	40.00	ppm	-0.02
157) 1,4-Dichlorobenzene-d4b	4.376	152	195868	40.00	ppm	0.00
159) Phenanthrene-d10b	8.426	188	797789	40.00	ppm	0.00
161) Chrysene-d12b	13.560	240	718036	40.00	ppm	-0.02
163) Naphthalene-d8b	5.317	136	830629	40.00	ppm	0.00
165) Acenaphthene-d10b	6.668	164	494705	40.00	ppm	0.00
167) Naphthalene-d8c	5.317	136	830629	40.00	ppm	0.00
172) 1,4-Dichlorobenzene-d4c	4.376	152	195868	40.00	ppm	0.00
174) Chrysene-d12c	13.560	240	718036	40.00	ppm	-0.02
176) Chrysene-d12d	13.560	240	718036	40.00	ppm	-0.02
178) Naphthalene-d8d	5.317	136	830629	40.00	ppm	0.00
180) Chrysene-d12D	13.560	240	718036	40.00	ppm	-0.17
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						
158) Benzaldehyde	4.056	105	618718	99.19	ppm	90
160) Atrazine	8.095	200	478472	97.82	ppm	80
164) Hydroquinone	5.691	110	712321	97.93	ppm	98
166) 1,2,4,5-Tetrachloroben...	5.963	216	795823	108.81	ppm	98

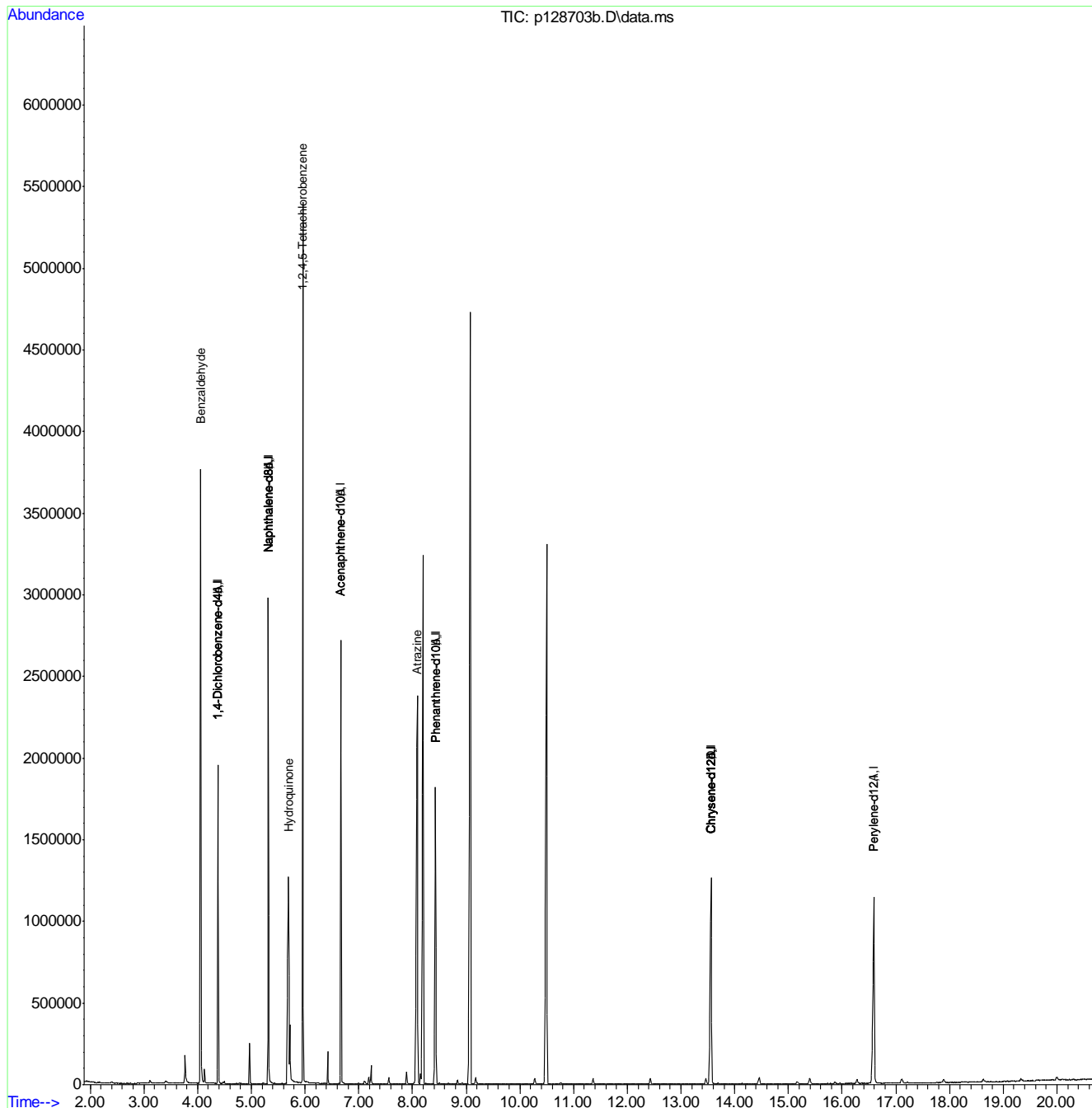
(#) = qualifier out of range (m) = manual integration (+) = signals summed

9.6.45
9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5821\
 Data File : p128703b.D
 Acq On : 26 Mar 2019 5:16 pm
 Operator : christc2
 Sample : ic5821-100
 Misc : op13894,ep5821,1000,,,1,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 27 08:48:00 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MP5819.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Wed Mar 27 07:55:22 2019
 Response via : Initial Calibration



9.6.45
9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5821\
 Data File : p128704b.D
 Acq On : 26 Mar 2019 5:43 pm
 Operator : christc2
 Sample : ic5821-80
 Misc : op13894,ep5821,1000,,,1,1
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 27 08:50:18 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MP5819.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Wed Mar 27 07:55:22 2019
 Response via : Initial Calibration

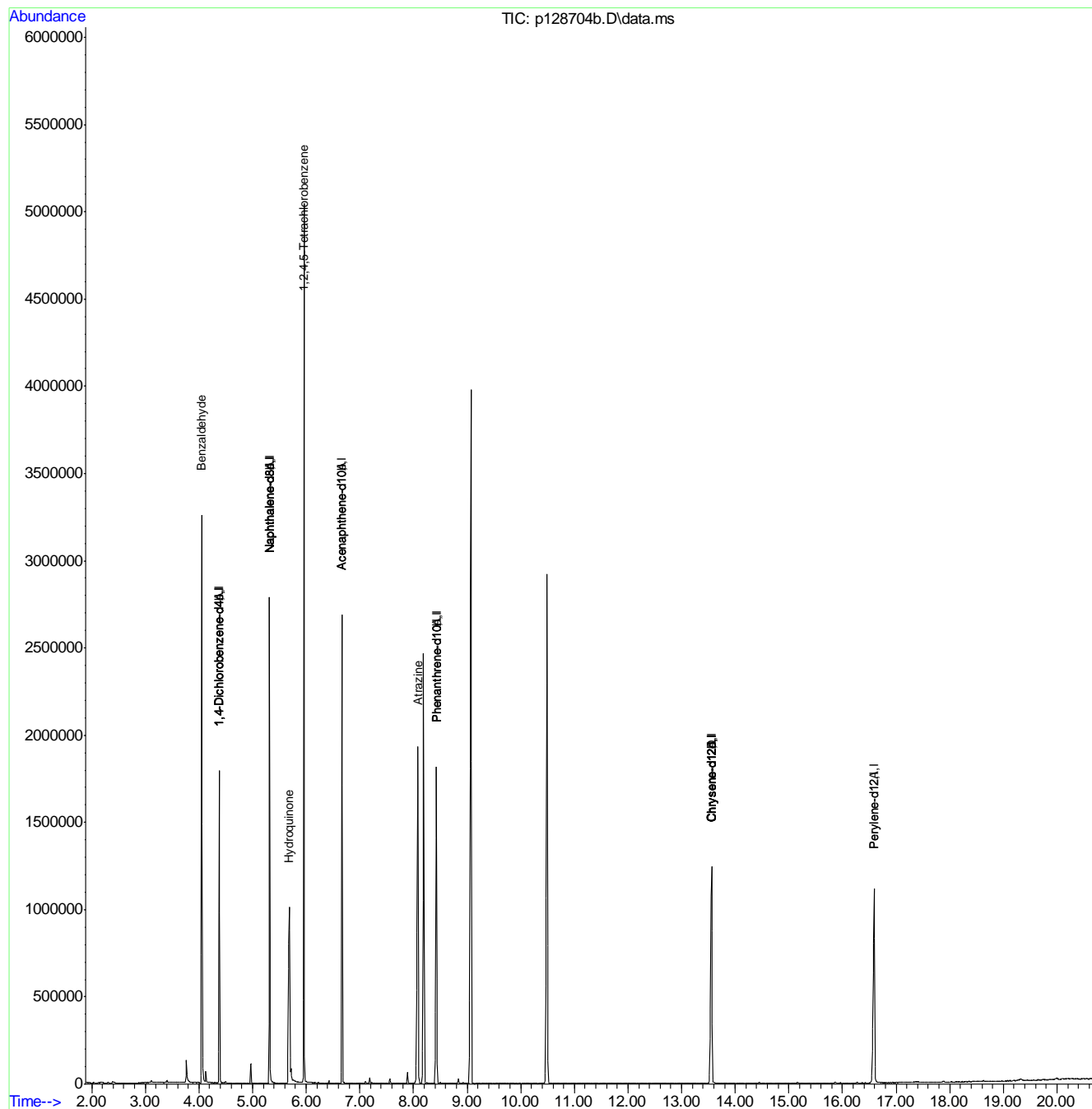
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.377	152	192066	40.00	ppm	0.00
24) Naphthalene-d8	5.317	136	798610	40.00	ppm	0.00
47) Acenaphthene-d10	6.668	164	480398	40.00	ppm	0.00
69) Phenanthrene-d10	8.426	188	770670	40.00	ppm	-0.01
83) Chrysene-d12	13.560	240	723484	40.00	ppm	-0.02
91) Perylene-d12	16.594	264	765263	40.00	ppm	-0.02
101) 1,4-Dichlorobenzene-d4A	4.377	152	192066	40.00	ppm	0.00
111) Naphthalene-d8A	5.317	136	798610	40.00	ppm	0.00
120) Acenaphthene-d10A	6.668	164	480398	40.00	ppm	0.00
131) Phenanthrene-d10A	8.426	188	770670	40.00	ppm	-0.01
146) Chrysene-d12A	13.560	240	723484	40.00	ppm	-0.02
153) Perylene-d12A	16.594	264	765263	40.00	ppm	-0.02
157) 1,4-Dichlorobenzene-d4b	4.377	152	192066	40.00	ppm	0.00
159) Phenanthrene-d10b	8.426	188	770670	40.00	ppm	0.00
161) Chrysene-d12b	13.560	240	723484	40.00	ppm	-0.02
163) Naphthalene-d8b	5.317	136	798610	40.00	ppm	0.00
165) Acenaphthene-d10b	6.668	164	480398	40.00	ppm	0.00
167) Naphthalene-d8c	5.317	136	798610	40.00	ppm	0.00
172) 1,4-Dichlorobenzene-d4c	4.377	152	192066	40.00	ppm	0.00
174) Chrysene-d12c	13.560	240	723484	40.00	ppm	-0.02
176) Chrysene-d12d	13.560	240	723484	40.00	ppm	-0.02
178) Naphthalene-d8d	5.317	136	798610	40.00	ppm	0.00
180) Chrysene-d12D	13.560	240	723484	40.00	ppm	-0.17
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						
158) Benzaldehyde	4.051	105	470405	76.91	ppm	96
160) Atrazine	8.089	200	378470	80.10	ppm	87
164) Hydroquinone	5.685	110	572890	81.92	ppm	98
166) 1,2,4,5-Tetrachloroben...	5.958	216	585542	82.45	ppm	99

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5821\
Data File : p128704b.D
Acq On : 26 Mar 2019 5:43 pm
Operator : christc2
Sample : ic5821-80
Misc : op13894,ep5821,1000,,,1,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 27 08:50:18 2019
Quant Method : C:\MSDCHEM\1\METHODS\MP5819.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Wed Mar 27 07:55:22 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5821\
 Data File : p128705b.D
 Acq On : 26 Mar 2019 6:10 pm
 Operator : christc2
 Sample : icc5821-50
 Misc : op13894,ep5821,1000,,,1,1
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 27 08:45:41 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MP5819.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Wed Mar 27 07:55:22 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.377	152	226516	40.00	ppm	0.00
24) Naphthalene-d8	5.317	136	930640	40.00	ppm	0.00
47) Acenaphthene-d10	6.668	164	558353	40.00	ppm	0.00
69) Phenanthrene-d10	8.426	188	901263	40.00	ppm	-0.01
83) Chrysene-d12	13.560	240	808232	40.00	ppm	-0.02
91) Perylene-d12	16.594	264	876545	40.00	ppm	-0.02
101) 1,4-Dichlorobenzene-d4A	4.377	152	226516	40.00	ppm	0.00
111) Naphthalene-d8A	5.317	136	930640	40.00	ppm	0.00
120) Acenaphthene-d10A	6.668	164	558353	40.00	ppm	0.00
131) Phenanthrene-d10A	8.426	188	901263	40.00	ppm	-0.01
146) Chrysene-d12A	13.560	240	808232	40.00	ppm	-0.02
153) Perylene-d12A	16.594	264	876545	40.00	ppm	-0.02
157) 1,4-Dichlorobenzene-d4b	4.377	152	226516	40.00	ppm	0.00
159) Phenanthrene-d10b	8.426	188	901263	40.00	ppm	0.00
161) Chrysene-d12b	13.560	240	808232	40.00	ppm	-0.02
163) Naphthalene-d8b	5.317	136	930640	40.00	ppm	0.00
165) Acenaphthene-d10b	6.668	164	558353	40.00	ppm	0.00
167) Naphthalene-d8c	5.317	136	930640	40.00	ppm	0.00
172) 1,4-Dichlorobenzene-d4c	4.377	152	226516	40.00	ppm	0.00
174) Chrysene-d12c	13.560	240	808232	40.00	ppm	-0.02
176) Chrysene-d12d	13.560	240	808232	40.00	ppm	-0.02
178) Naphthalene-d8d	5.317	136	930640	40.00	ppm	0.00
180) Chrysene-d12D	13.560	240	808232	40.00	ppm	-0.17
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						
158) Benzaldehyde	4.051	105	358876	49.75	ppm	Qvalue 100
160) Atrazine	8.079	200	276292	50.00	ppm	100
164) Hydroquinone	5.680	110	407489	50.00	ppm	100
166) 1,2,4,5-Tetrachloroben...	5.958	216	412731	50.00	ppm	100

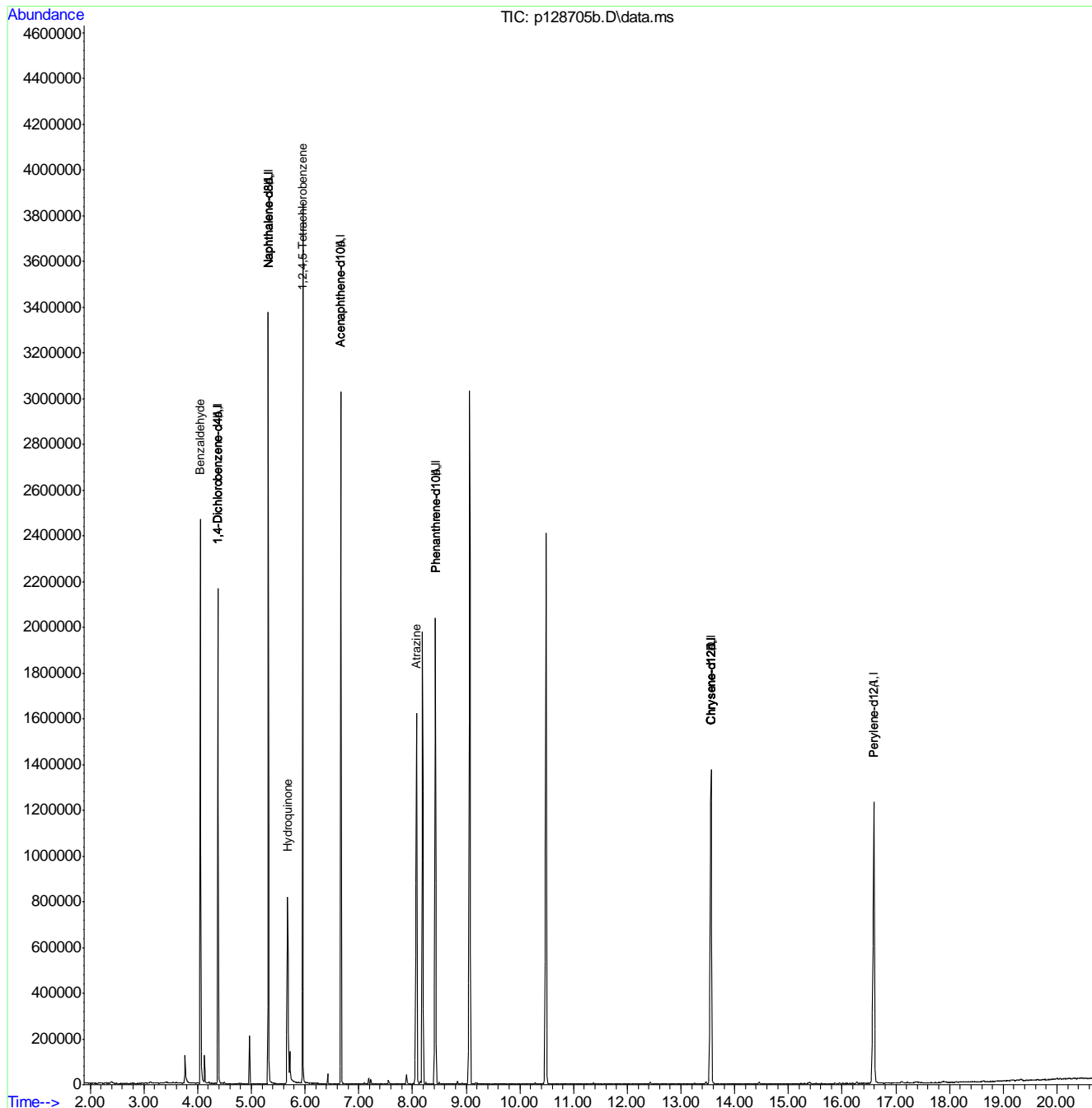
(#) = qualifier out of range (m) = manual integration (+) = signals summed

9.6.47
9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5821\
Data File : p128705b.D
Acq On : 26 Mar 2019 6:10 pm
Operator : christc2
Sample : icc5821-50
Misc : op13894,ep5821,1000,,,1,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 27 08:45:41 2019
Quant Method : C:\MSDCHEM\1\METHODS\MP5819.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Wed Mar 27 07:55:22 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5821\
 Data File : p128706.D
 Acq On : 26 Mar 2019 6:37 pm
 Operator : christc2
 Sample : ic5821-25
 Misc : op13894,ep5821,1000,,,1,1
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 27 08:52:14 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MP5819.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Wed Mar 27 07:55:22 2019
 Response via : Initial Calibration

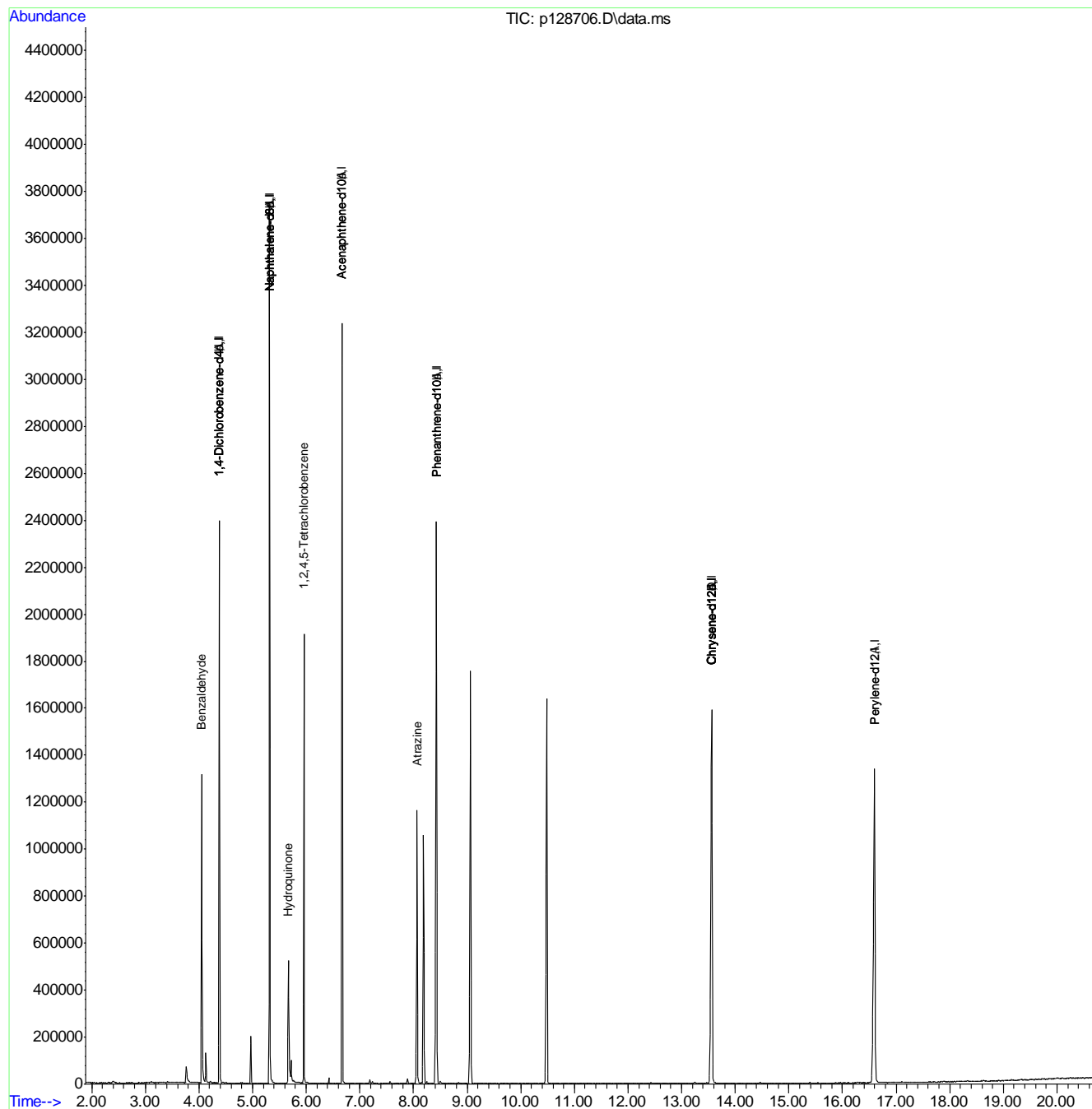
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.377	152	254948	40.00	ppm	0.00
24) Naphthalene-d8	5.317	136	1045754	40.00	ppm	0.00
47) Acenaphthene-d10	6.668	164	642475	40.00	ppm	0.00
69) Phenanthrene-d10	8.426	188	1036842	40.00	ppm	-0.01
83) Chrysene-d12	13.565	240	927316	40.00	ppm	-0.01
91) Perylene-d12	16.600	264	982313	40.00	ppm	-0.02
101) 1,4-Dichlorobenzene-d4A	4.377	152	254948	40.00	ppm	0.00
111) Naphthalene-d8A	5.317	136	1045754	40.00	ppm	0.00
120) Acenaphthene-d10A	6.668	164	642475	40.00	ppm	0.00
131) Phenanthrene-d10A	8.426	188	1036842	40.00	ppm	-0.01
146) Chrysene-d12A	13.565	240	927316	40.00	ppm	-0.01
153) Perylene-d12A	16.600	264	982313	40.00	ppm	-0.02
157) 1,4-Dichlorobenzene-d4b	4.377	152	254948	40.00	ppm	0.00
159) Phenanthrene-d10b	8.426	188	1036842	40.00	ppm	0.00
161) Chrysene-d12b	13.565	240	927316	40.00	ppm	-0.01
163) Naphthalene-d8b	5.317	136	1045754	40.00	ppm	0.00
165) Acenaphthene-d10b	6.668	164	642475	40.00	ppm	0.00
167) Naphthalene-d8c	5.317	136	1045754	40.00	ppm	0.00
172) 1,4-Dichlorobenzene-d4c	4.377	152	254948	40.00	ppm	0.00
174) Chrysene-d12c	13.565	240	927316	40.00	ppm	-0.01
176) Chrysene-d12d	13.565	240	927316	40.00	ppm	-0.01
178) Naphthalene-d8d	5.317	136	1045754	40.00	ppm	0.00
180) Chrysene-d12D	13.565	240	927316	40.00	ppm	-0.17
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						
158) Benzaldehyde	4.051	105	198894	24.50	ppm	96
160) Atrazine	8.068	200	157050	24.70	ppm	95
164) Hydroquinone	5.669	110	215683	23.55	ppm	99
166) 1,2,4,5-Tetrachloroben...	5.958	216	209179	22.02	ppm	97

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5821\
Data File : p128706.D
Acq On : 26 Mar 2019 6:37 pm
Operator : christc2
Sample : ic5821-25
Misc : op13894,ep5821,1000,,,1,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 27 08:52:14 2019
Quant Method : C:\MSDCHEM\1\METHODS\MP5819.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Wed Mar 27 07:55:22 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5821\
 Data File : p128707.D
 Acq On : 26 Mar 2019 7:03 pm
 Operator : christc2
 Sample : ic5821-10
 Misc : op13894,ep5821,1000,,,1,1
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 27 08:54:49 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MP5819.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Wed Mar 27 07:55:22 2019
 Response via : Initial Calibration

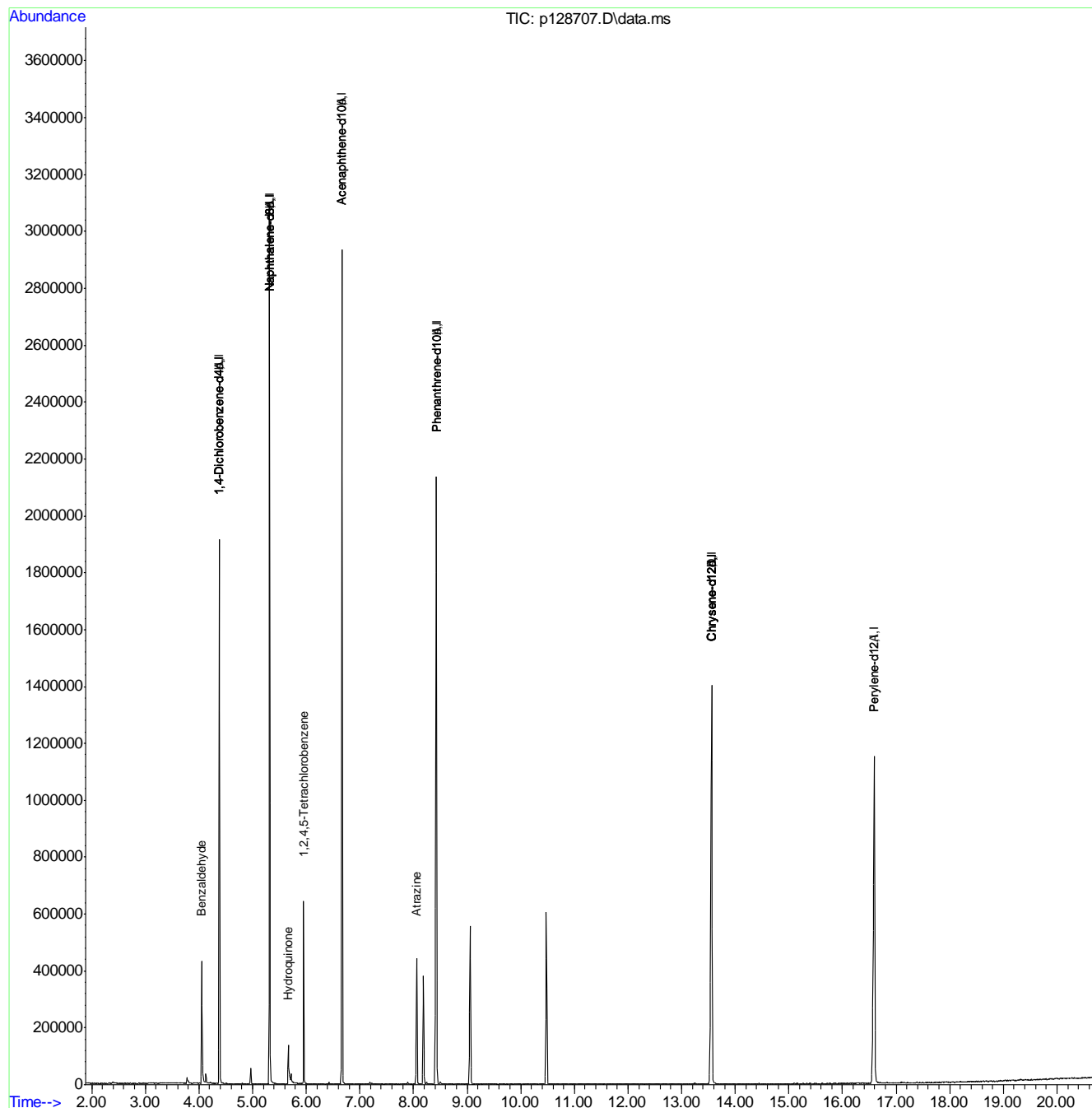
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.376	152	205971	40.00	ppm	0.00
24) Naphthalene-d8	5.317	136	855967	40.00	ppm	0.00
47) Acenaphthene-d10	6.668	164	516068	40.00	ppm	0.00
69) Phenanthrene-d10	8.426	188	869027	40.00	ppm	-0.01
83) Chrysene-d12	13.560	240	763641	40.00	ppm	-0.02
91) Perylene-d12	16.594	264	782282	40.00	ppm	-0.02
101) 1,4-Dichlorobenzene-d4A	4.376	152	205971	40.00	ppm	0.00
111) Naphthalene-d8A	5.317	136	855967	40.00	ppm	0.00
120) Acenaphthene-d10A	6.668	164	516068	40.00	ppm	0.00
131) Phenanthrene-d10A	8.426	188	869027	40.00	ppm	-0.01
146) Chrysene-d12A	13.560	240	763641	40.00	ppm	-0.02
153) Perylene-d12A	16.594	264	782282	40.00	ppm	-0.02
157) 1,4-Dichlorobenzene-d4b	4.376	152	205971	40.00	ppm	0.00
159) Phenanthrene-d10b	8.426	188	869027	40.00	ppm	0.00
161) Chrysene-d12b	13.560	240	763641	40.00	ppm	-0.02
163) Naphthalene-d8b	5.317	136	855967	40.00	ppm	0.00
165) Acenaphthene-d10b	6.668	164	516068	40.00	ppm	0.00
167) Naphthalene-d8c	5.317	136	855967	40.00	ppm	0.00
172) 1,4-Dichlorobenzene-d4c	4.376	152	205971	40.00	ppm	0.00
174) Chrysene-d12c	13.560	240	763641	40.00	ppm	-0.02
176) Chrysene-d12d	13.560	240	763641	40.00	ppm	-0.02
178) Naphthalene-d8d	5.317	136	855967	40.00	ppm	0.00
180) Chrysene-d12D	13.560	240	763641	40.00	ppm	-0.17
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						
158) Benzaldehyde	4.051	105	70466	10.74	ppm	97
160) Atrazine	8.063	200	51904	9.74	ppm	96
164) Hydroquinone	5.664	110	59277	7.91	ppm	95
166) 1,2,4,5-Tetrachloroben...	5.952	216	72985	9.57	ppm	97

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5821\
Data File : p128707.D
Acq On : 26 Mar 2019 7:03 pm
Operator : christc2
Sample : ic5821-10
Misc : op13894,ep5821,1000,,,1,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 27 08:54:49 2019
Quant Method : C:\MSDCHEM\1\METHODS\MP5819.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Wed Mar 27 07:55:22 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5821\
 Data File : p128708.D
 Acq On : 26 Mar 2019 7:30 pm
 Operator : christc2
 Sample : ic5821-5
 Misc : op13894,ep5821,1000,,,1,1
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 27 08:56:44 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MP5819.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Wed Mar 27 07:55:22 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.377	152	204777	40.00	ppm	0.00
24) Naphthalene-d8	5.317	136	857520	40.00	ppm	0.00
47) Acenaphthene-d10	6.668	164	518934	40.00	ppm	0.00
69) Phenanthrene-d10	8.421	188	872441	40.00	ppm	-0.02
83) Chrysene-d12	13.560	240	751135	40.00	ppm	-0.02
91) Perylene-d12	16.594	264	786983	40.00	ppm	-0.02
101) 1,4-Dichlorobenzene-d4A	4.377	152	204777	40.00	ppm	0.00
111) Naphthalene-d8A	5.317	136	857520	40.00	ppm	0.00
120) Acenaphthene-d10A	6.668	164	518934	40.00	ppm	0.00
131) Phenanthrene-d10A	8.421	188	872441	40.00	ppm	-0.02
146) Chrysene-d12A	13.560	240	751135	40.00	ppm	-0.02
153) Perylene-d12A	16.594	264	786983	40.00	ppm	-0.02
157) 1,4-Dichlorobenzene-d4b	4.377	152	204777	40.00	ppm	0.00
159) Phenanthrene-d10b	8.421	188	872441	40.00	ppm	0.00
161) Chrysene-d12b	13.560	240	751135	40.00	ppm	-0.02
163) Naphthalene-d8b	5.317	136	857520	40.00	ppm	0.00
165) Acenaphthene-d10b	6.668	164	518934	40.00	ppm	0.00
167) Naphthalene-d8c	5.317	136	857520	40.00	ppm	0.00
172) 1,4-Dichlorobenzene-d4c	4.377	152	204777	40.00	ppm	0.00
174) Chrysene-d12c	13.560	240	751135	40.00	ppm	-0.02
176) Chrysene-d12d	13.560	240	751135	40.00	ppm	-0.02
178) Naphthalene-d8d	5.317	136	857520	40.00	ppm	0.00
180) Chrysene-d12D	13.560	240	751135	40.00	ppm	-0.17
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						
158) Benzaldehyde	4.051	105	34117	5.23	ppm	96
160) Atrazine	8.052	200	25410	4.75	ppm	91
164) Hydroquinone	5.675	110	22117	2.95	ppm	94
166) 1,2,4,5-Tetrachloroben...	5.953	216	34512	4.50	ppm	99

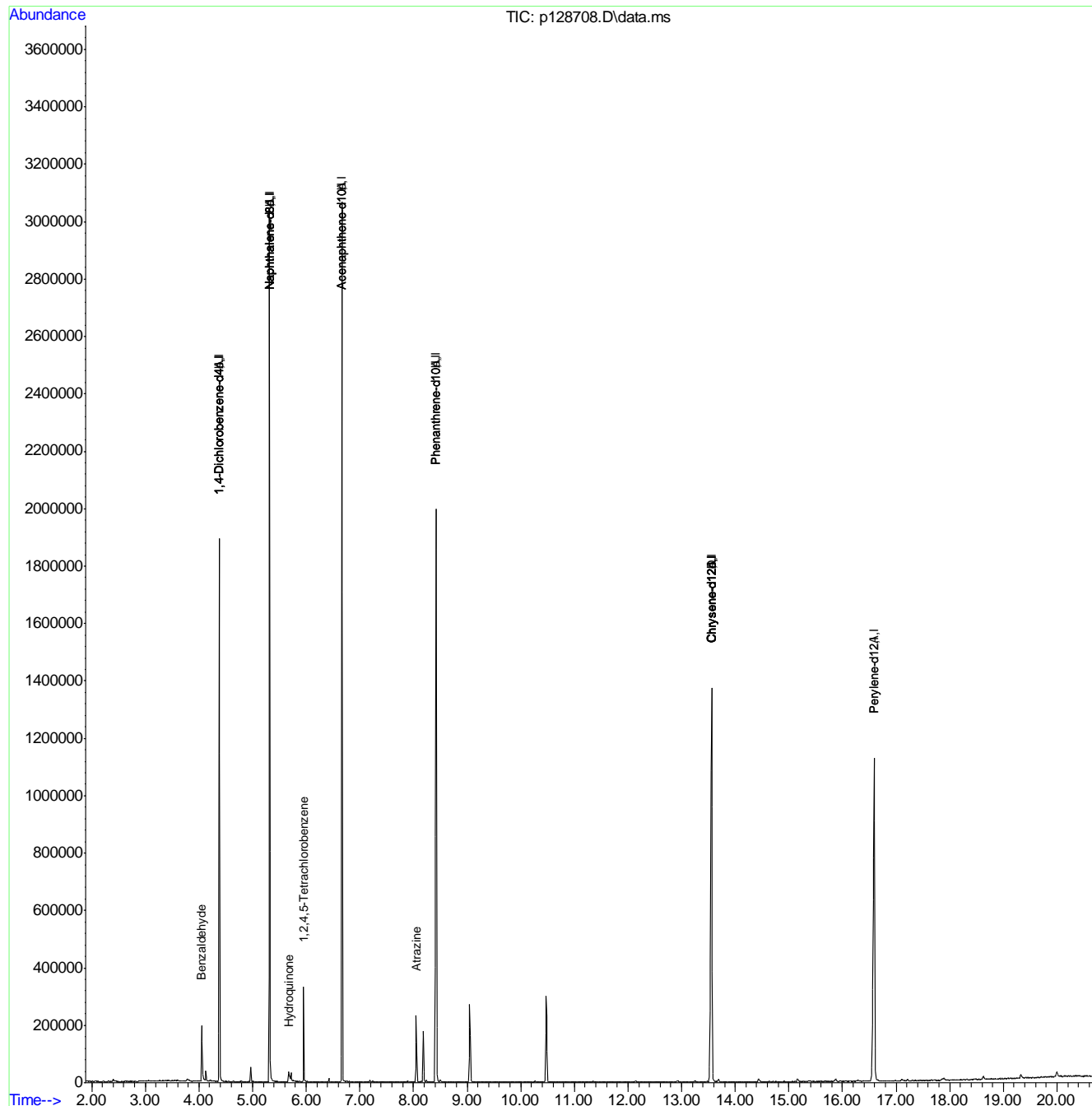
(#) = qualifier out of range (m) = manual integration (+) = signals summed

9.6-50
9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5821\
Data File : p128708.D
Acq On : 26 Mar 2019 7:30 pm
Operator : christc2
Sample : ic5821-5
Misc : op13894,ep5821,1000,,,1,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 27 08:56:44 2019
Quant Method : C:\MSDCHEM\1\METHODS\MP5819.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Wed Mar 27 07:55:22 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5821\
 Data File : p128709.D
 Acq On : 26 Mar 2019 7:57 pm
 Operator : christc2
 Sample : ic5821-2
 Misc : op13894,ep5821,1000,,,1,1
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 27 08:58:52 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MP5819.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Wed Mar 27 07:55:22 2019
 Response via : Initial Calibration

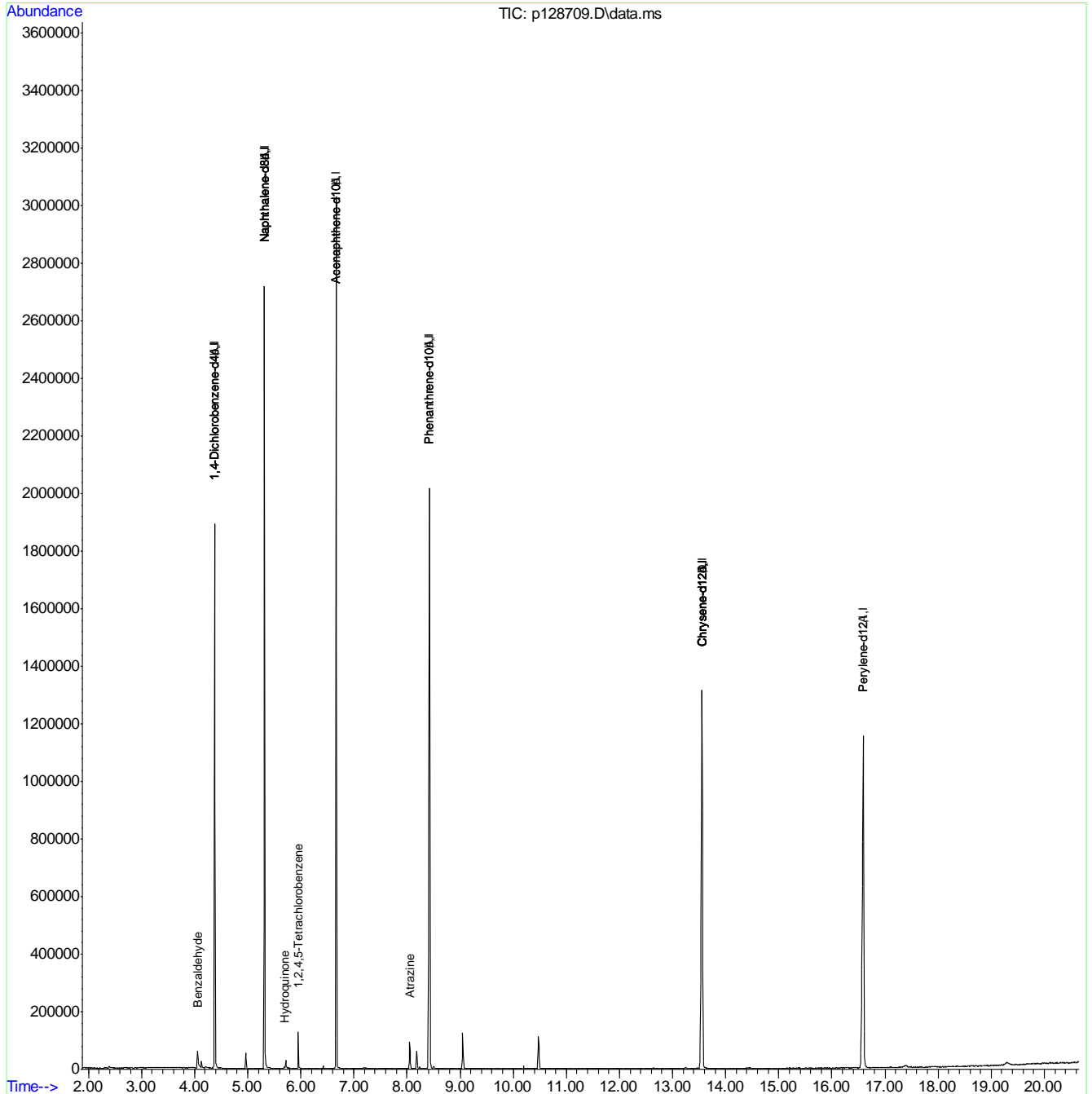
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.377	152	201130	40.00	ppm	0.00
24) Naphthalene-d8	5.317	136	837171	40.00	ppm	0.00
47) Acenaphthene-d10	6.669	164	514558	40.00	ppm	0.00
69) Phenanthrene-d10	8.421	188	883779	40.00	ppm	-0.02
83) Chrysene-d12	13.555	240	773957	40.00	ppm	-0.02
91) Perylene-d12	16.595	264	809379	40.00	ppm	-0.02
101) 1,4-Dichlorobenzene-d4A	4.377	152	201130	40.00	ppm	0.00
111) Naphthalene-d8A	5.317	136	837171	40.00	ppm	0.00
120) Acenaphthene-d10A	6.669	164	514558	40.00	ppm	0.00
131) Phenanthrene-d10A	8.421	188	883779	40.00	ppm	-0.02
146) Chrysene-d12A	13.555	240	773957	40.00	ppm	-0.02
153) Perylene-d12A	16.595	264	809379	40.00	ppm	-0.02
157) 1,4-Dichlorobenzene-d4b	4.377	152	201130	40.00	ppm	0.00
159) Phenanthrene-d10b	8.421	188	883779	40.00	ppm	0.00
161) Chrysene-d12b	13.555	240	773957	40.00	ppm	-0.02
163) Naphthalene-d8b	5.317	136	837171	40.00	ppm	0.00
165) Acenaphthene-d10b	6.669	164	514558	40.00	ppm	0.00
167) Naphthalene-d8c	5.317	136	837171	40.00	ppm	0.00
172) 1,4-Dichlorobenzene-d4c	4.377	152	201130	40.00	ppm	0.00
174) Chrysene-d12c	13.555	240	773957	40.00	ppm	-0.02
176) Chrysene-d12d	13.555	240	773957	40.00	ppm	-0.02
178) Naphthalene-d8d	5.317	136	837171	40.00	ppm	0.00
180) Chrysene-d12D	13.555	240	773957	40.00	ppm	-0.18
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						
158) Benzaldehyde	4.056	105	12944	2.02	ppm	Qvalue 90
160) Atrazine	8.052	200	8841	1.63	ppm	73
164) Hydroquinone	5.707	110	5705	0.78	ppm	75
166) 1,2,4,5-Tetrachloroben...	5.953	216	13682	1.80	ppm	98

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5821\
 Data File : p128709.D
 Acq On : 26 Mar 2019 7:57 pm
 Operator : christc2
 Sample : ic5821-2
 Misc : op13894,ep5821,1000,,,1,1
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 27 08:58:52 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MP5819.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Wed Mar 27 07:55:22 2019
 Response via : Initial Calibration



9.6.51
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Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5821\
 Data File : p128710.D
 Acq On : 26 Mar 2019 8:23 pm
 Operator : christc2
 Sample : ic5821-1
 Misc : op13894,ep5821,1000,,,1,1
 ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 27 09:00:39 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MP5819.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Wed Mar 27 07:55:22 2019
 Response via : Initial Calibration

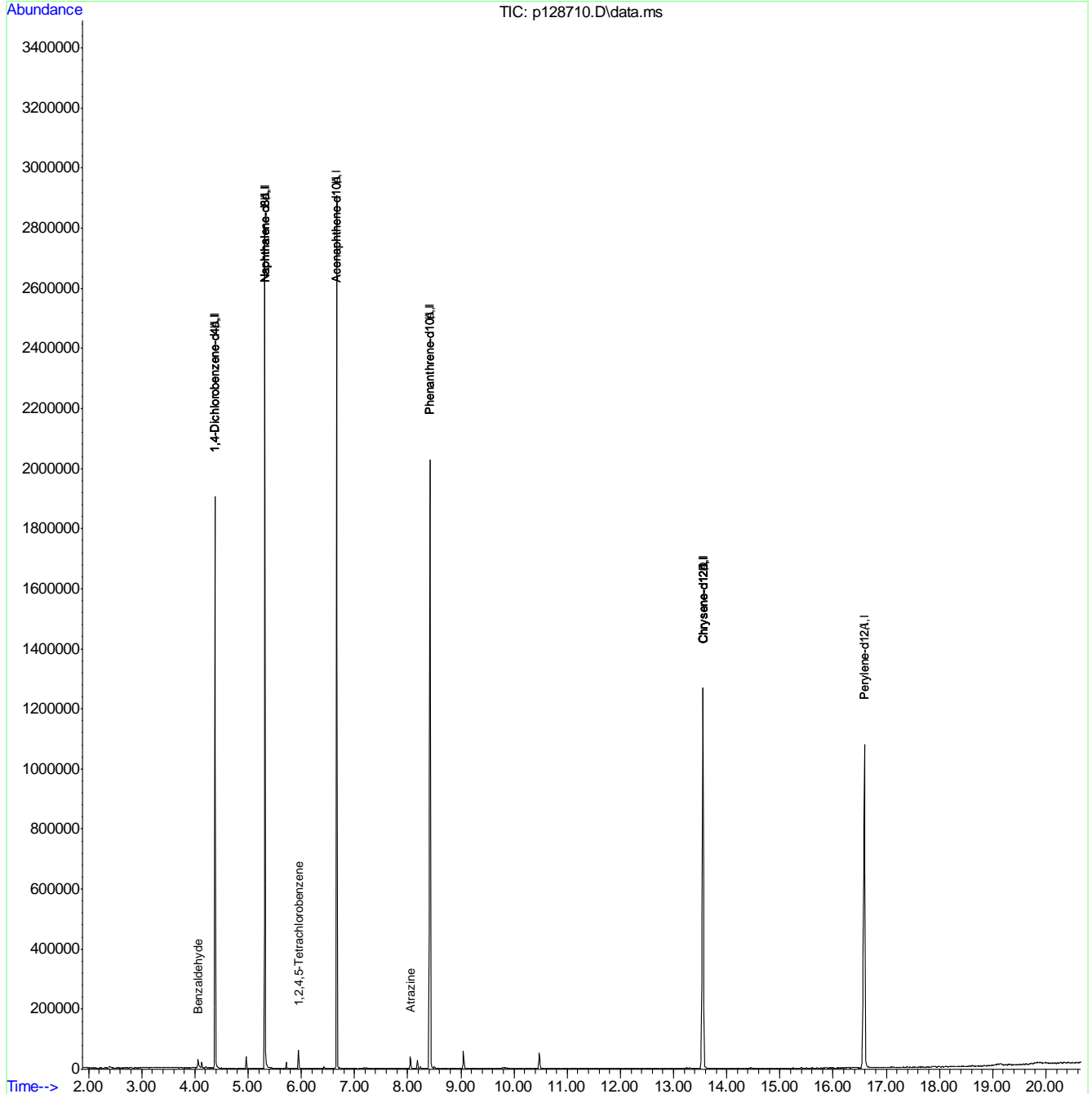
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.376	152	201991	40.00	ppm	0.00
24) Naphthalene-d8	5.317	136	839559	40.00	ppm	0.00
47) Acenaphthene-d10	6.668	164	498771	40.00	ppm	0.00
69) Phenanthrene-d10	8.421	188	858420	40.00	ppm	-0.02
83) Chrysene-d12	13.554	240	709689	40.00	ppm	-0.02
91) Perylene-d12	16.589	264	743479	40.00	ppm	-0.03
101) 1,4-Dichlorobenzene-d4A	4.376	152	201991	40.00	ppm	0.00
111) Naphthalene-d8A	5.317	136	839559	40.00	ppm	0.00
120) Acenaphthene-d10A	6.668	164	498771	40.00	ppm	0.00
131) Phenanthrene-d10A	8.421	188	858420	40.00	ppm	-0.02
146) Chrysene-d12A	13.554	240	709689	40.00	ppm	-0.02
153) Perylene-d12A	16.589	264	743479	40.00	ppm	-0.03
157) 1,4-Dichlorobenzene-d4b	4.376	152	201991	40.00	ppm	0.00
159) Phenanthrene-d10b	8.421	188	858420	40.00	ppm	0.00
161) Chrysene-d12b	13.554	240	709689	40.00	ppm	-0.02
163) Naphthalene-d8b	5.317	136	839559	40.00	ppm	0.00
165) Acenaphthene-d10b	6.668	164	498771	40.00	ppm	0.00
167) Naphthalene-d8c	5.317	136	839559	40.00	ppm	0.00
172) 1,4-Dichlorobenzene-d4c	4.376	152	201991	40.00	ppm	0.00
174) Chrysene-d12c	13.554	240	709689	40.00	ppm	-0.02
176) Chrysene-d12d	13.554	240	709689	40.00	ppm	-0.02
178) Naphthalene-d8d	5.317	136	839559	40.00	ppm	0.00
180) Chrysene-d12D	13.554	240	709689	40.00	ppm	-0.18
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						
158) Benzaldehyde	4.056	105	6410	1.00	ppm	92
160) Atrazine	8.052	200	4137	0.79	ppm	94
166) 1,2,4,5-Tetrachloroben...	5.952	216	6552	0.89	ppm	95

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5821\
Data File : p128710.D
Acq On : 26 Mar 2019 8:23 pm
Operator : christc2
Sample : ic5821-1
Misc : op13894,ep5821,1000,,,1,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 27 09:00:39 2019
Quant Method : C:\MSDCHEM\1\METHODS\MP5819.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Wed Mar 27 07:55:22 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5821\
 Data File : p128711.D
 Acq On : 26 Mar 2019 8:50 pm
 Operator : christc2
 Sample : icv5821-50
 Misc : op13894,ep5821,1000,,,1,1
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Apr 08 10:00:51 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MP5819.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Sun Apr 07 07:31:56 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.377	152	370974	40.00	ppm	0.00
24) Naphthalene-d8	5.317	136	1561130	40.00	ppm	0.00
47) Acenaphthene-d10	6.674	164	859302	40.00	ppm	0.00
69) Phenanthrene-d10	8.442	188	1478016	40.00	ppm	0.00
83) Chrysene-d12	13.571	240	1445786	40.00	ppm	0.00
91) Perylene-d12	16.605	264	1286051	40.00	ppm	-0.01
101) 1,4-Dichlorobenzene-d4b	4.377	152	370974	40.00	ppm	0.00
103) Phenanthrene-d10b	8.442	188	1478016	40.00	ppm	0.02
105) Chrysene-d12b	13.571	240	1445786	40.00	ppm	0.02
107) Naphthalene-d8b	5.317	136	1561130	40.00	ppm	0.00
109) Acenaphthene-d10b	6.674	164	859302	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0d	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	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
Target Compounds						
102) Benzaldehyde	4.056	105	557330	46.85	ppm	93
104) Atrazine	8.095	200	429084	50.55	ppm	88
110) 1,2,4,5-Tetrachloroben...	5.958	216	697055	57.43	ppm	98

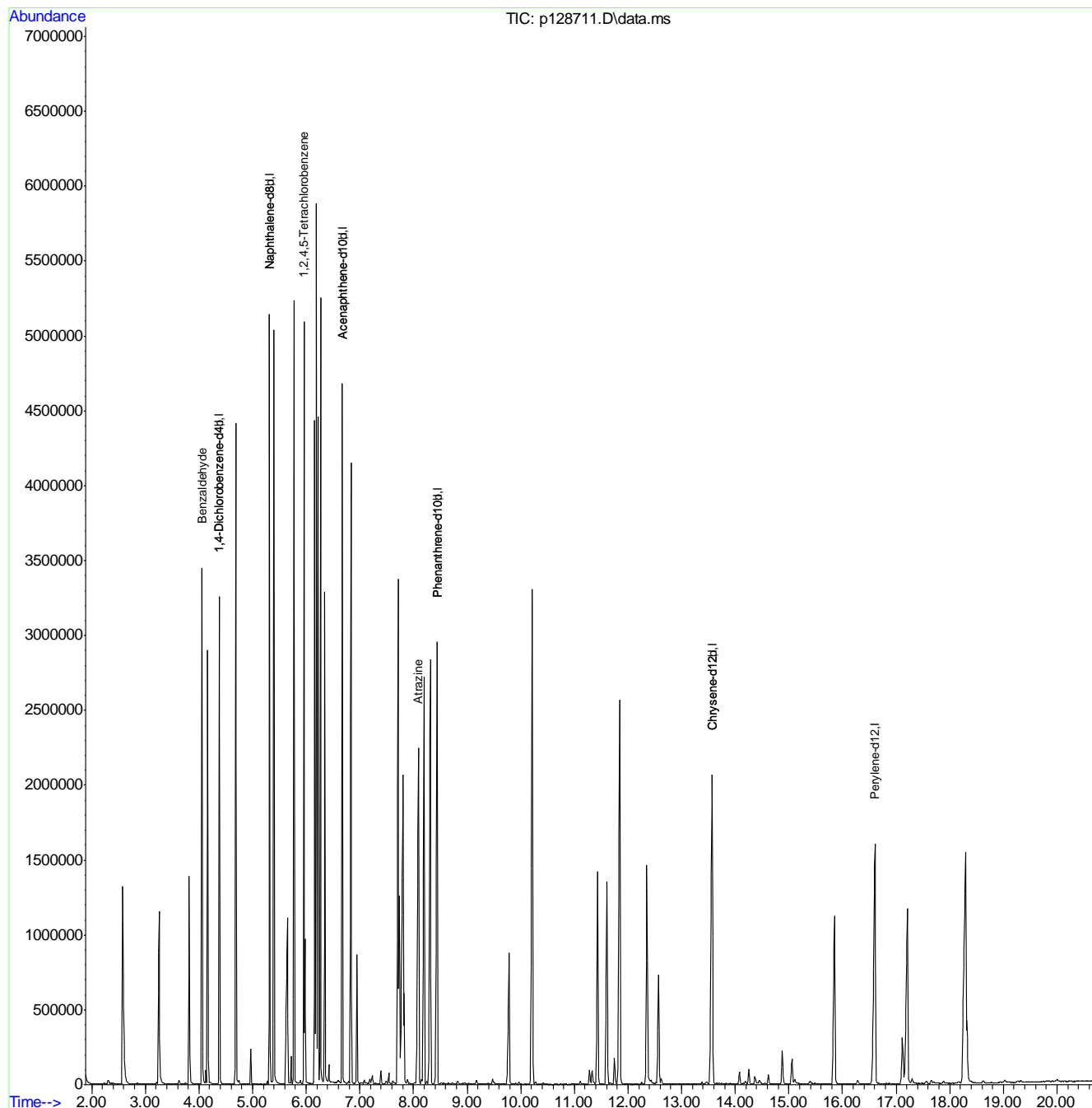
(#) = qualifier out of range (m) = manual integration (+) = signals summed

9.6.53
9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5821\
 Data File : p128711.D
 Acq On : 26 Mar 2019 8:50 pm
 Operator : christc2
 Sample : icv5821-50
 Misc : op13894,ep5821,1000,,,1,1
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Apr 08 10:00:51 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MP5819.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Sun Apr 07 07:31:56 2019
 Response via : Initial Calibration



9.6-53
 9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5821\
 Data File : p128712.D
 Acq On : 26 Mar 2019 9:17 pm
 Operator : christc2
 Sample : icv5821-50
 Misc : op13894,ep5821,1000,,,1,1
 ALS Vial : 11 Sample Multiplier: 1

Quant Time: Apr 08 10:03:28 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MP5819.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Sun Apr 07 07:31:56 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.376	152	175945	40.00	ppm	0.00
24) Naphthalene-d8	5.311	136	695103	40.00	ppm	0.00
47) Acenaphthene-d10	6.668	164	366583	40.00	ppm	0.00
69) Phenanthrene-d10	8.420	188	676633	40.00	ppm	-0.02
83) Chrysene-d12	13.549	240	619815	40.00	ppm	-0.03
91) Perylene-d12	16.583	264	620929	40.00	ppm	-0.04
101) 1,4-Dichlorobenzene-d4b	4.376	152	175945	40.00	ppm	0.00
103) Phenanthrene-d10b	8.420	188	676633	40.00	ppm	0.00
105) Chrysene-d12b	13.549	240	619815	40.00	ppm	0.00
107) Naphthalene-d8b	5.311	136	695103	40.00	ppm	0.00
109) Acenaphthene-d10b	6.668	164	366583	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						
108) Hydroquinone	5.669	110	294266	54.47	ppm	Qvalue 99

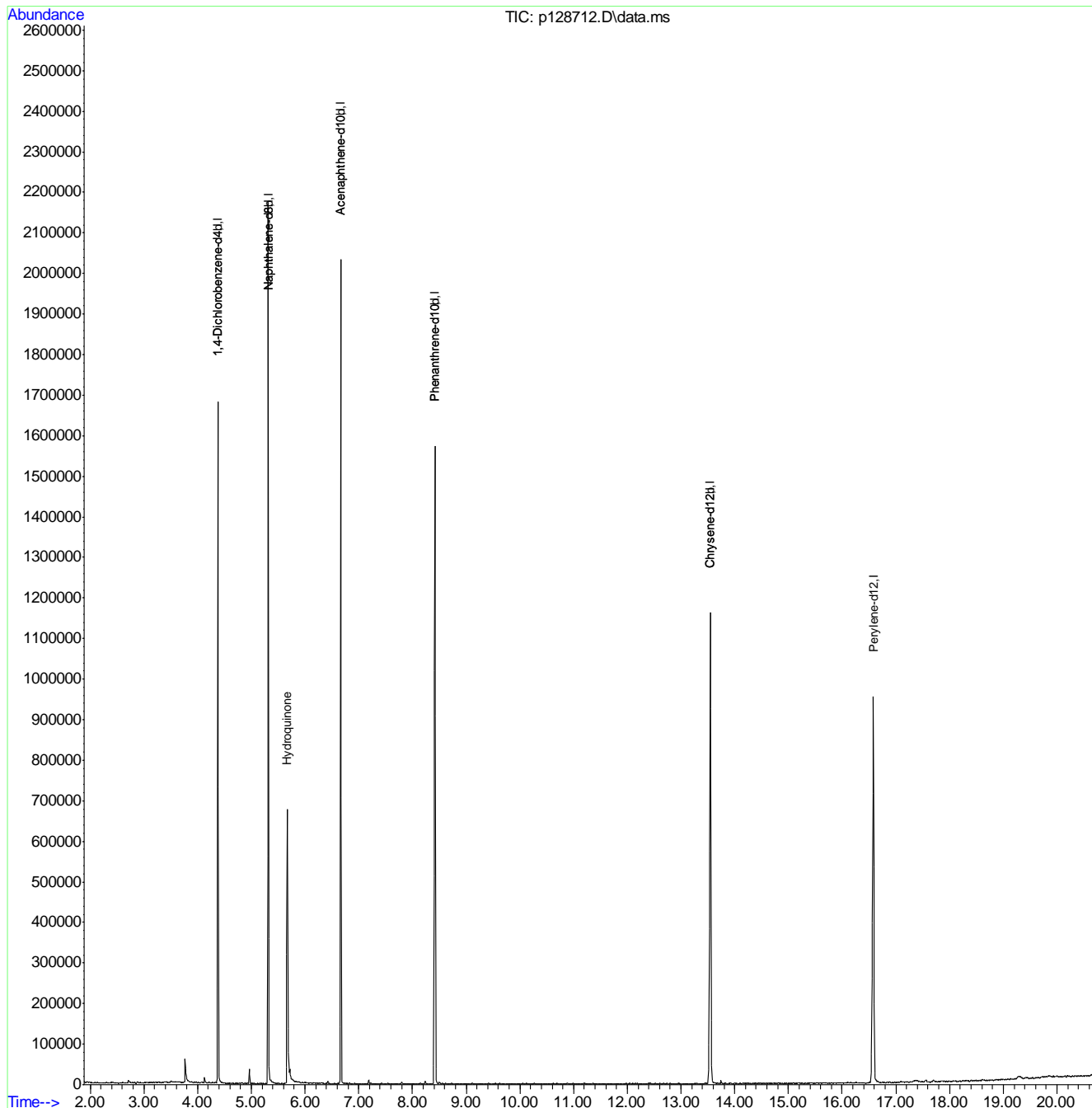
(#) = qualifier out of range (m) = manual integration (+) = signals summed

9.6.54
9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5821\
 Data File : p128712.D
 Acq On : 26 Mar 2019 9:17 pm
 Operator : christc2
 Sample : icv5821-50
 Misc : op13894,ep5821,1000,,,1,1
 ALS Vial : 11 Sample Multiplier: 1

Quant Time: Apr 08 10:03:28 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MP5819.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Sun Apr 07 07:31:56 2019
 Response via : Initial Calibration



9.6.54
9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5822\
 Data File : p128714a.D
 Acq On : 26 Mar 2019 10:46 pm
 Operator : christc2
 Sample : ic5822-100
 Misc : op13894,ep5822,1000,,,1,1
 ALS Vial : 12 Sample Multiplier: 1

Quant Time: Mar 27 09:38:35 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MP5819.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Wed Mar 27 09:36:57 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.377	152	188784	40.00	ppm	0.00
24) Naphthalene-d8	5.317	136	755875	40.00	ppm	0.00
47) Acenaphthene-d10	6.668	164	442872	40.00	ppm	0.00
69) Phenanthrene-d10	8.421	188	743007	40.00	ppm	-0.02
83) Chrysene-d12	13.549	240	623379	40.00	ppm	-0.03
91) Perylene-d12	16.584	264	660557	40.00	ppm	-0.04
101) 1,4-Dichlorobenzene-d4A	4.377	152	188784	40.00	ppm	0.00
111) Naphthalene-d8A	5.317	136	755875	40.00	ppm	0.00
120) Acenaphthene-d10A	6.668	164	442872	40.00	ppm	0.00
131) Phenanthrene-d10A	8.421	188	743007	40.00	ppm	-0.02
146) Chrysene-d12A	13.549	240	623379	40.00	ppm	-0.03
153) Perylene-d12A	16.584	264	660557	40.00	ppm	-0.04
157) 1,4-Dichlorobenzene-d4b	4.377	152	188784	40.00	ppm	0.00
159) Phenanthrene-d10b	8.421	188	743007	40.00	ppm	0.00
161) Chrysene-d12b	13.549	240	623379	40.00	ppm	0.00
163) Naphthalene-d8b	5.317	136	755875	40.00	ppm	0.00
165) Acenaphthene-d10b	6.668	164	442872	40.00	ppm	0.00
167) Naphthalene-d8c	5.317	136	755875	40.00	ppm	0.00
172) 1,4-Dichlorobenzene-d4c	4.377	152	188784	40.00	ppm	0.00
174) Chrysene-d12c	13.549	240	623379	40.00	ppm	-0.03
176) Chrysene-d12d	13.549	240	623379	40.00	ppm	-0.03
178) Naphthalene-d8d	5.317	136	755875	40.00	ppm	0.00
180) Chrysene-d12D	13.549	240	623379	40.00	ppm	-0.18
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						
162) Benzidine	10.883	184	1571080	100.00	ppm	Qvalue 95

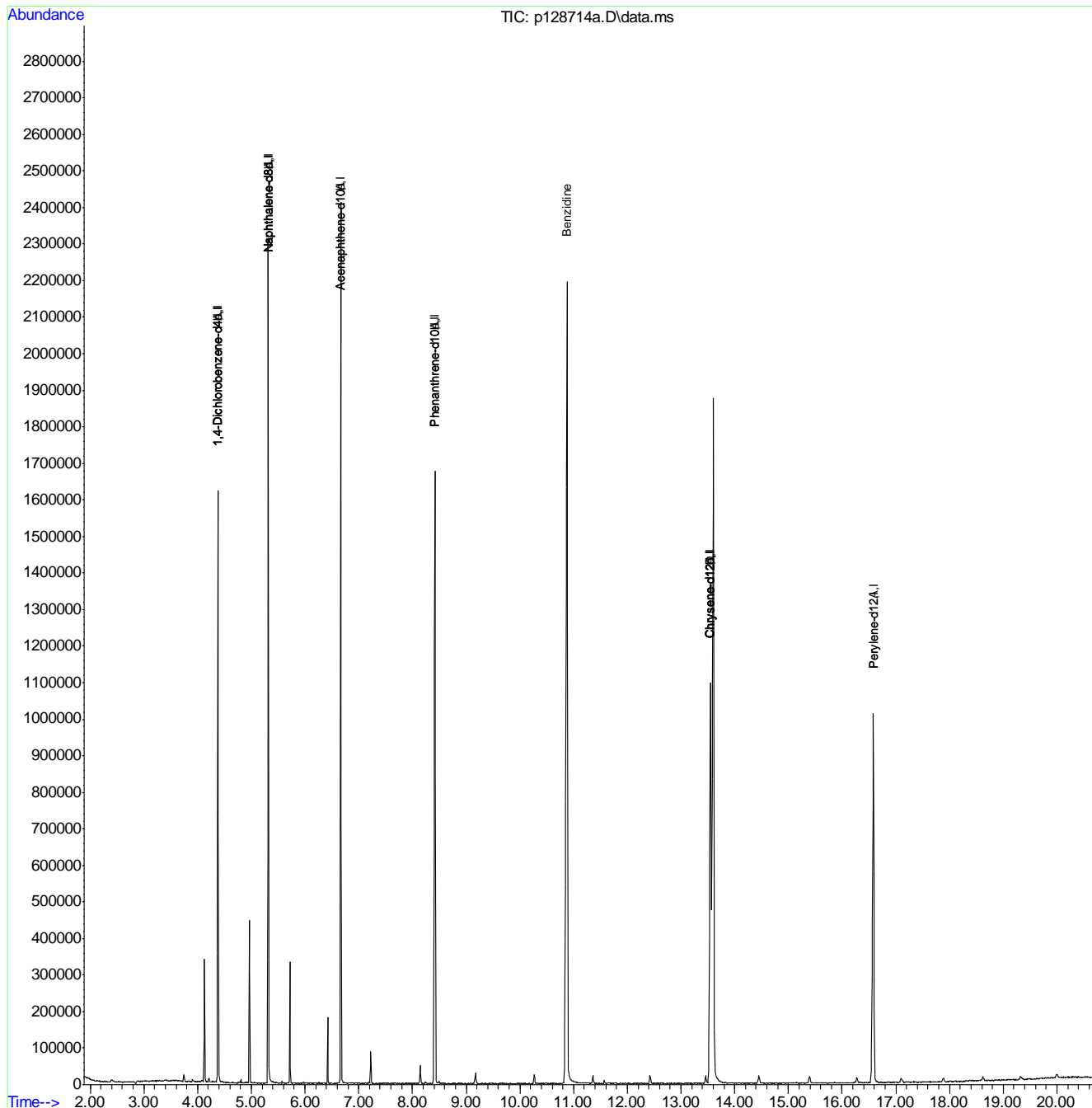
(#) = qualifier out of range (m) = manual integration (+) = signals summed

9.6.55
9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5822\
 Data File : p128714a.D
 Acq On : 26 Mar 2019 10:46 pm
 Operator : christc2
 Sample : ic5822-100
 Misc : op13894,ep5822,1000,,,1,1
 ALS Vial : 12 Sample Multiplier: 1

Quant Time: Mar 27 09:38:35 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MP5819.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Wed Mar 27 09:36:57 2019
 Response via : Initial Calibration



9.6.55
 9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5822\
 Data File : p128715a.D
 Acq On : 26 Mar 2019 11:13 pm
 Operator : christc2
 Sample : ic5822-80
 Misc : op13894,ep5822,1000,,,1,1
 ALS Vial : 13 Sample Multiplier: 1

Quant Time: Mar 27 09:40:21 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MP5819.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Wed Mar 27 09:36:57 2019
 Response via : Initial Calibration

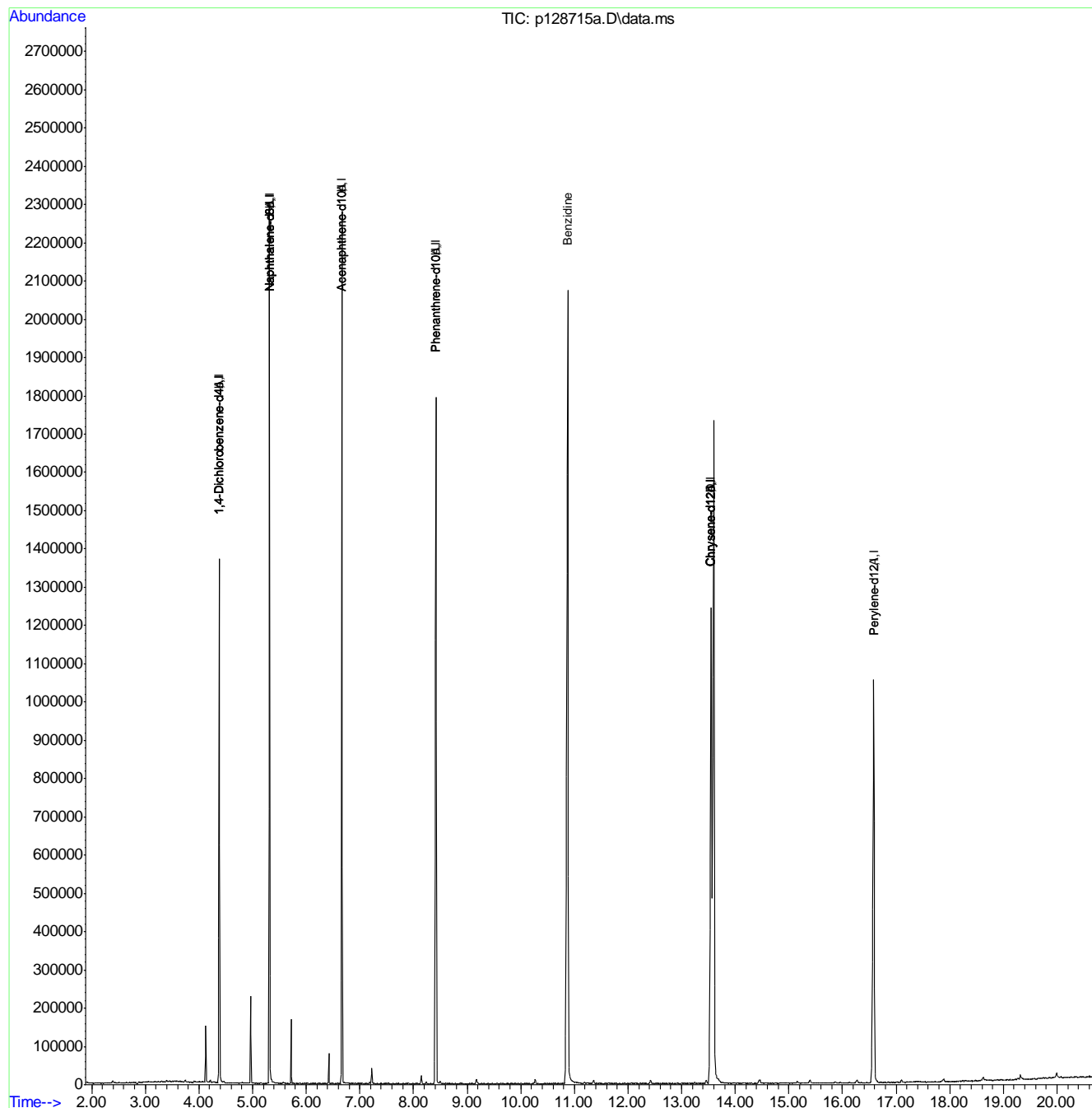
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.377	152	168409	40.00	ppm	0.00
24) Naphthalene-d8	5.312	136	699689	40.00	ppm	0.00
47) Acenaphthene-d10	6.663	164	426901	40.00	ppm	-0.01
69) Phenanthrene-d10	8.421	188	753342	40.00	ppm	-0.02
83) Chrysene-d12	13.549	240	685850	40.00	ppm	-0.03
91) Perylene-d12	16.584	264	720995	40.00	ppm	-0.04
101) 1,4-Dichlorobenzene-d4A	4.377	152	168409	40.00	ppm	0.00
111) Naphthalene-d8A	5.312	136	699689	40.00	ppm	0.00
120) Acenaphthene-d10A	6.663	164	426901	40.00	ppm	-0.01
131) Phenanthrene-d10A	8.421	188	753342	40.00	ppm	-0.02
146) Chrysene-d12A	13.549	240	685850	40.00	ppm	-0.03
153) Perylene-d12A	16.584	264	720995	40.00	ppm	-0.04
157) 1,4-Dichlorobenzene-d4b	4.377	152	168409	40.00	ppm	0.00
159) Phenanthrene-d10b	8.421	188	753342	40.00	ppm	0.00
161) Chrysene-d12b	13.549	240	685850	40.00	ppm	0.00
163) Naphthalene-d8b	5.312	136	699689	40.00	ppm	0.00
165) Acenaphthene-d10b	6.663	164	426901	40.00	ppm	0.00
167) Naphthalene-d8c	5.312	136	699689	40.00	ppm	0.00
172) 1,4-Dichlorobenzene-d4c	4.377	152	168409	40.00	ppm	0.00
174) Chrysene-d12c	13.549	240	685850	40.00	ppm	-0.03
176) Chrysene-d12d	13.549	240	685850	40.00	ppm	-0.03
178) Naphthalene-d8d	5.312	136	699689	40.00	ppm	0.00
180) Chrysene-d12D	13.549	240	685850	40.00	ppm	-0.18
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						
162) Benzidine	10.878	184	1382221	79.97	ppm	Qvalue 95

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5822\
Data File : p128715a.D
Acq On : 26 Mar 2019 11:13 pm
Operator : christc2
Sample : ic5822-80
Misc : op13894,ep5822,1000,,,1,1
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Mar 27 09:40:21 2019
Quant Method : C:\MSDCHEM\1\METHODS\MP5819.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Wed Mar 27 09:36:57 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5822\
 Data File : p128716a.D
 Acq On : 26 Mar 2019 11:40 pm
 Operator : christc2
 Sample : icc5822-50
 Misc : op13894,ep5822,1000,,,1,1
 ALS Vial : 14 Sample Multiplier: 1

Quant Time: Mar 27 09:42:09 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MP5819.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Wed Mar 27 09:36:57 2019
 Response via : Initial Calibration

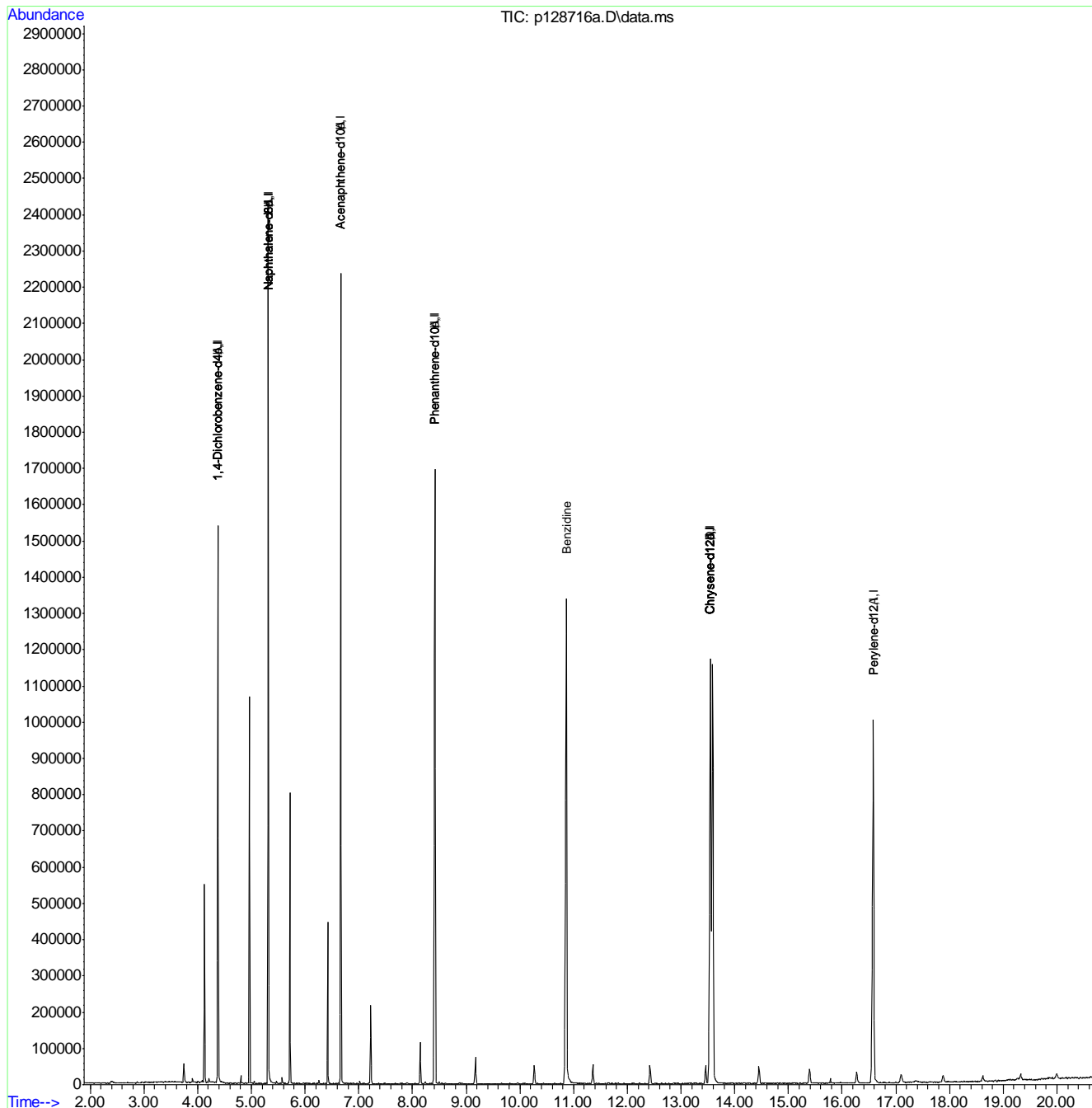
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.377	152	175596	40.00	ppm	0.00
24) Naphthalene-d8	5.311	136	732694	40.00	ppm	0.00
47) Acenaphthene-d10	6.668	164	434307	40.00	ppm	0.00
69) Phenanthrene-d10	8.415	188	739781	40.00	ppm	-0.02
83) Chrysene-d12	13.549	240	642063	40.00	ppm	-0.03
91) Perylene-d12	16.584	264	664870	40.00	ppm	-0.04
101) 1,4-Dichlorobenzene-d4A	4.377	152	175596	40.00	ppm	0.00
111) Naphthalene-d8A	5.311	136	732694	40.00	ppm	0.00
120) Acenaphthene-d10A	6.668	164	434307	40.00	ppm	0.00
131) Phenanthrene-d10A	8.415	188	739781	40.00	ppm	-0.02
146) Chrysene-d12A	13.549	240	642063	40.00	ppm	-0.03
153) Perylene-d12A	16.584	264	664870	40.00	ppm	-0.04
157) 1,4-Dichlorobenzene-d4b	4.377	152	175596	40.00	ppm	0.00
159) Phenanthrene-d10b	8.415	188	739781	40.00	ppm	0.00
161) Chrysene-d12b	13.549	240	642063	40.00	ppm	0.00
163) Naphthalene-d8b	5.311	136	732694	40.00	ppm	0.00
165) Acenaphthene-d10b	6.668	164	434307	40.00	ppm	0.00
167) Naphthalene-d8c	5.311	136	732694	40.00	ppm	0.00
172) 1,4-Dichlorobenzene-d4c	4.377	152	175596	40.00	ppm	0.00
174) Chrysene-d12c	13.549	240	642063	40.00	ppm	-0.03
176) Chrysene-d12d	13.549	240	642063	40.00	ppm	-0.03
178) Naphthalene-d8d	5.311	136	732694	40.00	ppm	0.00
180) Chrysene-d12D	13.549	240	642063	40.00	ppm	-0.18
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						
162) Benzidine	10.867	184	786918	48.63	ppm	Qvalue 95

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5822\
Data File : p128716a.D
Acq On : 26 Mar 2019 11:40 pm
Operator : christc2
Sample : icc5822-50
Misc : op13894,ep5822,1000,,,1,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Mar 27 09:42:09 2019
Quant Method : C:\MSDCHEM\1\METHODS\MP5819.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Wed Mar 27 09:36:57 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5822\
 Data File : p128717.D
 Acq On : 27 Mar 2019 12:06 am
 Operator : christc2
 Sample : ic5822-25
 Misc : op13894,ep5822,1000,,,1,1
 ALS Vial : 15 Sample Multiplier: 1

Quant Time: Mar 27 09:44:54 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MP5819.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Wed Mar 27 09:36:57 2019
 Response via : Initial Calibration

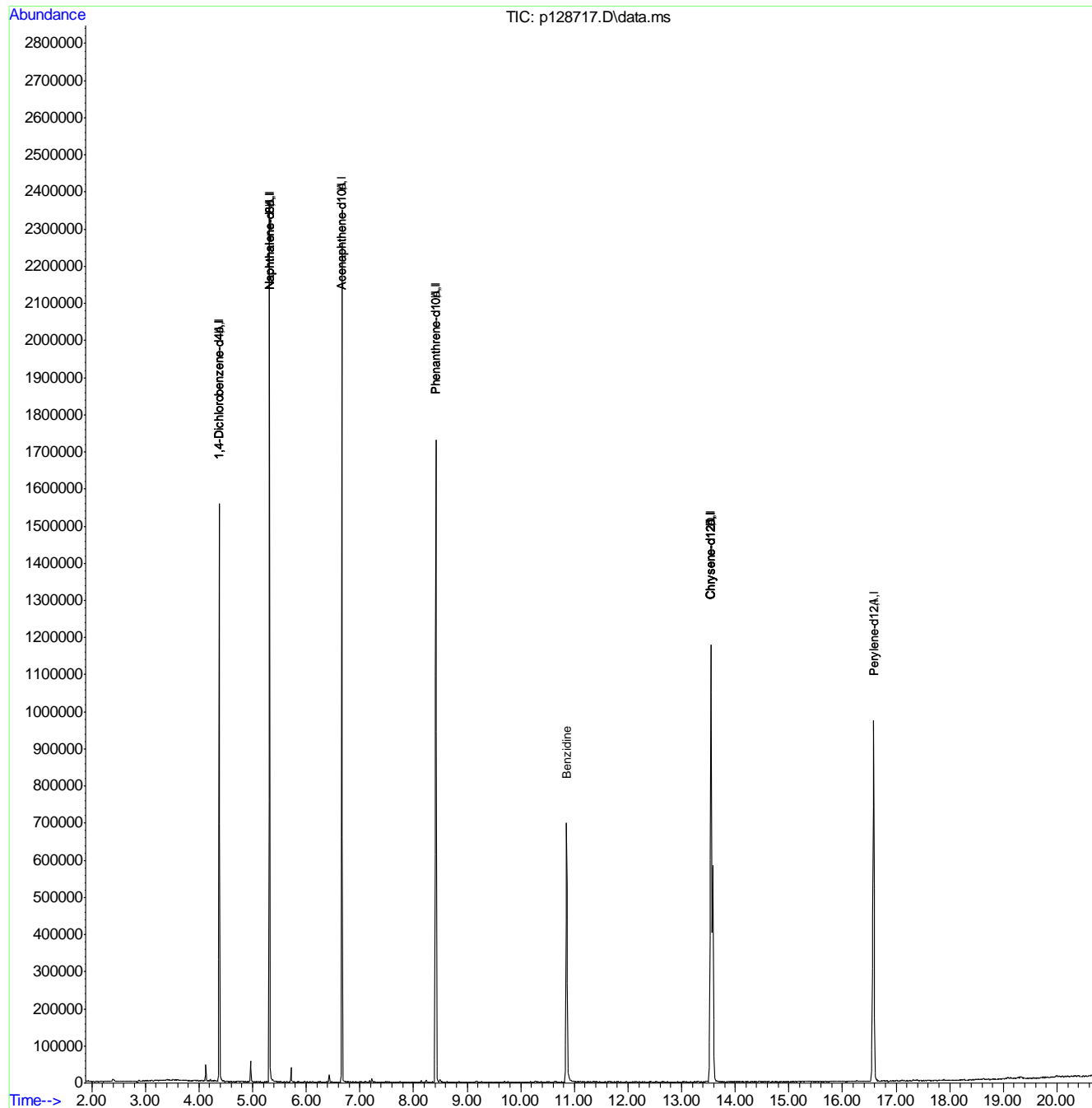
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.377	152	174251	40.00	ppm	0.00
24) Naphthalene-d8	5.312	136	713279	40.00	ppm	0.00
47) Acenaphthene-d10	6.668	164	429641	40.00	ppm	0.00
69) Phenanthrene-d10	8.421	188	732160	40.00	ppm	-0.02
83) Chrysene-d12	13.549	240	623108	40.00	ppm	-0.03
91) Perylene-d12	16.584	264	640455	40.00	ppm	-0.04
101) 1,4-Dichlorobenzene-d4A	4.377	152	174251	40.00	ppm	0.00
111) Naphthalene-d8A	5.312	136	713279	40.00	ppm	0.00
120) Acenaphthene-d10A	6.668	164	429641	40.00	ppm	0.00
131) Phenanthrene-d10A	8.421	188	732160	40.00	ppm	-0.02
146) Chrysene-d12A	13.549	240	623108	40.00	ppm	-0.03
153) Perylene-d12A	16.584	264	640455	40.00	ppm	-0.04
157) 1,4-Dichlorobenzene-d4b	4.377	152	174251	40.00	ppm	0.00
159) Phenanthrene-d10b	8.421	188	732160	40.00	ppm	0.00
161) Chrysene-d12b	13.549	240	623108	40.00	ppm	0.00
163) Naphthalene-d8b	5.312	136	713279	40.00	ppm	0.00
165) Acenaphthene-d10b	6.668	164	429641	40.00	ppm	0.00
167) Naphthalene-d8c	5.312	136	713279	40.00	ppm	0.00
172) 1,4-Dichlorobenzene-d4c	4.377	152	174251	40.00	ppm	0.00
174) Chrysene-d12c	13.549	240	623108	40.00	ppm	-0.03
176) Chrysene-d12d	13.549	240	623108	40.00	ppm	-0.03
178) Naphthalene-d8d	5.312	136	713279	40.00	ppm	0.00
180) Chrysene-d12D	13.549	240	623108	40.00	ppm	-0.18
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	0	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
Target Compounds						
162) Benzidine	10.857	184	367509	23.40	ppm	Qvalue 95

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5822\
Data File : p128717.D
Acq On : 27 Mar 2019 12:06 am
Operator : christc2
Sample : ic5822-25
Misc : op13894,ep5822,1000,,,1,1
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Mar 27 09:44:54 2019
Quant Method : C:\MSDCHEM\1\METHODS\MP5819.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Wed Mar 27 09:36:57 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5822\
 Data File : p128718.D
 Acq On : 27 Mar 2019 12:33 am
 Operator : christc2
 Sample : ic5822-10
 Misc : op13894,ep5822,1000,,,1,1
 ALS Vial : 16 Sample Multiplier: 1

Quant Time: Mar 27 09:46:20 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MP5819.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Wed Mar 27 09:36:57 2019
 Response via : Initial Calibration

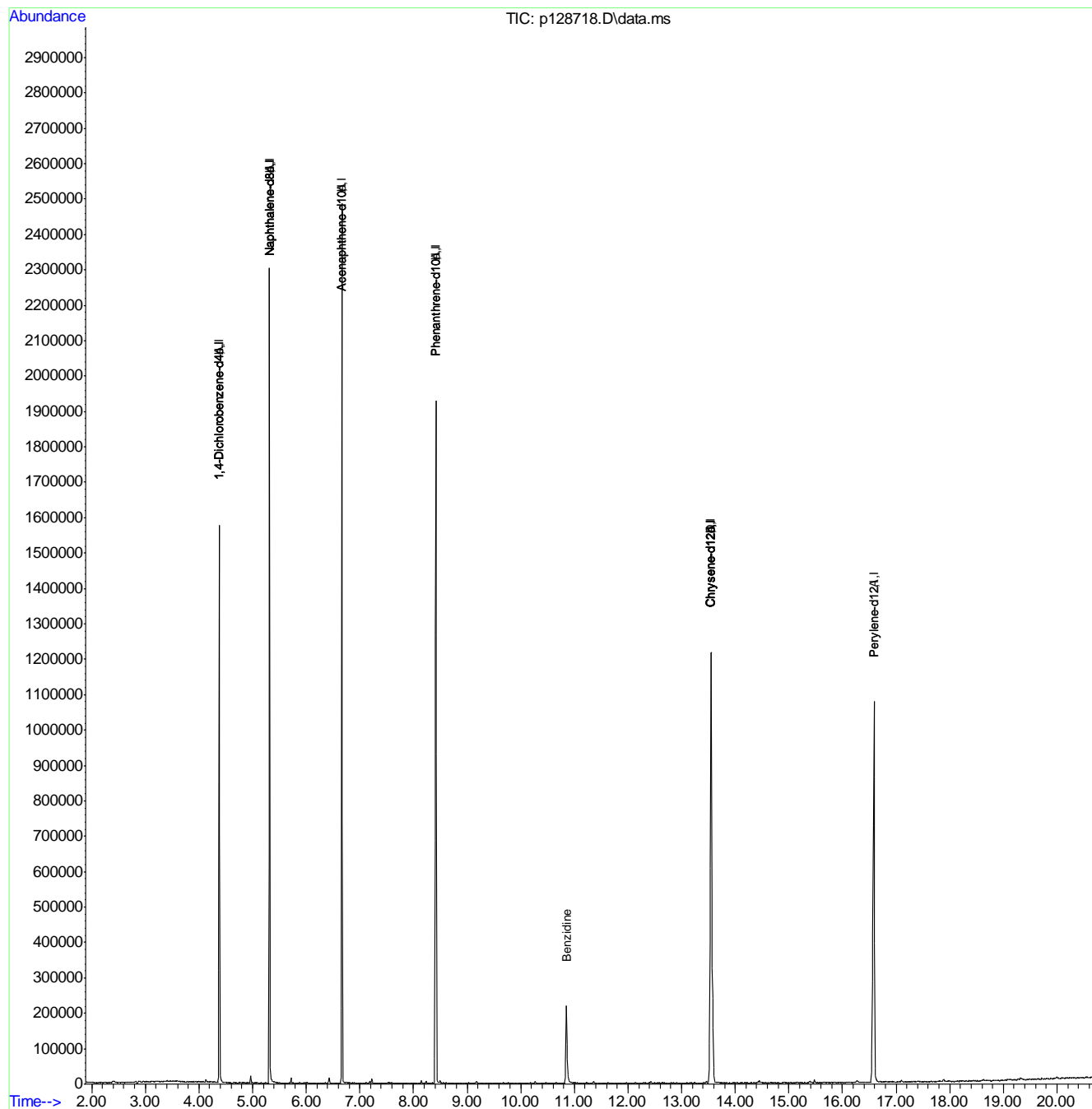
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.377	152	180692	40.00	ppm	0.00
24) Naphthalene-d8	5.317	136	758745	40.00	ppm	0.00
47) Acenaphthene-d10	6.668	164	465073	40.00	ppm	0.00
69) Phenanthrene-d10	8.421	188	798356	40.00	ppm	-0.02
83) Chrysene-d12	13.549	240	698709	40.00	ppm	-0.03
91) Perylene-d12	16.589	264	729043	40.00	ppm	-0.03
101) 1,4-Dichlorobenzene-d4A	4.377	152	180692	40.00	ppm	0.00
111) Naphthalene-d8A	5.317	136	758745	40.00	ppm	0.00
120) Acenaphthene-d10A	6.668	164	465073	40.00	ppm	0.00
131) Phenanthrene-d10A	8.421	188	798356	40.00	ppm	-0.02
146) Chrysene-d12A	13.549	240	698709	40.00	ppm	-0.03
153) Perylene-d12A	16.589	264	729043	40.00	ppm	-0.03
157) 1,4-Dichlorobenzene-d4b	4.377	152	180692	40.00	ppm	0.00
159) Phenanthrene-d10b	8.421	188	798356	40.00	ppm	0.00
161) Chrysene-d12b	13.549	240	698709	40.00	ppm	0.00
163) Naphthalene-d8b	5.317	136	758745	40.00	ppm	0.00
165) Acenaphthene-d10b	6.668	164	465073	40.00	ppm	0.00
167) Naphthalene-d8c	5.317	136	758745	40.00	ppm	0.00
172) 1,4-Dichlorobenzene-d4c	4.377	152	180692	40.00	ppm	0.00
174) Chrysene-d12c	13.549	240	698709	40.00	ppm	-0.03
176) Chrysene-d12d	13.549	240	698709	40.00	ppm	-0.03
178) Naphthalene-d8d	5.317	136	758745	40.00	ppm	0.00
180) Chrysene-d12D	13.549	240	698709	40.00	ppm	-0.18
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						
162) Benzidine	10.851	184	131022	7.44	ppm	Qvalue 94

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5822\
Data File : p128718.D
Acq On : 27 Mar 2019 12:33 am
Operator : christc2
Sample : ic5822-10
Misc : op13894,ep5822,1000,,,1,1
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Mar 27 09:46:20 2019
Quant Method : C:\MSDCHEM\1\METHODS\MP5819.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Wed Mar 27 09:36:57 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5822\
 Data File : p128719.D
 Acq On : 27 Mar 2019 12:59 am
 Operator : christc2
 Sample : ic5822-5
 Misc : op13894,ep5822,1000,,,1,1
 ALS Vial : 17 Sample Multiplier: 1

Quant Time: Mar 27 09:48:13 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MP5819.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Wed Mar 27 09:36:57 2019
 Response via : Initial Calibration

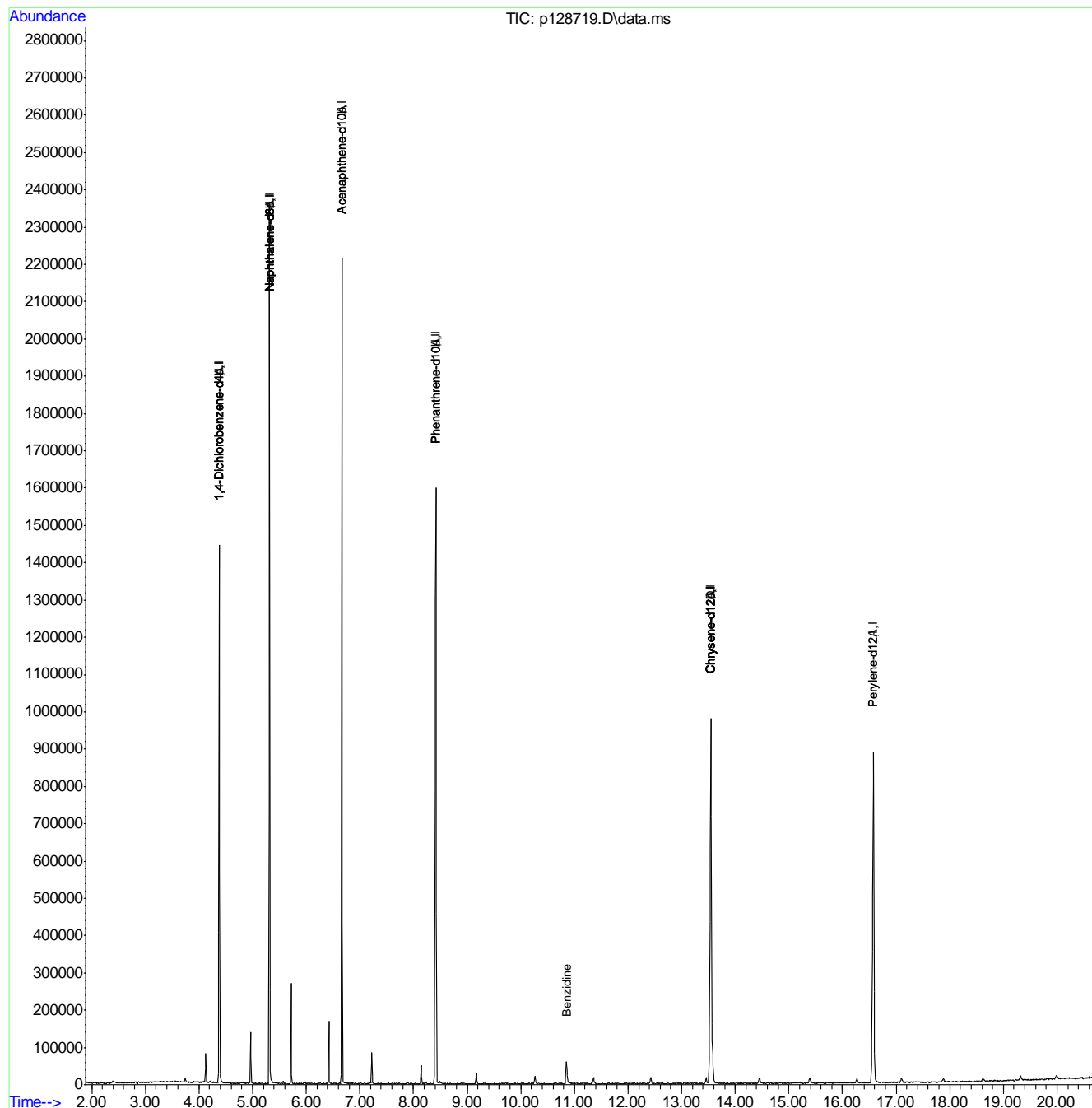
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.377	152	172979	40.00	ppm	0.00
24) Naphthalene-d8	5.312	136	694303	40.00	ppm	0.00
47) Acenaphthene-d10	6.663	164	400103	40.00	ppm	-0.01
69) Phenanthrene-d10	8.415	188	663861	40.00	ppm	-0.02
83) Chrysene-d12	13.544	240	536971	40.00	ppm	-0.04
91) Perylene-d12	16.578	264	583337	40.00	ppm	-0.04
101) 1,4-Dichlorobenzene-d4A	4.377	152	172979	40.00	ppm	0.00
111) Naphthalene-d8A	5.312	136	694303	40.00	ppm	0.00
120) Acenaphthene-d10A	6.663	164	400103	40.00	ppm	-0.01
131) Phenanthrene-d10A	8.415	188	663861	40.00	ppm	-0.02
146) Chrysene-d12A	13.544	240	536971	40.00	ppm	-0.04
153) Perylene-d12A	16.578	264	583337	40.00	ppm	-0.04
157) 1,4-Dichlorobenzene-d4b	4.377	152	172979	40.00	ppm	0.00
159) Phenanthrene-d10b	8.415	188	663861	40.00	ppm	0.00
161) Chrysene-d12b	13.544	240	536971	40.00	ppm	0.00
163) Naphthalene-d8b	5.312	136	694303	40.00	ppm	0.00
165) Acenaphthene-d10b	6.663	164	400103	40.00	ppm	0.00
167) Naphthalene-d8c	5.312	136	694303	40.00	ppm	0.00
172) 1,4-Dichlorobenzene-d4c	4.377	152	172979	40.00	ppm	0.00
174) Chrysene-d12c	13.544	240	536971	40.00	ppm	-0.04
176) Chrysene-d12d	13.544	240	536971	40.00	ppm	-0.04
178) Naphthalene-d8d	5.312	136	694303	40.00	ppm	0.00
180) Chrysene-d12D	13.544	240	536971	40.00	ppm	-0.19
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						
162) Benzidine	10.851	184	38449	2.84	ppm	Qvalue 95

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5822\
Data File : p128719.D
Acq On : 27 Mar 2019 12:59 am
Operator : christc2
Sample : ic5822-5
Misc : op13894,ep5822,1000,,,1,1
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Mar 27 09:48:13 2019
Quant Method : C:\MSDCHEM\1\METHODS\MP5819.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Wed Mar 27 09:36:57 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5822\
 Data File : p128720.D
 Acq On : 27 Mar 2019 1:26 am
 Operator : christc2
 Sample : ic5822-2
 Misc : op13894,ep5822,1000,,,1,1
 ALS Vial : 18 Sample Multiplier: 1

Quant Time: Mar 27 09:50:06 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MP5819.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Wed Mar 27 09:36:57 2019
 Response via : Initial Calibration

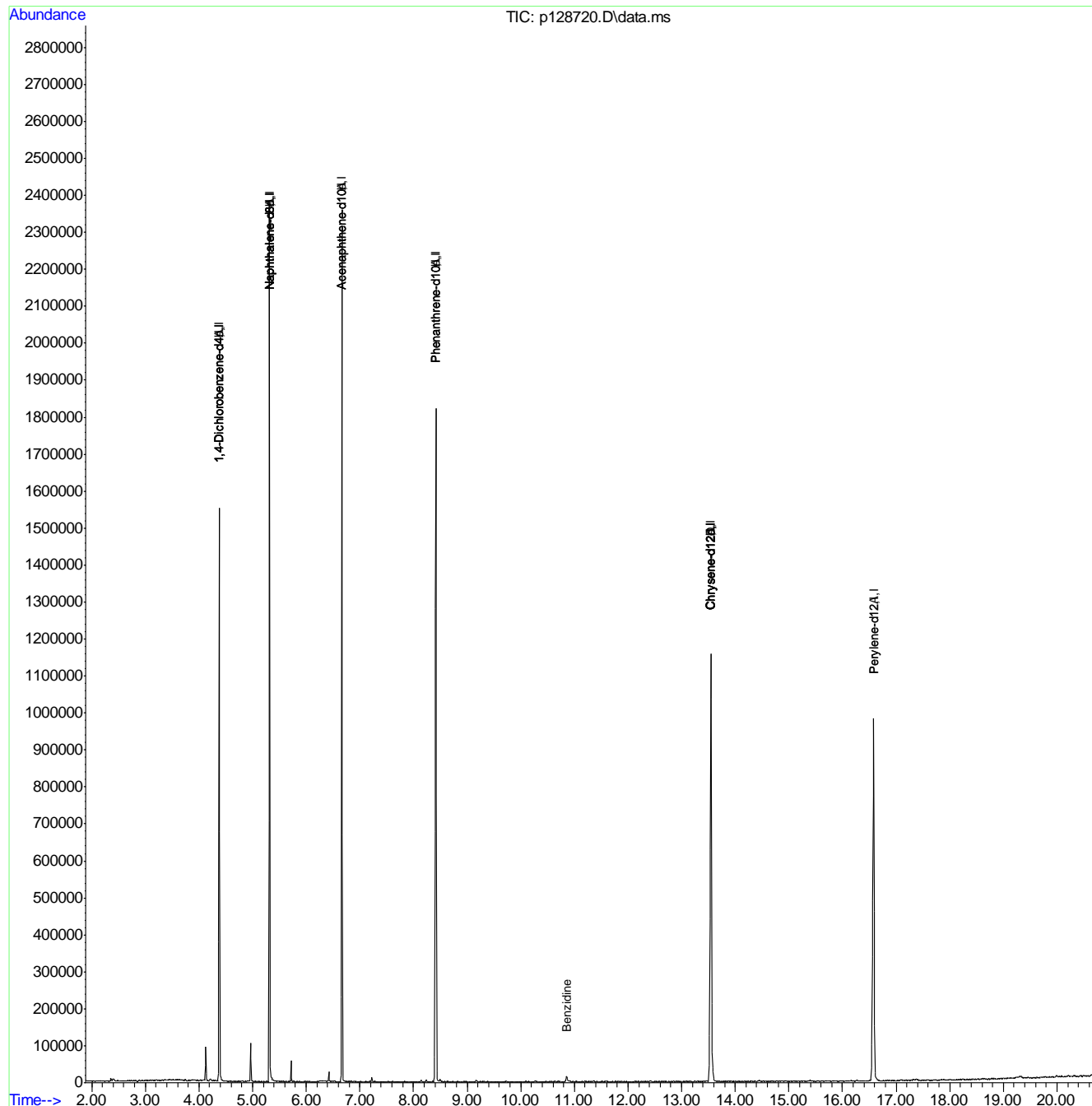
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.377	152	178338	40.00	ppm	0.00
24) Naphthalene-d8	5.312	136	739141	40.00	ppm	0.00
47) Acenaphthene-d10	6.668	164	445114	40.00	ppm	0.00
69) Phenanthrene-d10	8.415	188	750596	40.00	ppm	-0.02
83) Chrysene-d12	13.549	240	633982	40.00	ppm	-0.03
91) Perylene-d12	16.584	264	652108	40.00	ppm	-0.04
101) 1,4-Dichlorobenzene-d4A	4.377	152	178338	40.00	ppm	0.00
111) Naphthalene-d8A	5.312	136	739141	40.00	ppm	0.00
120) Acenaphthene-d10A	6.668	164	445114	40.00	ppm	0.00
131) Phenanthrene-d10A	8.415	188	750596	40.00	ppm	-0.02
146) Chrysene-d12A	13.549	240	633982	40.00	ppm	-0.03
153) Perylene-d12A	16.584	264	652108	40.00	ppm	-0.04
157) 1,4-Dichlorobenzene-d4b	4.377	152	178338	40.00	ppm	0.00
159) Phenanthrene-d10b	8.415	188	750596	40.00	ppm	0.00
161) Chrysene-d12b	13.549	240	633982	40.00	ppm	0.00
163) Naphthalene-d8b	5.312	136	739141	40.00	ppm	0.00
165) Acenaphthene-d10b	6.668	164	445114	40.00	ppm	0.00
167) Naphthalene-d8c	5.312	136	739141	40.00	ppm	0.00
172) 1,4-Dichlorobenzene-d4c	4.377	152	178338	40.00	ppm	0.00
174) Chrysene-d12c	13.549	240	633982	40.00	ppm	-0.03
176) Chrysene-d12d	13.549	240	633982	40.00	ppm	-0.03
178) Naphthalene-d8d	5.312	136	739141	40.00	ppm	0.00
180) Chrysene-d12D	13.549	240	633982	40.00	ppm	-0.18
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						
162) Benzidine	10.851	184	11639	0.73	ppm	Qvalue 95

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5822\
Data File : p128720.D
Acq On : 27 Mar 2019 1:26 am
Operator : christc2
Sample : ic5822-2
Misc : op13894,ep5822,1000,,,1,1
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Mar 27 09:50:06 2019
Quant Method : C:\MSDCHEM\1\METHODS\MP5819.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Wed Mar 27 09:36:57 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5822\
 Data File : p128722.D
 Acq On : 27 Mar 2019 2:20 am
 Operator : christc2
 Sample : icv5822-50
 Misc : op13894,ep5822,1000,,,1,1
 ALS Vial : 20 Sample Multiplier: 1

Quant Time: Mar 27 10:06:53 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MP5819.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Wed Mar 27 10:04:47 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.377	152	241154	40.00	ppm	0.00
24) Naphthalene-d8	5.317	136	1015834	40.00	ppm	0.00
47) Acenaphthene-d10	6.668	164	590591	40.00	ppm	0.00
69) Phenanthrene-d10	8.421	188	1075230	40.00	ppm	-0.02
83) Chrysene-d12	13.560	240	986426	40.00	ppm	-0.02
91) Perylene-d12	16.594	264	943540	40.00	ppm	-0.02
101) 1,4-Dichlorobenzene-d4A	4.377	152	241154	40.00	ppm	0.00
111) Naphthalene-d8A	5.317	136	1015834	40.00	ppm	0.00
120) Acenaphthene-d10A	6.668	164	590591	40.00	ppm	0.00
131) Phenanthrene-d10A	8.421	188	1075230	40.00	ppm	-0.02
146) Chrysene-d12A	13.560	240	986426	40.00	ppm	-0.02
153) Perylene-d12A	16.594	264	943540	40.00	ppm	-0.02
157) 1,4-Dichlorobenzene-d4b	4.377	152	241154	40.00	ppm	0.00
159) Phenanthrene-d10b	8.421	188	1075230	40.00	ppm	0.00
161) Chrysene-d12b	13.560	240	986426	40.00	ppm	0.01
163) Naphthalene-d8b	5.317	136	1015834	40.00	ppm	0.00
165) Acenaphthene-d10b	6.668	164	590591	40.00	ppm	0.00
167) Naphthalene-d8c	5.317	136	1015834	40.00	ppm	0.00
172) 1,4-Dichlorobenzene-d4c	4.377	152	241154	40.00	ppm	0.00
174) Chrysene-d12c	13.560	240	986426	40.00	ppm	-0.02
176) Chrysene-d12d	13.560	240	986426	40.00	ppm	-0.02
178) Naphthalene-d8d	5.317	136	1015834	40.00	ppm	0.00
180) Chrysene-d12D	13.560	240	986426	40.00	ppm	-0.17
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						
162) Benzidine	10.873	184	999722	43.22	ppm	Qvalue 99

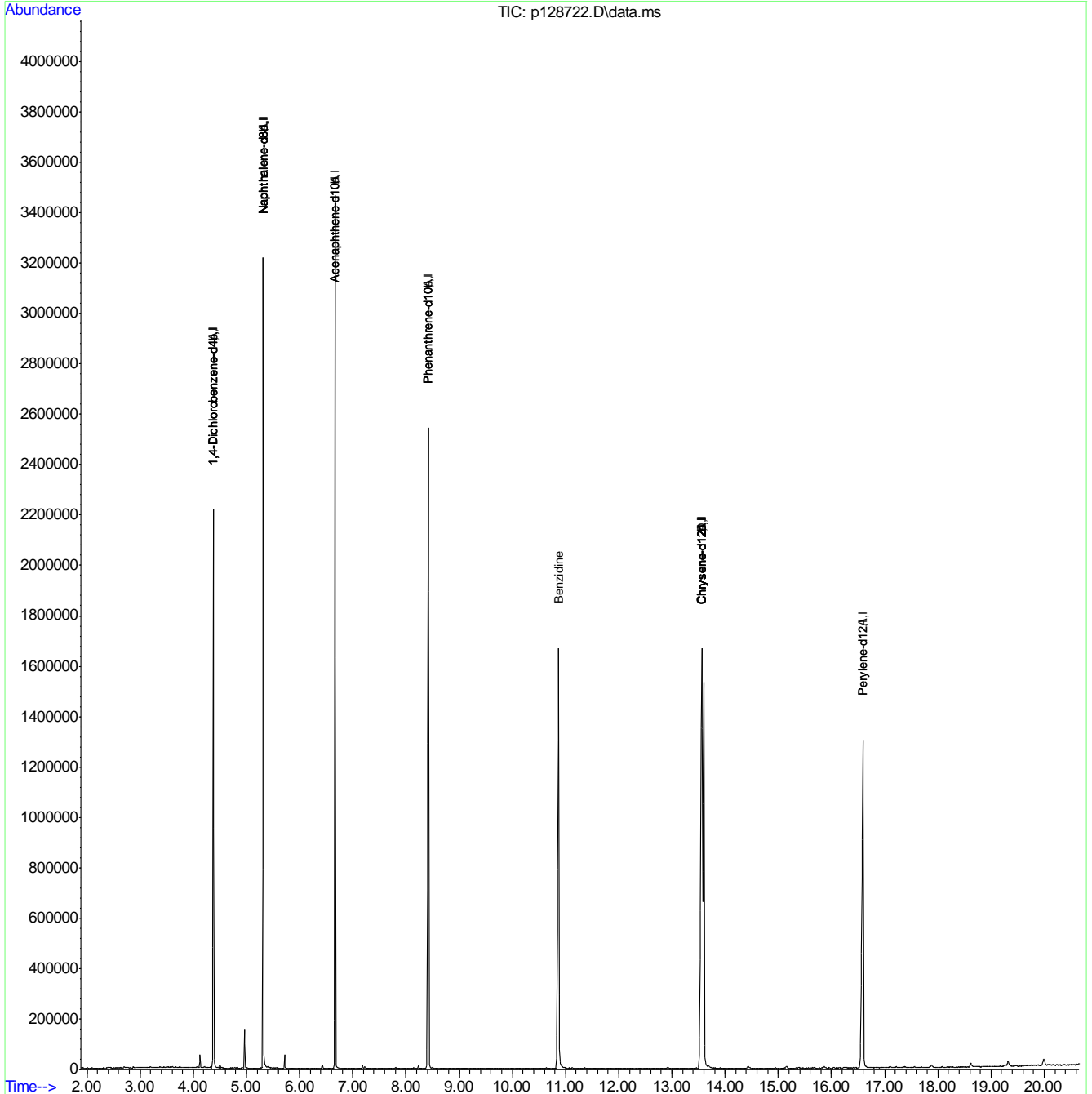
(#) = qualifier out of range (m) = manual integration (+) = signals summed

9.6.62
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Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5822\
 Data File : p128722.D
 Acq On : 27 Mar 2019 2:20 am
 Operator : christc2
 Sample : icv5822-50
 Misc : op13894,ep5822,1000,,,1,1
 ALS Vial : 20 Sample Multiplier: 1

Quant Time: Mar 27 10:06:53 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MP5819.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Wed Mar 27 10:04:47 2019
 Response via : Initial Calibration



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Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5823\
 Data File : p128724.D
 Acq On : 27 Mar 2019 3:31 pm
 Operator : christc2
 Sample : icv5819-50
 Misc : op13894,ep5823,1000,,,1,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 27 19:15:35 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MP5819.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Wed Mar 27 10:04:47 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.360	152	118573	40.00	ppm	-0.02
24) Naphthalene-d8	5.301	136	474759	40.00	ppm	-0.02
47) Acenaphthene-d10	6.652	164	273195	40.00	ppm	-0.02
69) Phenanthrene-d10	8.399	188	473818	40.00	ppm	-0.04
83) Chrysene-d12	13.517	240	457190	40.00	ppm	-0.06
91) Perylene-d12	16.546	264	496760	40.00	ppm	-0.07
101) 1,4-Dichlorobenzene-d4A	4.360	152	118573	40.00	ppm	-0.02
111) Naphthalene-d8A	5.301	136	474759	40.00	ppm	-0.02
120) Acenaphthene-d10A	6.652	164	273195	40.00	ppm	-0.02
131) Phenanthrene-d10A	8.399	188	473818	40.00	ppm	-0.04
146) Chrysene-d12A	13.517	240	457190	40.00	ppm	-0.06
153) Perylene-d12A	16.546	264	496760	40.00	ppm	-0.07
157) 1,4-Dichlorobenzene-d4b	4.360	152	118573	40.00	ppm	-0.02
159) Phenanthrene-d10b	8.399	188	473818	40.00	ppm	-0.02
161) Chrysene-d12b	13.517	240	457190	40.00	ppm	-0.03
163) Naphthalene-d8b	5.301	136	474759	40.00	ppm	-0.02
165) Acenaphthene-d10b	6.652	164	273195	40.00	ppm	-0.02
167) Naphthalene-d8c	5.301	136	474759	40.00	ppm	-0.02
172) 1,4-Dichlorobenzene-d4c	4.360	152	118573	40.00	ppm	-0.02
174) Chrysene-d12c	13.517	240	457190	40.00	ppm	-0.06
176) Chrysene-d12d	13.517	240	457190	40.00	ppm	-0.06
178) Naphthalene-d8d	5.301	136	474759	40.00	ppm	-0.02
180) Chrysene-d12D	13.517	240	457190	40.00	ppm	-0.22
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						
18) Acetophenone	4.665	105	406589	58.08	ppm	93
27) Quinoline	5.562	129	528637	56.57	ppm	99
40) 2,3-Dichloroaniline	6.033	161	241145	46.91	ppm	96
41) Caprolactam	5.621	55	169227	55.58	ppm	95
45) 1-Methylnaphthalene	5.888	142	489992	51.22	ppm	92
46) Dimethylnaphthalene	6.294	156	449503	52.42	ppm	96
53) Biphenyl	6.166	154	619336	56.85	ppm	99
99) 7,12-Dimethylbenz(a)an...	15.820	256	415705	61.29	ppm	94

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Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5823\
Data File : p128724.D
Acq On : 27 Mar 2019 3:31 pm
Operator : christc2
Sample : icv5819-50
Misc : op13894,ep5823,1000,,,1,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 27 19:15:35 2019
Quant Method : C:\MSDCHEM\1\METHODS\MP5819.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Wed Mar 27 10:04:47 2019
Response via : Initial Calibration

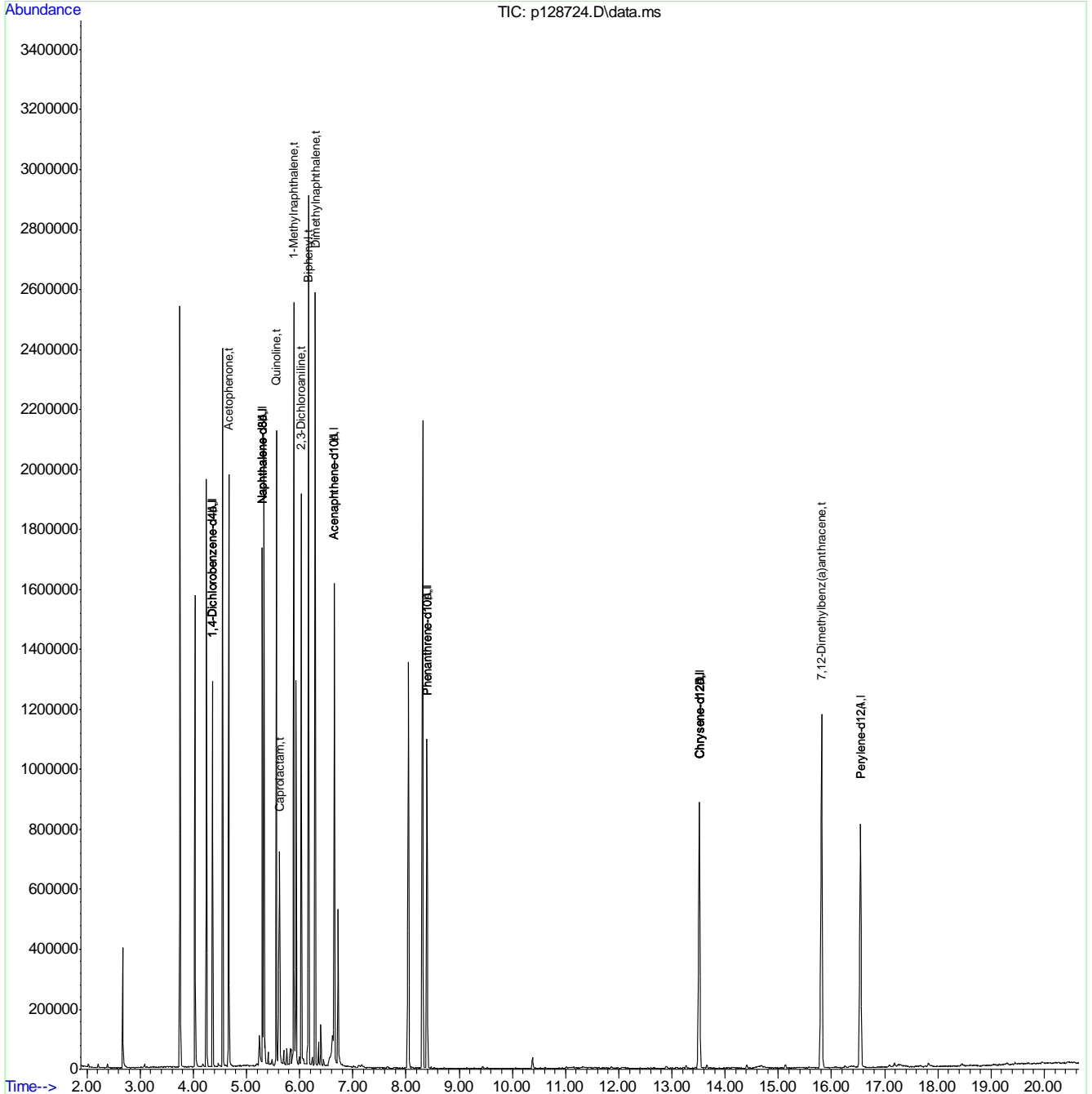
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5823\
 Data File : p128724.D
 Acq On : 27 Mar 2019 3:31 pm
 Operator : christc2
 Sample : icv5819-50
 Misc : op13894,ep5823,1000,,,1,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 27 19:15:35 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MP5819.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Wed Mar 27 10:04:47 2019
 Response via : Initial Calibration



9.6.63
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Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5835\
 Data File : p128926.D
 Acq On : 11 Apr 2019 1:08 am
 Operator : chriss2
 Sample : cc5819-25
 Misc : op13894,ep5835,1000,,,1,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 11 10:51:12 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MP5819.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Tue Apr 09 07:59:45 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
Internal Standards							
1) 1,4-Dichlorobenzene-d4	4.279	152	152276	40.00	ppm	-0.11	
24) Naphthalene-d8	5.219	136	588649	40.00	ppm	-0.10	
47) Acenaphthene-d10	6.544	164	347741	40.00	ppm	-0.13	
69) Phenanthrene-d10	8.243	188	620560	40.00	ppm	-0.20	
83) Chrysene-d12	13.312	240	555716	40.00	ppm	-0.27	
91) Perylene-d12	16.336	264	609631	40.00	ppm	-0.28	
101) 1,4-Dichlorobenzene-d4b	4.279	152	152276	40.00	ppm	-0.10	
103) Phenanthrene-d10b	8.243	188	620560	40.00	ppm	-0.18	
105) Chrysene-d12b	13.312	240	555716	40.00	ppm	-0.24	
107) Naphthalene-d8b	5.219	136	588649	40.00	ppm	-0.10	
109) Acenaphthene-d10b	6.544	164	347741	40.00	ppm	-0.12	
System Monitoring Compounds							
5) 2-Fluorophenol	3.312	112	149563	26.22	ppm	-0.13	
Spiked Amount	50.000		Recovery	=	52.44%		
8) Phenol-d5	4.065	99	197788	25.87	ppm	-0.13	
Spiked Amount	50.000		Recovery	=	51.74%		
25) Nitrobenzene-d5	4.695	82	214245	27.88	ppm	-0.11	
Spiked Amount	50.000		Recovery	=	55.76%		
51) 2-Fluorobiphenyl	5.999	172	301610	24.30	ppm	-0.11	
Spiked Amount	50.000		Recovery	=	48.60%		
73) 2,4,6-Tribromophenol	7.351	330	41289	24.00	ppm	-0.16	
Spiked Amount	50.000		Recovery	=	48.00%		
85) Terphenyl-d14	11.144	244	346147	25.22	ppm	-0.23	
Spiked Amount	50.000		Recovery	=	50.44%		
Target Compounds							
2) 1,4-Dioxane	1.698	88	68657	24.88	ppm		98
3) Pyridine	2.019	79	186056	26.71	ppm		97
4) N-Nitrosodimethylamine	2.003	42	116789	30.57	ppm		81
6) Indene	4.471	116	241499	25.66	ppm		99
7) Cumene	3.664	105	430331	27.12	ppm		99
9) Phenol	4.076	94	213446	25.65	ppm		87
10) Aniline	4.044	93	251925	27.92	ppm		69
11) bis(2-Chloroethyl)ether	4.092	93	155160	24.56	ppm		92
12) 2-Chlorophenol	4.140	128	141385	25.22	ppm		93
13) Decane	4.172	43	197101	31.94	ppm		88
14) 1,3-Dichlorobenzene	4.236	146	161793	25.41	ppm		98
15) 1,4-Dichlorobenzene	4.289	146	155350	24.82	ppm		99
16) Benzyl alcohol	4.402	108	95147	25.30	ppm		81
17) 1,2-Dichlorobenzene	4.407	146	154435	24.79	ppm		97
18) Acetophenone	4.589	105	226831	25.23	ppm		97
19) 2-Methylphenol	4.508	108	137465	25.33	ppm		97
20) 2,2'-oxybis(1-Chloropr...	4.492	121	38363	24.44	ppm	#	60
21) 3&4-Methylphenol	4.626	108	144999	24.76	ppm		99
22) n-Nitroso-di-n-propyla...	4.594	70	123740	26.29	ppm		91
23) Hexachloroethane	4.653	201	56836	25.42	ppm		95
26) Nitrobenzene	4.711	77	218516	27.06	ppm		96
27) Quinoline	5.481	129	282427	24.37	ppm		97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5835\
 Data File : p128926.D
 Acq On : 11 Apr 2019 1:08 am
 Operator : chriss2
 Sample : cc5819-25
 Misc : op13894,ep5835,1000,,,1,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 11 10:51:12 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MP5819.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Tue Apr 09 07:59:45 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
28) Isophorone	4.888	82	368550	26.56	ppm	96
29) 2-Nitrophenol	4.947	139	76522	23.77	ppm #	68
30) 2,4-Dimethylphenol	5.000	107	172357	27.25	ppm	98
31) Benzoic acid	5.123	105	132139	26.29	ppm	98
32) bis(2-Chloroethoxy)met...	5.048	93	190128	25.69	ppm	99
33) 2,4-Dichlorophenol	5.139	162	120311	23.67	ppm	99
34) 2,6-Dichlorophenol	5.288	162	115182	24.03	ppm	95
35) 1,3,5-Trichlorobenzene	4.952	180	138535	24.33	ppm	99
36) 1,2,4-Trichlorobenzene	5.182	180	128034	24.44	ppm	98
37) 1,2,3-Trichlorobenzene	5.342	180	121513	24.05	ppm	99
38) Naphthalene	5.235	128	384251	24.69	ppm	98
39) 4-Chloroaniline	5.283	127	157451	24.20	ppm	84
40) 2,3-Dichloroaniline	5.940	161	151589	23.78	ppm	96
41) Caprolactam	5.545	55	96171	25.48	ppm	94
42) Hexachlorobutadiene	5.326	225	81229	24.72	ppm	96
43) 4-Chloro-3-methylphenol	5.662	107	157308	25.80	ppm #	63
44) 2-Methylnaphthalene	5.732	141	227084	24.64	ppm	95
45) 1-Methylnaphthalene	5.801	142	281486	23.73	ppm	93
46) Dimethylnaphthalene	6.197	156	237938	22.38	ppm	97
48) Hexachlorocyclopentadiene	5.849	237	132960	48.41	ppm	99
49) 2,4,6-Trichlorophenol	5.951	196	87600	25.17	ppm	97
50) 2,4,5-Trichlorophenol	5.988	196	92894	24.36	ppm	98
52) 2-Chloronaphthalene	6.090	162	252963	24.77	ppm	98
53) Biphenyl	6.074	154	348019	25.10	ppm	100
54) 2-Nitroaniline	6.181	65	127631	27.92	ppm	93
55) Dimethylphthalate	6.319	163	321390	25.06	ppm	100
56) Acenaphthylene	6.421	152	428668	25.32	ppm	100
57) 2,6-Dinitrotoluene	6.368	165	70185	25.75	ppm	77
58) 3-Nitroaniline	6.523	138	76502	25.68	ppm	100
59) Acenaphthene	6.571	153	264157	25.74	ppm	99
60) 2,4-Dinitrophenol	6.619	184	51837	41.06	ppm	91
61) 4-Nitrophenol	6.726	109	72487	29.99	ppm #	30
62) Dibenzofuran	6.731	168	367956	24.37	ppm	88
63) 2,4-Dinitrotoluene	6.731	165	95698	24.26	ppm #	51
64) 2,3,4,6-Tetrachlorophenol	6.870	232	76767	25.68	ppm	97
65) Diethylphthalate	6.966	149	348969	25.59	ppm	98
66) Fluorene	7.078	166	323967	25.48	ppm	98
67) 4-Chlorophenyl-phenyle...	7.078	204	152498	23.80	ppm	85
68) 4-Nitroaniline	7.126	138	65514	23.72	ppm	94
70) 4,6-Dinitro-2-methylph...	7.153	198	46370	23.59	ppm #	67
71) n-Nitrosodiphenylamine	7.212	169	221597	25.67	ppm	97
72) 1,2-Diphenylhydrazine	7.254	77	470025	28.62	ppm	97
74) 4-Bromophenyl-phenylether	7.644	248	90522	24.96	ppm	93
75) Hexachlorobenzene	7.730	284	91812	24.48	ppm	99
76) Pentachlorophenol	8.008	266	104398	50.38	ppm	99
77) Phenanthrene	8.275	178	442154	25.67	ppm	98
78) Anthracene	8.350	178	471061	25.68	ppm	99
79) Carbazole	8.622	167	412474	24.27	ppm	100
80) Di-n-butylphthalate	9.279	149	636457	25.32	ppm	99
81) Fluoranthene	10.289	202	534315	25.70	ppm	97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5835\
 Data File : p128926.D
 Acq On : 11 Apr 2019 1:08 am
 Operator : chriss2
 Sample : cc5819-25
 Misc : op13894,ep5835,1000,,,1,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 11 10:51:12 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MP5819.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Tue Apr 09 07:59:45 2019
 Response via : Initial Calibration

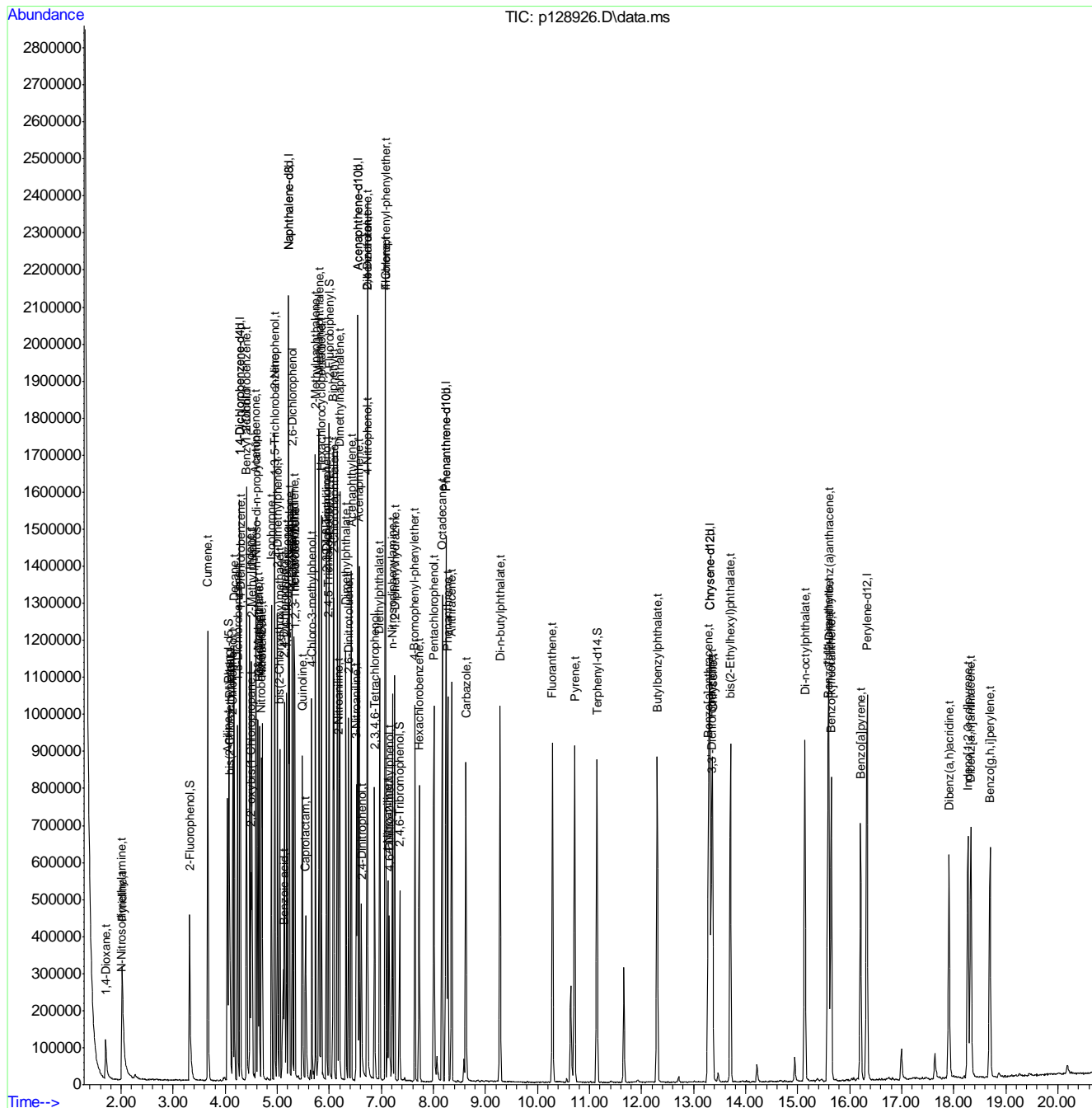
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
82) Octadecane	8.168	57	280326	28.65	ppm	89
84) Pyrene	10.716	202	545598	26.26	ppm	98
86) Butylbenzylphthalate	12.297	149	291231	26.06	ppm	96
87) Benzo[a]anthracene	13.286	228	497501	26.01	ppm	99
88) 3,3'-Dichlorobenzidine	13.345	252	152377	25.25	ppm	98
89) Chrysene	13.366	228	438988	25.90	ppm	97
90) bis(2-Ethylhexyl)phtha...	13.708	149	390777	25.38	ppm	96
92) Di-n-octylphthalate	15.140	149	701799	24.19	ppm	95
93) Benzo[b]fluoranthene	15.583	252	496812	24.54	ppm	95
94) Benzo[k]fluoranthene	15.647	252	442854	25.77	ppm	99
95) Benzo[a]pyrene	16.213	252	450367	26.42	ppm	97
96) Indeno[1,2,3-cd]pyrene	18.270	276	422809	27.38	ppm	88
97) Dibenz(a,h)acridine	17.912	279	393413	27.15	ppm	100
98) Dibenz[a,h]anthracene	18.329	278	421603	26.74	ppm	96
99) 7,12-Dimethylbenz(a)an...	15.599	256	217178	26.09	ppm	95
100) Benzo[g,h,i]perylene	18.697	276	420223	28.05	ppm	97

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5835\
 Data File : pl28926.D
 Acq On : 11 Apr 2019 1:08 am
 Operator : chriss2
 Sample : cc5819-25
 Misc : op13894,ep5835,1000,,,1,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 11 10:51:12 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MP5819.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Tue Apr 09 07:59:45 2019
 Response via : Initial Calibration



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 9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5835\
 Data File : p128927.D
 Acq On : 11 Apr 2019 1:35 am
 Operator : chriss2
 Sample : cc5821-25
 Misc : op13894,ep5835,1000,,,1,1
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Apr 11 11:00:45 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MP5819.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Tue Apr 09 07:59:45 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.279	152	166247	40.00	ppm	-0.11
24) Naphthalene-d8	5.219	136	664756	40.00	ppm	-0.10
47) Acenaphthene-d10	6.544	164	407828	40.00	ppm	-0.13
69) Phenanthrene-d10	8.243	188	717007	40.00	ppm	-0.20
83) Chrysene-d12	13.307	240	705292	40.00	ppm	-0.27
91) Perylene-d12	16.336	264	797847	40.00	ppm	-0.28
101) 1,4-Dichlorobenzene-d4b	4.279	152	166247	40.00	ppm	-0.10
103) Phenanthrene-d10b	8.243	188	717007	40.00	ppm	-0.18
105) Chrysene-d12b	13.307	240	705292	40.00	ppm	-0.24
107) Naphthalene-d8b	5.219	136	664756	40.00	ppm	-0.10
109) Acenaphthene-d10b	6.544	164	407828	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	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) Benzaldehyde	3.947	105	137858	25.86	ppm	96
104) Atrazine	7.901	200	120020	29.15	ppm	98
108) Hydroquinone	5.561	110	176522	34.17	ppm	94
110) 1,2,4,5-Tetrachloroben...	5.855	216	150858	26.19	ppm	98

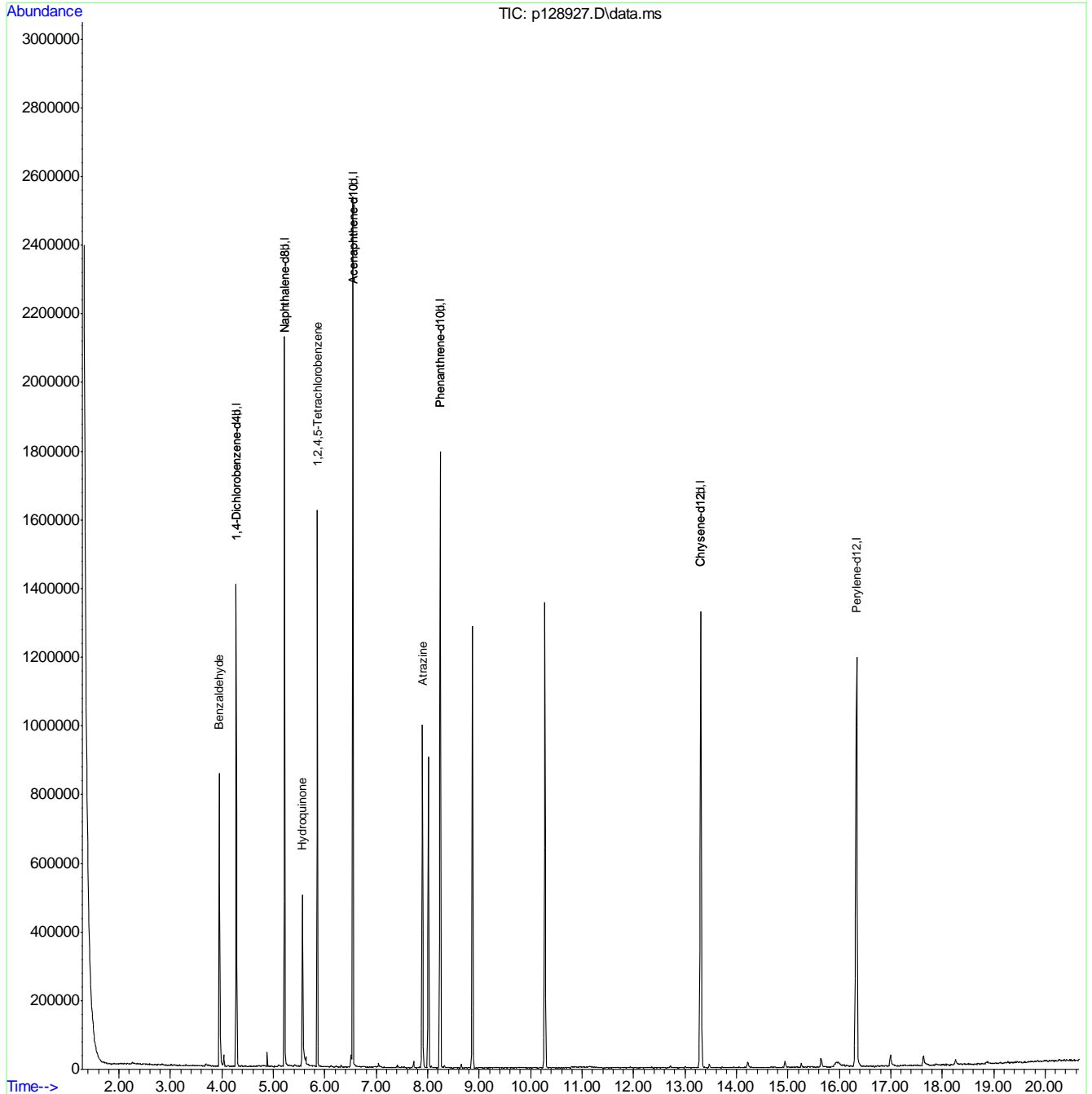
(#) = qualifier out of range (m) = manual integration (+) = signals summed

9.6.65
9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5835\
 Data File : p128927.D
 Acq On : 11 Apr 2019 1:35 am
 Operator : chriss2
 Sample : cc5821-25
 Misc : op13894,ep5835,1000,,,1,1
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Apr 11 11:00:45 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MP5819.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Tue Apr 09 07:59:45 2019
 Response via : Initial Calibration



9 6:65

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5835\
 Data File : p128928.D
 Acq On : 11 Apr 2019 2:02 am
 Operator : chriss2
 Sample : cc5822-25
 Misc : op13894,ep5835,1000,,,1,1
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Apr 11 11:02:01 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MP5819.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Tue Apr 09 07:59:45 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.279	152	211846	40.00	ppm	-0.11
24) Naphthalene-d8	5.214	136	831840	40.00	ppm	-0.11
47) Acenaphthene-d10	6.544	164	496703	40.00	ppm	-0.13
69) Phenanthrene-d10	8.243	188	838219	40.00	ppm	-0.20
83) Chrysene-d12	13.312	240	727095	40.00	ppm	-0.27
91) Perylene-d12	16.336	264	781023	40.00	ppm	-0.28
101) 1,4-Dichlorobenzene-d4b	4.279	152	211846	40.00	ppm	-0.10
103) Phenanthrene-d10b	8.243	188	838219	40.00	ppm	-0.18
105) Chrysene-d12b	13.312	240	727095	40.00	ppm	-0.24
107) Naphthalene-d8b	5.214	136	831840	40.00	ppm	-0.10
109) Acenaphthene-d10b	6.544	164	496703	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	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						
106) Benzidine	10.641	184	350989	20.59	ppm	Qvalue 99

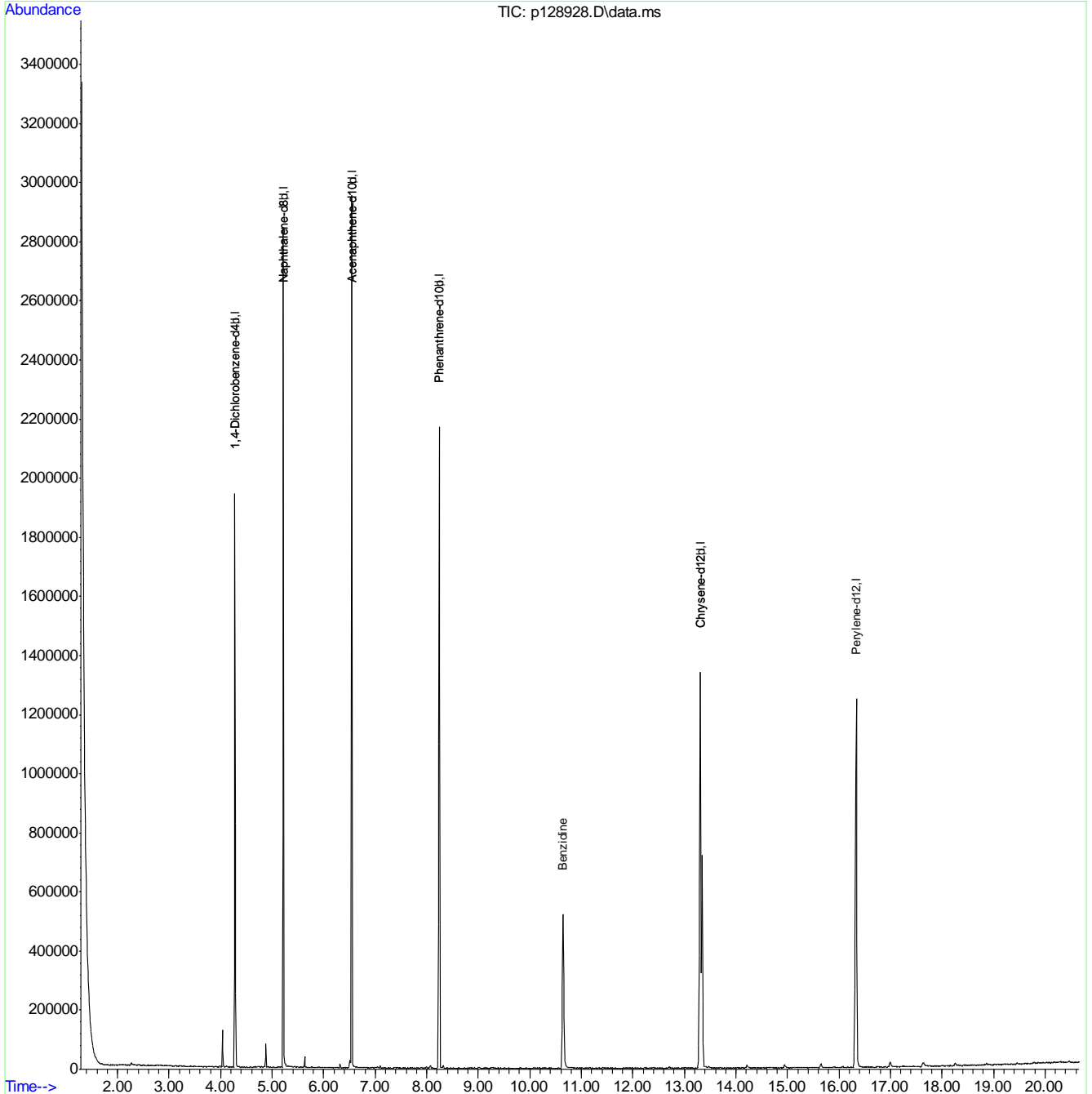
(#) = qualifier out of range (m) = manual integration (+) = signals summed

6 99.9% 6

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5835\
 Data File : p128928.D
 Acq On : 11 Apr 2019 2:02 am
 Operator : chriss2
 Sample : cc5822-25
 Misc : op13894,ep5835,1000,,,1,1
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Apr 11 11:02:01 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MP5819.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Tue Apr 09 07:59:45 2019
 Response via : Initial Calibration



6 99'9'6

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5836\
 Data File : p128951.D
 Acq On : 11 Apr 2019 1:16 pm
 Operator : christc2
 Sample : cc5819-50
 Misc : op13894,ep5836,1000,,,1,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 12 09:31:12 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MP5819.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Fri Apr 12 09:28:59 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
Internal Standards							
1) 1,4-Dichlorobenzene-d4	4.268	152	160066	40.00	ppm	-0.12	
24) Naphthalene-d8	5.208	136	596760	40.00	ppm	-0.11	
47) Acenaphthene-d10	6.533	164	356988	40.00	ppm	-0.14	
69) Phenanthrene-d10	8.232	188	618963	40.00	ppm	-0.21	
83) Chrysene-d12	13.307	240	555288	40.00	ppm	-0.27	
91) Perylene-d12	16.326	264	602921	40.00	ppm	-0.29	
101) 1,4-Dichlorobenzene-d4b	4.268	152	160066	40.00	ppm	-0.11	
103) Phenanthrene-d10b	8.232	188	618963	40.00	ppm	-0.19	
105) Chrysene-d12b	13.307	240	555288	40.00	ppm	-0.24	
107) Naphthalene-d8b	5.208	136	596760	40.00	ppm	-0.11	
109) Acenaphthene-d10b	6.533	164	356988	40.00	ppm	-0.13	
System Monitoring Compounds							
5) 2-Fluorophenol	3.296	112	309288	51.58	ppm	-0.15	
Spiked Amount	50.000		Recovery	=	103.16%		
8) Phenol-d5	4.054	99	394984	49.15	ppm	-0.14	
Spiked Amount	50.000		Recovery	=	98.30%		
25) Nitrobenzene-d5	4.690	82	416810	53.49	ppm	-0.11	
Spiked Amount	50.000		Recovery	=	106.98%		
51) 2-Fluorobiphenyl	5.994	172	627483	49.24	ppm	-0.11	
Spiked Amount	50.000		Recovery	=	98.48%		
73) 2,4,6-Tribromophenol	7.340	330	89355	52.08	ppm	-0.17	
Spiked Amount	50.000		Recovery	=	104.16%		
85) Terphenyl-d14	11.133	244	713171	52.00	ppm	-0.24	
Spiked Amount	50.000		Recovery	=	104.00%		
Target Compounds							
							Qvalue
2) 1,4-Dioxane	1.677	88	142253	49.04	ppm		97
3) Pyridine	1.992	79	377483	51.55	ppm		96
4) N-Nitrosodimethylamine	1.982	42	211722	52.72	ppm		89
6) Indene	4.460	116	477561	48.28	ppm		100
7) Cumene	3.654	105	861704	51.66	ppm		100
9) Phenol	4.065	94	416167	47.58	ppm		90
10) Aniline	4.028	93	514025	54.19	ppm		83
11) bis(2-Chloroethyl)ether	4.081	93	298860	45.00	ppm		92
12) 2-Chlorophenol	4.129	128	285131	48.39	ppm		99
13) Decane	4.161	43	325347	56.29	ppm		99
14) 1,3-Dichlorobenzene	4.225	146	327145	48.88	ppm		99
15) 1,4-Dichlorobenzene	4.279	146	318105	48.34	ppm		98
16) Benzyl alcohol	4.396	108	196486	49.71	ppm		97
17) 1,2-Dichlorobenzene	4.396	146	322365	49.23	ppm		98
18) Acetophenone	4.578	105	450174	47.63	ppm		96
19) 2-Methylphenol	4.503	108	271679	47.62	ppm		96
20) 2,2'-oxybis(1-Chloropr...	4.487	121	77392	46.90	ppm		92
21) 3&4-Methylphenol	4.615	108	288595	46.89	ppm		99
22) n-Nitroso-di-n-propyla...	4.589	70	233627	47.23	ppm		98
23) Hexachloroethane	4.642	201	119176	50.71	ppm		96
26) Nitrobenzene	4.706	77	412165	50.36	ppm		100
27) Quinoline	5.476	129	581532	49.51	ppm		98

9.6.67
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Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5836\
 Data File : p128951.D
 Acq On : 11 Apr 2019 1:16 pm
 Operator : christc2
 Sample : cc5819-50
 Misc : op13894,ep5836,1000,,,1,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 12 09:31:12 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MP5819.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Fri Apr 12 09:28:59 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
28) Isophorone	4.883	82	721001	51.25	ppm	98
29) 2-Nitrophenol	4.936	139	164385	50.38	ppm	79
30) 2,4-Dimethylphenol	4.995	107	343828	53.62	ppm	99
31) Benzoic acid	5.134	105	291683	57.23	ppm	95
32) bis(2-Chloroethoxy)met...	5.043	93	366392	48.83	ppm	100
33) 2,4-Dichlorophenol	5.128	162	251157	48.73	ppm	99
34) 2,6-Dichlorophenol	5.283	162	241748	49.76	ppm	97
35) 1,3,5-Trichlorobenzene	4.941	180	293443	50.84	ppm	99
36) 1,2,4-Trichlorobenzene	5.171	180	268998	50.65	ppm	97
37) 1,2,3-Trichlorobenzene	5.331	180	253084	49.40	ppm	98
38) Naphthalene	5.224	128	801171	50.78	ppm	98
39) 4-Chloroaniline	5.278	127	332000	50.33	ppm	93
40) 2,3-Dichloroaniline	5.935	161	318035	49.22	ppm	98
41) Caprolactam	5.561	55	186624	48.77	ppm	97
42) Hexachlorobutadiene	5.321	225	176747	53.07	ppm	98
43) 4-Chloro-3-methylphenol	5.657	107	321241	51.97	ppm	99
44) 2-Methylnaphthalene	5.727	141	463411	49.61	ppm	96
45) 1-Methylnaphthalene	5.796	142	585444	48.69	ppm	99
46) Dimethylnaphthalene	6.191	156	485851	45.08	ppm	97
48) Hexachlorocyclopentadiene	5.839	237	335311	105.59	ppm	98
49) 2,4,6-Trichlorophenol	5.946	196	180369	50.49	ppm	98
50) 2,4,5-Trichlorophenol	5.983	196	205933	52.61	ppm	99
52) 2-Chloronaphthalene	6.079	162	521294	49.73	ppm	95
53) Biphenyl	6.069	154	722049	50.72	ppm	99
54) 2-Nitroaniline	6.175	65	241540	51.46	ppm	97
55) Dimethylphthalate	6.314	163	665288	50.54	ppm	99
56) Acenaphthylene	6.410	152	871341	50.14	ppm	100
57) 2,6-Dinitrotoluene	6.368	165	145592	52.02	ppm	100
58) 3-Nitroaniline	6.517	138	154848	50.64	ppm	97
59) Acenaphthene	6.565	153	550594	52.26	ppm	100
60) 2,4-Dinitrophenol	6.613	184	158104	110.03	ppm	97
61) 4-Nitrophenol	6.715	109	157878	63.62	ppm #	74
62) Dibenzofuran	6.726	168	780402	50.34	ppm	94
63) 2,4-Dinitrotoluene	6.726	165	204898	50.60	ppm	76
64) 2,3,4,6-Tetrachlorophenol	6.859	232	167370	54.55	ppm	95
65) Diethylphthalate	6.966	149	710281	50.73	ppm	99
66) Fluorene	7.068	166	675388	51.74	ppm	99
67) 4-Chlorophenyl-phenyle...	7.068	204	335707	51.03	ppm	87
68) 4-Nitroaniline	7.126	138	142579	50.29	ppm	96
70) 4,6-Dinitro-2-methylph...	7.153	198	113324	57.79	ppm #	65
71) n-Nitrosodiphenylamine	7.206	169	445357	51.73	ppm	100
72) 1,2-Diphenylhydrazine	7.244	77	868887	53.04	ppm	96
74) 4-Bromophenyl-phenylether	7.639	248	185926	51.39	ppm	95
75) Hexachlorobenzene	7.719	284	191575	51.20	ppm	98
76) Pentachlorophenol	8.002	266	245891	105.77	ppm	97
77) Phenanthrene	8.270	178	899816	52.38	ppm	100
78) Anthracene	8.344	178	962599	52.62	ppm	99
79) Carbazole	8.617	167	877701	51.77	ppm	99
80) Di-n-butylphthalate	9.269	149	1292623	51.55	ppm	100
81) Fluoranthene	10.284	202	1080424	52.09	ppm	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5836\
 Data File : p128951.D
 Acq On : 11 Apr 2019 1:16 pm
 Operator : christc2
 Sample : cc5819-50
 Misc : op13894,ep5836,1000,,,1,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 12 09:31:12 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MP5819.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Fri Apr 12 09:28:59 2019
 Response via : Initial Calibration

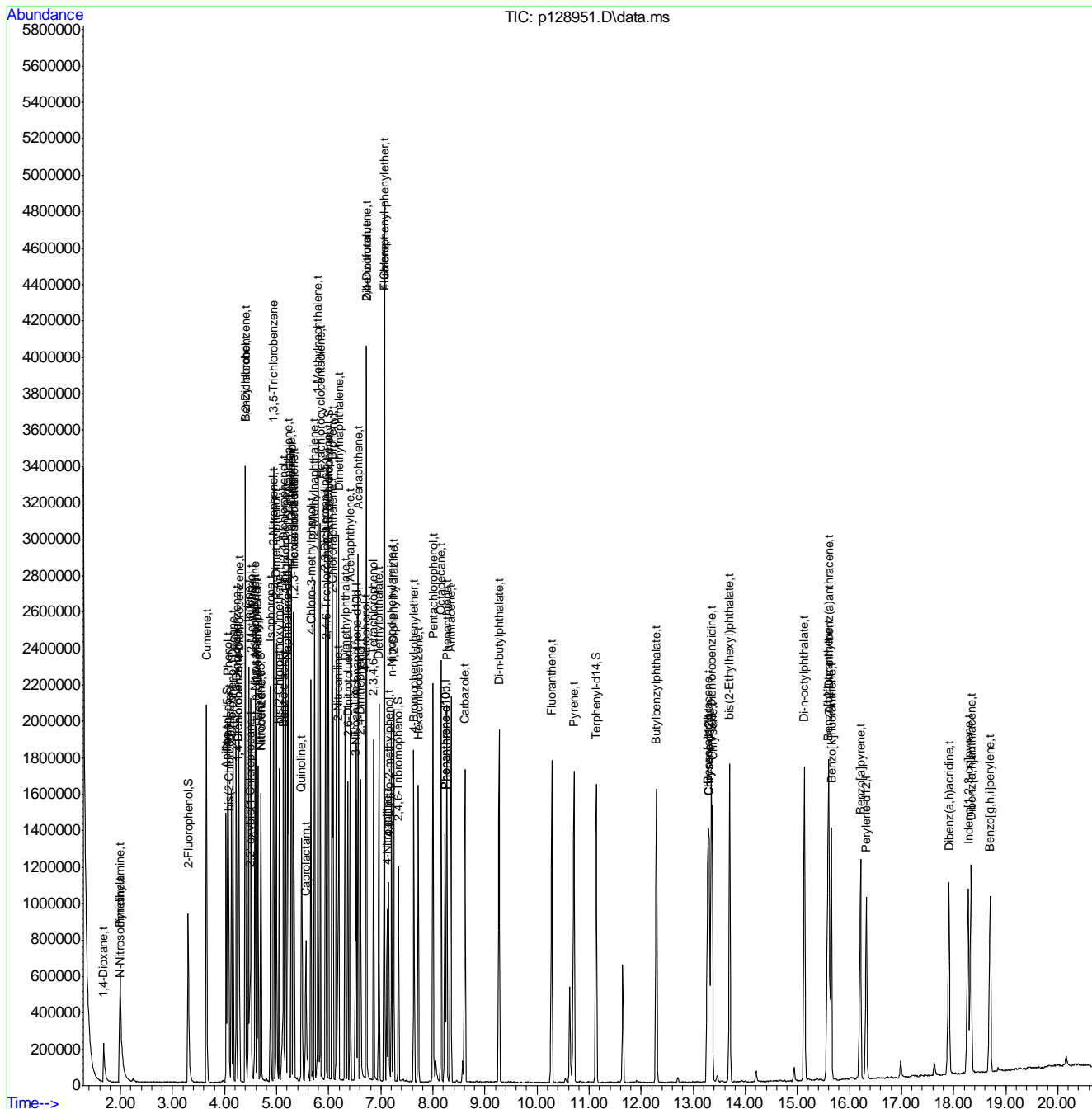
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
82) Octadecane	8.157	57	508307	52.09	ppm	96
84) Pyrene	10.711	202	1091838	52.60	ppm	99
86) Butylbenzylphthalate	12.292	149	583521	52.25	ppm	97
87) Benzo[a]anthracene	13.286	228	995621	52.10	ppm	98
88) 3,3'-Dichlorobenzidine	13.345	252	332629	55.17	ppm	97
89) Chrysene	13.366	228	887835	52.42	ppm	100
90) bis(2-Ethylhexyl)phtha...	13.697	149	777826	50.55	ppm	98
92) Di-n-octylphthalate	15.134	149	1370661	47.77	ppm	98
93) Benzo[b]fluoranthene	15.594	252	979225	48.91	ppm	98
94) Benzo[k]fluoranthene	15.653	252	860252	50.61	ppm	98
95) Benzo[a]pyrene	16.213	252	871795	51.72	ppm	99
96) Indeno[1,2,3-cd]pyrene	18.281	276	807358	52.86	ppm	97
97) Dibenz(a,h)acridine	17.918	279	744733	51.96	ppm	98
98) Dibenz[a,h]anthracene	18.334	278	827241	53.06	ppm	99
99) 7,12-Dimethylbenz(a)an...	15.604	256	440676	53.53	ppm	98
100) Benzo[g,h,i]perylene	18.703	276	786211	53.06	ppm	98

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5836\
 Data File : p128951.D
 Acq On : 11 Apr 2019 1:16 pm
 Operator : christc2
 Sample : cc5819-50
 Misc : op13894,ep5836,1000,,,1,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 12 09:31:12 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MP5819.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Fri Apr 12 09:28:59 2019
 Response via : Initial Calibration



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Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5836\
 Data File : p128952.D
 Acq On : 11 Apr 2019 1:43 pm
 Operator : christc2
 Sample : cc5821-50
 Misc : op13894,ep5836,1000,,,1,1
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Apr 12 09:42:17 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MP5819.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Tue Apr 09 07:59:45 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.268	152	181269	40.00	ppm	-0.12
24) Naphthalene-d8	5.203	136	712366	40.00	ppm	-0.12
47) Acenaphthene-d10	6.533	164	413903	40.00	ppm	-0.14
69) Phenanthrene-d10	8.227	188	677842	40.00	ppm	-0.21
83) Chrysene-d12	13.291	240	605684	40.00	ppm	-0.29
91) Perylene-d12	16.320	264	621023	40.00	ppm	-0.30
101) 1,4-Dichlorobenzene-d4b	4.268	152	181269	40.00	ppm	-0.11
103) Phenanthrene-d10b	8.227	188	677842	40.00	ppm	-0.19
105) Chrysene-d12b	13.291	240	605684	40.00	ppm	-0.26
107) Naphthalene-d8b	5.203	136	712366	40.00	ppm	-0.11
109) Acenaphthene-d10b	6.533	164	413903	40.00	ppm	-0.14
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	0d	0.00	ppm	
Spiked Amount	50.000		Recovery	=	0.00%	
Target Compounds						
102) Benzaldehyde	3.937	105	294871	50.73	ppm	99
104) Atrazine	7.895	200	226694	58.23	ppm	92
108) Hydroquinone	5.561	110	379670	68.57	ppm	96
110) 1,2,4,5-Tetrachloroben...	5.844	216	314198	53.74	ppm	97

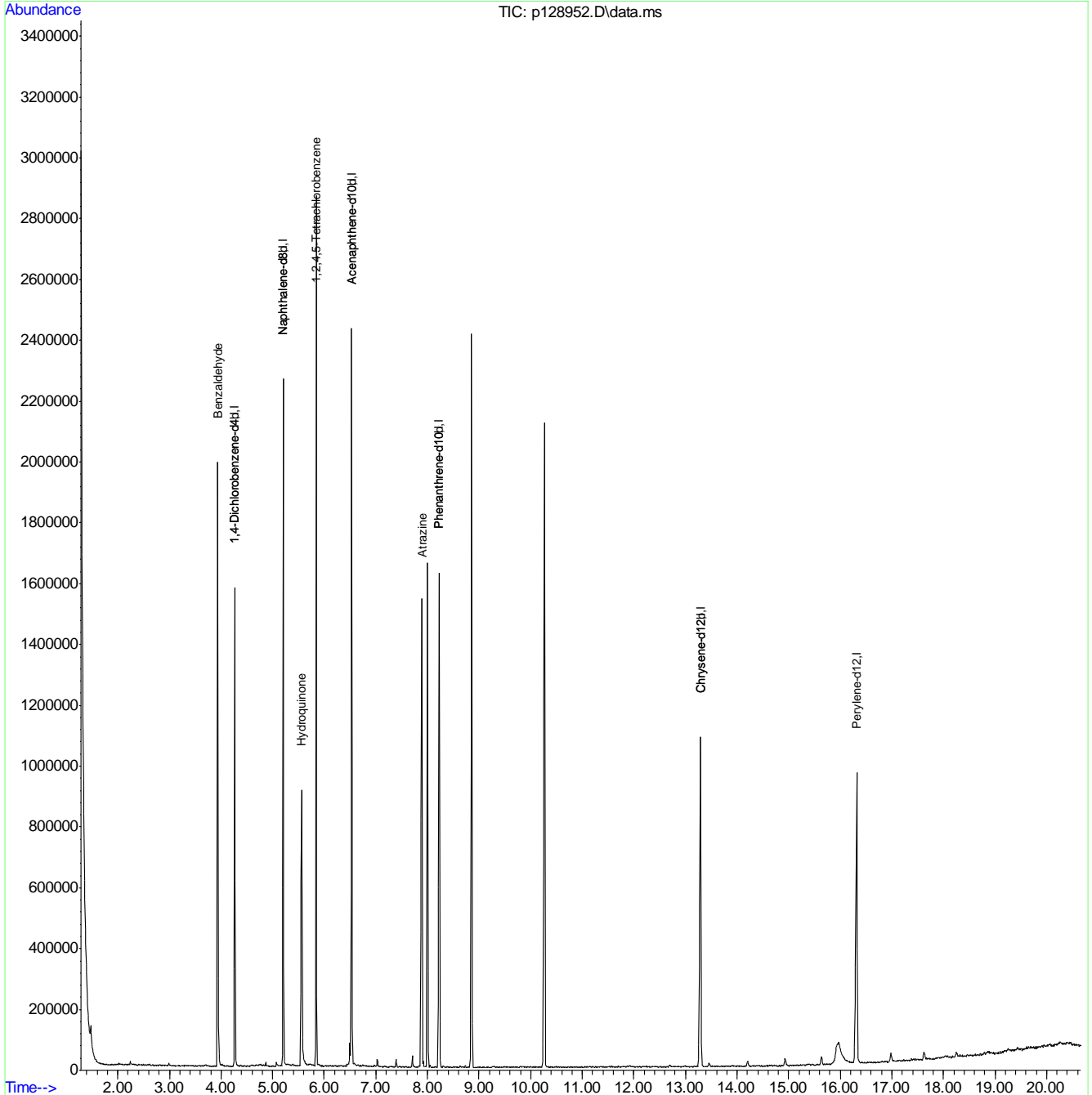
(#) = qualifier out of range (m) = manual integration (+) = signals summed

6 89.9.6

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5836\
 Data File : p128952.D
 Acq On : 11 Apr 2019 1:43 pm
 Operator : christc2
 Sample : cc5821-50
 Misc : op13894,ep5836,1000,,,1,1
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Apr 12 09:42:17 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MP5819.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Tue Apr 09 07:59:45 2019
 Response via : Initial Calibration



6 89'9'6

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5836\
 Data File : p128966.D
 Acq On : 11 Apr 2019 10:22 pm
 Operator : christc2
 Sample : ecc5819-50
 Misc : op19673,ep5836,30.0,,,1,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 12 09:51:46 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MP5819.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Tue Apr 09 07:59:45 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
Internal Standards							
1) 1,4-Dichlorobenzene-d4	4.268	152	139613	40.00	ppm	-0.12	
24) Naphthalene-d8	5.208	136	527422	40.00	ppm	-0.11	
47) Acenaphthene-d10	6.533	164	311207	40.00	ppm	-0.14	
69) Phenanthrene-d10	8.227	188	538750	40.00	ppm	-0.21	
83) Chrysene-d12	13.296	240	488495	40.00	ppm	-0.28	
91) Perylene-d12	16.315	264	539921	40.00	ppm	-0.30	
101) 1,4-Dichlorobenzene-d4b	4.268	152	139613	40.00	ppm	-0.11	
103) Phenanthrene-d10b	8.227	188	538750	40.00	ppm	-0.19	
105) Chrysene-d12b	13.296	240	488495	40.00	ppm	-0.25	
107) Naphthalene-d8b	5.208	136	527422	40.00	ppm	-0.11	
109) Acenaphthene-d10b	6.533	164	311207	40.00	ppm	-0.14	
System Monitoring Compounds							
5) 2-Fluorophenol	3.290	112	267759	51.20	ppm	-0.15	
Spiked Amount	50.000		Recovery	=	102.40%		
8) Phenol-d5	4.054	99	342280	48.83	ppm	-0.14	
Spiked Amount	50.000		Recovery	=	97.66%		
25) Nitrobenzene-d5	4.690	82	365441	53.07	ppm	-0.11	
Spiked Amount	50.000		Recovery	=	106.14%		
51) 2-Fluorobiphenyl	5.988	172	553170	49.79	ppm	-0.12	
Spiked Amount	50.000		Recovery	=	99.58%		
73) 2,4,6-Tribromophenol	7.334	330	73165	48.99	ppm	-0.18	
Spiked Amount	50.000		Recovery	=	97.98%		
85) Terphenyl-d14	11.127	244	606425	50.26	ppm	-0.25	
Spiked Amount	50.000		Recovery	=	100.52%		
Target Compounds							
							Qvalue
2) 1,4-Dioxane	1.677	88	126802	50.12	ppm		97
3) Pyridine	1.992	79	330618	51.77	ppm		95
4) N-Nitrosodimethylamine	1.976	42	211477	60.37	ppm		79
6) Indene	4.460	116	419769	48.65	ppm		98
7) Cumene	3.648	105	762918	52.44	ppm		98
9) Phenol	4.060	94	363616	47.66	ppm		88
10) Aniline	4.028	93	460664	55.68	ppm		68
11) bis(2-Chloroethyl)ether	4.081	93	259775	44.85	ppm		93
12) 2-Chlorophenol	4.124	128	246693	48.00	ppm		88
13) Decane	4.161	43	323835	68.11	ppm		93
14) 1,3-Dichlorobenzene	4.225	146	285295	48.87	ppm		98
15) 1,4-Dichlorobenzene	4.279	146	278477	48.52	ppm		98
16) Benzyl alcohol	4.396	108	155971	45.24	ppm		80
17) 1,2-Dichlorobenzene	4.391	146	284290	49.77	ppm		97
18) Acetophenone	4.578	105	405115	49.15	ppm		96
19) 2-Methylphenol	4.498	108	231266	46.47	ppm		93
20) 2,2'-oxybis(1-Chloropr...	4.482	121	67196	46.68	ppm	#	68
21) 3&4-Methylphenol	4.615	108	253579	47.23	ppm		99
22) n-Nitroso-di-n-propyla...	4.588	70	210643	48.82	ppm		94
23) Hexachloroethane	4.642	201	99570	48.58	ppm		99
26) Nitrobenzene	4.701	77	376939	52.11	ppm		94
27) Quinoline	5.475	129	507082	48.84	ppm		99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5836\
 Data File : p128966.D
 Acq On : 11 Apr 2019 10:22 pm
 Operator : christc2
 Sample : ecc5819-50
 Misc : op19673,ep5836,30.0,,,1,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 12 09:51:46 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MP5819.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Tue Apr 09 07:59:45 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
28) Isophorone	4.882	82	649476	52.23	ppm	97
29) 2-Nitrophenol	4.936	139	143914	49.90	ppm #	82
30) 2,4-Dimethylphenol	4.989	107	309257	54.57	ppm	90
31) Benzoic acid	5.128	105	227485	50.51	ppm	95
32) bis(2-Chloroethoxy)met...	5.043	93	326009	49.16	ppm	99
33) 2,4-Dichlorophenol	5.128	162	218932	48.06	ppm	96
34) 2,6-Dichlorophenol	5.283	162	211704	49.30	ppm	98
35) 1,3,5-Trichlorobenzene	4.941	180	265366	52.02	ppm	98
36) 1,2,4-Trichlorobenzene	5.171	180	238332	50.78	ppm	99
37) 1,2,3-Trichlorobenzene	5.331	180	223681	49.40	ppm	99
38) Naphthalene	5.224	128	700673	50.25	ppm	99
39) 4-Chloroaniline	5.278	127	303171	52.00	ppm	93
40) 2,3-Dichloroaniline	5.929	161	273479	47.89	ppm	97
41) Caprolactam	5.561	55	170011	50.27	ppm	96
42) Hexachlorobutadiene	5.320	225	157130	53.38	ppm	98
43) 4-Chloro-3-methylphenol	5.652	107	280299	51.31	ppm	99
44) 2-Methylnaphthalene	5.721	141	411232	49.81	ppm	96
45) 1-Methylnaphthalene	5.790	142	519886	48.92	ppm	93
46) Dimethylnaphthalene	6.186	156	432251	45.38	ppm	95
48) Hexachlorocyclopentadiene	5.839	237	278725	101.27	ppm	99
49) 2,4,6-Trichlorophenol	5.940	196	156800	50.35	ppm	98
50) 2,4,5-Trichlorophenol	5.977	196	172048	50.42	ppm	98
52) 2-Chloronaphthalene	6.079	162	453637	49.64	ppm	97
53) Biphenyl	6.063	154	633671	51.06	ppm	99
54) 2-Nitroaniline	6.170	65	223162	54.54	ppm	87
55) Dimethylphthalate	6.309	163	580434	50.58	ppm	100
56) Acenaphthylene	6.410	152	773626	51.07	ppm	100
57) 2,6-Dinitrotoluene	6.362	165	124357	50.97	ppm	87
58) 3-Nitroaniline	6.512	138	141902	53.23	ppm	91
59) Acenaphthene	6.560	153	490286	53.39	ppm	97
60) 2,4-Dinitrophenol	6.608	184	123448	99.20	ppm	87
61) 4-Nitrophenol	6.709	109	136058	62.89	ppm	89
62) Dibenzofuran	6.720	168	678274	50.19	ppm	91
63) 2,4-Dinitrotoluene	6.725	165	175456	49.70	ppm	88
64) 2,3,4,6-Tetrachlorophenol	6.859	232	137007	51.22	ppm	99
65) Diethylphthalate	6.960	149	618333	50.66	ppm	100
66) Fluorene	7.062	166	606145	53.26	ppm	98
67) 4-Chlorophenyl-phenyle...	7.067	204	301799	52.63	ppm	91
68) 4-Nitroaniline	7.121	138	135761	54.92	ppm	91
70) 4,6-Dinitro-2-methylph...	7.147	198	94640	55.45	ppm	87
71) n-Nitrosodiphenylamine	7.206	169	389902	52.03	ppm	99
72) 1,2-Diphenylhydrazine	7.238	77	804166	56.40	ppm	94
74) 4-Bromophenyl-phenylether	7.634	248	161729	51.36	ppm	95
75) Hexachlorobenzene	7.714	284	162640	49.94	ppm	92
76) Pentachlorophenol	7.997	266	199568	99.70	ppm	96
77) Phenanthrene	8.264	178	784550	52.47	ppm	99
78) Anthracene	8.339	178	835418	52.47	ppm	99
79) Carbazole	8.611	167	787742	53.39	ppm	99
80) Di-n-butylphthalate	9.263	149	1120051	51.32	ppm	99
81) Fluoranthene	10.278	202	948780	52.56	ppm	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5836\
 Data File : p128966.D
 Acq On : 11 Apr 2019 10:22 pm
 Operator : christc2
 Sample : ecc5819-50
 Misc : op19673,ep5836,30.0,,,1,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 12 09:51:46 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MP5819.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Tue Apr 09 07:59:45 2019
 Response via : Initial Calibration

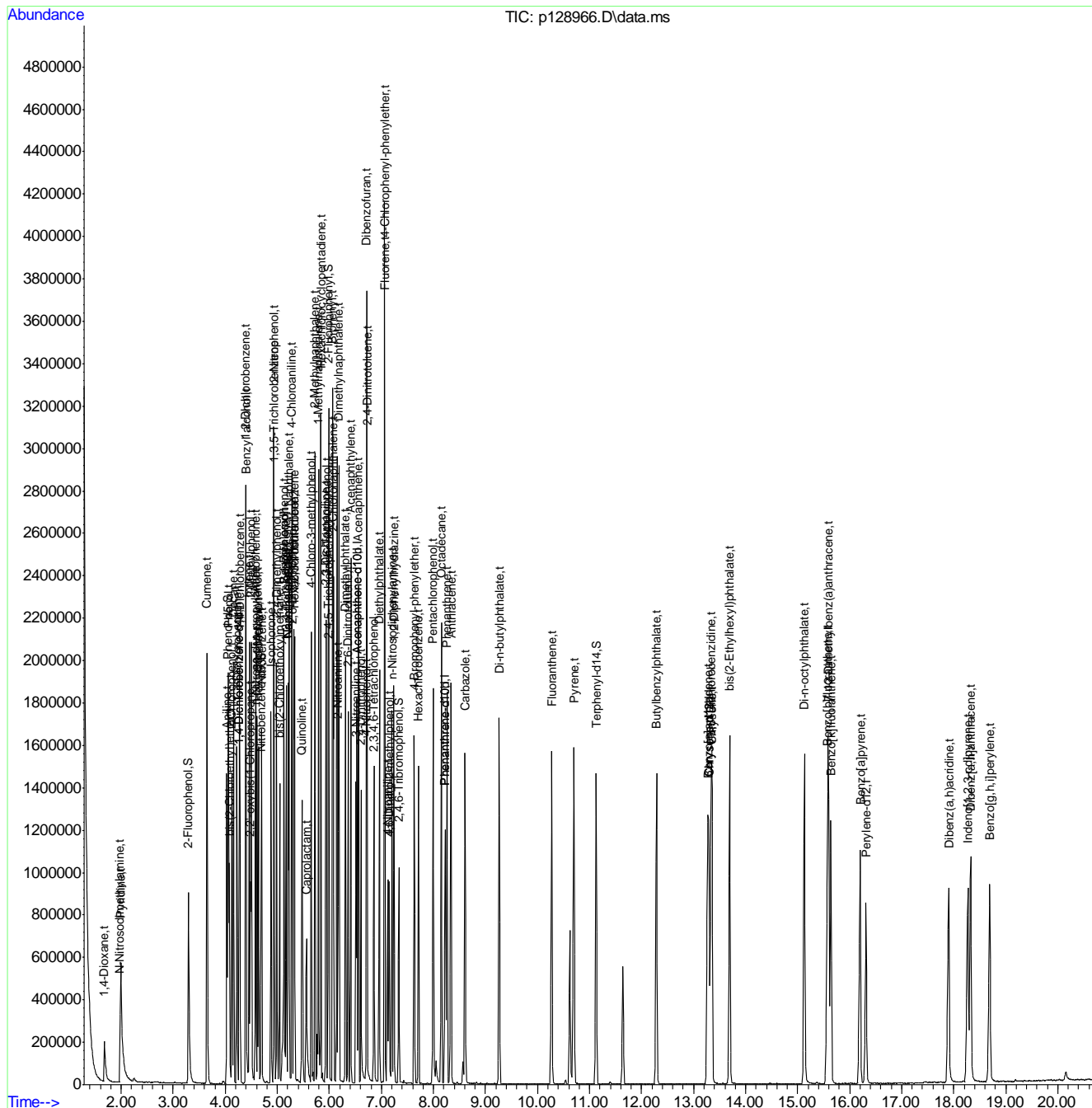
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
82) Octadecane	8.152	57	473685	55.77	ppm	92
84) Pyrene	10.700	202	949922	52.02	ppm	99
86) Butylbenzylphthalate	12.287	149	516082	52.53	ppm	95
87) Benzo[a]anthracene	13.275	228	870514	51.78	ppm	98
88) 3,3'-Dichlorobenzidine	13.334	252	297293	56.05	ppm	97
89) Chrysene	13.355	228	772325	51.83	ppm	98
90) bis(2-Ethylhexyl)phtha...	13.692	149	689711	50.95	ppm	96
92) Di-n-octylphthalate	15.129	149	1230683	47.90	ppm	95
93) Benzo[b]fluoranthene	15.577	252	875606	48.83	ppm	97
94) Benzo[k]fluoranthene	15.642	252	770007	50.59	ppm	99
95) Benzo[a]pyrene	16.203	252	786711	52.11	ppm	99
96) Indeno[1,2,3-cd]pyrene	18.270	276	741307	54.20	ppm	94
97) Dibenz(a,h)acridine	17.907	279	691358	53.86	ppm	100
98) Dibenz[a,h]anthracene	18.323	278	758120	54.30	ppm	100
99) 7,12-Dimethylbenz(a)an...	15.593	256	392848	53.29	ppm	95
100) Benzo[g,h,i]perylene	18.697	276	739014	55.69	ppm	99

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5836\
 Data File : p128966.D
 Acq On : 11 Apr 2019 10:22 pm
 Operator : christc2
 Sample : ecc5819-50
 Misc : op19673,ep5836,30.0,,,1,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 12 09:51:46 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MP5819.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Tue Apr 09 07:59:45 2019
 Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5836\
 Data File : p128967.D
 Acq On : 11 Apr 2019 10:49 pm
 Operator : christc2
 Sample : ecc5821-50
 Misc : op19673,ep5836,30.0,,,1,1
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Apr 12 09:52:52 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MP5819.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Tue Apr 09 07:59:45 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.263	152	159306	40.00	ppm	-0.12
24) Naphthalene-d8	5.203	136	613803	40.00	ppm	-0.12
47) Acenaphthene-d10	6.528	164	347788	40.00	ppm	-0.15
69) Phenanthrene-d10	8.221	188	562347	40.00	ppm	-0.22
83) Chrysene-d12	13.286	240	491290	40.00	ppm	-0.29
91) Perylene-d12	16.309	264	544328	40.00	ppm	-0.31
101) 1,4-Dichlorobenzene-d4b	4.263	152	159306	40.00	ppm	-0.11
103) Phenanthrene-d10b	8.221	188	562347	40.00	ppm	-0.20
105) Chrysene-d12b	13.286	240	491290	40.00	ppm	-0.26
107) Naphthalene-d8b	5.203	136	613803	40.00	ppm	-0.11
109) Acenaphthene-d10b	6.528	164	347788	40.00	ppm	-0.14
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						
102) Benzaldehyde	3.931	105	253121	49.55	ppm	94
104) Atrazine	7.885	200	182550	56.52	ppm	95
108) Hydroquinone	5.550	110	308708	64.71	ppm	92
110) 1,2,4,5-Tetrachloroben...	5.844	216	266006	54.15	ppm	97

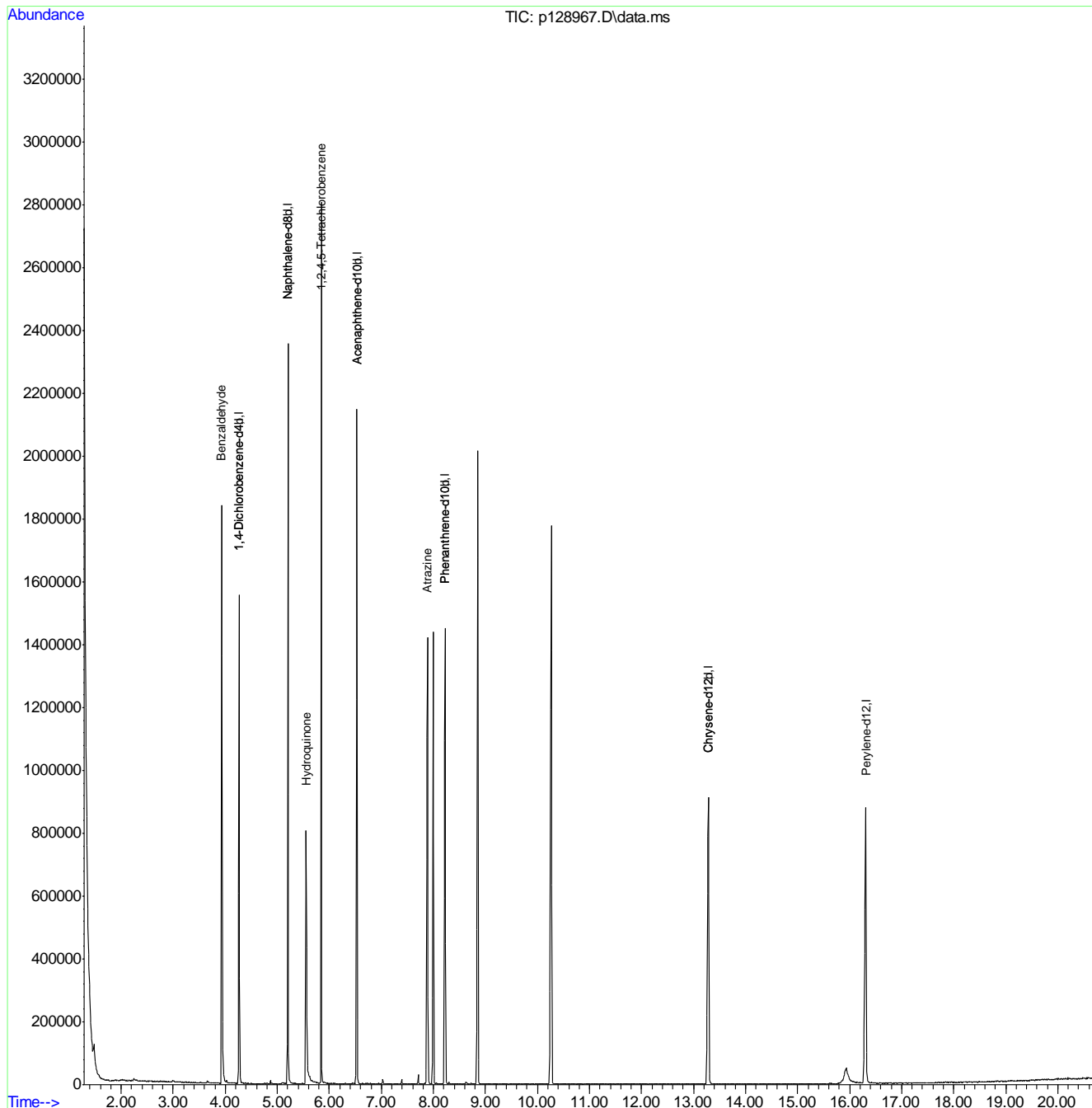
(#) = qualifier out of range (m) = manual integration (+) = signals summed

9.670
9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5836\
 Data File : p128967.D
 Acq On : 11 Apr 2019 10:49 pm
 Operator : christc2
 Sample : ecc5821-50
 Misc : op19673,ep5836,30.0,,,1,1
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Apr 12 09:52:52 2019
 Quant Method : C:\MSDCHEM\1\METHODS\MP5819.M
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Tue Apr 09 07:59:45 2019
 Response via : Initial Calibration



9.6-70
9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\data_aimeel\ep5838\
 Data File : p128993.d
 Acq On : 14 Apr 2019 1:19 pm
 Operator : carolb
 Sample : cc5819-50 Inst : MSVOAMSP
 Misc : op13894,ep5838,1000,,,1,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MP5819.M
 Quant Results File: MP5819.RES
 Quant Time: Apr 15 12:35:07 2019
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Mon Apr 15 12:34:28 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
Internal Standards							
1) 1,4-Dichlorobenzene-d4	4.263	152	216754	40.00	ppm	0.00	
24) Naphthalene-d8	5.203	136	866659	40.00	ppm	0.00	
47) Acenaphthene-d10	6.533	164	551044	40.00	ppm	0.00	
69) Phenanthrene-d10	8.227	188	1029971	40.00	ppm	0.00	
83) Chrysene-d12	13.302	240	1006047	40.00	ppm	0.00	
91) Perylene-d12	16.325	264	1112446	40.00	ppm	0.00	
101) 1,4-Dichlorobenzene-d4b	4.263	152	216754	40.00	ppm	0.00	
103) Phenanthrene-d10b	8.227	188	1029971	40.00	ppm	0.00	
105) Chrysene-d12b	13.302	240	1006047	40.00	ppm	0.00	
107) Naphthalene-d8b	5.203	136	866659	40.00	ppm	0.00	
109) Acenaphthene-d10b	6.533	164	551044	40.00	ppm	0.00	
System Monitoring Compounds							
5) 2-Fluorophenol	3.290	112	418186	51.50	ppm	-0.06	
Spiked Amount	50.000		Recovery	=	103.00%		
8) Phenol-d5	4.054	99	540508	49.66	ppm	-0.02	
Spiked Amount	50.000		Recovery	=	99.32%		
25) Nitrobenzene-d5	4.685	82	587223	51.89	ppm	-0.01	
Spiked Amount	50.000		Recovery	=	103.78%		
51) 2-Fluorobiphenyl	5.988	172	1000119	50.84	ppm	0.01	
Spiked Amount	50.000		Recovery	=	101.68%		
73) 2,4,6-Tribromophenol	7.335	330	156589	54.85	ppm	0.01	
Spiked Amount	50.000		Recovery	=	109.70%		
85) Terphenyl-d14	11.127	244	1292837	52.03	ppm	-0.01	
Spiked Amount	50.000		Recovery	=	104.06%		
Target Compounds							
2) 1,4-Dioxane	1.672	88	187634	47.77	ppm		Qvalue 100
3) Pyridine	1.987	79	518240	52.27	ppm		100
4) N-Nitrosodimethylamine	1.976	42	298917	54.96	ppm		100
6) Indene	4.455	116	648588	48.42	ppm		100
7) Cumene	3.648	105	1148250	50.84	ppm		100
9) Phenol	4.060	94	563164	47.55	ppm		100
10) Aniline	4.028	93	690816	53.78	ppm		100
11) bis(2-Chloroethyl)ether	4.076	93	395778	44.01	ppm		100
12) 2-Chlorophenol	4.124	128	392990	49.25	ppm		100
13) Decane	4.156	43	431926	54.79	ppm		100
14) 1,3-Dichlorobenzene	4.220	146	442490	48.82	ppm		100
15) 1,4-Dichlorobenzene	4.279	146	433564	48.66	ppm		100
16) Benzyl alcohol	4.396	108	275638	51.49	ppm		100
17) 1,2-Dichlorobenzene	4.391	146	442073	49.85	ppm		100
18) Acetophenone	4.578	105	647936	50.63	ppm		100
19) 2-Methylphenol	4.498	108	365714	47.33	ppm		100
20) 2,2'-oxybis(1-Chloropr...	4.482	121	108626	48.61	ppm		100
21) 3&4-Methylphenol	4.615	108	420078	50.40	ppm		100
22) n-Nitroso-di-n-propyla...	4.589	70	335035	50.02	ppm		100
23) Hexachloroethane	4.637	201	162313	51.00	ppm		100
26) Nitrobenzene	4.701	77	572495	48.16	ppm		100
27) Quinoline	5.475	129	868883	50.93	ppm		100
28) Isophorone	4.882	82	1057789	51.77	ppm		100
29) 2-Nitrophenol	4.936	139	240633	50.78	ppm		100
30) 2,4-Dimethylphenol	4.989	107	495760	53.23	ppm		100
31) Benzoic acid	5.144	105	325677	44.00	ppm		100
32) bis(2-Chloroethoxy)met...	5.037	93	538580	49.42	ppm		100
33) 2,4-Dichlorophenol	5.123	162	385224	51.47	ppm		100
34) 2,6-Dichlorophenol	5.283	162	370121	52.46	ppm		100

9.671
9



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\data_aimeel\ep5838\
 Data File : p128993.d
 Acq On : 14 Apr 2019 1:19 pm
 Operator : carolb
 Sample : cc5819-50 Inst : MSVOAMSP
 Misc : op13894,ep5838,1000,,,1,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MP5819.M
 Quant Results File: MP5819.RES
 Quant Time: Apr 15 12:35:07 2019
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Mon Apr 15 12:34:28 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
35) 1,3,5-Trichlorobenzene	4.936	180	425561	50.77	ppm	100
36) 1,2,4-Trichlorobenzene	5.166	180	384544	49.86	ppm	100
37) 1,2,3-Trichlorobenzene	5.326	180	374076	50.28	ppm	100
38) Naphthalene	5.219	128	1122517	48.99	ppm	100
39) 4-Chloroaniline	5.272	127	494806	51.65	ppm	100
40) 2,3-Dichloroaniline	5.929	161	490744	52.30	ppm	100
41) Caprolactam	5.577	55	290118	52.20	ppm	100
42) Hexachlorobutadiene	5.315	225	271224	56.07	ppm	100
43) 4-Chloro-3-methylphenol	5.652	107	481048	53.59	ppm	100
44) 2-Methylnaphthalene	5.721	141	684478	50.45	ppm	100
45) 1-Methylnaphthalene	5.791	142	869797	49.81	ppm	100
46) Dimethylnaphthalene	6.186	156	772539	49.36	ppm	100
48) Hexachlorocyclopentadiene	5.839	237	510131	104.25	ppm	100
49) 2,4,6-Trichlorophenol	5.940	196	286449	51.94	ppm	100
50) 2,4,5-Trichlorophenol	5.983	196	337340	55.83	ppm	100
52) 2-Chloronaphthalene	6.079	162	799869	49.43	ppm	100
53) Biphenyl	6.063	154	1138238	51.80	ppm	100
54) 2-Nitroaniline	6.170	65	358217	49.45	ppm	100
55) Dimethylphthalate	6.309	163	1077971	53.05	ppm	100
56) Acenaphthylene	6.410	152	1350405	50.34	ppm	100
57) 2,6-Dinitrotoluene	6.362	165	222307	51.46	ppm	100
58) 3-Nitroaniline	6.517	138	244428	51.78	ppm	100
59) Acenaphthene	6.560	153	861795	53.00	ppm	100
60) 2,4-Dinitrophenol	6.608	184	245838	110.80	ppm	100
61) 4-Nitrophenol	6.715	109	241621	63.08	ppm	100
62) Dibenzofuran	6.720	168	1286305	53.75	ppm	100
63) 2,4-Dinitrotoluene	6.725	165	329483	52.71	ppm	100
64) 2,3,4,6-Tetrachlorophenol	6.859	232	285108	60.20	ppm	100
65) Diethylphthalate	6.961	149	1152556	53.33	ppm	100
66) Fluorene	7.062	166	1102607	54.72	ppm	100
67) 4-Chlorophenyl-phenyle...	7.062	204	582820	57.40	ppm	100
68) 4-Nitroaniline	7.131	138	229134	52.35	ppm	100
70) 4,6-Dinitro-2-methylph...	7.153	198	188430	57.75	ppm	100
71) n-Nitrosodiphenylamine	7.206	169	741463	51.76	ppm	100
72) 1,2-Diphenylhydrazine	7.238	77	1329220	48.77	ppm	100
74) 4-Bromophenyl-phenylether	7.634	248	322557	53.58	ppm	100
75) Hexachlorobenzene	7.714	284	332985	53.49	ppm	100
76) Pentachlorophenol	7.997	266	442466	112.98	ppm	100
77) Phenanthrene	8.264	178	1472327	51.50	ppm	100
78) Anthracene	8.339	178	1570527	51.59	ppm	100
79) Carbazole	8.611	167	1488350	52.76	ppm	100
80) Di-n-butylphthalate	9.263	149	2168666	51.97	ppm	100
81) Fluoranthene	10.278	202	1860882	53.92	ppm	100
82) Octadecane	8.152	57	782595	48.20	ppm	100
84) Pyrene	10.705	202	1877790	49.93	ppm	100
86) Butylbenzylphthalate	12.287	149	1011869	50.01	ppm	100
87) Benzo[a]anthracene	13.280	228	1789122	51.68	ppm	100
88) 3,3'-Dichlorobenzidine	13.339	252	617733	56.55	ppm	100
89) Chrysene	13.366	228	1584282	51.63	ppm	100
90) bis(2-Ethylhexyl)phtha...	13.692	149	1393233	49.98	ppm	100
92) Di-n-octylphthalate	15.134	149	2499753	47.22	ppm	100
93) Benzo[b]fluoranthene	15.599	252	1930022	52.24	ppm	100
94) Benzo[k]fluoranthene	15.658	252	1489022	47.48	ppm	96
95) Benzo[a]pyrene	16.213	252	1610000	51.76	ppm	100
96) Indeno[1,2,3-cd]pyrene	18.281	276	1470692	52.19	ppm	100
97) Dibenz(a,h)acridine	17.912	279	1423923	53.84	ppm	100
98) Dibenz[a,h]anthracene	18.334	278	1521051	52.87	ppm	100

9.6-71
9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\data_aimeel\ep5838\
 Data File : p128993.d
 Acq On : 14 Apr 2019 1:19 pm
 Operator : carolb
 Sample : cc5819-50 Inst : MSVOAMSP
 Misc : op13894,ep5838,1000,,,1,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MP5819.M
 Quant Results File: MP5819.RES
 Quant Time: Apr 15 12:35:07 2019
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Mon Apr 15 12:34:28 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
99) 7,12-Dimethylbenz(a)an...	15.610	256	821537	54.09	ppm	100
100) Benzo[g,h,i]perylene	18.703	276	1440920	52.70	ppm	100

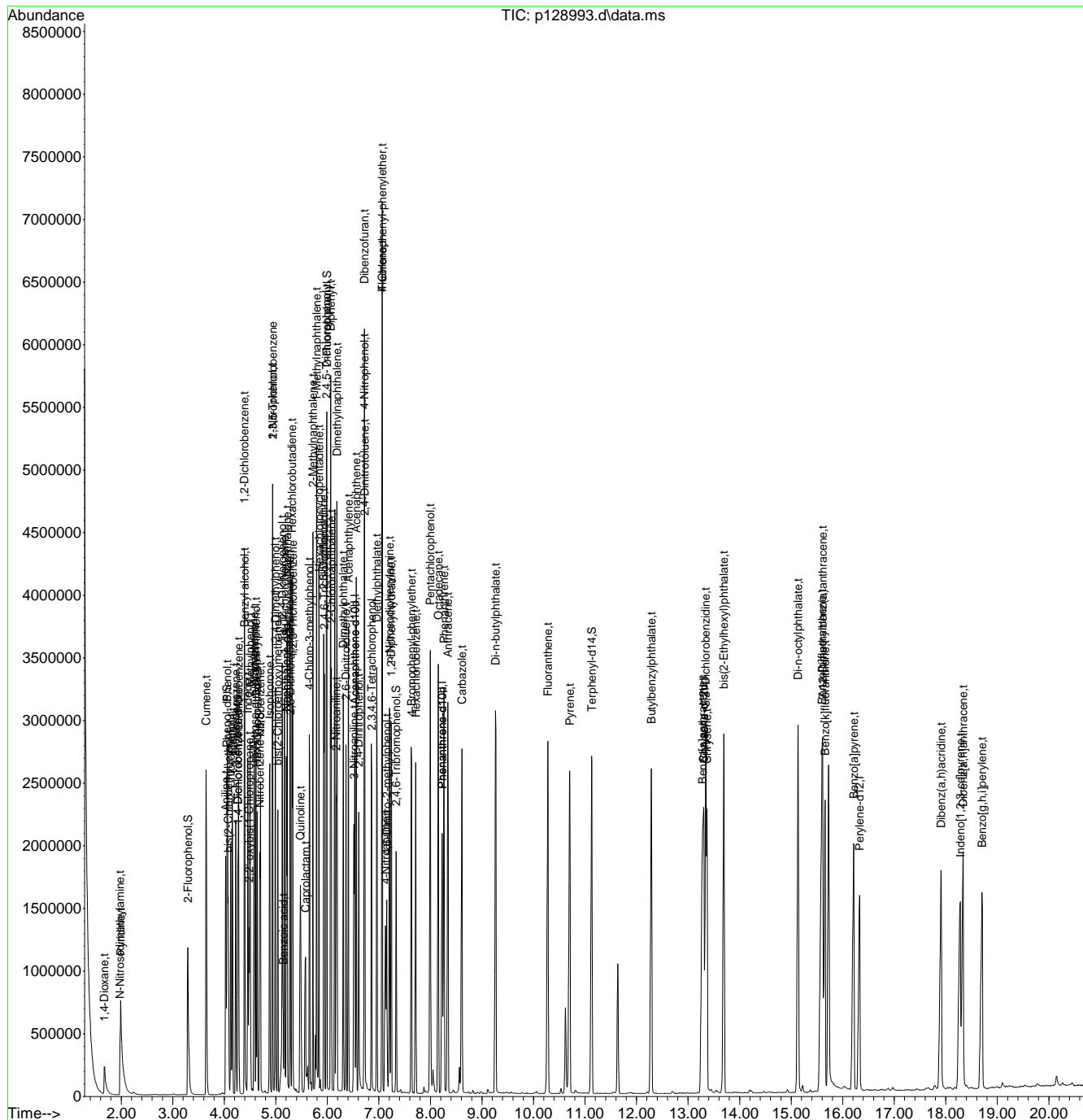
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\data_aimeel\ep5838\
 Data File : p128993.d
 Acq On : 14 Apr 2019 1:19 pm
 Operator : carolb
 Sample : cc5819-50
 Misc : op13894,ep5838,1000,,,1,1
 ALS Vial : 2 Sample Multiplier: 1

Inst : MSVOAMSP

Quant Method : C:\MSDCHEM\1\METHODS\MP5819.M
 Quant Results File: MP5819.RES
 Quant Time: Apr 15 12:35:07 2019
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Mon Apr 15 12:34:28 2019
 Response via : Initial Calibration



9.6-71
9



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\data_aimeel\ep5838\
 Data File : p128994.d
 Acq On : 14 Apr 2019 1:47 pm
 Operator : carolb
 Sample : cc5821-50 Inst : MSVOAMSP
 Misc : op13894,ep5838,1000,,,1,1
 ALS Vial : 3 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MP5819.M
 Quant Results File: MP5819.RES
 Quant Time: Apr 15 12:46:45 2019
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Mon Apr 15 12:36:56 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.263	152	215341	40.00	ppm	0.00
24) Naphthalene-d8	5.198	136	901732	40.00	ppm	0.00
47) Acenaphthene-d10	6.528	164	577589	40.00	ppm	0.00
69) Phenanthrene-d10	8.222	188	1024122	40.00	ppm	0.00
83) Chrysene-d12	13.286	240	1019608	40.00	ppm	-0.02
91) Perylene-d12	16.310	264	1105710	40.00	ppm	-0.02
101) 1,4-Dichlorobenzene-d4b	4.263	152	215341	40.00	ppm	0.00
103) Phenanthrene-d10b	8.222	188	1024122	40.00	ppm	0.00
105) Chrysene-d12b	13.286	240	1019608	40.00	ppm	-0.02
107) Naphthalene-d8b	5.198	136	901732	40.00	ppm	0.00
109) Acenaphthene-d10b	6.528	164	577589	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						
102) Benzaldehyde	3.932	105	355844	51.53	ppm	100
104) Atrazine	7.890	200	345219	58.69	ppm	100
108) Hydroquinone	5.561	110	538811	76.88	ppm	100
110) 1,2,4,5-Tetrachloroben...	5.839	216	435765	53.41	ppm	100

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

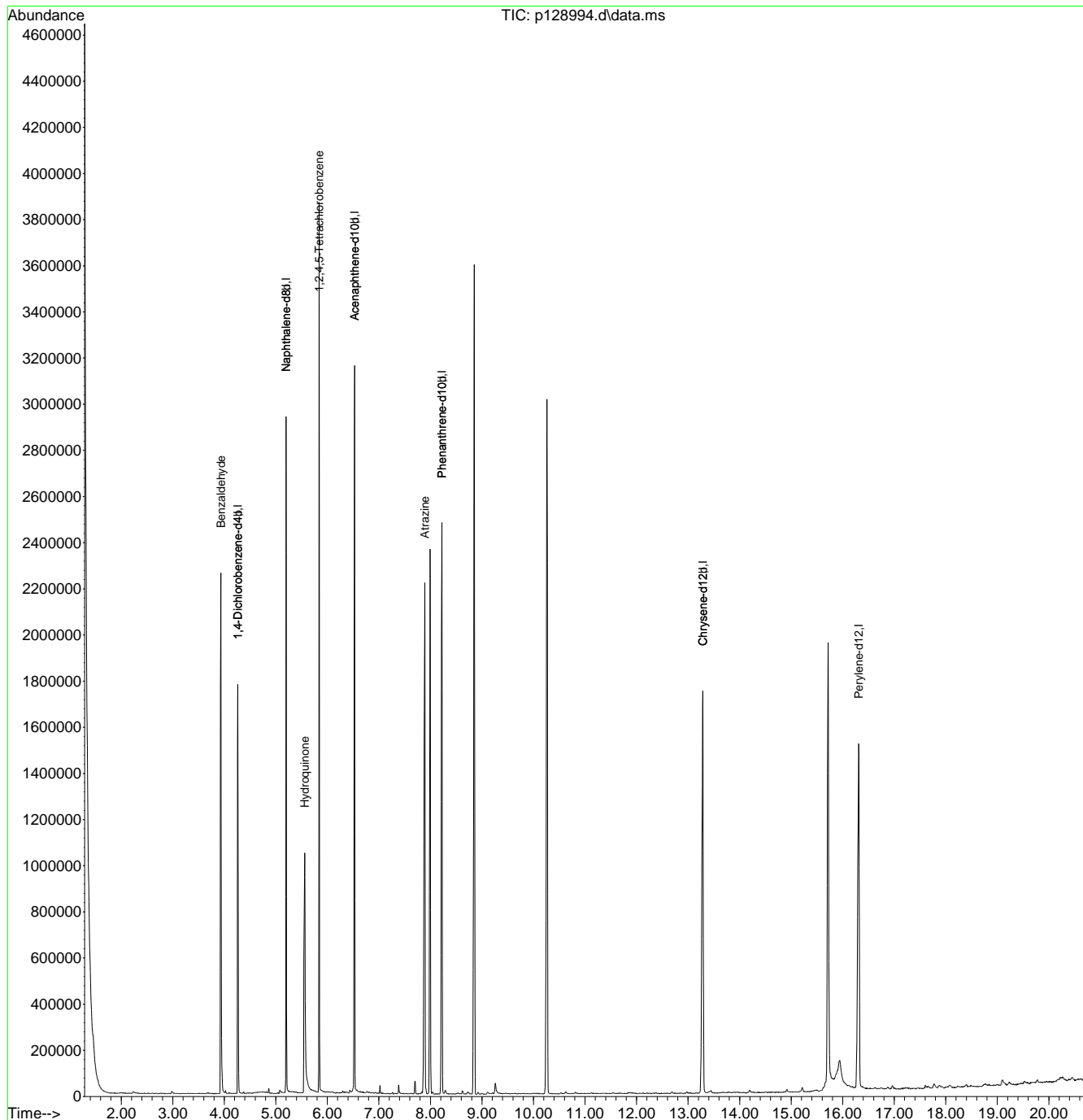
9.6.72
9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\data_aimeel\ep5838\
 Data File : p128994.d
 Acq On : 14 Apr 2019 1:47 pm
 Operator : carolb
 Sample : cc5821-50
 Misc : op13894,ep5838,1000,,,1,1
 ALS Vial : 3 Sample Multiplier: 1

Inst : MSVOAMSP

Quant Method : C:\MSDCHEM\1\METHODS\MP5819.M
 Quant Results File: MP5819.RES
 Quant Time: Apr 15 12:46:45 2019
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Mon Apr 15 12:36:56 2019
 Response via : Initial Calibration



9.6-72
9



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\jonkm\ep5839\
 Data File : p129022.d
 Acq On : 15 Apr 2019 10:33 am
 Operator : yujiac
 Sample : cc5819-25 Inst : MSVOAMSP
 Misc : op13894,ep5839,1000,,,1,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MP5819.M
 Quant Results File: MP5819.RES
 Quant Time: Apr 16 04:46:17 2019
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Sun Apr 07 07:31:56 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
Internal Standards							
1) 1,4-Dichlorobenzene-d4	4.268	152	207096	40.00	ppm	-0.12	
24) Naphthalene-d8	5.208	136	778627	40.00	ppm	-0.11	
47) Acenaphthene-d10	6.533	164	472549	40.00	ppm	-0.14	
69) Phenanthrene-d10	8.227	188	820943	40.00	ppm	-0.21	
83) Chrysene-d12	13.291	240	732198	40.00	ppm	-0.29	
91) Perylene-d12	16.315	264	769062	40.00	ppm	-0.30	
101) 1,4-Dichlorobenzene-d4b	4.268	152	207096	40.00	ppm	-0.11	
103) Phenanthrene-d10b	8.227	188	820943	40.00	ppm	-0.19	
105) Chrysene-d12b	13.291	240	732198	40.00	ppm	-0.26	
107) Naphthalene-d8b	5.208	136	778627	40.00	ppm	-0.11	
109) Acenaphthene-d10b	6.533	164	472549	40.00	ppm	-0.14	
System Monitoring Compounds							
5) 2-Fluorophenol	3.301	112	200811	25.89	ppm	-0.14	
Spiked Amount	50.000		Recovery	=	51.78%		
8) Phenol-d5	4.054	99	267398	25.72	ppm	-0.14	
Spiked Amount	50.000		Recovery	=	51.44%		
25) Nitrobenzene-d5	4.685	82	276702	27.22	ppm	-0.12	
Spiked Amount	50.000		Recovery	=	54.44%		
51) 2-Fluorobiphenyl	5.988	172	399385	23.68	ppm	-0.12	
Spiked Amount	50.000		Recovery	=	47.36%		
73) 2,4,6-Tribromophenol	7.334	330	57308	25.18	ppm	-0.18	
Spiked Amount	50.000		Recovery	=	50.36%		
85) Terphenyl-d14	11.122	244	471942	26.10	ppm	-0.25	
Spiked Amount	50.000		Recovery	=	52.20%		
Target Compounds							
2) 1,4-Dioxane	1.693	88	87773	23.39	ppm		Qvalue 98
3) Pyridine	2.008	79	249334	26.32	ppm		97
4) N-Nitrosodimethylamine	1.998	42	134126	25.81	ppm		93
6) Indene	4.460	116	319973	25.00	ppm		97
7) Cumene	3.654	105	569980	26.41	ppm		99
9) Phenol	4.065	94	287618	25.42	ppm		91
10) Aniline	4.033	93	333749	27.20	ppm		68
11) bis(2-Chloroethyl)ether	4.081	93	204403	23.79	ppm		93
12) 2-Chlorophenol	4.129	128	195784	25.68	ppm		96
13) Decane	4.161	43	242404	28.39	ppm		92
14) 1,3-Dichlorobenzene	4.225	146	219218	25.32	ppm		99
15) 1,4-Dichlorobenzene	4.279	146	206734	24.28	ppm		99
16) Benzyl alcohol	4.396	108	130293	25.48	ppm		84
17) 1,2-Dichlorobenzene	4.396	146	204400	24.12	ppm		98
18) Acetophenone	4.578	105	302241	24.72	ppm		98
19) 2-Methylphenol	4.503	108	185362	25.11	ppm		95
20) 2,2'-oxybis(1-Chloropr...	4.487	121	53827	25.21	ppm	#	86
21) 3&4-Methylphenol	4.615	108	197087	24.75	ppm		99
22) n-Nitroso-di-n-propyla...	4.583	70	161203	25.19	ppm		95
23) Hexachloroethane	4.642	201	75207	24.73	ppm		94
26) Nitrobenzene	4.701	77	282958	26.50	ppm		97
27) Quinoline	5.470	129	394872	25.76	ppm		99
28) Isophorone	4.877	82	487991	26.58	ppm		98
29) 2-Nitrophenol	4.936	139	104208	24.48	ppm	#	77
30) 2,4-Dimethylphenol	4.989	107	229793	27.47	ppm		97
31) Benzoic acid	5.117	105	190364	28.63	ppm		96
32) bis(2-Chloroethoxy)met...	5.037	93	256728	26.22	ppm		99
33) 2,4-Dichlorophenol	5.128	162	166771	24.80	ppm		100
34) 2,6-Dichlorophenol	5.283	162	155928	24.60	ppm		98

9.6.73
9



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\jonkm\ep5839\
 Data File : p129022.d
 Acq On : 15 Apr 2019 10:33 am
 Operator : yujiac
 Sample : cc5819-25 Inst : MSVOAMSP
 Misc : op13894,ep5839,1000,,,1,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MP5819.M
 Quant Results File: MP5819.RES
 Quant Time: Apr 16 04:46:17 2019
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Sun Apr 07 07:31:56 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
35) 1,3,5-Trichlorobenzene	4.941	180	186226	24.73	ppm	99
36) 1,2,4-Trichlorobenzene	5.171	180	175114	25.27	ppm	97
37) 1,2,3-Trichlorobenzene	5.331	180	165924	24.82	ppm	98
38) Naphthalene	5.224	128	511453	24.85	ppm	99
39) 4-Chloroaniline	5.272	127	205753	23.91	ppm	86
40) 2,3-Dichloroaniline	5.929	161	205610	24.39	ppm	98
41) Caprolactam	5.539	55	127439	25.52	ppm	96
42) Hexachlorobutadiene	5.320	225	110480	25.42	ppm	97
43) 4-Chloro-3-methylphenol	5.652	107	213498	26.47	ppm	# 37
44) 2-Methylnaphthalene	5.721	141	301597	24.74	ppm	93
45) 1-Methylnaphthalene	5.791	142	380749	24.27	ppm	96
46) Dimethylnaphthalene	6.186	156	323864	23.03	ppm	98
48) Hexachlorocyclopentadiene	5.839	237	177309	47.65	ppm	99
49) 2,4,6-Trichlorophenol	5.940	196	116735	24.68	ppm	100
50) 2,4,5-Trichlorophenol	5.978	196	128655	24.83	ppm	98
52) 2-Chloronaphthalene	6.079	162	342499	24.68	ppm	99
53) Biphenyl	6.063	154	463515	24.60	ppm	99
54) 2-Nitroaniline	6.165	65	162184	26.11	ppm	90
55) Dimethylphthalate	6.309	163	442121	25.37	ppm	99
56) Acenaphthylene	6.410	152	583566	25.37	ppm	99
57) 2,6-Dinitrotoluene	6.357	165	96735	26.11	ppm	90
58) 3-Nitroaniline	6.512	138	99732	24.64	ppm	95
59) Acenaphthene	6.560	153	355755	25.51	ppm	98
60) 2,4-Dinitrophenol	6.603	184	90260	50.92	ppm	94
61) 4-Nitrophenol	6.709	109	96455	29.36	ppm	# 78
62) Dibenzofuran	6.720	168	492866	24.02	ppm	95
63) 2,4-Dinitrotoluene	6.720	165	128898	24.05	ppm	73
64) 2,3,4,6-Tetrachlorophenol	6.854	232	108356	26.68	ppm	94
65) Diethylphthalate	6.955	149	470001	25.36	ppm	100
66) Fluorene	7.062	166	431039	24.94	ppm	99
67) 4-Chlorophenyl-phenyle...	7.062	204	202852	23.30	ppm	80
68) 4-Nitroaniline	7.110	138	83587	22.27	ppm	97
70) 4,6-Dinitro-2-methylph...	7.142	198	73815	28.38	ppm	96
71) n-Nitrosodiphenylamine	7.201	169	300538	26.32	ppm	99
72) 1,2-Diphenylhydrazine	7.238	77	596770	27.47	ppm	96
74) 4-Bromophenyl-phenylether	7.628	248	126208	26.30	ppm	94
75) Hexachlorobenzene	7.714	284	126954	25.58	ppm	98
76) Pentachlorophenol	7.992	266	158304	56.76	ppm	96
77) Phenanthrene	8.259	178	590798	25.93	ppm	98
78) Anthracene	8.333	178	637805	26.29	ppm	100
79) Carbazole	8.606	167	563412	25.06	ppm	98
80) Di-n-butylphthalate	9.263	149	851320	25.60	ppm	99
81) Fluoranthene	10.273	202	714996	25.99	ppm	95
82) Octadecane	8.152	57	362993	28.05	ppm	94
84) Pyrene	10.695	202	740943	27.07	ppm	97
86) Butylbenzylphthalate	12.281	149	380630	25.85	ppm	99
87) Benzo[a]anthracene	13.270	228	658835	26.15	ppm	97
88) 3,3'-Dichlorobenzidine	13.323	252	197360	24.83	ppm	98
89) Chrysene	13.344	228	568534	25.46	ppm	98
90) bis(2-Ethylhexyl)phtha...	13.686	149	511843	25.23	ppm	99
92) Di-n-octylphthalate	15.118	149	883043	24.13	ppm	97
93) Benzo[b]fluoranthene	15.567	252	638027	24.98	ppm	98
94) Benzo[k]fluoranthene	15.626	252	566830	26.14	ppm	98
95) Benzo[a]pyrene	16.192	252	573530	26.67	ppm	97
96) Indeno[1,2,3-cd]pyrene	18.254	276	516099	26.49	ppm	88
97) Dibenz(a,h)acridine	17.891	279	488244	26.70	ppm	97
98) Dibenz[a,h]anthracene	18.313	278	521439	26.22	ppm	98

9.6.73
9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\jonkm\ep5839\
 Data File : p129022.d
 Acq On : 15 Apr 2019 10:33 am
 Operator : yujiac
 Sample : cc5819-25 Inst : MSVOAMSP
 Misc : op13894,ep5839,1000,,,1,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MP5819.M
 Quant Results File: MP5819.RES
 Quant Time: Apr 16 04:46:17 2019
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Sun Apr 07 07:31:56 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
99) 7,12-Dimethylbenz(a)an...	15.583	256	274052	26.10	ppm	94
100) Benzo[g,h,i]perylene	18.681	276	511143	27.04	ppm	96

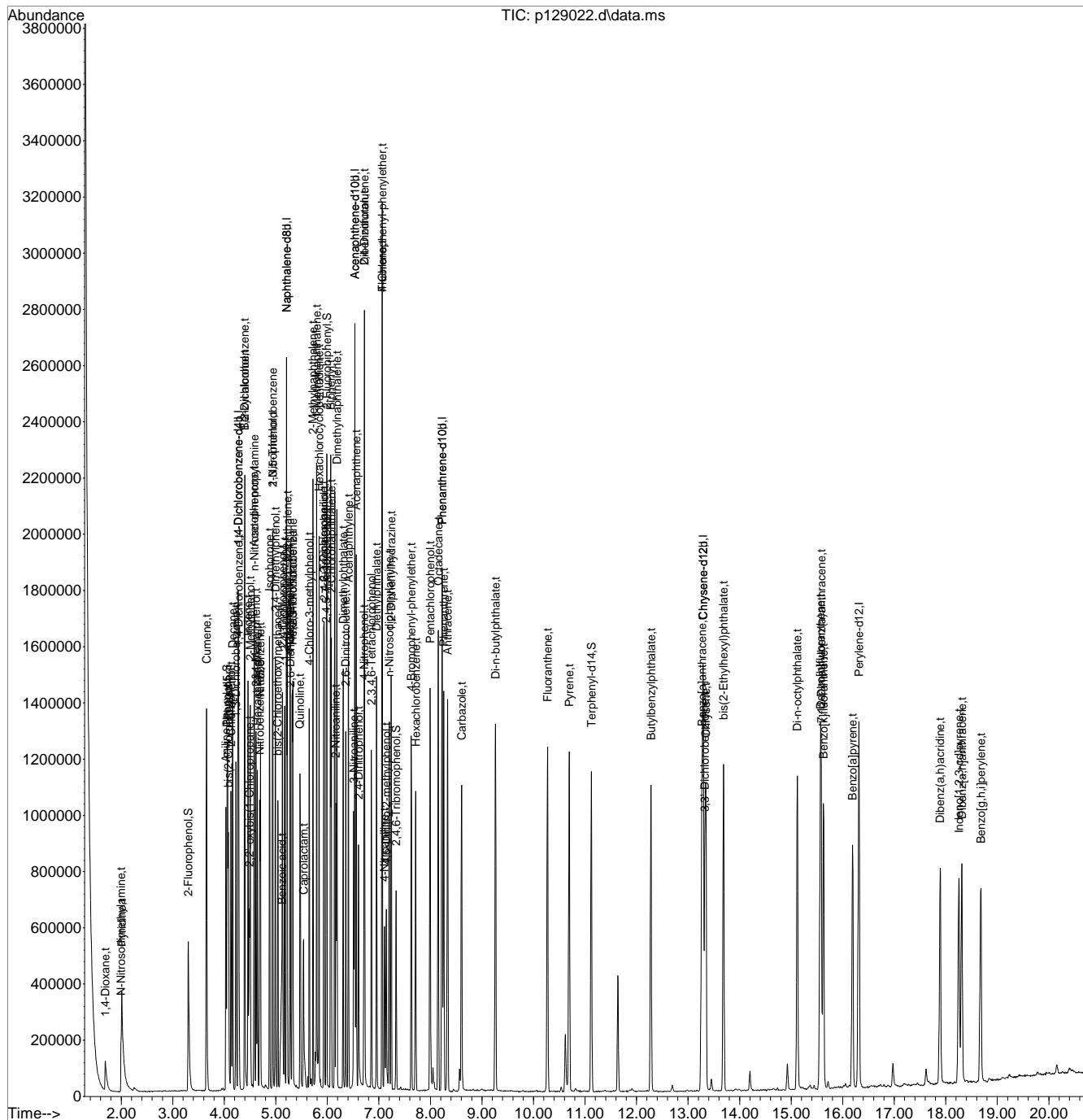
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\jonkm\ep5839\
 Data File : p129022.d
 Acq On : 15 Apr 2019 10:33 am
 Operator : yujiac
 Sample : cc5819-25
 Misc : op13894,ep5839,1000,,,1,1
 ALS Vial : 2 Sample Multiplier: 1

Inst : MSVOAMSP

Quant Method : C:\MSDCHEM\1\METHODS\MP5819.M
 Quant Results File: MP5819.RES
 Quant Time: Apr 16 04:46:17 2019
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Sun Apr 07 07:31:56 2019
 Response via : Initial Calibration



9.6-73
9



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\jonkm\ep5839\
 Data File : p129023.d
 Acq On : 15 Apr 2019 11:00 am
 Operator : yujiac
 Sample : cc5821-25 Inst : MSVOAMSP
 Misc : op13894,ep5839,1000,,,1,1
 ALS Vial : 3 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MP5819.M
 Quant Results File: MP5819.RES
 Quant Time: Apr 16 04:42:17 2019
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Sun Apr 07 07:31:56 2019
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
Internal Standards							
1) 1,4-Dichlorobenzene-d4	4.268	152	208399	40.00	ppm	-0.12	
24) Naphthalene-d8	5.203	136	835682	40.00	ppm	-0.12	
47) Acenaphthene-d10	6.528	164	530993	40.00	ppm	-0.15	
69) Phenanthrene-d10	8.221	188	945768	40.00	ppm	-0.22	
83) Chrysene-d12	13.286	240	952945	40.00	ppm	-0.29	
91) Perylene-d12	16.315	264	1070582	40.00	ppm	-0.30	
101) 1,4-Dichlorobenzene-d4b	4.268	152	208399	40.00	ppm	-0.11	
103) Phenanthrene-d10b	8.221	188	945768	40.00	ppm	-0.20	
105) Chrysene-d12b	13.286	240	952945	40.00	ppm	-0.26	
107) Naphthalene-d8b	5.203	136	835682	40.00	ppm	-0.11	
109) Acenaphthene-d10b	6.528	164	530993	40.00	ppm	-0.14	
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	0d	0.00	ppm		
Spiked Amount	50.000		Recovery	=	0.00%		
Target Compounds							
102) Benzaldehyde	3.937	105	179245	26.82	ppm		Qvalue 98
104) Atrazine	7.885	200	163137	30.03	ppm		92
108) Hydroquinone	5.550	110	263631	40.59	ppm		99
110) 1,2,4,5-Tetrachloroben...	5.844	216	192875	25.71	ppm		99

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

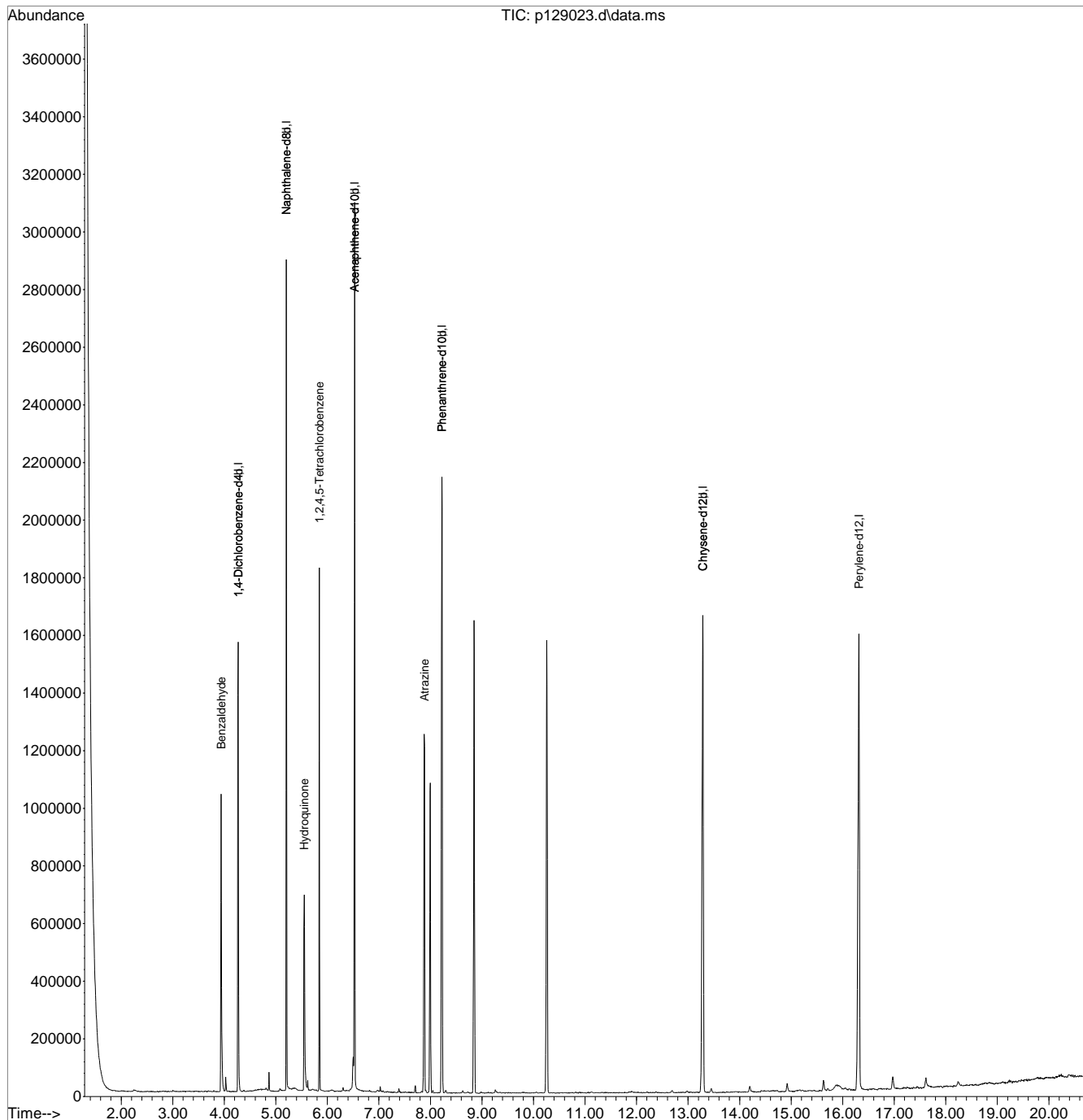
9.6.74
9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\jonkm\ep5839\
 Data File : p129023.d
 Acq On : 15 Apr 2019 11:00 am
 Operator : yujiac
 Sample : cc5821-25
 Misc : op13894,ep5839,1000,,,1,1
 ALS Vial : 3 Sample Multiplier: 1

Inst : MSVOAMSP

Quant Method : C:\MSDCHEM\1\METHODS\MP5819.M
 Quant Results File: MP5819.RES
 Quant Time: Apr 16 04:42:17 2019
 Quant Title : Semi Volatile Extractables by GC/MS
 QLast Update : Sun Apr 07 07:31:56 2019
 Response via : Initial Calibration



9.674
 9



GCMS Semi Volatile Run Log

Instrument ID: GCMS2P

Standard / Reagent	Lot #	Concentration	Standard / Reagent	Lot #	Concentration
DFTPP	sv182490-117	50ppm	ISTD	A0144955	4000ppm
			DCM- fisher	189494	---

Column: Initial Calib Date: Sequence Loaded By: SW846 8270 D
 EPA 625
 Batch ID: Analysis Date: Data Processed By: Injection Volume:
 Approved By: Approved Date:

Data File	Sample ID	OP Batch ID	Test	MTX	A L S	Dil	L+	Surr OK?	IS OK?	Data OK?	Comment
2P 85593	DFTPP				1					ok	2:56am
2P 85594	IC3783-100		TCL42		2					ok	sv182535-50a
2P 85595	IC3783-80				3					ok	sv182535-50b
2P 85596	ICC3783-50				4					ok	sv182535-50c
2P 85597	IC3783-25				5					ok	sv182535-50d
2P 85598	IC3783-10				6					ok	sv182535-50e
2P 85599	IC3783-5				7					ok	sv182535-50g
2P 85600	IC3783-2				8					ok	sv182535-50h
2P 85601	IC3783-1				9					ok	sv182535-50i
2P 85602	ICV3783-50		AP9 Mix #2		10					ok	sv182490-65

GCMS Semi Volatile Run Log

Data File	Sample ID	OP Batch ID	Test	MTX	A L S	Dil	L+	Surr OK?	IS OK?	Data OK?	Comment
2P 85603	ICV3783-50		HQ 2nd		11					ok	sv182490-103a 6:54am

GCMS Semi Volatile Run Log

Instrument ID: GCMS2P

Standard / Reagent	Lot #	Concentration	Standard / Reagent	Lot #	Concentration
DFTPP	sv182535-77	50ppm	ISTD	A0144955	4000ppm
			DCM- fisher	190729	---

Column: Initial Calib Date: Sequence Loaded By: SW846 8270 D
 EPA 625
 Batch ID: Analysis Date: Data Processed By: Injection Volume:
 Approved By: Approved Date:

Data File	Sample ID	OP Batch ID	Test	MTX	A L S	Dil	L+	Surr OK?	IS OK?	Data OK?	Comment
2P 86289	DFTPP				1					ok	6:10am
2P 86290	IC3816-100		BNA		2					ok	sv182535-96a
2P 86291	IC3816-80				3					ok	sv182535-96b
2P 86292	ICC3816-50				4					ok	sv182535-96c
2P 86293	IC3816-25				5					ok	sv182535-96d
2P 86294	IC3816-10				6					ok	sv182535-96e
2P 86295	IC3816-5				7					ok	sv182535-96g
2P 86296	IC3816-2				8					ok	sv182535-96h
2P 86297	IC3816-1				9					ok	sv182535-96i
2P 86298	ICV3816-50		BN1		10					ok	op192336-70

GCMS Semi Volatile Run Log

Data File	Sample ID	OP Batch ID	Test	MTX	A L S	Dil	L+	Surr OK?	IS OK?	Data OK?	Comment
2P 86299	ICV3816-50		BN2		11					ok	op192336-72
2P 86300	ICV3816-50		Aniline		12					ng	op192336-39
2P 86301	ICV3816-50		Acid		13					ok	op192336-47
2P 86302	ICV3816-50		ABN Surr		14					ok	op192336-76
2P 86303	ICV3816-50		Bzd 3rd		15					ok	sv182490-113

Standard / Reagent	Lot #	Concentration	Standard / Reagent	Lot #	Concentration
DFTPP	sv182535-77	50ppm	ISTD	A0144955	4000ppm
			DCM- fisher	190729	---

Column: 30m x 0.25 mm x 1 30m x 0.10 mm x 1
 Batch ID: E2P3817 NINAP
 Approved By: _____

Initial Calib Date: 4/5/2019 4/5/2019
 Analysis Date: 4/5/2019 4/5/2019
 Approved Date: 9/2019 4:44:00 P

Sequence Loaded By: christc2 christc2
 Data Processed By: chriss2 chriss2

Quant Method/s: M2P3817 SW846 8270 D
 Injection Volume: 1 uL EPA 625

Data File	Sample ID	OP Batch ID	Test	MTX	A L S	Dil	L+	Surr OK?	IS OK?	Data OK?	Comment
2P 86304	DFTPP				1					OK	3:23pm
2P 86305	ICV3817-50		bn1		2					not using	op192336-70, #4 low
2P 86306	ICV3817-50		bn2		3					not using	op192336-72, #40 low, 4:13pm
2P 86307	ICV3817-50		aniline		4					OK	op192336-85

Standard / Reagent	Lot #	Concentration	Standard / Reagent	Lot #	Concentration
DFTPP	sv182535-77	50ppm	ISTD	A0144955	4000ppm
BNA	sv182535-121b	50ppm	DCM- fisher	190729	---
TCL42	sv182535-120b	50ppm			

Column: MS 30m x 0.25 mm x
 Batch ID: E2P3822
 Approved By: KRISTIS

Initial Calib Date: 4/5/2019
 Analysis Date: 4/11/2019
 Approved Date: 23/2019 9:27:34 A

Sequence Loaded By: chriss2
 Data Processed By: krtis

Quant Method/s: M2P3816
 Injection Volume: 1 uL

SW846 8270 D
 EPA 625

Data File	Sample ID	OP Batch ID	Test	MTX	A L S	Dil	L+	Surr OK?	IS OK?	Data OK?	Comment
2P 86450	DFTPP				1					ok	3:04am
2P 86451	CC3816-50				2					ok	
2P 86452	CC3783-50				3					ok	104 111 high
2P 86453	OP19687-MB1	OP19687	B8270PAH	SO	4			y	y	ok	
2P 86454	OP19687-BS1	OP19687	B8270PAH	SO	5			y	y	ok	
86455	OP19672-MB1	OP19672	AB8270TCL20,B82702MNAP,B8270CP51FO,B8270PAH	SO	6			y	y	ok	
86456	OP19672-BS1	OP19672	AB8270TCL20,B82702MNAP,B8270CP51FO,B8270PAH	SO	7			y	y	ok	
2P 86457	JC86070-16	OP19672	B8270PAH	SO	8			y	y	ok	
2P 86458	JC86073-1	OP19672	B8270PAH	SO	9			y	y	ok	
2P 86459	JC86073-2	OP19672	B8270PAH	SO	10			y	y	ok	

GCMS Semi Volatile Run Log

Data File	Sample ID	OP Batch ID	Test	MTX	A L S	Dil	L+	Surr OK?	IS OK?	Data OK?	Comment
2P 86460	JC86073-3	OP19672	B8270PAH	SO	11			y	y	ok	
2P 86461	JC85910-2	OP19672	B82702MNAP	SO	12			y	y	ok	
2P 86462	JC85910-3	OP19672	B82702MNAP	SO	13			y	y	ok	
2P 86463	JC85910-4	OP19672	B82702MNAP	SO	14			y	y	ok	
2P 86464	OP19687-MS	OP19687	B8270PAH	SO	15			y	4th low	ok	
2P 86465	OP19687-MSD	OP19687	B8270PAH	SO	16			y	4th low	ok	
2P 86466	JC86096-1	OP19687	B8270PAH	SO	17			y	4th low	ok	
2P 86467	OP19672-MS	OP19672	AB8270TCL20,B82702MNAP,B8270CP51FO,B8270PAH	SO	18			y	y	ok	
2P 86468	OP19672-MSD	OP19672	AB8270TCL20,B82702MNAP,B8270CP51FO,B8270PAH	SO	19			y	y	ok	
2P 86469	JC86070-15	OP19672	B8270PAH	SO	20			y	y	ok	rr 1:2
2P 86470	JC85916-5	OP19672	B8270CP51FO	SO	21			y	y	ok	
2P 86471	JC85916-1	OP19672	B8270CP51FO	SO	22			y	y	ok	
2P 86472	JC85916-6	OP19672	B8270CP51FO	SO	23			y	y	ok	
2P 86473	JC85757-6	OP19672	B8270PAH	SO	24			y	Y	OK	
2P 86474	JC85916-4	OP19672	B8270CP51FO	SO	25			Y	Y	OK	
2P 86475	JC85916-2	OP19672	B8270CP51FO	SO	26	5		1,2 out	Y	corr	corr ISTD out. diluted due to visc.
2P 86476	JC85916-3	OP19672	B8270CP51FO	SO	27	5		1,2 out	Y	corr	corr ISTD out. diluted due to visc.
2P 86477	JC85916-7	OP19672	B8270CP51FO	SO	28	5		Y	Y	OK	diluted due to visc.
2P 86478	JC85916-8	OP19672	B8270CP51FO	SO	29	5		Y	Y	OK	diluted due to visc.

GCMS Semi Volatile Run Log

Data File	Sample ID	OP Batch ID	Test	MTX	A L S	Dil	L+	Surr OK?	IS OK?	Data OK?	Comment
2P 86479	JC85916-9	OP19672	B8270CF51FO	SO	30	5		1,2 out	Y	corr	corr ISTD out. diluted due to visc.
2P 86480	JC86043-1	OP19672	AB8270TCL20	SO	31	5		Y	Y	OK	diluted due to visc.
2P 86481	JC86043-2	OP19672	AB8270TCL20	SO	32	5		Y	Y	OK	diluted due to visc.; end (14:32)
2P 86482	JC86070-15	OP19672	B8270PAH	SO	33	2		y	y	ok	ran after 2p86472

Standard / Reagent	Lot #	Concentration	Standard / Reagent	Lot #	Concentration
DFTPP	sv182535-77	50ppm	ISTD	A0144955	4000ppm
BNA	sv182535-121e	25ppm	DCM- fisher	190729	---
TCL42	sv182535-120e	25ppm			
BNA ver	sv182535-29i	1ppm			

Column: MS 30m x 0.25 mm x Initial Calib Date: 4/5/2019
 Batch ID: E2P3823 Analysis Date: 4/12/2019
 Approved By: KRISTIS Approved Date: 5/2019 10:39:49
 Sequence Loaded By: angelar
 Data Processed By: jerylr
 Quant Method/s: M2P3816
 Injection Volume: 1 uL
 SW846 8270 D
 EPA 625

Data File	Sample ID	OP Batch ID	Test	MTX	A L S	Dil	L+	Surr OK?	IS OK?	Data OK?	Comment
2P 86483	DFTPP				1					not using	
2P 86484	CC3816-25		bna		2					not using	areas low, raise EM volts
2P 86485	DFTPP				1					not using	run method error, restart instrument
2P 86486	DFTPP				1					ok	9:11am
2P 86487	CC3816-25		bna		2					ok	
2P 86488	CC3783-25		toi42		3					ok	
2P 86489	BNA 1PPM VER				4					ok	
2P 86490	ABN SUIRR		50ppm		5			y	y	ok	op192336-93
2P 86491	OP19637-MB1	OP19637	B8270HQ	AQ	6			y	y	ok	
2P 86492	JC80385A-6I	OP19637	B8270HQ	AQ	7			y	y	ok	BS1

GCMS Semi Volatile Run Log

Data File	Sample ID	OP Batch ID	Test	MTX	A L S	Dil	L+	Surr OK?	IS OK?	Data OK?	Comment
2P 86493	JC80385A-6I	OP19637	B8270HQ	AQ	8			y	y	ok	BS2
2P 86494	JC80385A-6I	OP19637	B8270HQ	AQ	9			y	y	ok	BS3
86495	OP19679-MB1	OP19679	AB8270JTCL20+ AB8270SL3,B MS+MNAP	AQ	10		X	y	y	ok	
86496	OP19679-BS1	OP19679	AB8270JTCL20+ AB8270SL3,B MS+MNAP	AQ	11		X	y	y	ok	
86497	OP19679-BSD	OP19679	AB8270JTCL20+ AB8270SL3,B MS+MNAP	AQ	12		X	y	y	ok	
2P 86498	JC85841-5	OP19597	AB8270TCL20	SO	13	5		y	y	ok	
2P 86499	JC85882-8	OP19634	B8270CP51FO	SO	14	5		y	y	ok	
2P 86500	OP19679-MS				15			y	y	ok	
2P 86501	OP19679-MSD				16			y	y	ok	
86502	JC86022-3	OP19679	AB8270SL3.BMS+MNAP	AQ	17		X	n	123high	ng	
86503	JC86039-2	OP19679	AB8270JTCL20+	AQ	18		X	y	y	ok	
86504	JC86039-4	OP19679	AB8270JTCL20+	AQ	19		X	y	y	ok	
86505	JC86039-5	OP19679	AB8270JTCL20+	AQ	20		X	Y	Y	OK	
2P 86506	JC86048-10	OP19679	AB8270JTCL20+	AQ	1		X	Y	Y	OK	
2P 86507	JC86048-8	OP19679	AB8270JTCL20+	AQ	2		X	Y	Y	OK	
86508	JC86048-9	OP19679	AB8270JTCL20+	AQ	23		X	Y	Y	OK	
86509	JC86022-3	OP19679	AB8270SL3.BMS+MNAP	AQ	17		X	Y	Y	OK	
2P 86510	JC85916-2	OP19672	B8270CP51FO	SO	24			Y	Y	OK	
2P 86511	JC85916-3	OP19672	B8270CP51FO	SO	25			Y	Y	OK	

GCMS Semi Volatile Run Log

Data File	Sample ID	OP Batch ID	Test	MTX	A L S	Dil	L+	Surr OK?	IS OK?	Data OK?	Comment
2P 86512	JC85916-7	OP19672	B8270CP51FO	SO	26			Y	Y	OK	
2P 86513	JC85916-8	OP19672	B8270CP51FO	SO	27			Y	Y	OK	
2P 86514	JC85916-9	OP19672	B8270CP51FO	SO	28			Y	Y	OK	
2P 86515	JC86043-1	OP19672	AB8270TCL20	SO	29			Y	Y	OK	
2P 86516	JC86043-2	OP19672	AB8270TCL20	SO	30			Y	Y	OK	
2P 86517	ECC3816-25		bnr		2			Y	Y	OK	LOW: 48,60,70
2P 86518	ECC3783-25		tc142		3			Y	Y	OK	08:56PM
2P 86519	JC86022-3	OP19679	AB8270SL3.BMS+MNAP	AQ	17		X	Y	Y	ok	ran after e2p86505

Standard / Reagent	Lot #	Concentration	Standard / Reagent	Lot #	Concentration
DFTPP	sv182555-77	50ppm	int std	A0144955	4000ppm
			dcm-fisher	191108	---

Column: Initial Calib Date: Sequence Loaded By: SW846 8270 D
 Batch ID: Analysis Date: Data Processed By: EPA 625
 Approved By: Approved Date: Injection Volume:

Data File	Sample ID	OP Batch ID	Test	MTX	A L S	Dil	L+	Surr OK?	IS OK?	Data OK?	Comment
P 128674	DFTPP				1					not using	floating baseline, rr
P 128675	DFTPP				1					ok	9:46am
P 128676	IC5819-100		bn		2					ok	sv182535-96a
P 128677	IC5819-80				3					ok	sv182535-96b
P 128678	IC5819-50				4					ok	sv182535-96c
P 128679	IC5819-25				5					ok	sv182535-96d
P 128680	IC5819-10				6					ok	sv182535-96e
P 128681	IC5819-5				7					ok	sv182535-96g
P 128682	IC5819-2				8					ok	sv182535-96h
P 128683	IC5819-1				9					ok	sv182535-96i

GCMS Semi Volatile Run Log

Data File	Sample ID	OP Batch ID	Test	MTX	A L S	Dil	L+	Surr OK?	IS OK?	Data OK?	Comment
P 128684	ICV5819-50		bn1		10					ok	op182336-51
P 128685	ICV5819-50		bn2		11					ok	op182160-30
P 128686	ICV5819-50		aniline		12					ok	op192336-39
P 128687	ICV5819-50		abn surr		13					ok	op182231-194
P 128688	ICV5819-50		acid		14					ok	op192336-47
P 128689	ICV5819-50		bzd 3rd		15					ok	sv182990-113 4:09pm

Standard / Reagent	Lot #	Concentration	Standard / Reagent	Lot #	Concentration
DFTPP	sv182535-77	50ppm	int std	A0144955	4000ppm
			dcm-fisher	191108	---

Column: Initial Calib Date:
 Batch ID: Analysis Date:
 Approved By: Approved Date:

Sequence Loaded By: Quant Method/s: SW846 8270 D
 Data Processed By: Injection Volume: EPA 625

Data File	Sample ID	OP Batch ID	Test	MTX	A L S	Dil	L+	Surr OK?	IS OK?	Data OK?	Comment
P 128702	DFTPP				1					ok	3:16pm
P 128703b	IC5821-100		tol42		2					ok	sv182535-50a method had wrong initial temp. Restarted with B data files
P 128704b	IC5821-80				3					ok	sv182535-50b
P 128705b	IC5821-50				4					ok	sv182535-50c
P 128706	IC5821-25				5					ok	sv182535-50d
P 128707	IC5821-10				6					ok	sv182535-50e
P 128708	IC5821-5				7					ok	sv182535-50g
P 128709	IC5821-2				8					ok	sv182535-50h
P 128710	IC5821-1				9					ok	sv182535-50i
P 128711	ICV5821-50		ap9 mix #2		10					ok	sv182490-65

GCMS Semi Volatile Run Log

Data File	Sample ID	OP Batch ID	Test	MTX	A L S	Dil	L+	Surr OK?	IS OK?	Data OK?	Comment
P 128712	ICV5821-50		HQ		11					ok	sv182490-103c 8:50pm

Standard / Reagent	Lot #	Concentration	Standard / Reagent	Lot #	Concentration
DFTPP	sv182535-77	50ppm	int std	A0144955	4000ppm
			dcm-fisher	191108	---

Column:
 Batch ID:
 Approved By:

Initial Calib Date:
 Analysis Date:
 Approved Date:

Sequence Loaded By:
 Data Processed By:

Quant Method/s:
 Injection Volume:

SW846 8270 D
 EPA 625

Data File	Sample ID	OP Batch ID	Test	MTX	A L S	Dil	L+	Surr OK?	IS OK?	Data OK?	Comment
P 128713	DFTPP				1					ok	9:40pm
P 128714	IC5822-100		bzd		12					ok	sv182535-70a
P 128715	IC5822-80				13					ok	sv182535-70b
P 128716	IC5822-50				14					ok	sv182535-70c
P 128717	IC5822-25				15					ok	sv182535-70d
P 128718	IC5822-10				16					ok	sv182535-101
P 128719	IC5822-5				17					ok	sv182535-70g
P 128720	IC5822-2				18					ok	sv182535-70h
P 128721	IC5822-1				19					ok	sv182535-70i
P 128722	ICV5822-50		bzd 3rd		20					ok	sv182490-113 2:20am

Standard / Reagent	Lot #	Concentration	Standard / Reagent	Lot #	Concentration
DFTPP	sv182535-77	50ppm	int std	A0144955	4000ppm
			dcm-fisher	191108	---

Column
 Batch ID
 Approved By:

Initial Calib Date
 Analysis Date
 Approved Date

Sequence Loaded By:
 Data Processed By:

Quant Method/s
 Injection Volume

SW846 8270 D
 EPA 625

Data File	Sample ID	OP Batch ID	Test	MTX	A L S	Dil	L+	Surr OK?	IS OK?	Data OK?	Comment
P 128723	DFTPP				1					ok	2:25pm
P 128724	ICV5819-50		bn2		2					ok	op192336-72 3:31pm

Standard / Reagent	Lot #	Concentration	Standard / Reagent	Lot #	Concentration
DFTPP	sv182535-77	50ppm	int std	A0144955	4000ppm
BNA	sv182535-121h	25ppm	dcm-fisher	191108	---
tlc42	sv1828535-120h	25ppm			
bzd	sv182535-71h	25ppm			

Column Initial Calib Date Sequence Loaded By: SW846 8270 D
 Batch ID Analysis Date Data Processed By: EPA 625
 Approved By: Approved Date

Data File	Sample ID	OP Batch ID	Test	MTX	A L S	Dil	L+	Surr OK?	IS OK?	Data OK?	Comment
P 128924	DFTPP				1					nu	deg high, change liner
P 128925	DFTPP				1					ok	12:56am
P 128926	CC5819-25				2					ok	
P 128927	CC5821-25				3					ok	
P 128928	CC5822-25				4					ok	
128929	OP19673-MB1	OP19673	AB8270TCL20,AB8270TCL20+,B8270PAH	SO	5		X	x	x	ok	
128930	OP19673-BS1	OP19673	AB8270TCL20,AB8270TCL20+,B8270PAH	SO	6		X	x	x	ok	
P 128931	OP19673-BSD	op19673			7			x	x	ok	
P 128932	JC85911-1	OP19673	AB8270STD	SO	8			x	x	ok	
P 128933	JC85911-2	OP19673	AB8270STD	SO	9			low	x	cf	

GCMS Semi Volatile Run Log

Data File	Sample ID	OP Batch ID	Test	MTX	A L S	Dil	L+	Surr OK?	IS OK?	Data OK?	Comment
P 128934	JC86052-3	OP19673	AB8270TCL20+	SO	10		X	X	X	ok	%solid is waiting
P 128935	JC86052-4	OP19673	AB8270TCL20+	SO	11		X	X	X	ok	%solid is waiting
P 128936	JC86052-5	OP19673	AB8270TCL20+	SO	12		X	X	X	ok	%solid is waiting
P 128937	JC86052-6	OP19673	AB8270TCL20+	SO	13		X	X	X	ok	%solid is waiting
P 128938	JC86052-7	OP19673	AB8270TCL20+	SO	14		X	X	X	ok	%solid is waiting
P 128939	JC86052-8	OP19673	AB8270TCL20+	SO	15		X	X	X	ok	%solid is waiting
P 128940	JC86052-9	OP19673	AB8270TCL20+	SO	16		X	X	X	ok	%solid is waiting
P 128941	JC86052-13	OP19673	AB8270TCL20+	SO	17		X	X	X	ok	%solid is waiting
P 128942	JC86052-2	OP19673	AB8270TCL20+	SO	18		X	X	X	ok	%solid is waiting
128943	OP19673-MS	OP19673	AB8270TCL20,AB8270TCL20+,B8270PAH	SO	19	5	X	X	X	ok	diluted for visc.
128944	OP19673-MSD	OP19673	AB8270TCL20,AB8270TCL20+,B8270PAH	SO	20	5	X	X	X	ok	diluted for visc.
P 128945	JC86043-3	OP19673	AB8270TCL20	SO	21	5		X	X	rr	diluted for visc. rr 1X
P 128946	JC86043-4	OP19673	AB8270TCL20	SO	22	5		X	X	rr	diluted for visc. Rr 1X
P 128947	JC86043-5	OP19673	AB8270TCL20	SO	23	5		X	X	ok/dl	diluted for visc. Need dl
P 128948	JC86046-1	OP19673	B8270PAH	SO	24	5		X	X	ok	diluted for visc.
P 128949	JC86052-1	OP19673	AB8270TCL20+	SO	25	5	X		X	ok	diluted for visc. 11.20am

GCMS Semi Volatile Run Log

Instrument ID: GCMSP

Standard / Reagent	Lot #	Concentration	Standard / Reagent	Lot #	Concentration
DFTPP	sv182535-77	50ppm	int std	A0144955	4000ppm
BNA	sv182535-121h	25ppm	dcm-fisher	191108	---
tc142	sv1828535-120h	25ppm			
bzd	sv182535-71h	25ppm			

Column Initial Calib Date
 Batch ID Analysis Date
 Approved By: Approved Date

Sequence Loaded By: Quant Method/s SW846 8270 D
 Data Processed By: Injection Volume EPA 625

Data File	Sample ID	OP Batch ID	Test	A		MTX	Dil	L+	Surr OK?	IS OK?	Data OK?	Comment
				L	S							
P 128950	DFTPP			1							ok	1.05pm
P 128951	CC5819-50			2							ok	
P 128952	CC5821-50			3							ok	
P 128953a	JC85973-1	OP19648	AB8270SL3	4		AQ						irr as A file, not spiked
128954	JC85973-2	OP19648	AB8270SL3	5		AQ						
128955	JC85973-3	OP19648	AB8270SL3	6		AQ						
128956	JC85973-4	OP19648	AB8270SL3	7		AQ						
128957	JC85973-5	OP19648	AB8270SL3	8		AQ						
128958	JC85973-6	OP19648	AB8270SL3	9		AQ						
P 128959	JC85973-7	OP19648	AB8270SL3	10		AQ						

GCMS Semi Volatile Run Log

Data File	Sample ID	OP Batch ID	Test	MTX	A L S	Dil	L+	Surr OK?	IS OK?	Data OK?	Comment
128960	JC85973-8	OP19648	AB8270SL3	AQ	11						
128961	JC85973-9	OP19648	AB8270SL3	AQ	12						
P 128962	JC85973-1	OP19648A		AQ	13	10					diluted for 1,4 diox
P 128963	JC85973-2	OP19648A		AQ	14	10					diluted for 1,4 diox
P 128964	JC85973-7	OP19648A		AQ	15	5					diluted for 1,4 diox
P 128965	JC86043-5	OP19673	AB8270TCL20	SO	16	50					
P 128966	ECC5819-50				2					ok	
P 128967	ECC5821-50				3					ok	
P 128968	OP19262-MB1	OP19262	AB8270TCLP	SO	17			x	x	ok	ran after p128956
P 128969	OP19262-LS14	OP19262	AB8270TCLP	SO	18			x	x	ok	ran after p128956
P 128970	OP19262-MSD	OP19262	AB8270TCLP	SO	19			x	x	ok	ran after p128956
P 128971	JC84322-1A	OP19262	AB8270TCLP	SO	20		X	x	x	ok	ran after p128956

Standard / Reagent	Lot #	Concentration	Standard / Reagent	Lot #	Concentration
DFTPP	sv182535-77	50ppm	int std	A0144955	4000ppm
BNA	sv182535-121a	50ppm	dcm-fisher	191108	---
tlc42	sv1828535-120a	50ppm			
bzd	sv182535-71c	50ppm			

Column Initial Calib Date
 Batch ID Analysis Date
 Approved By: Approved Date

Sequence Loaded By: Quant Method/s SW846 8270 D
 Data Processed By: Injection Volume EPA 625

Data File	Sample ID	OP Batch ID	Test	MTX	A L S	Dil	L+	Surr OK?	IS OK?	Data OK?	Comment
P 128992	DFTPP				1					ok	1:07pm
P 128993	CC5819-50		bn		2					ok	High 61,64
P 128994	CC5821-20		td		3					ok	High 108
P 128995	OP19722-MB1	OP19722	AB8270TCL20+,AB8270TCL20+	SO	4		X	y	y	ok	
P 128996	OP19722-BS1	OP19722	AB8270TCL20+,AB8270TCL20+	SO	5		X	y	y	ok	
P 128997	JC86190-1	OP19722	AB8270TCL20+	LIQ	6		X	x	y	N	Surrou #8,25,51,85
P 128998	OP19722-MS	OP19722	AB8270TCL20+,AB8270TCL20+	SO	7		X	y	y	ok	
P 128999	OP19722-MSD	OP19722	AB8270TCL20+,AB8270TCL20+	SO	8		X	y	y	ok	
P 129000	JC86190-2	OP19722	AB8270TCL20+	LIQ	9		X	y	y	ok	
P 129001	JC86190-3	OP19722	AB8270TCL20+	LIQ	10		X	x	y	N	Surrou #8,25

GCMS Semi Volatile Run Log

Data File	Sample ID	OP Batch ID	Test	MTX	A L S	Dil	L+	Surr OK?	IS OK?	Data OK?	Comment
P 129002	JC86190-6	OP19722	AB8270TCL20+	LIQ	11		X	x	y	N	Surrout #5,8,25,51
P 129003	JC85683-3	OP19674	AB8270SL	WIPE	12			x	y	N	Surrout #5,73
P 129004	JC85683-4	OP19674	AB8270SL	WIPE	13			x	y	N	Surrout #73
P 129005	JC85683-5	OP19674	AB8270SL	WIPE	14			y	y	ok	
P 129006	JC85683-6	OP19674	AB8270SL	WIPE	15			y	y	ok	
P 129007	JC85683-7	OP19674	AB8270SL	WIPE	16			y	y	ok	
P 129008	JC85683-8	OP19674	AB8270SL	WIPE	17			y	y	ok	
P 129009	JC85683-9	OP19674	AB8270SL	WIPE	18			y	y	ok	
P 129010	JC85683-10	OP19674	AB8270SL	WIPE	19			y	y	ok	
P 129011	JC85683-11	OP19674	AB8270SL	WIPE	20			y	y	ok	
P 129012	JC85683-12	OP19674	AB8270SL	WIPE	21			y	y	ok	
P 129013	JC85683-13	OP19674	AB8270SL	WIPE	22			y	y	ok	
P 129014	JC85683-14	OP19674	AB8270SL	WIPE	23			y	y	ok	
P 129015	JC85683-2	OP19674	AB8270SL	WIPE	24			x	x	RR	ISTD 6 out/Surrout #5,8,73
P 129016	JC85683-1	OP19674	AB8270SL	WIPE	25			x	x	RR	ISTD 6 out/Surrout #5,8,73
P 129017	JC86043-3	OP19673	AB8270TCL20	SO	26			y	y	ok	1:01am
P 129018	JC86043-4	OP19673	AB8270TCL20	SO	27			y	y	RR	Needs Dilution--Outside Clocktime
P 129019	JC86190-4	OP19722	AB8270TCL20+	LIQ	28	5	X	x	y	RR	Surrout #8,25,51--Outside Clocktime
P 129020	JC86190-5	OP19722	AB8270TCL20+	LIQ	29	5	X	x	y	RR	Surrout #8,51,73--Outside Clocktime

Standard / Reagent	Lot #	Concentration	Standard / Reagent	Lot #	Concentration
DFTPP	sv182535-77	50ppm	int std	A0144955	4000ppm
BNA	sv182535-121h	25ppm	dcm-fisher	190729	---
tc142	sv1828535-120h	25ppm			

Column Initial Calib Date SW846 8270 D
 Batch ID Analysis Date EPA 625
 Approved By: Approved Date

Sequence Loaded By: Quant Method/s
 Data Processed By: Injection Volume

Data File	Sample ID	OP Batch ID	Test	MTX	A L S	Dil	L+	Surr OK?	IS OK?	Data OK?	Comment
P 129021	DFTPP				1					ok	10:21 am
P 129022	CC5819-25		bn		2					ok	
P 129023	CC5821-25		tc142		3					ok	108 high
P 129024	OP19702-MB1	OP19702	AB8270NJTCL20+,AB8270TCL20+,B8270NJTCL20+,B8270PAH	AQ	4		X	Y	Y	ok	
P 129025	OP19702-BS1	OP19702	AB8270NJTCL20+,AB8270TCL20+,B8270NJTCL20+,B8270PAH	AQ	5		X	Y	Y	ok	
P 129026	OP19702-BSD	OP19702	AB8270NJTCL20+,AB8270TCL20+,B8270NJTCL20+,B8270PAH	AQ	6		X	Y	Y	ok	
P 129027	JC86126-1	OP19702	AB8270NJTCL20+	AQ	7		X	Y	Y	ok	
P 129028	JC86126-2	OP19702	AB8270NJTCL20+	AQ	8		X	Y	Y	ok	
P 129029	JC86126-3	OP19702	AB8270NJTCL20+	AQ	9		X	Y	Y	ok	
P 129030	JC86126-4	OP19702	AB8270NJTCL20+	AQ	10		X	Y	Y	ok	

GCMS Semi Volatile Run Log

Data File	Sample ID	OP Batch ID	Test	MTX	A L S	Dil	L+	Surr OK?	IS OK?	Data OK?	Comment
P 129031	JC86126-5	OP19702	AB8270NJTCL20+	AQ	11		X	Y	N	CORR	
P 129032	JC86126-6	OP19702	AB8270NJTCL20+	AQ	12		X	Y	Y	ok	
P 129033	JC86126-7	OP19702	AB8270NJTCL20+	AQ	13		X	Y	Y	ok	
P 129034	JC86126-8	OP19702	AB8270NJTCL20+	AQ	14		X	Y	Y	ok	
P 129035	JC86126-9	OP19702	AB8270NJTCL20+	AQ	15		X	Y	Y	ok	
P 129036	JC86126-10	OP19702	AB8270NJTCL20+	AQ	16		X	Y	Y	ok	
P 129037	JC86142-1	OP19702	AB8270TCL20+	AQ	17		X	Y	Y	ok	
P 129038	JC86142-2	OP19702	AB8270TCL20+	AQ	18		X	N	Y	CORR	
P 129039	JC86142-4	OP19702	AB8270TCL20+	AQ	19		X	N	N	CORR	
P 129040	JC86142-5	OP19702	AB8270TCL20+	AQ	20		X	Y	Y	ok	
P 129041	JC85400-2	OP19702	B8270PAH	AQ	21			Y	Y	ok	
P 129042	JC86117-1	OP19702	B8270NJTCL20+	AQ	22		X	Y	Y	ok	
P 129043	JC86117-2	OP19702	B8270NJTCL20+	AQ	23		X	Y	Y	ok	
P 129044	JC86190-3	OP19722	AB8270TCL20+	LIQ	24	5	X	N	Y	corr	diluted for matrix
P 129045	JC86190-6	OP19722	AB8270TCL20+	LIQ	25	5	X	N	Y	corr	diluted for matrix
P 129046	JC86043-4	OP19673	AB8270TCL20	SO	26	2		Y	Y	ok	
P 129047	JC85683-2	OP19674	AB8270SL	WIPE	27			N	N	CORR	
P 129048	JC85683-1	OP19674	AB8270SL	WIPE	28			N	N	CORR	end (22:13)
P 129049	JC86190-4	OP19722	AB8270TCL20+	LIQ	29	5	X			RR	diluted due to visc.; outside clocktime

GCMS Semi Volatile Run Log

Data File	Sample ID	OP Batch ID	Test	MTX	A L S	Dil	L+	Surr OK?	IS OK?	Data OK?	Comment
P 129050	JC86190-5	OP19722	AB8270TCL20+	LIQ	30	5	X			RR	diluted due to visc.; outside clocktime

9-2337

LOGBOOK ID:

Date started: 4/10/19
Date finished: 4/10/2019
Time started: 19:00
Time finished: 00:20

ABN Extraction Log - Solids

Extract Method (CHECK OFF) DO NOT CIRCLE:
Microwave SW3546
Waste Dil. SW3580A
Sonication SW3559C
Spotlet SW3549C

BATCH # MS 19472 RACK# R-46
 Weighed by: SH, AF
 Extracted by: SH
 Concentrated by: SH, NIT
 Final Vol. Top-up: SH
 Visited by: SH
 Supervisor Reviewer: 65 4-11-19

Equipment/Range	ID	Observed Temp (°C)	Corrected Temp (°C)	Pressure/ Rework
Buick Chiller				
Waters C18 (70-80°C)	1011	74.75	-1.1	73.74
Waters C18 (70-80°C)	V3, V4	41.7	-	2
NEAP (2-3°C, LPM)	2	35.3	+0.1	35.4
Balance	B49	N/A	N/A	N/A
STURROGATE	LOT#		CONC (ppm)	AMT (mL)
ABN	192330-89		50	1.0
ABN DOD SIM				
WITNESS SIGN: AF				
MATRIX SPIKE	LOT#		CONC (ppm)	AMT (mL)
Acid	192330-67		50	1.0
Acid (for STD)				
Base #1	192330-70		50	1.0
Base #2	192330-83		50	1.0
Ambine	192330-85		50	1.0
BSDM				
WITNESS SIGN: AP				
SOLVENT	LOT#		BRAND	AMT (mL)
1:1 METH CHLOR	194485		fisher	30.0
ACETONE	180143		fisher	
METH CHLOR				
REAGENT	LOT#		BAKE BATCH #	BRAND
HYDROMATRIX	6435002		4-11-19	ORIENT
SODIUM SULFATE	183473		4-4-19	fisher
FILTER PAPER	0711901			fisher
MATRIX	LOT#		BAKE BATCH #	BRAND
SAND	864190034A			fisher

Sample #	Analysis Type	Sample Description	Sample Wt (g)	Sample Vol (mL)	Decant	Microwave ID	Sonicator ID	Final Extract Vol (mL)	Color	Comments
JC86070-15	MBI	MBI	30.0	1.0				1.0	clear	
JC85757-6	BSI	BSI	30.0	1.0				1.0	yellow	
JC86073-1	MSD	wet sand	31.2	1.0				1.0	brown	
JC85910-2	BS	wet sand	31.9	1.0				1.0	brown	
JC85910-2	MS									
JC85910-2	MSD	wet sand	31.3	1.0				1.0	brown	
JC85910-2	MS	dry	31.4	1.0				1.0	yellow	
JC85910-2	MSD	dry	30.4	1.0				1.0	yellow	
JC85910-2	MS	dry	30.3	1.0				1.0	yellow	
JC85910-2	MSD	dry	30.1	1.0				1.0	yellow	
JC85910-2	MS	dry	31.2	1.0				1.0	brown	
JC85910-2	MSD	dry	31.2	1.0				1.0	brown	
JC85910-2	MS	dry	31.4	1.0				1.0	brown	
JC85910-2	MSD	dry	30.5	1.0				1.0	brown	
JC85910-2	MS	dry	30.9	1.0				1.0	brown	
JC85910-2	MSD	dry	30.7	1.0				1.0	brown	
JC85910-2	MS	dry	31.1	1.0				1.0	brown	
JC85910-2	MSD	dry	31.3	1.0				1.0	brown	
JC85910-2	MS	wet gravel	31.5	1.0				1.0	brown	
JC85910-2	MSD	wet gravel	30.3	1.0				1.0	brown	

QC Samples (MS, MSD, LINK and/or DUP, Link) Confirmed by:

SPECIAL PROCESSING INSTRUCTIONS

Rx Reason:

Spiking:

Weights/Volumes:

Required MS/MSD:

Final Volume:

Other:

91

SGS Form: OP018A-10
Rev Date: 8/24/7

9-2337

LOGBOOK ID:

Date started: 4/10/19
 Date finished: 4-10-2019
 Time started: 19:00
 Time finished: 00:30

ABN Extraction Log - Solids

Extract Method (CHECK OFF) DO NOT CIRCLE:
 Microwave SW3546
 Soxhlet SW3540C
 Waste Dil. SW3580A

BATCH # MS 191673 RACK# P-46
 Weighed by: AF
 Extracted by: SH
 Concentrated by: SH NLT
 Final Vol. Top-up: SH
 Visited by: SH
 Supervisor Review: 4.11.19

Supervisor/Review	ID	Observed Temp (°C)	Corrected Temp (°C)	Pressure (mmHg)
Enrichment/Batch	10	74	-1	73
Soxhlet (65-71°C)	V3	4	-	2
Washbath (70-80°C)	2	35.3	+0.1	35.4
Washbath Chiller (0-5°C)	1938	N/A	N/A	N/A
SW/AF (20-31°C, LPM)	1923310-89	50		1.0
Balance	LOT #			
STIRROGATE	CDNC (ppm)			
ABN	AMT (ml)			
ABN/DOD SEM				
WITNESS SIGN: AF	SPICE SIGN: SH			
MATRIX SPICE	LOT #			
Acid	1923310-67	50		1.0
Acid (for SEM)				
Base #1	1923310-70	50		1.0
Base #2	1923310-83	50		1.0
Acid	1923310-85	50		1.0
SEM				
WITNESS SIGN: AF	SPICE SIGN: SH			
SOLVENT	LOT #			
1:1 METH CHLOR/ACETONE	199105			30.0
METH CHLOR	180143			
REAGENT	LOT #			
HYDROMATRIX	6435092			4-4-19
SODIUM SILICATE	193473			4-4-19
FILTER PAPER	9711301			Fisher
MATRIX	LOT #			
SAND	8419101301A			Fisher

Sample #	Analysis Type	Sample Description	Sample Wt (g)	Oil (g)	Liq (ml)	Final Extract		Microwave ID	Sonicator ID	Decant	Comments
						Vol (mL)	Color				
UC81043-3MS	MSD	soil	30.0			1.0	clear				
UC810410-1	MSD	soil	30.4			1.0	yellow				
UC81057-1	MSD	soil	30.4			1.0	brown				
UC81052-2	MSD	soil	30.0			1.0	brown				
UC81043-3	MSD	soil	30.1			1.0	brown				
UC810410-1	MSD	soil	31.1			1.0	brown				
UC81057-1	MSD	soil	31.4			1.0	brown				
UC81052-2	MSD	soil	31.5			1.0	brown				
UC81043-3	MSD	soil	31.2			1.0	brown				
UC810410-1	MSD	soil	30.5			1.0	yellow				
UC81057-1	MSD	soil	30.7			1.0	yellow				
UC81052-2	MSD	soil	31.0			1.0	yellow				
UC81043-3	MSD	soil	30.3			1.0	clear				
UC810410-1	MSD	soil	30.9			1.0	yellow				
UC81057-1	MSD	soil	30.8			1.0	clear				
UC81052-2	MSD	soil	31.1			1.0	yellow				
UC81043-3	MSD	soil	30.0			1.0	clear				
UC810410-1	MSD	soil	30.8			1.0	clear				

QC Samples (MS, MSD, LINK and/or DUP, Link) Confirmed by:

SPECIAL PROCESSING INSTRUCTIONS

Rx Reason:

Spilling:

Weights/Volumes:

Required MS/MSD:

Final Volume:

Other:

93

MCP 4123

SGS
 Form: OP019A-10
 Rev Date: 8/2/17

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: JC86043
 Account: BBLNYS - Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: H7041119S1.CSV Date Analyzed: 04/11/19 Methods: SW846 7471B
 Analyst: EAL Run ID: MA46477
 Parameters: Hg

Time	Sample Description	Dilution Factor	PS Recov	Comments
10:58	MA46477-STD1	1		B=9.7629E-005, C=3.5880E-002, RHO=0.9994488
11:00	MA46477-STD2	1		STDB
11:01	MA46477-STD3	1		STDC
11:02	MA46477-STD4	1		STDD
11:04	MA46477-STD5	1		STDE
11:06	MA46477-STD6	1		STDF
11:09	MA46477-ICV1	1		
11:11	MA46477-ICB1	1		
11:13	MA46477-CCV1	1		
11:14	MA46477-CCB1	1		
11:16	MA46477-CRI1	1		
11:27	MA46477-CCV2	1		
11:28	MA46477-CCB2	1		
11:39	MP14055-MB1	1		
11:40	MP14055-B1	1		
11:41	MP14055-S1	1		
11:43	MP14055-S2	1		
11:45	MP14055-D1	1		
11:47	JC85997-1	1		(sample used for QC only; not part of login JC86043)
11:49	ZZZZZZ	1		
11:50	ZZZZZZ	1		
11:52	ZZZZZZ	1		
11:53	MA46477-CCV3	1		
11:57	MA46477-CCB3	1		
11:58	ZZZZZZ	1		
12:00	ZZZZZZ	1		
12:01	ZZZZZZ	1		
12:03	ZZZZZZ	1		
12:04	ZZZZZZ	1		
12:06	ZZZZZZ	1		
12:07	ZZZZZZ	1		
12:09	ZZZZZZ	1		
12:10	ZZZZZZ	1		

10.1
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SGS Instrument Runlog
Inorganics Analyses

Login Number: JC86043
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA

File ID: H7041119S1.CSV Date Analyzed: 04/11/19 Methods: SW846 7471B
Analyst: EAL Run ID: MA46477
Parameters: Hg

Time	Sample Description	Dilution Factor	PS Recov	Comments
12:12	MA46477-CCV4	1		
12:13	MA46477-CCB4	1		
12:16	ZZZZZZ	1		
12:17	MP14056-MB1	1		
12:19	MP14056-B1	1		
12:20	MP14056-S1	1		%Sol
12:22	MP14056-S2	1		%Sol
12:24	JC85833-1A	1		(sample used for QC only; not part of login JC86043)
12:26	ZZZZZZ	1		
12:28	ZZZZZZ	1		
12:29	JC86043-1	1		
12:31	MA46477-CCV5	1		
12:33	MA46477-CCB5	1		
12:35	JC86043-2	1		
12:36	JC86043-3	1		
12:38	JC86043-4	1		
12:40	JC86043-5	1		
----->	Last reportable sample/prep for job JC86043			
12:42	ZZZZZZ	1		
12:45	ZZZZZZ	1		
12:46	ZZZZZZ	1		
12:48	ZZZZZZ	1		
12:50	ZZZZZZ	1		
12:52	MA46477-CCV6	1		
12:54	MA46477-CCB6	1		
12:56	ZZZZZZ	1		
12:57	MP14121-MB1	1		
12:59	MP14121-B1	1		
13:01	MP14121-S1	1		%Sol
13:20	MP14121-S1	5		%Sol
13:21	MP14121-S2	5		%Sol
13:23	JC85964-19	5		(sample used for QC only; not part of login JC86043)
13:25	ZZZZZZ	5		
13:27	ZZZZZZ	5		

10.1
10

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC86043
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA

File ID: H7041119S1.CSV Date Analyzed: 04/11/19 Methods: SW846 7471B
Analyst: EAL Run ID: MA46477
Parameters: Hg

Time	Sample Description	Dilution Factor	PS Recov	Comments
13:29	MA46477-CCV7	1		
13:31	MA46477-CCB7	1		
13:33	ZZZZZZ	5		
13:35	ZZZZZZ	5		
13:36	ZZZZZZ	5		
13:38	ZZZZZZ	5		
13:41	ZZZZZZ	5		
13:42	ZZZZZZ	5		
13:44	ZZZZZZ	5		
13:46	ZZZZZZ	5		
13:48	ZZZZZZ	5		
13:50	MA46477-CCV8	1		
13:52	MA46477-CCB8	1		
13:54	ZZZZZZ	5		
13:56	ZZZZZZ	5		
13:58	ZZZZZZ	5		
14:00	ZZZZZZ	5		
14:02	ZZZZZZ	5		
14:05	ZZZZZZ	5		
14:07	ZZZZZZ	5		
14:09	ZZZZZZ	5		
14:17	MP14124-MB1	1		
14:18	MA46477-CCV9	1		
14:20	MA46477-CCB9	1		
14:22	MP14124-B1	1		
14:33	MP14124-S1	5		
14:34	MP14124-S2	5		
14:36	JC85964-67	5		(sample used for QC only; not part of login JC86043)
14:38	ZZZZZZ	5		
14:41	ZZZZZZ	5		
14:42	ZZZZZZ	5		
14:44	ZZZZZZ	5		
14:46	ZZZZZZ	5		

10.1
10

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC86043
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA

File ID: H7041119S1.CSV Date Analyzed: 04/11/19 Methods: SW846 7471B
Analyst: EAL Run ID: MA46477
Parameters: Hg

Time	Sample Description	Dilution Factor	PS Recov	Comments
14:48	MA46477-CCV10	1		
14:50	MA46477-CCB10	1		
14:53	ZZZZZZ	5		
14:54	ZZZZZZ	5		
14:56	ZZZZZZ	5		
14:58	ZZZZZZ	5		
15:00	ZZZZZZ	5		
15:02	ZZZZZZ	5		
15:04	ZZZZZZ	5		
15:06	ZZZZZZ	5		
15:08	ZZZZZZ	5		
15:10	MA46477-CCV11	1		
15:12	MA46477-CCB11	1		
15:14	ZZZZZZ	5		
15:16	ZZZZZZ	5		
15:18	ZZZZZZ	5		
15:20	ZZZZZZ	5		
15:22	ZZZZZZ	5		
15:24	ZZZZZZ	5		
15:26	ZZZZZZ	1		
15:28	ZZZZZZ	1		
15:30	ZZZZZZ	1		
15:32	MA46477-CCV12	1		
15:35	MA46477-CCB12	1		
15:37	ZZZZZZ	1		
15:38	ZZZZZZ	1		
15:40	ZZZZZZ	1		
15:43	ZZZZZZ	10		
15:45	ZZZZZZ	10		
15:47	ZZZZZZ	10		
15:49	ZZZZZZ	10		
15:51	ZZZZZZ	1		
15:54	ZZZZZZ	1		

10.1
10

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC86043
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA

File ID: H7041119S1.CSV Date Analyzed: 04/11/19 Methods: SW846 7471B
Analyst: EAL Run ID: MA46477
Parameters: Hg

Time	Sample Description	Dilution Factor	PS Recov	Comments
15:56	MA46477-CCV13	1		
15:58	MA46477-CCB13	1		
16:00	ZZZZZZ	1		
16:01	ZZZZZZ	1		
16:04	ZZZZZZ	1		
16:08	ZZZZZZ	1		
16:10	MA46477-CRI2	1		
16:11	MA46477-CCV14	1		
16:13	MA46477-CCB14	1		

-----> Last reportable CCB for job JC86043
Refer to raw data for calibration curve and standards.

10.1
10

REPORTED ELEMENTS SUMMARY

Login Number: JC86043
 Account: BBLNYS - Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: H7041119S1.CSV Date Analyzed: 04/11/19 Methods: SW846 7471B
 Analyst: EAL Run ID: MA46477
 Parameters: Hg

Time	Sample Description	Element:	H Dilution	g
11:09	MA46477-ICV1	1	X	
11:11	MA46477-ICB1	1	X	
11:13	MA46477-CCV1	1	X	
11:14	MA46477-CCB1	1	X	
11:16	MA46477-CRI1	1	X	
11:27	MA46477-CCV2	1	X	
11:28	MA46477-CCB2	1	X	
11:39	MP14055-MB1	1	X	
11:40	MP14055-B1	1	X	
11:41	MP14055-S1	1	X	
11:43	MP14055-S2	1	X	
11:45	MP14055-D1	1	X	
11:47	JC85997-1	1	X (a)	
11:49	ZZZZZZ	1		
11:50	ZZZZZZ	1		
11:52	ZZZZZZ	1		
11:53	MA46477-CCV3	1	X	
11:57	MA46477-CCB3	1	X	
11:58	ZZZZZZ	1		
12:00	ZZZZZZ	1		
12:01	ZZZZZZ	1		
12:03	ZZZZZZ	1		
12:04	ZZZZZZ	1		
12:06	ZZZZZZ	1		
12:07	ZZZZZZ	1		
12:09	ZZZZZZ	1		
12:10	ZZZZZZ	1		
12:12	MA46477-CCV4	1	X	
12:13	MA46477-CCB4	1	X	
12:16	ZZZZZZ	1		
12:17	MP14056-MB1	1	X	
12:19	MP14056-B1	1	X	
12:20	MP14056-S1	1	X	
		Element:	H	g

10.1.1
10

REPORTED ELEMENTS SUMMARY

Login Number: JC86043
 Account: BBLNYS - Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: H7041119S1.CSV Date Analyzed: 04/11/19 Methods: SW846 7471B
 Analyst: EAL Run ID: MA46477
 Parameters: Hg

Time	Sample Description	Element:	H Dilution g
12:22	MP14056-S2	1	X
12:24	JC85833-1A	1	X (a)
12:26	ZZZZZZ	1	
12:28	ZZZZZZ	1	
12:29	JC86043-1	1	X
12:31	MA46477-CCV5	1	X
12:33	MA46477-CCB5	1	X
12:35	JC86043-2	1	X
12:36	JC86043-3	1	X
12:38	JC86043-4	1	X
12:40	JC86043-5	1	X
12:42	ZZZZZZ	1	
12:45	ZZZZZZ	1	
12:46	ZZZZZZ	1	
12:48	ZZZZZZ	1	
12:50	ZZZZZZ	1	
12:52	MA46477-CCV6	1	X
12:54	MA46477-CCB6	1	X
12:56	ZZZZZZ	1	
12:57	MP14121-MB1	1	X
12:59	MP14121-B1	1	X
13:01	MP14121-S1	1	
13:20	MP14121-S1	5	X
13:21	MP14121-S2	5	X
13:23	JC85964-19	5	X (a)
13:25	ZZZZZZ	5	
13:27	ZZZZZZ	5	
13:29	MA46477-CCV7	1	X
13:31	MA46477-CCB7	1	X
13:33	ZZZZZZ	5	
13:35	ZZZZZZ	5	
13:36	ZZZZZZ	5	
13:38	ZZZZZZ	5	
		Element:	H g

10.1.1
10

REPORTED ELEMENTS SUMMARY

Login Number: JC86043
 Account: BBLNYS - Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: H7041119S1.CSV Date Analyzed: 04/11/19 Methods: SW846 7471B
 Analyst: EAL Run ID: MA46477
 Parameters: Hg

Time	Sample Description	Element: H Dilution g
13:41	ZZZZZZ	5
13:42	ZZZZZZ	5
13:44	ZZZZZZ	5
13:46	ZZZZZZ	5
13:48	ZZZZZZ	5
13:50	MA46477-CCV8	1 X
13:52	MA46477-CCB8	1 X
13:54	ZZZZZZ	5
13:56	ZZZZZZ	5
13:58	ZZZZZZ	5
14:00	ZZZZZZ	5
14:02	ZZZZZZ	5
14:05	ZZZZZZ	5
14:07	ZZZZZZ	5
14:09	ZZZZZZ	5
14:17	MP14124-MB1	1 X
14:18	MA46477-CCV9	1 X
14:20	MA46477-CCB9	1 X
14:22	MP14124-B1	1 X
14:33	MP14124-S1	5 X
14:34	MP14124-S2	5 X
14:36	JC85964-67	5 X (a)
14:38	ZZZZZZ	5
14:41	ZZZZZZ	5
14:42	ZZZZZZ	5
14:44	ZZZZZZ	5
14:46	ZZZZZZ	5
14:48	MA46477-CCV10	1 X
14:50	MA46477-CCB10	1 X
14:53	ZZZZZZ	5
14:54	ZZZZZZ	5
14:56	ZZZZZZ	5
14:58	ZZZZZZ	5

Element: H
g

10.1.1
10

REPORTED ELEMENTS SUMMARY

Login Number: JC86043
 Account: BBLNYS - Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: H7041119S1.CSV Date Analyzed: 04/11/19 Methods: SW846 7471B
 Analyst: EAL Run ID: MA46477
 Parameters: Hg

Time	Sample Description	Element: H Dilution g
15:00	ZZZZZZ	5
15:02	ZZZZZZ	5
15:04	ZZZZZZ	5
15:06	ZZZZZZ	5
15:08	ZZZZZZ	5
15:10	MA46477-CCV11	1 X
15:12	MA46477-CCB11	1 X
15:14	ZZZZZZ	5
15:16	ZZZZZZ	5
15:18	ZZZZZZ	5
15:20	ZZZZZZ	5
15:22	ZZZZZZ	5
15:24	ZZZZZZ	5
15:26	ZZZZZZ	1
15:28	ZZZZZZ	1
15:30	ZZZZZZ	1
15:32	MA46477-CCV12	1 X
15:35	MA46477-CCB12	1 X
15:37	ZZZZZZ	1
15:38	ZZZZZZ	1
15:40	ZZZZZZ	1
15:43	ZZZZZZ	10
15:45	ZZZZZZ	10
15:47	ZZZZZZ	10
15:49	ZZZZZZ	10
15:51	ZZZZZZ	1
15:54	ZZZZZZ	1
15:56	MA46477-CCV13	1 X
15:58	MA46477-CCB13	1 X
16:00	ZZZZZZ	1
16:01	ZZZZZZ	1
16:04	ZZZZZZ	1
16:08	ZZZZZZ	1

Element: H
g

10.1.1
10

REPORTED ELEMENTS SUMMARY

Login Number: JC86043
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA

File ID: H7041119S1.CSV Date Analyzed: 04/11/19 Methods: SW846 7471B
Analyst: EAL Run ID: MA46477
Parameters: Hg

Time	Sample Description	Element:	Dilution	Hg
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16:10	MA46477-CRI2	1	X
16:11	MA46477-CCV14	1	X
16:13	MA46477-CCB14	1	X

(a) Sample used for QC only; not part of login JC86043.

Element: Hg

BLANK RESULTS SUMMARY
 Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC86043
 Account: BBLNYS - Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: H7041119S1.CSV Date Analyzed: 04/11/19 Methods: SW846 7471B
 QC Limits: result < RL Run ID: MA46477 Units: ug/l

Time:			11:11		11:14		11:28		11:57	
Sample ID:			ICB1		CCB1		CCB2		CCB3	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Mercury	0.20	.035	0.00620	<0.20	0.0181	<0.20	0.0211	<0.20	0.0528	<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: JC86043
 Account: BBLNYS - Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: H7041119S1.CSV Date Analyzed: 04/11/19 Methods: SW846 7471B
 QC Limits: result < RL Run ID: MA46477 Units: ug/l

Time:			12:13		12:33		12:54		13:31	
Sample ID:			CCB4		CCB5		CCB6		CCB7	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Mercury	0.20	.035	0.0207	<0.20	0.0144	<0.20	0.0156	<0.20	0.0124	<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: JC86043
 Account: BBLNYS - Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: H7041119S1.CSV Date Analyzed: 04/11/19 Methods: SW846 7471B
 QC Limits: result < RL Run ID: MA46477 Units: ug/l

	Time:		13:52		14:20		14:50		15:12	
	Sample ID:		CCB8		CCB9		CCB10		CCB11	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Mercury	0.20	.035	0.0121	<0.20	0.0181	<0.20	0.0129	<0.20	0.0203	<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: JC86043
 Account: BBLNYS - Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: H7041119S1.CSV Date Analyzed: 04/11/19 Methods: SW846 7471B
 QC Limits: result < RL Run ID: MA46477 Units: ug/l

Time:		15:35	15:58	16:13				
Sample ID:		CCB12	CCB13	CCB14				
Metal	RL	IDL	raw	final	raw	final	raw	final
Mercury	0.20	.035	-0.000900	<0.20	0.0105	<0.20	0.0188	<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: JC86043
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA

File ID: H7041119S1.CSV Date Analyzed: 04/11/19 Methods: SW846 7471B
QC Limits: 90 to 110 % Recovery Run ID: MA46477 Units: ug/l

Time:		11:09		11:13		11:27	
Sample ID:	ICV	ICV1	CCV	CCV1	CCV	CCV2	
Metal	True	Results	% Rec	True	Results	% Rec	True
Mercury	3	3.04	101.3	2.5	2.49	99.6	2.5
							2.45
							98.0

(*) Outside of QC limits
(anr) Analyte not requested

10.1.3
10

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC86043
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA

File ID: H7041119S1.CSV Date Analyzed: 04/11/19 Methods: SW846 7471B
QC Limits: 90 to 110 % Recovery Run ID: MA46477 Units: ug/l

	Time:	11:53		12:12		12:31			
Sample ID:	CCV	CCV3		CCV	CCV4		CCV	CCV5	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Mercury	2.5	2.21	88.4	2.5	2.59	103.6	2.5	2.66	106.4

(*) Outside of QC limits
(anr) Analyte not requested

10.1.3
10

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC86043
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA

File ID: H7041119S1.CSV Date Analyzed: 04/11/19 Methods: SW846 7471B
QC Limits: 90 to 110 % Recovery Run ID: MA46477 Units: ug/l

	Time:	12:52		13:29		13:50			
Sample ID:	CCV	CCV6	CCV	CCV7	CCV	CCV8			
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Mercury	2.5	2.65	106.0	2.5	2.66	106.4	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: JC86043
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA

File ID: H7041119S1.CSV Date Analyzed: 04/11/19 Methods: SW846 7471B
QC Limits: 90 to 110 % Recovery Run ID: MA46477 Units: ug/l

	Time:	14:18		14:48		15:10			
Sample ID:	CCV	CCV9	CCV	CCV10	CCV	CCV11	Results	% Rec	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Mercury	2.5	2.43	97.2	2.5	2.57	102.8	2.5	2.54	101.6

(*) Outside of QC limits
(anr) Analyte not requested

10.1.3
10

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC86043
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA

File ID: H7041119S1.CSV Date Analyzed: 04/11/19 Methods: SW846 7471B
QC Limits: 90 to 110 % Recovery Run ID: MA46477 Units: ug/l

	Time:	15:32		15:56		16:11			
Sample ID:	CCV	CCV12	CCV	CCV13	CCV	CCV14			
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Mercury	2.5	2.52	100.8	2.5	2.48	99.2	2.5	2.44	97.6

(*) Outside of QC limits
(anr) Analyte not requested

10.1.3
10

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC86043
 Account: BBLNYS - Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: H7041119S1.CSV Date Analyzed: 04/11/19 Methods: SW846 7471B
 QC Limits: 70 to 130 % Recovery Run ID: MA46477 Units: ug/l

	Time:		11:16		16:10	
Sample ID:	CRI	CRIA	CRI1		CRI2	
Metal	True	True	Results	% Rec	Results	% Rec
Mercury	0.20		0.176	88.0	0.238	119.0

(*) Outside of QC limits
 (anr) Analyte not requested

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC86043
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SC041119M1.ICP Date Analyzed: 04/11/19 Methods: EPA 200.7, SW846 6010D
Analyst: ND Run ID: MA46484
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
10:19	MA46484-STD1	1		STDA
10:24	MA46484-STD2	1		STDB
10:29	ZZZZZZ	1		
10:34	ZZZZZZ	1		
10:39	MA46484-ICV1	1		
10:59	MA46484-ICB1	1		
11:04	MA46484-ICCV1	1		
11:11	MA46484-CCB1	1		
11:16	MA46484-CRI1	1		
11:21	MA46484-CRID1	1		
11:36	MA46484-ICSA1	1		
11:41	MA46484-ICSAB1	1		
11:46	ZZZZZZ	1		
11:52	MA46484-HSTD1	1		
11:57	MA46484-HSTD2	1		
12:03	ZZZZZZ	1		
12:08	ZZZZZZ	1		
12:13	MA46484-HSTD3	1		
12:19	MA46484-CCV1	1		
12:24	MA46484-CCB2	1		
12:29	ZZZZZZ	1		
12:34	MP14033-MB1	1		
12:39	MP14033-B1	1		
12:44	MP14033-S1	1		
12:49	MP14033-S2	1		
12:54	JC85997-1	1		(sample used for QC only; not part of login JC86043)
12:59	MP14033-SD1	5		
13:04	ZZZZZZ	1		
13:09	ZZZZZZ	1		
13:14	MA46484-CCV2	1		
13:19	MA46484-CCB3	1		
13:25	MP14033-D1	1		
13:30	ZZZZZZ	1		

10.2
10

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC86043
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SC041119M1.ICP Date Analyzed: 04/11/19 Methods: EPA 200.7, SW846 6010D
Analyst: ND Run ID: MA46484
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
13:35	ZZZZZZ	1		
13:40	ZZZZZZ	1		
13:45	ZZZZZZ	1		
13:50	ZZZZZZ	1		
13:55	ZZZZZZ	1		
14:00	ZZZZZZ	1		
14:05	ZZZZZZ	1		
14:10	MA46484-CCV3	1		
14:15	MA46484-CCB4	1		
14:20	ZZZZZZ	1		
14:25	ZZZZZZ	1		
14:30	ZZZZZZ	1		
14:35	ZZZZZZ	1		
14:41	ZZZZZZ	1		
14:46	ZZZZZZ	1		
14:51	ZZZZZZ	1		
14:56	ZZZZZZ	1		
15:01	MP14042-PS1	1		
15:06	MA46484-CCV4	1		
15:11	MA46484-CCV5	1		
15:16	MA46484-CCB5	1		
15:21	MA46484-CRI2	1		
15:26	MA46484-CRID2	1		
15:31	MP14093-MB1	1		
15:37	MP14093-B1	1		
15:42	MP14093-S1	1		Needs post spike for Sb, mn
15:47	MP14093-S2	1		
15:52	JC86043-4	1		Ca high
15:57	MP14093-SD1	5		Ca high
16:02	ZZZZZZ	1		
16:07	MA46484-CCV6	1		
16:12	MA46484-CCB6	1		
16:18	MA46484-CRID3	1		

10.2
10

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC86043
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SC041119M1.ICP Date Analyzed: 04/11/19 Methods: EPA 200.7, SW846 6010D
Analyst: ND Run ID: MA46484
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
16:23	MA46484-ICSA2	1		
16:28	MA46484-ICSAB2	1		
16:33	ZZZZZZ	1		
16:38	ZZZZZZ	1		
16:43	ZZZZZZ	1		
16:48	MP14094-B1	1		
16:53	MP14094-MB1	1		
16:59	ZZZZZZ	1		
17:04	MA46484-CCV7	1		
17:09	MA46484-CCB7	1		
17:14	ZZZZZZ	2		
17:19	ZZZZZZ	5		
17:24	ZZZZZZ	5		
17:30	ZZZZZZ	5		
17:35	ZZZZZZ	5		
17:40	ZZZZZZ	5		
17:46	ZZZZZZ	5		
17:51	ZZZZZZ	5		
17:56	ZZZZZZ	5		
18:02	MA46484-CCV8	1		
18:08	MA46484-CCB8	1		
18:13	ZZZZZZ	1		
18:19	ZZZZZZ	1		
18:24	ZZZZZZ	1		
18:29	ZZZZZZ	1		
18:34	ZZZZZZ	1		
18:39	ZZZZZZ	1		
18:45	ZZZZZZ	1		
18:50	ZZZZZZ	1		
18:55	ZZZZZZ	1		
19:00	ZZZZZZ	1		
19:05	ZZZZZZ	1		
19:10	ZZZZZZ	1		

10.2
10

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC86043
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SC041119M1.ICP Date Analyzed: 04/11/19 Methods: EPA 200.7, SW846 6010D
Analyst: ND Run ID: MA46484
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
19:16	ZZZZZZ	5		
19:21	MA46484-CCV9	1		
19:26	MA46484-CCB9	1		
19:31	ZZZZZZ	1		
19:36	JC85681-1	2		(sample used for QC only; not part of login JC86043)
19:41	MP13928-SD1	10		
19:46	ZZZZZZ	1		
19:51	ZZZZZZ	10		
19:56	ZZZZZZ	1		
20:02	ZZZZZZ	2		
20:06	ZZZZZZ	10		
20:12	ZZZZZZ	2		
20:16	MA46484-CCV10	1		
20:22	MA46484-CCB10	1		
20:27	ZZZZZZ	1		
20:32	ZZZZZZ	2		
20:37	ZZZZZZ	2		
20:42	ZZZZZZ	2		
20:47	ZZZZZZ	1		
20:52	ZZZZZZ	2		
20:57	ZZZZZZ	10		
21:02	ZZZZZZ	5		
21:07	ZZZZZZ	10		
21:12	MA46484-CCV11	1		
21:17	MA46484-CCB11	1		
21:22	ZZZZZZ	5		
21:27	ZZZZZZ	5		
21:32	ZZZZZZ	5		
21:37	ZZZZZZ	5		
21:42	MP13930-B1	1		
21:47	MP13930-MB1	1		
21:52	MP13930-B2	1		
21:57	JC85755-14	1		(sample used for QC only; not part of login JC86043)

10.2
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SGS Instrument Runlog
Inorganics Analyses

Login Number: JC86043
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SC041119M1.ICP Date Analyzed: 04/11/19 Methods: EPA 200.7, SW846 6010D
Analyst: ND Run ID: MA46484
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
22:02	MP13930-SD1	5		
22:07	MA46484-CCV12	1		
22:12	MA46484-CCB12	1		
22:18	ZZZZZZ	1		
22:23	ZZZZZZ	1		
22:28	ZZZZZZ	1		
22:33	ZZZZZZ	1		
22:38	ZZZZZZ	1		
22:43	ZZZZZZ	1		
22:48	ZZZZZZ	1		
22:53	ZZZZZZ	1		
22:58	ZZZZZZ	1		
23:03	ZZZZZZ	1		
23:08	MA46484-CCV13	1		
23:13	MA46484-CCB13	1		
23:18	ZZZZZZ	1		
23:23	ZZZZZZ	1		
23:29	MP14043-B1	1		
23:34	MP14043-MB1	1		
23:39	MP14043-S1	1		%sol
23:44	MP14043-S2	1		%sol
23:49	JC85781-58	1		(sample used for QC only; not part of login JC86043)
23:54	MP14043-SD1	5		%sol
23:59	ZZZZZZ	1		
00:04	ZZZZZZ	1		
00:09	MA46484-CCV14	1		
00:14	MA46484-CCB14	1		
00:19	ZZZZZZ	1		
00:24	ZZZZZZ	1		
00:29	ZZZZZZ	1		
00:34	ZZZZZZ	1		
00:39	ZZZZZZ	1		
00:44	ZZZZZZ	1		

10.2
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SGS Instrument Runlog
Inorganics Analyses

Login Number: JC86043
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SC041119M1.ICP Date Analyzed: 04/11/19 Methods: EPA 200.7, SW846 6010D
Analyst: ND Run ID: MA46484
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
00:49	ZZZZZZ	1		
00:54	ZZZZZZ	1		
00:59	ZZZZZZ	1		
01:04	ZZZZZZ	1		
01:09	MA46484-CCV15	1		
01:14	MA46484-CCB15	1		
01:19	ZZZZZZ	1		
01:24	ZZZZZZ	1		
01:29	ZZZZZZ	1		
01:34	ZZZZZZ	1		
01:39	ZZZZZZ	1		
01:45	ZZZZZZ	1		
01:50	ZZZZZZ	1		
01:55	ZZZZZZ	1		
02:00	ZZZZZZ	1		
02:05	MA46484-CCV16	1		
02:10	MA46484-CCB16	1		
02:15	MP14029-S1	1		Needs post spike straight for mg, K
02:20	MP14029-S2	1		
02:25	JC85781-63	1		(sample used for QC only; not part of login JC86043)
02:30	MP14029-SD1	5		
02:35	ZZZZZZ	1		
02:40	ZZZZZZ	1		
02:45	ZZZZZZ	1		
02:50	ZZZZZZ	5		
02:55	ZZZZZZ	10		
03:00	ZZZZZZ	2		
03:05	MA46484-CCV17	1		
03:10	MA46484-CCB17	1		
03:15	ZZZZZZ	2		
03:20	ZZZZZZ	2		
03:25	ZZZZZZ	2		
03:30	JC86043-1	1		

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SGS Instrument Runlog
Inorganics Analyses

Login Number: JC86043
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SC041119M1.ICP Date Analyzed: 04/11/19 Methods: EPA 200.7, SW846 6010D
Analyst: ND Run ID: MA46484
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
03:35	JC86043-2	1		Pb high
03:40	JC86043-3	1		Ca high
03:45	JC86043-5	1		
----->	Last reportable sample/prep for job JC86043			
03:50	ZZZZZZ	1		
03:56	ZZZZZZ	1		
04:01	ZZZZZZ	1		
04:06	MA46484-CCV18	1		
04:11	MA46484-CCB18	1		
----->	Last reportable CCB for job JC86043			
04:16	ZZZZZZ	1		
04:21	ZZZZZZ	1		
04:26	ZZZZZZ	1		
04:31	ZZZZZZ	1		
04:36	ZZZZZZ	1		
04:42	ZZZZZZ	1		
04:47	ZZZZZZ	1		
04:52	MP14083-B1	1		
04:57	MP14083-MB1	1		
05:02	MA46484-CCV19	1		
05:07	MA46484-CCB19	1		
05:12	MP14083-S1	1		
05:17	MP14083-S2	1		
05:22	JC86050-7	1		(sample used for QC only; not part of login JC86043)
05:27	MP14083-SD1	5		
05:33	ZZZZZZ	1		
05:37	ZZZZZZ	1		
05:42	ZZZZZZ	1		
05:47	ZZZZZZ	1		
05:52	ZZZZZZ	1		
05:57	ZZZZZZ	1		
06:02	MA46484-CCV20	1		
06:07	MA46484-CCB20	1		
06:13	ZZZZZZ	1		
06:18	ZZZZZZ	1		

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SGS Instrument Runlog
Inorganics Analyses

Login Number: JC86043
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SC041119M1.ICP Date Analyzed: 04/11/19 Methods: EPA 200.7, SW846 6010D
Analyst: ND Run ID: MA46484
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
06:23	ZZZZZZ	1		
06:28	ZZZZZZ	1		
06:33	ZZZZZZ	1		
06:38	ZZZZZZ	1		
06:43	ZZZZZZ	1		
06:48	ZZZZZZ	1		
06:53	MA46484-CCV21	1		
06:58	MA46484-CCB21	1		

Refer to raw data for calibration curve and standards.

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REPORTED ELEMENTS SUMMARY

Login Number: JC86043
 Account: BBLNYS - Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SC041119M1.ICP Date Analyzed: 04/11/19 Methods: EPA 200.7, SW846 6010D
 Analyst: ND Run ID: MA46484
 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	
10:29	ZZZZZ	1																					
10:34	ZZZZZ	1																					
10:39	MA46484-ICV1	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
10:59	MA46484-ICB1	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
11:04	MA46484-ICCV1	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
11:11	MA46484-CCB1	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
11:16	MA46484-CRI1	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
11:21	MA46484-CRID1	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
11:36	MA46484-ICSA1	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
11:41	MA46484-ICSAB1	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
11:46	ZZZZZ	1																					
11:52	MA46484-HSTD1	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
11:57	MA46484-HSTD2	1																					
12:03	ZZZZZ	1																					
12:08	ZZZZZ	1																					
12:13	MA46484-HSTD3	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
12:19	MA46484-CCV1	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
12:24	MA46484-CCB2	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
12:29	ZZZZZ	1																					
12:34	MP14033-MB1	1		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
12:39	MP14033-B1	1		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
12:44	MP14033-S1	1		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
12:49	MP14033-S2	1		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
12:54	JC85997-1	1		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	(a)
12:59	MP14033-SD1	5		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
13:04	ZZZZZ	1																					
13:09	ZZZZZ	1																					
13:14	MA46484-CCV2	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
13:19	MA46484-CCB3	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
13:25	MP14033-D1	1		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
13:30	ZZZZZ	1																					
13:35	ZZZZZ	1																					
13:40	ZZZZZ	1																					

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REPORTED ELEMENTS SUMMARY

Login Number: JC86043
 Account: BBLNYS - Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SC041119M1.ICP Date Analyzed: 04/11/19 Methods: EPA 200.7, SW846 6010D
 Analyst: ND Run ID: MA46484
 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	
13:45	ZZZZZ	1																					
13:50	ZZZZZ	1																					
13:55	ZZZZZ	1																					
14:00	ZZZZZ	1																					
14:05	ZZZZZ	1																					
14:10	MA46484-CCV3	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
14:15	MA46484-CCB4	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
14:20	ZZZZZ	1																					
14:25	ZZZZZ	1																					
14:30	ZZZZZ	1																					
14:35	ZZZZZ	1																					
14:41	ZZZZZ	1																					
14:46	ZZZZZ	1																					
14:51	ZZZZZ	1																					
14:56	ZZZZZ	1																					
15:01	MP14042-PS1	1		X																			
15:06	MA46484-CCV4	1																					
15:11	MA46484-CCV5	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
15:16	MA46484-CCB5	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
15:21	MA46484-CRI2	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
15:26	MA46484-CRID2	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
15:31	MP14093-MB1	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
15:37	MP14093-B1	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
15:42	MP14093-S1	1	X	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
15:47	MP14093-S2	1	X	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
15:52	JC86043-4	1	X	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
15:57	MP14093-SD1	5	X	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
16:02	ZZZZZ	1																					
16:07	MA46484-CCV6	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
16:12	MA46484-CCB6	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
16:18	MA46484-CRID3	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
16:23	MA46484-ICSA2	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
16:28	MA46484-ICSAB2	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

REPORTED ELEMENTS SUMMARY

Login Number: JC86043
 Account: BBLNYS - Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SC041119M1.ICP Date Analyzed: 04/11/19 Methods: EPA 200.7, SW846 6010D
 Analyst: ND Run ID: MA46484
 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	
16:33	ZZZZZZ	1																					
16:38	ZZZZZZ	1																					
16:43	ZZZZZZ	1																					
16:48	MP14094-B1	1		X					X							X					X	X	
16:53	MP14094-MB1	1		X					X							X					X	X	
16:59	ZZZZZZ	1																					
17:04	MA46484-CCV7	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
17:09	MA46484-CCB7	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
17:14	ZZZZZZ	2																					
17:19	ZZZZZZ	5																					
17:24	ZZZZZZ	5																					
17:30	ZZZZZZ	5																					
17:35	ZZZZZZ	5																					
17:40	ZZZZZZ	5																					
17:46	ZZZZZZ	5																					
17:51	ZZZZZZ	5																					
17:56	ZZZZZZ	5																					
18:02	MA46484-CCV8	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
18:08	MA46484-CCB8	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
18:13	ZZZZZZ	1																					
18:19	ZZZZZZ	1																					
18:24	ZZZZZZ	1																					
18:29	ZZZZZZ	1																					
18:34	ZZZZZZ	1																					
18:39	ZZZZZZ	1																					
18:45	ZZZZZZ	1																					
18:50	ZZZZZZ	1																					
18:55	ZZZZZZ	1																					
19:00	ZZZZZZ	1																					
19:05	ZZZZZZ	1																					
19:10	ZZZZZZ	1																					
19:16	ZZZZZZ	5																					
19:21	MA46484-CCV9	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

REPORTED ELEMENTS SUMMARY

Login Number: JC86043
 Account: BBLNYS - Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SC041119M1.ICP Date Analyzed: 04/11/19 Methods: EPA 200.7, SW846 6010D
 Analyst: ND Run ID: MA46484
 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	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
19:26	MA46484-CCB9	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
19:31	ZZZZZ	1																				
19:36	JC85681-1	2																X	X			(a)
19:41	MP13928-SD1	10																X	X			
19:46	ZZZZZ	1																				
19:51	ZZZZZ	10																				
19:56	ZZZZZ	1																				
20:02	ZZZZZ	2																				
20:06	ZZZZZ	10																				
20:12	ZZZZZ	2																				
20:16	MA46484-CCV10	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
20:22	MA46484-CCB10	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
20:27	ZZZZZ	1																				
20:32	ZZZZZ	2																				
20:37	ZZZZZ	2																				
20:42	ZZZZZ	2																				
20:47	ZZZZZ	1																				
20:52	ZZZZZ	2																				
20:57	ZZZZZ	10																				
21:02	ZZZZZ	5																				
21:07	ZZZZZ	10																				
21:12	MA46484-CCV11	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
21:17	MA46484-CCB11	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
21:22	ZZZZZ	5																				
21:27	ZZZZZ	5																				
21:32	ZZZZZ	5																				
21:37	ZZZZZ	5																				
21:42	MP13930-B1	1			X	X		X				X						X	X			
21:47	MP13930-MB1	1			X	X		X				X						X	X			
21:52	MP13930-B2	1			X	X		X				X						X	X			
21:57	JC85755-14	1			X	X		X				X						X	X			(a)
22:02	MP13930-SD1	5			X	X		X				X						X	X			
22:07	MA46484-CCV12	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

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REPORTED ELEMENTS SUMMARY

Login Number: JC86043
 Account: BBLNYS - Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SC041119M1.ICP Date Analyzed: 04/11/19 Methods: EPA 200.7, SW846 6010D
 Analyst: ND Run ID: MA46484
 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	
22:12	MA46484-CCB12	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
22:18	ZZZZZZ	1																					
22:23	ZZZZZZ	1																					
22:28	ZZZZZZ	1																					
22:33	ZZZZZZ	1																					
22:38	ZZZZZZ	1																					
22:43	ZZZZZZ	1																					
22:48	ZZZZZZ	1																					
22:53	ZZZZZZ	1																					
22:58	ZZZZZZ	1																					
23:03	ZZZZZZ	1																					
23:08	MA46484-CCV13	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
23:13	MA46484-CCB13	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
23:18	ZZZZZZ	1																					
23:23	ZZZZZZ	1																					
23:29	MP14043-B1	1										X	X										
23:34	MP14043-MB1	1										X	X										
23:39	MP14043-S1	1										X	X										
23:44	MP14043-S2	1										X	X										
23:49	JC85781-58	1										X	X										(a)
23:54	MP14043-SD1	5										X	X										
23:59	ZZZZZZ	1																					
00:04	ZZZZZZ	1																					
00:09	MA46484-CCV14	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
00:14	MA46484-CCB14	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
00:19	ZZZZZZ	1																					
00:24	ZZZZZZ	1																					
00:29	ZZZZZZ	1																					
00:34	ZZZZZZ	1																					
00:39	ZZZZZZ	1																					
00:44	ZZZZZZ	1																					
00:49	ZZZZZZ	1																					
00:54	ZZZZZZ	1																					

10.2.1
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REPORTED ELEMENTS SUMMARY

Login Number: JC86043
 Account: BBLNYS - Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SC041119M1.ICP Date Analyzed: 04/11/19 Methods: EPA 200.7, SW846 6010D
 Analyst: ND Run ID: MA46484
 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		
00:59	ZZZZZ	1																						
01:04	ZZZZZ	1																						
01:09	MA46484-CCV15	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
01:14	MA46484-CCB15	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
01:19	ZZZZZ	1																						
01:24	ZZZZZ	1																						
01:29	ZZZZZ	1																						
01:34	ZZZZZ	1																						
01:39	ZZZZZ	1																						
01:45	ZZZZZ	1																						
01:50	ZZZZZ	1																						
01:55	ZZZZZ	1																						
02:00	ZZZZZ	1																						
02:05	MA46484-CCV16	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
02:10	MA46484-CCB16	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
02:15	MP14029-S1	1											X											
02:20	MP14029-S2	1										X												
02:25	JC85781-63	1										X												(a)
02:30	MP14029-SD1	5										X												
02:35	ZZZZZ	1																						
02:40	ZZZZZ	1																						
02:45	ZZZZZ	1																						
02:50	ZZZZZ	5																						
02:55	ZZZZZ	10																						
03:00	ZZZZZ	2																						
03:05	MA46484-CCV17	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
03:10	MA46484-CCB17	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
03:15	ZZZZZ	2																						
03:20	ZZZZZ	2																						
03:25	ZZZZZ	2																						
03:30	JC86043-1	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
03:35	JC86043-2	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
03:40	JC86043-3	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

10.2.1
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REPORTED ELEMENTS SUMMARY

Login Number: JC86043
 Account: BBLNYS - Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SC041119M1.ICP Date Analyzed: 04/11/19 Methods: EPA 200.7, SW846 6010D
 Analyst: ND Run ID: MA46484
 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	
03:45	JC86043-5	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
03:50	ZZZZZ	1																					
03:56	ZZZZZ	1																					
04:01	ZZZZZ	1																					
04:06	MA46484-CCV18	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
04:11	MA46484-CCB18	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
04:16	ZZZZZ	1																					
04:21	ZZZZZ	1																					
04:26	ZZZZZ	1																					
04:31	ZZZZZ	1																					
04:36	ZZZZZ	1																					
04:42	ZZZZZ	1																					
04:47	ZZZZZ	1																					
04:52	MP14083-B1	1			X								X										
04:57	MP14083-MB1	1			X								X										
05:02	MA46484-CCV19	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
05:07	MA46484-CCB19	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
05:12	MP14083-S1	1			X								X										
05:17	MP14083-S2	1			X								X										
05:22	JC86050-7	1											X										(a)
05:27	MP14083-SD1	5			X								X										
05:33	ZZZZZ	1																					
05:37	ZZZZZ	1																					
05:42	ZZZZZ	1																					
05:47	ZZZZZ	1																					
05:52	ZZZZZ	1																					
05:57	ZZZZZ	1																					
06:02	MA46484-CCV20	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
06:07	MA46484-CCB20	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
06:13	ZZZZZ	1																					
06:18	ZZZZZ	1																					
06:23	ZZZZZ	1																					
06:28	ZZZZZ	1																					

10.2.1
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REPORTED ELEMENTS SUMMARY

Login Number: JC86043
 Account: BBLNYS - Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SC041119M1.ICP Date Analyzed: 04/11/19 Methods: EPA 200.7, SW846 6010D
 Analyst: ND Run ID: MA46484
 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	
06:33	ZZZZZZ	1																					
06:38	ZZZZZZ	1																					
06:43	ZZZZZZ	1																					
06:48	ZZZZZZ	1																					
06:53	MA46484-CCV21	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
06:58	MA46484-CCB21	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 JC86043.

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

10.2.1
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INTERNAL STANDARD SUMMARY

Login Number: JC86043
 Account: BBLNYS - Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SC041119M1.ICP Date Analyzed: 04/11/19 Methods: EPA 200.7, SW846 6010D
 Analyst: ND Run ID: MA46484
 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
10:19	MA46484-STD1	7196 R	157830 R	20210 R	11094 R
10:24	MA46484-STD2	6681	148330	19771	9728
10:29	ZZZZZ	6861	151540	19941	9998
10:34	ZZZZZ	7275	162830	20340	11185
10:39	MA46484-ICV1	6857	152180	19847	10004
10:59	MA46484-ICB1	7133	161010	20236	11062
11:04	MA46484-ICCV1	6933	152830	19966	10115
11:11	MA46484-CCB1	7088	163740	20311	10990
11:16	MA46484-CRI1	7092	160200	20220	10802
11:21	MA46484-CRID1	7113	160920	20317	10966
11:36	MA46484-ICSA1	6310	137460	19022	9085
11:41	MA46484-ICSAB1	6325	139440	19430	9118
11:46	ZZZZZ	7258	281920 !	30581 !	11284
11:52	MA46484-HSTD1	6337	139450	19052	9043
11:57	MA46484-HSTD2	No results reported for the elements associated with this internal standard.			
12:03	ZZZZZ	6936	156720	19847	10850
12:08	ZZZZZ	6884	160360	20100	10945
12:13	MA46484-HSTD3	6808	154830	20026	10592
12:19	MA46484-CCV1	6755	150480	19605	9908
12:24	MA46484-CCB2	7078	160750	19746	10971
12:29	ZZZZZ	7073	160230	19991	10969
12:34	MP14033-MB1	7163	163210	20279	11052
12:39	MP14033-B1	6900	154480	19906	10210
12:44	MP14033-S1	7041	156640	20360	10125
12:49	MP14033-S2	7018	156030	20432	10112
12:54	JC85997-1	7215	161280	20717	10502
12:59	MP14033-SD1	7121	159320	20150	10751
13:04	ZZZZZ	7260	163730	20426	11388
13:09	ZZZZZ	6915	156050	20118	10308
13:14	MA46484-CCV2	6761	150460	19628	9919
13:19	MA46484-CCB3	7058	160620	19972	10954
13:25	MP14033-D1	7174	160310	20558	10511
13:30	ZZZZZ	No results reported for the elements associated with this internal standard.			

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INTERNAL STANDARD SUMMARY

Login Number: JC86043
 Account: BBLNYS - Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SC041119M1.ICP Date Analyzed: 04/11/19 Methods: EPA 200.7, SW846 6010D
 Analyst: ND Run ID: MA46484
 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
13:35	ZZZZZZ	7181	159700	20573	10393
13:40	ZZZZZZ	7186	159010	20381	10435
13:45	ZZZZZZ	7315	163040	21028	10529
13:50	ZZZZZZ	7275	160510	20708	10492
13:55	ZZZZZZ	7435	161140	20866	10639
14:00	ZZZZZZ	7331	162220	20861	10508
14:05	ZZZZZZ	7155	160080	20424	10542
14:10	MA46484-CCV3	6752	151660	19428	9906
14:15	MA46484-CCB4	7051	160450	19799	10942
14:20	ZZZZZZ	7242	162350	20540	10490
14:25	ZZZZZZ	7274	161430	20553	10448
14:30	ZZZZZZ	7227	159280	20489	10471
14:35	ZZZZZZ	7150	160230	20480	10311
14:41	ZZZZZZ	7144	158400	20252	10373
14:46	ZZZZZZ	7158	160340	20531	10401
14:51	ZZZZZZ	7145	158210	20408	10318
14:56	ZZZZZZ	7149	162650	20079	11058
15:01	MP14042-PS1	7026	154590	20283	10098
15:06	MA46484-CCV4	No results reported for the elements associated with this internal standard.			
15:11	MA46484-CCV5	6729	147950	19302	9854
15:16	MA46484-CCB5	7018	159560	19633	10887
15:21	MA46484-CRI2	6992	158370	19802	10662
15:26	MA46484-CRID2	7034	999999	19575	10852
15:31	MP14093-MB1	7131	162410	19948	10976
15:37	MP14093-B1	6843	153250	19481	10097
15:42	MP14093-S1	6991	155660	19959	10078
15:47	MP14093-S2	7013	155090	19918	10098
15:52	JC86043-4	6585	146870	19322	9193
15:57	MP14093-SD1	6898	153860	19532	10108
16:02	ZZZZZZ	7221	164170	20612	10620
16:07	MA46484-CCV6	6708	149130	19038	9832
16:12	MA46484-CCB6	7047	159990	19399	10916
16:18	MA46484-CRID3	7002	159080	19493	10812

10.2.2
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INTERNAL STANDARD SUMMARY

Login Number: JC86043
 Account: BBLNYS - Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SC041119M1.ICP Date Analyzed: 04/11/19 Methods: EPA 200.7, SW846 6010D
 Analyst: ND Run ID: MA46484
 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
16:23	MA46484-ICSA2	6270	136960	18503	9004
16:28	MA46484-ICSAB2	6267	137440	18599	9035
16:33	ZZZZZZ	7411	162810	20833	10101
16:38	ZZZZZZ	7157	158590	20130	10500
16:43	ZZZZZZ	7379	160580	20157	10447
16:48	MP14094-B1	6857	153480	19357	10103
16:53	MP14094-MB1	7075	160730	19544	10929
16:59	ZZZZZZ	7168	162290	19849	11042
17:04	MA46484-CCV7	6778	150640	19206	9916
17:09	MA46484-CCB7	7012	158740	19343	10867
17:14	ZZZZZZ	7161	158490	19828	10447
17:19	ZZZZZZ	6583	146620	19040	9425
17:24	ZZZZZZ	6641	148120	19067	9587
17:30	ZZZZZZ	6643	147900	19045	9580
17:35	ZZZZZZ	6477	145630	18788	9290
17:40	ZZZZZZ	6453	144990	18795	9275
17:46	ZZZZZZ	6464	144910	18739	9276
17:51	ZZZZZZ	6499	145610	18861	9352
17:56	ZZZZZZ	6552	146450	18822	9395
18:02	MA46484-CCV8	6729	150450	18719	9877
18:08	MA46484-CCB8	7095	159070	18955	10985
18:13	ZZZZZZ	7024	159110	19102	10861
18:19	ZZZZZZ	7007	159220	19113	10822
18:24	ZZZZZZ	7002	159330	19052	10872
18:29	ZZZZZZ	7045	159220	18922	10868
18:34	ZZZZZZ	6991	158460	19140	10838
18:39	ZZZZZZ	7006	158240	18876	10829
18:45	ZZZZZZ	7049	159470	19026	10925
18:50	ZZZZZZ	6924	158620	18971	10841
18:55	ZZZZZZ	6954	142290	19180	9841
19:00	ZZZZZZ	6425	144340	18243	9401
19:05	ZZZZZZ	6431	144650	18240	9409
19:10	ZZZZZZ	6983	158240	18874	10864

10.2.2
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INTERNAL STANDARD SUMMARY

Login Number: JC86043
 Account: BBLNYS - Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SC041119M1.ICP Date Analyzed: 04/11/19 Methods: EPA 200.7, SW846 6010D
 Analyst: ND Run ID: MA46484
 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
19:16	ZZZZZZ	6551	141070	18636	9443
19:21	MA46484-CCV9	6772	150230	18663	9913
19:26	MA46484-CCB9	6963	157710	18662	10797
19:31	ZZZZZZ	7096	160570	19189	10992
19:36	JC85681-1	7017	158170	19180	10727
19:41	MP13928-SD1	6985	157880	18976	10731
19:46	ZZZZZZ	5688	149560	18983	9952
19:51	ZZZZZZ	6838	155760	18817	10549
19:56	ZZZZZZ	6630	153700	19201	10131
20:02	ZZZZZZ	6611	151940	18771	9969
20:06	ZZZZZZ	6831	157090	18881	10706
20:12	ZZZZZZ	6732	153180	18678	10102
20:16	MA46484-CCV10	6841	148080	18331	10022
20:22	MA46484-CCB10	7006	158660	18506	10884
20:27	ZZZZZZ	7077	161140	18956	10971
20:32	ZZZZZZ	6880	153060	18931	9906
20:37	ZZZZZZ	7247	161450	19800	10132
20:42	ZZZZZZ	6954	156310	18987	10398
20:47	ZZZZZZ	7271	160130	20080	10168
20:52	ZZZZZZ	7079	156620	19312	10252
20:57	ZZZZZZ	7019	156990	18942	10615
21:02	ZZZZZZ	6992	156150	18802	10516
21:07	ZZZZZZ	6983	156570	18666	10509
21:12	MA46484-CCV11	6637	147910	18241	9770
21:17	MA46484-CCB11	6868	157440	18507	10706
21:22	ZZZZZZ	6915	154450	18646	10360
21:27	ZZZZZZ	6936	156970	18671	10373
21:32	ZZZZZZ	7011	159740	18866	10477
21:37	ZZZZZZ	7062	152560	18939	10553
21:42	MP13930-B1	6788	152540	18589	10091
21:47	MP13930-MB1	7086	160930	18977	11039
21:52	MP13930-B2	6872	153690	18657	10188
21:57	JC85755-14	6839	154060	18830	10205

10.2.2
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INTERNAL STANDARD SUMMARY

Login Number: JC86043
 Account: BBLNYS - Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SC041119M1.ICP Date Analyzed: 04/11/19 Methods: EPA 200.7, SW846 6010D
 Analyst: ND Run ID: MA46484
 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
22:02	MP13930-SD1	6951	156970	18661	10623
22:07	MA46484-CCV12	6655	148060	18243	9796
22:12	MA46484-CCB12	6942	156840	18584	10805
22:18	ZZZZZ	7098	160740	19122	10877
22:23	ZZZZZ	7083	160440	19093	10911
22:28	ZZZZZ	7114	162440	19323	10968
22:33	ZZZZZ	7025	160060	19019	10825
22:38	ZZZZZ	6949	158250	19180	10805
22:43	ZZZZZ	7037	159860	19046	10921
22:48	ZZZZZ	7014	160440	18965	10893
22:53	ZZZZZ	7067	161090	19108	10933
22:58	ZZZZZ	6971	158650	18960	10830
23:03	ZZZZZ	6997	159090	19020	10821
23:08	MA46484-CCV13	6720	150120	18375	9870
23:13	MA46484-CCB13	6925	160060	18622	10787
23:18	ZZZZZ	7025	158280	18886	10753
23:23	ZZZZZ	7085	160100	19153	10992
23:29	MP14043-B1	6828	152790	18660	10131
23:34	MP14043-MB1	7069	161010	18968	10984
23:39	MP14043-S1	7054	156360	19447	10018
23:44	MP14043-S2	6990	154990	19587	9935
23:49	JC85781-58	7125	159930	19660	10259
23:54	MP14043-SD1	7022	158150	18865	10552
23:59	ZZZZZ	7099	158200	19696	10114
00:04	ZZZZZ	7142	158240	20083	10123
00:09	MA46484-CCV14	6693	149460	18363	9850
00:14	MA46484-CCB14	7034	161990	18240	10934
00:19	ZZZZZ	7081	157650	19709	10063
00:24	ZZZZZ	7057	159370	19617	10154
00:29	ZZZZZ	7099	159320	19554	10202
00:34	ZZZZZ	7174	159580	19744	10293
00:39	ZZZZZ	7094	158990	19628	10081
00:44	ZZZZZ	6998	157670	19364	10119

10.2.2
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INTERNAL STANDARD SUMMARY

Login Number: JC86043
 Account: BBLNYS - Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SC041119M1.ICP Date Analyzed: 04/11/19 Methods: EPA 200.7, SW846 6010D
 Analyst: ND Run ID: MA46484
 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
00:49	ZZZZZZ	7196	160350	19749	10235
00:54	ZZZZZZ	7029	157840	19250	10250
00:59	ZZZZZZ	999999 !a	161020	19515	999999 !a
01:04	ZZZZZZ	7117	159740	19471	10296
01:09	MA46484-CCV15	6653	148190	18070	9789
01:14	MA46484-CCB15	7008	159580	18513	10904
01:19	ZZZZZZ	7124	999999 !a	19735	10222
01:24	ZZZZZZ	7143	159010	19618	10226
01:29	ZZZZZZ	7155	159940	19701	10195
01:34	ZZZZZZ	7147	159480	19564	10208
01:39	ZZZZZZ	7114	999999 !a	19483	10265
01:45	ZZZZZZ	7182	161360	19775	10282
01:50	ZZZZZZ	7123	156060	19649	10176
01:55	ZZZZZZ	7106	160690	18691	11015
02:00	ZZZZZZ	6786	153580	18512	10063
02:05	MA46484-CCV16	6698	149520	18073	9834
02:10	MA46484-CCB16	6988	159020	18341	10843
02:15	MP14029-S1	6917	153870	19028	9893
02:20	MP14029-S2	6764	149400	18679	9592
02:25	JC85781-63	7043	157250	19237	10106
02:30	MP14029-SD1	7030	158420	18534	10519
02:35	ZZZZZZ	6862	161380	19364	9936
02:40	ZZZZZZ	7335	160670	19376	10433
02:45	ZZZZZZ	7087	161150	18815	10910
02:50	ZZZZZZ	6974	156210	18498	10374
02:55	ZZZZZZ	6935	158660	18477	10523
03:00	ZZZZZZ	7074	155830	18718	10327
03:05	MA46484-CCV17	6707	149520	18018	9822
03:10	MA46484-CCB17	6999	158730	18180	10843
03:15	ZZZZZZ	7199	159450	18866	10538
03:20	ZZZZZZ	7055	157380	18642	10352
03:25	ZZZZZZ	6925	154550	18537	10060
03:30	JC86043-1	6964	155000	18257	10156

10.2.2
10

INTERNAL STANDARD SUMMARY

Login Number: JC86043
 Account: BBLNYS - Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SC041119M1.ICP Date Analyzed: 04/11/19 Methods: EPA 200.7, SW846 6010D
 Analyst: ND Run ID: MA46484
 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
03:35	JC86043-2	6854	153690	18613	10018
03:40	JC86043-3	6762	150920	18594	9465
03:45	JC86043-5	7239	162660	19608	10222
03:50	ZZZZZ	7173	159140	18920	10379
03:56	ZZZZZ	7119	158430	19244	10006
04:01	ZZZZZ	7161	159980	18975	10398
04:06	MA46484-CCV18	6652	150350	18136	9757
04:11	MA46484-CCB18	7016	159440	18414	10857
04:16	ZZZZZ	7139	159180	18985	10260
04:21	ZZZZZ	7063	156940	18773	10163
04:26	ZZZZZ	7130	158590	18910	10219
04:31	ZZZZZ	7097	158170	18834	10233
04:36	ZZZZZ	6876	150540	18556	9720
04:42	ZZZZZ	6822	150140	18479	9455
04:47	ZZZZZ	6950	152920	18706	9802
04:52	MP14083-B1	6809	150710	18310	10030
04:57	MP14083-MB1	7077	159920	18176	10892
05:02	MA46484-CCV19	6649	148710	17673	9750
05:07	MA46484-CCB19	7004	159590	18078	10838
05:12	MP14083-S1	6938	154590	18945	9954
05:17	MP14083-S2	6925	153910	18610	9963
05:22	JC86050-7	7135	159950	18706	10477
05:27	MP14083-SD1	7128	160320	18516	10728
05:33	ZZZZZ	7258	158070	18952	10323
05:37	ZZZZZ	7155	154560	18869	10248
05:42	ZZZZZ	6857	999999 !a	17618	9979
05:47	ZZZZZ	7039	155960	18540	10272
05:52	ZZZZZ	7189	161170	19322	10106
05:57	ZZZZZ	7545	165070	19564	10366
06:02	MA46484-CCV20	6759	150060	17925	9878
06:07	MA46484-CCB20	6976	158630	17788	10802
06:13	ZZZZZ	7211	159100	18910	10321
06:18	ZZZZZ	7200	161660	18812	10518

10.2.2
10

INTERNAL STANDARD SUMMARY

Login Number: JC86043
 Account: BBLNYS - Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SC041119M1.ICP Date Analyzed: 04/11/19 Methods: EPA 200.7, SW846 6010D
 Analyst: ND Run ID: MA46484
 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
06:23	ZZZZZZ	7069	157850	18837	10064
06:28	ZZZZZZ	7085	158540	19047	10189
06:33	ZZZZZZ	7081	158960	18808	10149
06:38	ZZZZZZ	7138	159820	18991	10236
06:43	ZZZZZZ	7169	162290	18829	10439
06:48	ZZZZZZ	7006	157020	18551	10416
06:53	MA46484-CCV21	6683	147870	17699	9781
06:58	MA46484-CCB21	6964	158230	17929	10787

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 %

(a) No samples reported for the elements associated with this internal standard.

10.2.2
10

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC86043
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SC041119M1.ICP Date Analyzed: 04/11/19 Methods: EPA 200.7, SW846 6010D
QC Limits: result < RL Run ID: MA46484 Units: ug/l

Time: Sample ID:	10:59 ICB1	11:11 CCB1	12:24 CCB2	13:19 CCB3						
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	14	9.80	<200	3.40	<200	-0.800	<200	-4.20	<200
Antimony	6.0	1.4	1.30	<6.0	0.500	<6.0	0.00	<6.0	1.10	<6.0
Arsenic	3.0	1.5	0.500	<3.0	0.800	<3.0	-0.100	<3.0	0.700	<3.0
Barium	200	.5	-0.400	<200	0.700	<200	-0.200	<200	-0.500	<200
Beryllium	1.0	.1	0.100	<1.0	0.700	<1.0	0.100	<1.0	0.100	<1.0
Bismuth	20	1.8								
Boron	100	.8								
Cadmium	3.0	.3	0.100	<3.0	0.400	<3.0	0.100	<3.0	-0.100	<3.0
Calcium	5000	3.9	-1.50	<5000	12.0	<5000	2.40	<5000	0.100	<5000
Chromium	10	.3	-0.300	<10	0.400	<10	-0.100	<10	-0.100	<10
Cobalt	50	.3	0.100	<50	0.100	<50	0.00	<50	-0.100	<50
Copper	10	.6	-0.200	<10	0.100	<10	-0.600	<10	-0.200	<10
Iron	100	2.6	1.50	<100	12.8	<100	1.90	<100	1.90	<100
Lead	3.0	1.6	-0.100	<3.0	-0.500	<3.0	-0.700	<3.0	-0.300	<3.0
Lithium	50	2.1	anr							
Magnesium	5000	16	11.0	<5000	13.2	<5000	18.5	<5000	9.30	<5000
Manganese	15	.1	0.00	<15	0.400	<15	0.100	<15	0.00	<15
Molybdenum	20	.4								
Nickel	10	.5	-0.100	<10	0.400	<10	0.200	<10	0.200	<10
Phosphorus	50	1.9								
Potassium	10000	79	-133	<10000	-56.4	<10000	-115	<10000	-50.4	<10000
Selenium	10	3	1.00	<10	1.20	<10	0.600	<10	-1.50	<10
Silicon	200	1.2								
Silver	10	.5	0.100	<10	0.00	<10	0.400	<10	0.00	<10
Sodium	10000	9.9	-13.2	<10000	14.2	<10000	26.8	<10000	16.9	<10000
Strontium	10	.3								
Sulfur	50	3.5								
Thallium	10	1.3	-1.30	<10	0.900	<10	0.700	<10	-0.200	<10
Tin	10	.7								
Titanium	10	.5								
Tungsten	50	1.7								
Vanadium	50	.5	-0.200	<50	0.400	<50	-0.100	<50	-0.100	<50
Zinc	20	.2	0.00	<20	0.400	<20	0.200	<20	0.200	<20

10.2.3
10

BLANK RESULTS SUMMARY
 Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC86043
 Account: BBLNYS - Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SC041119M1.ICP Date Analyzed: 04/11/19 Methods: EPA 200.7, SW846 6010D
 QC Limits: result < RL Run ID: MA46484 Units: ug/l

Time:			10:59		11:11		12:24		13:19	
Sample ID:			ICB1		CCB1		CCB2		CCB3	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final

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: JC86043
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SC041119M1.ICP Date Analyzed: 04/11/19 Methods: EPA 200.7, SW846 6010D
QC Limits: result < RL Run ID: MA46484 Units: ug/l

Time: Sample ID:	14:15 CCB4	15:16 CCB5	16:12 CCB6	17:09 CCB7						
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	14	-2.50	<200	3.00	<200	-12.6	<200	3.70	<200
Antimony	6.0	1.4	-0.700	<6.0	-0.100	<6.0	0.100	<6.0	-0.200	<6.0
Arsenic	3.0	1.5	0.300	<3.0	-0.200	<3.0	1.10	<3.0	1.00	<3.0
Barium	200	.5	0.00	<200	-0.200	<200	-0.300	<200	-0.200	<200
Beryllium	1.0	.1	0.200	<1.0	0.00	<1.0	0.00	<1.0	0.100	<1.0
Bismuth	20	1.8								
Boron	100	.8								
Cadmium	3.0	.3	0.00	<3.0	-0.200	<3.0	-0.100	<3.0	0.00	<3.0
Calcium	5000	3.9	3.90	<5000	0.300	<5000	-1.80	<5000	3.40	<5000
Chromium	10	.3	0.300	<10	0.00	<10	0.00	<10	0.00	<10
Cobalt	50	.3	0.200	<50	0.100	<50	-0.100	<50	-0.100	<50
Copper	10	.6	0.00	<10	-0.200	<10	-0.300	<10	-0.100	<10
Iron	100	2.6	3.50	<100	1.00	<100	-0.300	<100	4.20	<100
Lead	3.0	1.6	-1.10	<3.0	-0.800	<3.0	-0.600	<3.0	-0.100	<3.0
Lithium	50	2.1	anr							
Magnesium	5000	16	6.30	<5000	3.00	<5000	0.700	<5000	15.0	<5000
Manganese	15	.1	0.400	<15	0.00	<15	0.00	<15	0.300	<15
Molybdenum	20	.4								
Nickel	10	.5	0.00	<10	0.100	<10	0.200	<10	0.100	<10
Phosphorus	50	1.9								
Potassium	10000	79	-28.1	<10000	-47.5	<10000	-145	<10000	-89.7	<10000
Selenium	10	3	0.500	<10	0.200	<10	1.80	<10	0.400	<10
Silicon	200	1.2								
Silver	10	.5	-0.200	<10	0.200	<10	-0.200	<10	-0.100	<10
Sodium	10000	9.9	-6.00	<10000	-2.40	<10000	-13.4	<10000	-21.1	<10000
Strontium	10	.3								
Sulfur	50	3.5								
Thallium	10	1.3	-0.500	<10	0.00	<10	-0.100	<10	0.400	<10
Tin	10	.7								
Titanium	10	.5								
Tungsten	50	1.7								
Vanadium	50	.5	0.100	<50	0.200	<50	0.00	<50	0.100	<50
Zinc	20	.2	0.200	<20	0.100	<20	0.100	<20	0.200	<20

10.2.3
10

BLANK RESULTS SUMMARY
 Part 1 - Initial and Continuing Calibration Blanks

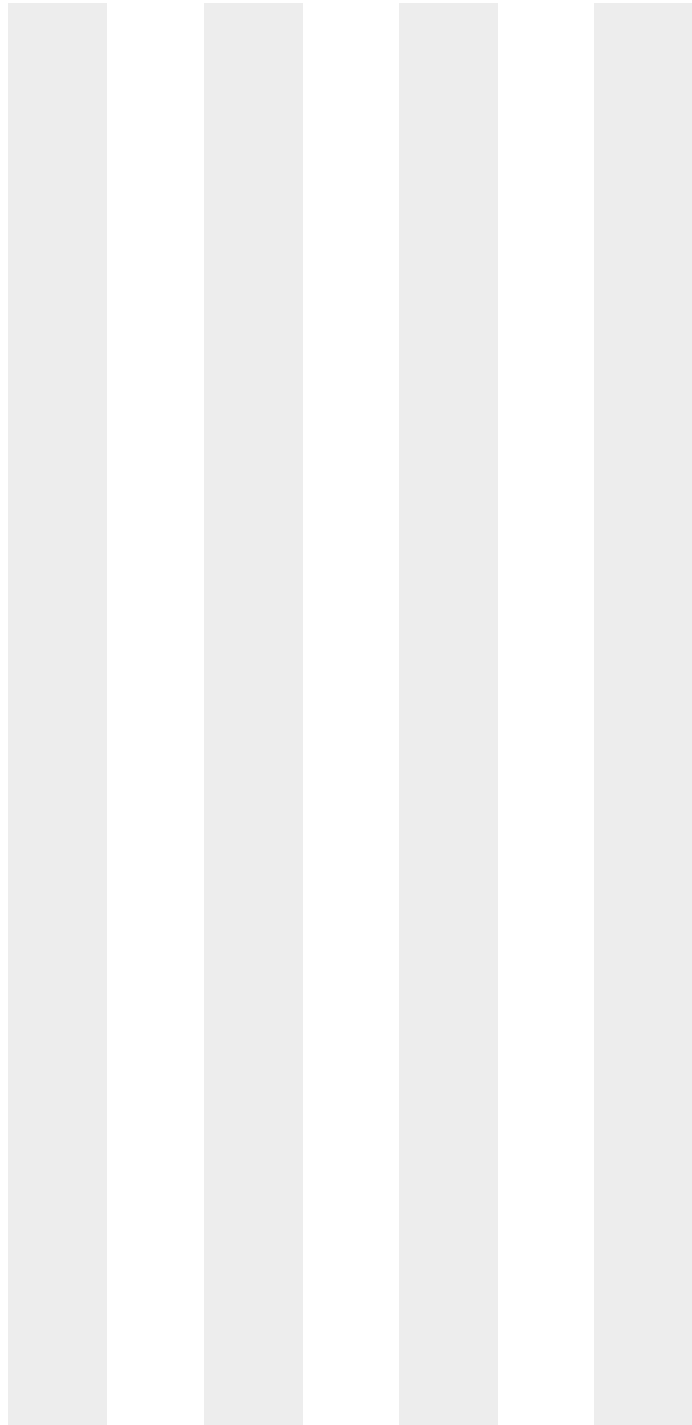
Login Number: JC86043
 Account: BBLNYS - Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SC041119M1.ICP Date Analyzed: 04/11/19 Methods: EPA 200.7, SW846 6010D
 QC Limits: result < RL Run ID: MA46484 Units: ug/l

Time:			14:15		15:16		16:12		17:09	
Sample ID:			CCB4		CCB5		CCB6		CCB7	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final

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: JC86043
 Account: BBLNYS - Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SC041119M1.ICP Date Analyzed: 04/11/19 Methods: EPA 200.7, SW846 6010D
 QC Limits: result < RL Run ID: MA46484 Units: ug/l

Metal	Time:		18:08		19:26		20:22		21:17	
	Sample ID:	RL	IDL	CCB8	CCB9	CCB10	CCB11	raw	final	raw	final
Aluminum	200	14	-15.4	<200	10.1	<200	9.30	<200	11.4	<200
Antimony	6.0	1.4	-0.600	<6.0	0.500	<6.0	1.70	<6.0	2.20	<6.0
Arsenic	3.0	1.5	-0.400	<3.0	0.00	<3.0	0.600	<3.0	0.400	<3.0
Barium	200	.5	-0.500	<200	-0.200	<200	0.400	<200	-0.400	<200
Beryllium	1.0	.1	-0.100	<1.0	0.200	<1.0	0.400	<1.0	0.200	<1.0
Bismuth	20	1.8								
Boron	100	.8								
Cadmium	3.0	.3	-0.200	<3.0	0.100	<3.0	0.100	<3.0	0.100	<3.0
Calcium	5000	3.9	-6.30	<5000	2.30	<5000	5.00	<5000	1.00	<5000
Chromium	10	.3	-0.500	<10	-0.100	<10	0.400	<10	0.300	<10
Cobalt	50	.3	-0.100	<50	-0.100	<50	0.200	<50	0.300	<50
Copper	10	.6	-0.400	<10	-0.200	<10	0.200	<10	-0.100	<10
Iron	100	2.6	-2.60	<100	-0.600	<100	4.50	<100	3.80	<100
Lead	3.0	1.6	-0.300	<3.0	0.00	<3.0	0.800	<3.0	-0.100	<3.0
Lithium	50	2.1	anr							
Magnesium	5000	16	21.6	<5000	6.40	<5000	17.1	<5000	11.3	<5000
Manganese	15	.1	-0.200	<15	0.00	<15	0.400	<15	0.200	<15
Molybdenum	20	.4								
Nickel	10	.5	-0.100	<10	0.300	<10	0.200	<10	0.300	<10
Phosphorus	50	1.9								
Potassium	10000	79	-99.6	<10000	-112	<10000	-144	<10000	-167	<10000
Selenium	10	3	-1.30	<10	0.100	<10	2.30	<10	2.10	<10
Silicon	200	1.2								
Silver	10	.5	0.100	<10	-0.200	<10	0.300	<10	-0.300	<10
Sodium	10000	9.9	129	<10000	95.3	<10000	28.6	<10000	10.8	<10000
Strontium	10	.3								
Sulfur	50	3.5								
Thallium	10	1.3	-0.400	<10	0.00	<10	0.600	<10	-0.300	<10
Tin	10	.7								
Titanium	10	.5								
Tungsten	50	1.7								
Vanadium	50	.5	-0.300	<50	-0.100	<50	0.600	<50	0.200	<50
Zinc	20	.2	-0.100	<20	0.200	<20	0.500	<20	0.400	<20

10.2.3
10

BLANK RESULTS SUMMARY
 Part 1 - Initial and Continuing Calibration Blanks

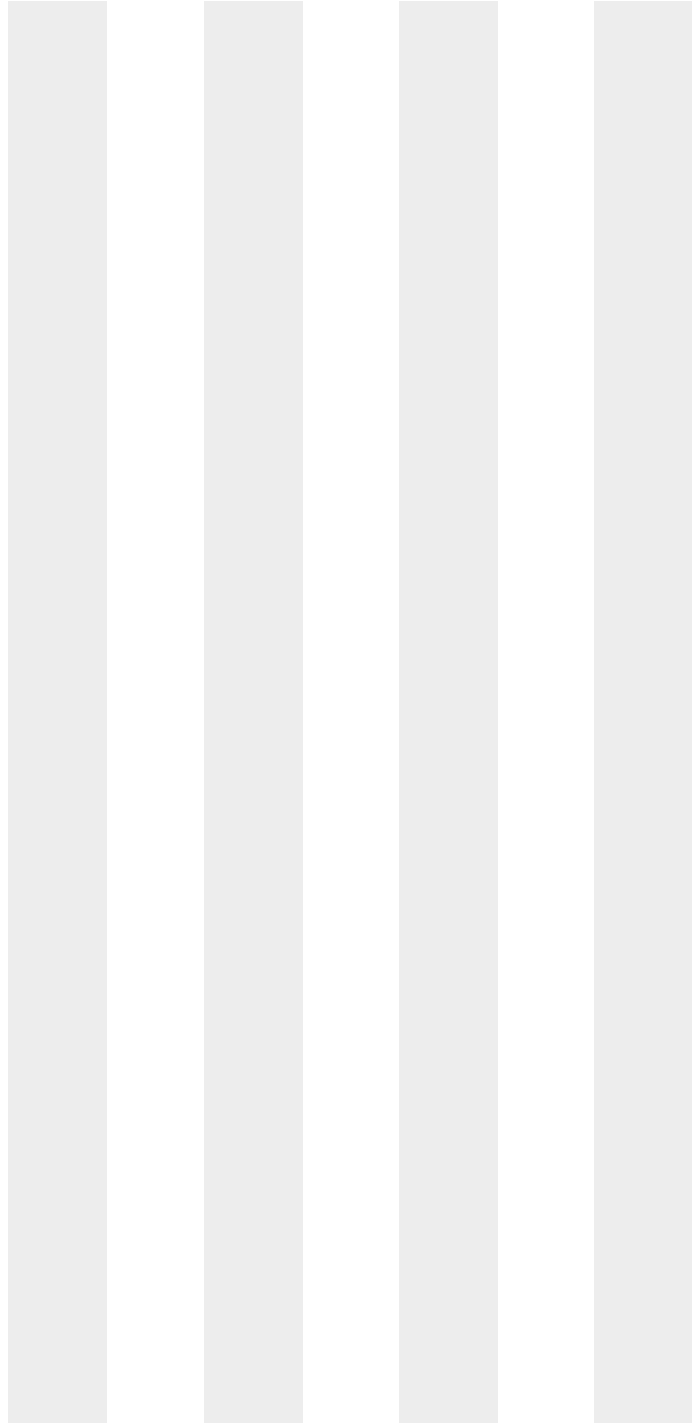
Login Number: JC86043
 Account: BBLNYS - Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SC041119M1.ICP Date Analyzed: 04/11/19 Methods: EPA 200.7, SW846 6010D
 QC Limits: result < RL Run ID: MA46484 Units: ug/l

Time:			18:08	19:26	20:22	21:17		
Sample ID:			CCB8	CCB9	CCB10	CCB11		
Metal	RL	IDL	raw	final	raw	final	raw	final

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: JC86043
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SC041119M1.ICP Date Analyzed: 04/11/19 Methods: EPA 200.7, SW846 6010D
QC Limits: result < RL Run ID: MA46484 Units: ug/l

Metal	Time:		22:12		23:13		00:14		01:14	
	Sample ID:	RL	IDL	CCB12	CCB13	CCB14	CCB15	raw	final	raw	final
Aluminum	200	14	15.7	<200	-14.3	<200	1.70	<200	3.30	<200
Antimony	6.0	1.4	-0.100	<6.0	0.500	<6.0	-0.400	<6.0	-0.400	<6.0
Arsenic	3.0	1.5	0.800	<3.0	0.200	<3.0	1.80	<3.0	0.200	<3.0
Barium	200	.5	-0.300	<200	-0.300	<200	-0.200	<200	-0.500	<200
Beryllium	1.0	.1	0.100	<1.0	0.00	<1.0	0.00	<1.0	0.00	<1.0
Bismuth	20	1.8								
Boron	100	.8								
Cadmium	3.0	.3	0.00	<3.0	-0.300	<3.0	-0.200	<3.0	-0.100	<3.0
Calcium	5000	3.9	1.40	<5000	0.600	<5000	-0.700	<5000	-2.20	<5000
Chromium	10	.3	-0.200	<10	-0.300	<10	-0.100	<10	-0.400	<10
Cobalt	50	.3	-0.300	<50	-0.100	<50	0.00	<50	-0.100	<50
Copper	10	.6	-0.100	<10	-0.100	<10	-0.100	<10	0.00	<10
Iron	100	2.6	1.10	<100	-1.50	<100	1.10	<100	-0.500	<100
Lead	3.0	1.6	-0.700	<3.0	-1.30	<3.0	-1.20	<3.0	-0.900	<3.0
Lithium	50	2.1	anr							
Magnesium	5000	16	23.0	<5000	7.50	<5000	7.20	<5000	8.00	<5000
Manganese	15	.1	0.00	<15	-0.100	<15	0.00	<15	-0.100	<15
Molybdenum	20	.4								
Nickel	10	.5	-0.100	<10	0.300	<10	-0.100	<10	0.300	<10
Phosphorus	50	1.9								
Potassium	10000	79	-255	<10000	-195	<10000	-138	<10000	-89.7	<10000
Selenium	10	3	0.200	<10	0.100	<10	-0.500	<10	0.600	<10
Silicon	200	1.2								
Silver	10	.5	-0.100	<10	0.200	<10	-0.100	<10	0.00	<10
Sodium	10000	9.9	15.9	<10000	-12.6	<10000	18.1	<10000	8.20	<10000
Strontium	10	.3								
Sulfur	50	3.5								
Thallium	10	1.3	0.300	<10	-1.40	<10	-0.100	<10	-0.500	<10
Tin	10	.7								
Titanium	10	.5								
Tungsten	50	1.7								
Vanadium	50	.5	0.200	<50	0.00	<50	0.00	<50	-0.400	<50
Zinc	20	.2	0.100	<20	0.00	<20	0.00	<20	0.100	<20

10.2.3
10

BLANK RESULTS SUMMARY
 Part 1 - Initial and Continuing Calibration Blanks

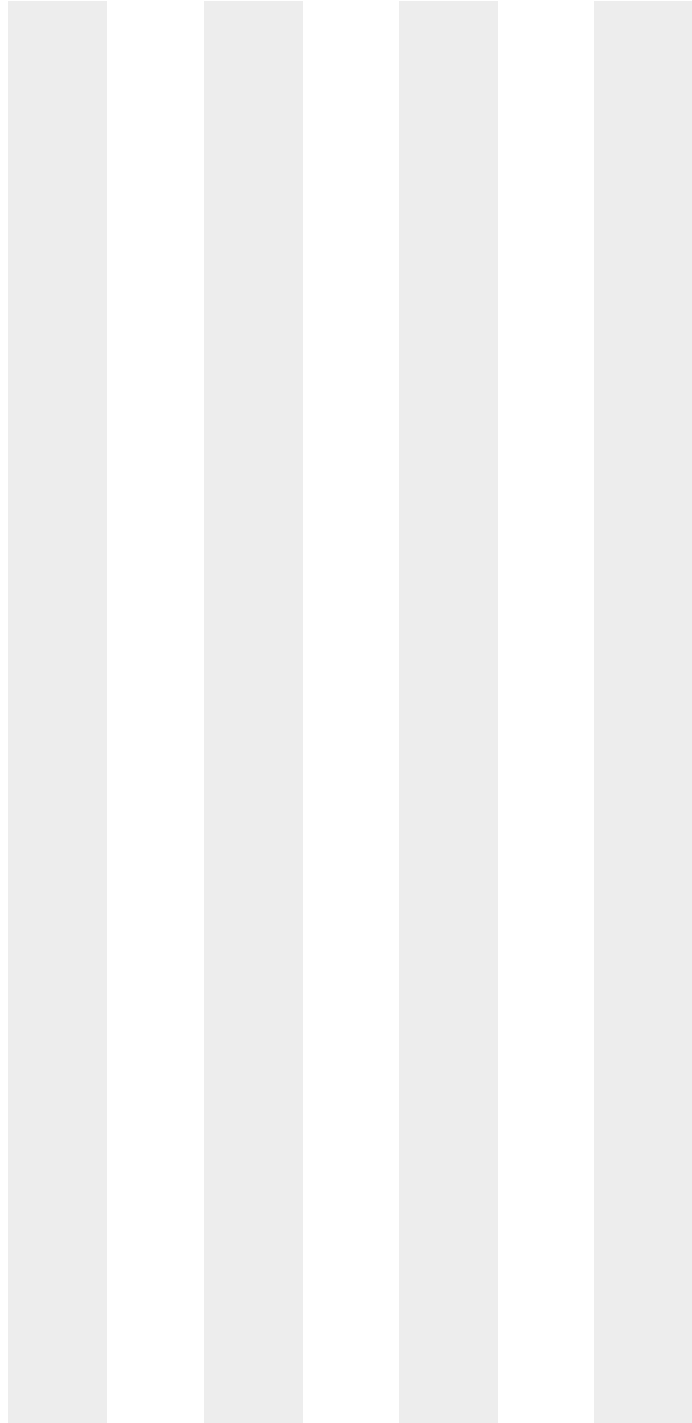
Login Number: JC86043
 Account: BBLNYS - Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SC041119M1.ICP Date Analyzed: 04/11/19 Methods: EPA 200.7, SW846 6010D
 QC Limits: result < RL Run ID: MA46484 Units: ug/l

Time:	22:12	23:13	00:14	01:14						
Sample ID:	CCB12	CCB13	CCB14	CCB15						
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final

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: JC86043
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SC041119M1.ICP Date Analyzed: 04/11/19 Methods: EPA 200.7, SW846 6010D
QC Limits: result < RL Run ID: MA46484 Units: ug/l

Metal	Time:		02:10		03:10		04:11	
	Sample ID:	RL	IDL	CCB16	final	CCB17	final	CCB18
			raw	final	raw	final	raw	final
Aluminum	200	14	-0.100	<200	5.10	<200	2.50	<200
Antimony	6.0	1.4	0.900	<6.0	1.50	<6.0	0.700	<6.0
Arsenic	3.0	1.5	-0.100	<3.0	0.300	<3.0	-0.100	<3.0
Barium	200	.5	0.00	<200	-0.100	<200	-0.200	<200
Beryllium	1.0	.1	0.200	<1.0	0.100	<1.0	0.100	<1.0
Bismuth	20	1.8						
Boron	100	.8						
Cadmium	3.0	.3	-0.100	<3.0	-0.100	<3.0	0.00	<3.0
Calcium	5000	3.9	-0.500	<5000	2.60	<5000	0.600	<5000
Chromium	10	.3	0.00	<10	0.200	<10	-0.200	<10
Cobalt	50	.3	0.00	<50	-0.200	<50	-0.300	<50
Copper	10	.6	-0.100	<10	-0.400	<10	-0.400	<10
Iron	100	2.6	1.40	<100	2.30	<100	2.60	<100
Lead	3.0	1.6	-0.400	<3.0	-0.200	<3.0	-0.600	<3.0
Lithium	50	2.1	anr					
Magnesium	5000	16	16.7	<5000	-10.5	<5000	24.2	<5000
Manganese	15	.1	0.00	<15	-0.100	<15	-0.100	<15
Molybdenum	20	.4						
Nickel	10	.5	0.300	<10	0.100	<10	0.00	<10
Phosphorus	50	1.9						
Potassium	10000	79	-145	<10000	-116	<10000	-165	<10000
Selenium	10	3	-0.900	<10	-0.700	<10	0.900	<10
Silicon	200	1.2						
Silver	10	.5	-0.400	<10	-0.100	<10	-0.800	<10
Sodium	10000	9.9	7.70	<10000	-11.1	<10000	-7.20	<10000
Strontium	10	.3						
Sulfur	50	3.5						
Thallium	10	1.3	-1.70	<10	-0.500	<10	-0.200	<10
Tin	10	.7						
Titanium	10	.5						
Tungsten	50	1.7						
Vanadium	50	.5	0.100	<50	0.200	<50	0.00	<50
Zinc	20	.2	0.100	<20	0.100	<20	0.100	<20

10.2.3
10

BLANK RESULTS SUMMARY
 Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC86043
 Account: BBLNYS - Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SC041119M1.ICP Date Analyzed: 04/11/19 Methods: EPA 200.7, SW846 6010D
 QC Limits: result < RL Run ID: MA46484 Units: ug/l

Time:	02:10	03:10	04:11					
Sample ID:	CCB16	CCB17	CCB18					
Metal	RL	IDL	raw	final	raw	final	raw	final

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: JC86043
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SC041119M1.ICP Date Analyzed: 04/11/19 Methods: EPA 200.7, SW846 6010D
QC Limits: to % Recovery Run ID: MA46484 Units: ug/l

Time:	11:04		
Sample ID:	ICCV	ICCV1	
Metal	True	Results	% Rec
Aluminum	40000	39800	99.5
Antimony	2000	1970	98.5
Arsenic	2000	1960	98.0
Barium	2000	2010	100.5
Beryllium	2000	2030	101.5
Bismuth			
Boron			
Cadmium	2000	2000	100.0
Calcium	40000	40100	100.3
Chromium	2000	2000	100.0
Cobalt	2000	2020	101.0
Copper	2000	1980	99.0
Iron	40000	40300	100.8
Lead	2000	2010	100.5
Lithium	anr		
Magnesium	40000	40200	100.5
Manganese	2000	2030	101.5
Molybdenum			
Nickel	2000	2010	100.5
Phosphorus			
Potassium	40000	39800	99.5
Selenium	2000	1980	99.0
Silicon			
Silver	250	245	98.0
Sodium	40000	40300	100.8
Strontium			
Sulfur			
Thallium	2000	2060	103.0
Tin			
Titanium			
Tungsten			
Vanadium	2000	2000	100.0
Zinc	2000	2010	100.5

10.2.4 10

CALIBRATION CHECK STANDARDS SUMMARY
Initial Continuing Calibration Check

Login Number: JC86043
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SC041119M1.ICP Date Analyzed: 04/11/19 Methods: EPA 200.7, SW846 6010D
QC Limits: to % Recovery Run ID: MA46484 Units: ug/l

Time:	11:04		
Sample ID: ICCV	ICCV1		
Metal	True	Results	% Rec

Zirconium

(*) Outside of QC limits
(anr) Analyte not requested

10.2.4
10

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC86043
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SC041119M1.ICP Date Analyzed: 04/11/19 Methods: EPA 200.7, SW846 6010D
QC Limits: 95 to 105 % Recovery Run ID: MA46484 Units: ug/l

Time:		10:39			12:19			13:14		
Sample ID:	ICV	ICV1		CCV	CCV1		CCV	CCV2		
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec	
Aluminum	40000	39400	98.5	40000	40200	100.5	40000	40300	100.8	
Antimony	2000	1910	95.5	2000	2010	100.5	2000	2020	101.0	
Arsenic	2000	1920	96.0	2000	1990	99.5	2000	2000	100.0	
Barium	2000	1970	98.5	2000	2020	101.0	2000	2030	101.5	
Beryllium	2000	1980	99.0	2000	2040	102.0	2000	2050	102.5	
Bismuth										
Boron										
Cadmium	2000	1970	98.5	2000	2040	102.0	2000	2050	102.5	
Calcium	40000	39300	98.3	40000	40400	101.0	40000	40400	101.0	
Chromium	2000	1930	96.5	2000	2030	101.5	2000	2030	101.5	
Cobalt	2000	2020	101.0	2000	2050	102.5	2000	2060	103.0	
Copper	2000	1930	96.5	2000	2010	100.5	2000	2020	101.0	
Iron	40000	39700	99.3	40000	40600	101.5	40000	40600	101.5	
Lead	2000	1950	97.5	2000	2040	102.0	2000	2040	102.0	
Lithium	anr									
Magnesium	40000	40000	100.0	40000	40500	101.3	40000	40500	101.3	
Manganese	2000	1980	99.0	2000	2070	103.5	2000	2050	102.5	
Molybdenum										
Nickel	2000	1970	98.5	2000	2040	102.0	2000	2050	102.5	
Phosphorus										
Potassium	40000	39700	99.3	40000	40300	100.8	40000	40500	101.3	
Selenium	2000	1930	96.5	2000	2020	101.0	2000	2030	101.5	
Silicon										
Silver	250	253	101.2	250	248	99.2	250	249	99.6	
Sodium	40000	40100	100.3	40000	40900	102.3	40000	40800	102.0	
Strontium										
Sulfur										
Thallium	2000	2010	100.5	2000	2080	104.0	2000	2100	105.0	
Tin										
Titanium										
Tungsten										
Vanadium	2000	1950	97.5	2000	2030	101.5	2000	2030	101.5	
Zinc	2000	1950	97.5	2000	2050	102.5	2000	2050	102.5	

10.2.5 10

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC86043
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SC041119M1.ICP Date Analyzed: 04/11/19 Methods: EPA 200.7, SW846 6010D
QC Limits: 95 to 105 % Recovery Run ID: MA46484 Units: ug/l

	Time:		10:39		12:19		13:14		
Sample ID:	ICV	ICV1	CCV	CCV1	CCV	CCV2	Results	% Rec	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec

Zirconium

(*) Outside of QC limits
(anr) Analyte not requested



10.2.5 10

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC86043
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SC041119M1.ICP Date Analyzed: 04/11/19 Methods: EPA 200.7, SW846 6010D
QC Limits: 95 to 105 % Recovery Run ID: MA46484 Units: ug/l

Metal	Time:	14:10			15:11			16:07		
	Sample ID:	CCV	CCV3	% Rec	CCV	CCV5	% Rec	CCV	CCV6	% Rec
Aluminum		40000	40500	101.3	40000	40800	102.0	40000	41000	102.5
Antimony		2000	2020	101.0	2000	2030	101.5	2000	2030	101.5
Arsenic		2000	2010	100.5	2000	2010	100.5	2000	2010	100.5
Barium		2000	2050	102.5	2000	2070	103.5	2000	2080	104.0
Beryllium		2000	2060	103.0	2000	2060	103.0	2000	2080	104.0
Bismuth										
Boron										
Cadmium		2000	2050	102.5	2000	2060	103.0	2000	2070	103.5
Calcium		40000	40700	101.8	40000	40800	102.0	40000	41100	102.8
Chromium		2000	2040	102.0	2000	2080	104.0	2000	2060	103.0
Cobalt		2000	2060	103.0	2000	2070	103.5	2000	2070	103.5
Copper		2000	2020	101.0	2000	2060	103.0	2000	2040	102.0
Iron		40000	40800	102.0	40000	40900	102.3	40000	41200	103.0
Lead		2000	2050	102.5	2000	2060	103.0	2000	2060	103.0
Lithium		anr								
Magnesium		40000	40700	101.8	40000	40800	102.0	40000	41000	102.5
Manganese		2000	2070	103.5	2000	2110	105.5	2000	2080	104.0
Molybdenum										
Nickel		2000	2060	103.0	2000	2070	103.5	2000	2070	103.5
Phosphorus										
Potassium		40000	40900	102.3	40000	41300	103.3	40000	41500	103.8
Selenium		2000	2040	102.0	2000	2040	102.0	2000	2030	101.5
Silicon										
Silver		250	250	100.0	250	254	101.6	250	251	100.4
Sodium		40000	41300	103.3	40000	41400	103.5	40000	41700	104.3
Strontium										
Sulfur										
Thallium		2000	2120	106.0	2000	2120	106.0	2000	2080	104.0
Tin										
Titanium										
Tungsten										
Vanadium		2000	2040	102.0	2000	2070	103.5	2000	2050	102.5
Zinc		2000	2060	103.0	2000	2060	103.0	2000	2070	103.5

10.2.5
10

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC86043
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SC041119M1.ICP Date Analyzed: 04/11/19 Methods: EPA 200.7, SW846 6010D
QC Limits: 95 to 105 % Recovery Run ID: MA46484 Units: ug/l

	Time:		14:10		15:11		16:07		
Sample ID:	CCV	CCV3		CCV		CCV5		CCV	
Metal	True	Results	% Rec	True <td></td> <th>Results</th> <td>% Rec</td> <th>True <td></td> </th>		Results	% Rec	True <td></td>	

Zirconium

(*) Outside of QC limits
(anr) Analyte not requested



10.2.5 10

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC86043
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SC041119M1.ICP Date Analyzed: 04/11/19 Methods: EPA 200.7, SW846 6010D
QC Limits: 95 to 105 % Recovery Run ID: MA46484 Units: ug/l

Metal	Time:	17:04			18:02			19:21		
	Sample ID:	CCV	CCV7	% Rec	CCV	CCV8	% Rec	CCV	CCV9	% Rec
Aluminum		40000	40500	101.3	40000	40300	100.8	40000	40600	101.5
Antimony		2000	2010	100.5	2000	2020	101.0	2000	2020	101.0
Arsenic		2000	1990	99.5	2000	1990	99.5	2000	2000	100.0
Barium		2000	2060	103.0	2000	2040	102.0	2000	2060	103.0
Beryllium		2000	2060	103.0	2000	2050	102.5	2000	2070	103.5
Bismuth										
Boron										
Cadmium		2000	2040	102.0	2000	2050	102.5	2000	2050	102.5
Calcium		40000	40600	101.5	40000	40300	100.8	40000	40800	102.0
Chromium		2000	2040	102.0	2000	2030	101.5	2000	2030	101.5
Cobalt		2000	2050	102.5	2000	2050	102.5	2000	2060	103.0
Copper		2000	2030	101.5	2000	2010	100.5	2000	2020	101.0
Iron		40000	40900	102.3	40000	40900	102.3	40000	41400	103.5
Lead		2000	2030	101.5	2000	2040	102.0	2000	2040	102.0
Lithium		anr								
Magnesium		40000	40800	102.0	40000	40500	101.3	40000	41100	102.8
Manganese		2000	2070	103.5	2000	2060	103.0	2000	2080	104.0
Molybdenum										
Nickel		2000	2040	102.0	2000	2050	102.5	2000	2050	102.5
Phosphorus										
Potassium		40000	41400	103.5	40000	41500	103.8	40000	41900	104.8
Selenium		2000	2010	100.5	2000	2020	101.0	2000	2020	101.0
Silicon										
Silver		250	249	99.6	250	249	99.6	250	250	100.0
Sodium		40000	41600	104.0	40000	40800	102.0	40000	41400	103.5
Strontium										
Sulfur										
Thallium		2000	2090	104.5	2000	2060	103.0	2000	2090	104.5
Tin										
Titanium										
Tungsten										
Vanadium		2000	2040	102.0	2000	2030	101.5	2000	2040	102.0
Zinc		2000	2040	102.0	2000	2050	102.5	2000	2050	102.5

10.2.5 10

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC86043
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SC041119M1.ICP Date Analyzed: 04/11/19 Methods: EPA 200.7, SW846 6010D
QC Limits: 95 to 105 % Recovery Run ID: MA46484 Units: ug/l

	Time:		17:04		18:02		19:21		
Sample ID:	CCV	CCV7	CCV	CCV8	CCV	CCV9			
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec

Zirconium

(*) Outside of QC limits
(anr) Analyte not requested



10.2.5 10

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC86043
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SC041119M1.ICP Date Analyzed: 04/11/19 Methods: EPA 200.7, SW846 6010D
QC Limits: 95 to 105 % Recovery Run ID: MA46484 Units: ug/l

Metal	Time:	20:16			21:12			22:07		
	Sample ID:	CCV	CCV10	% Rec	CCV	CCV11	% Rec	CCV	CCV12	% Rec
Aluminum	40000	41300	103.3	40000	41300	103.3	40000	40700	101.8	
Antimony	2000	1980	99.0	2000	2060	103.0	2000	2030	101.5	
Arsenic	2000	1970	98.5	2000	2040	102.0	2000	2020	101.0	
Barium	2000	2090	104.5	2000	2100	105.0	2000	2060	103.0	
Beryllium	2000	2100	105.0	2000	2110	105.5	2000	2070	103.5	
Bismuth										
Boron										
Cadmium	2000	2020	101.0	2000	2100	105.0	2000	2070	103.5	
Calcium	40000	41400	103.5	40000	41400	103.5	40000	40800	102.0	
Chromium	2000	2080	104.0	2000	2080	104.0	2000	2050	102.5	
Cobalt	2000	2030	101.5	2000	2100	105.0	2000	2070	103.5	
Copper	2000	2060	103.0	2000	2060	103.0	2000	2030	101.5	
Iron	40000	42000	105.0	40000	42100	105.3	40000	41500	103.8	
Lead	2000	2010	100.5	2000	2080	104.0	2000	2050	102.5	
Lithium	anr									
Magnesium	40000	41700	104.3	40000	41800	104.5	40000	41300	103.3	
Manganese	2000	2100	105.0	2000	2130	106.5	2000	2080	104.0	
Molybdenum										
Nickel	2000	2020	101.0	2000	2090	104.5	2000	2060	103.0	
Phosphorus										
Potassium	40000	42600	106.5	40000	42700	106.8	40000	42300	105.8	
Selenium	2000	1990	99.5	2000	2060	103.0	2000	2040	102.0	
Silicon										
Silver	250	254	101.6	250	255	102.0	250	252	100.8	
Sodium	40000	42400	106.0	40000	42700	106.8	40000	42100	105.3	
Strontium										
Sulfur										
Thallium	2000	2070	103.5	2000	2130	106.5	2000	2100	105.0	
Tin										
Titanium										
Tungsten										
Vanadium	2000	2080	104.0	2000	2080	104.0	2000	2050	102.5	
Zinc	2000	2020	101.0	2000	2100	105.0	2000	2070	103.5	

10.2.5 10

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC86043
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SC041119M1.ICP Date Analyzed: 04/11/19 Methods: EPA 200.7, SW846 6010D
QC Limits: 95 to 105 % Recovery Run ID: MA46484 Units: ug/l

	Time:				20:16			21:12		22:07	
Sample ID:	CCV	CCV10	CCV	CCV11	CCV	CCV12					
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec		

Zirconium

(*) Outside of QC limits
(anr) Analyte not requested



10.2.5 10

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC86043
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SC041119M1.ICP Date Analyzed: 04/11/19 Methods: EPA 200.7, SW846 6010D
QC Limits: 95 to 105 % Recovery Run ID: MA46484 Units: ug/l

Metal	Time:	23:08			00:09			01:09		
	Sample ID:	CCV	CCV13	% Rec	CCV	CCV14	% Rec	CCV	CCV15	% Rec
Aluminum	40000	40500	101.3	40000	40500	101.3	40000	40700	101.8	
Antimony	2000	2020	101.0	2000	2030	101.5	2000	2040	102.0	
Arsenic	2000	2000	100.0	2000	2010	100.5	2000	2020	101.0	
Barium	2000	2050	102.5	2000	2060	103.0	2000	2060	103.0	
Beryllium	2000	2060	103.0	2000	2060	103.0	2000	2070	103.5	
Bismuth										
Boron										
Cadmium	2000	2050	102.5	2000	2070	103.5	2000	2080	104.0	
Calcium	40000	40600	101.5	40000	40600	101.5	40000	40800	102.0	
Chromium	2000	2030	101.5	2000	2040	102.0	2000	2050	102.5	
Cobalt	2000	2050	102.5	2000	2070	103.5	2000	2080	104.0	
Copper	2000	2020	101.0	2000	2030	101.5	2000	2040	102.0	
Iron	40000	41400	103.5	40000	41400	103.5	40000	41600	104.0	
Lead	2000	2040	102.0	2000	2050	102.5	2000	2060	103.0	
Lithium	anr									
Magnesium	40000	41000	102.5	40000	41100	102.8	40000	41300	103.3	
Manganese	2000	2060	103.0	2000	2090	104.5	2000	2110	105.5	
Molybdenum										
Nickel	2000	2050	102.5	2000	2060	103.0	2000	2070	103.5	
Phosphorus										
Potassium	40000	41900	104.8	40000	42000	105.0	40000	42300	105.8	
Selenium	2000	2020	101.0	2000	2040	102.0	2000	2040	102.0	
Silicon										
Silver	250	251	100.4	250	251	100.4	250	253	101.2	
Sodium	40000	42100	105.3	40000	41900	104.8	40000	42300	105.8	
Strontium										
Sulfur										
Thallium	2000	2080	104.0	2000	2100	105.0	2000	2110	105.5	
Tin										
Titanium										
Tungsten										
Vanadium	2000	2040	102.0	2000	2050	102.5	2000	2060	103.0	
Zinc	2000	2050	102.5	2000	2070	103.5	2000	2080	104.0	

10.2.5 10

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC86043
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SC041119M1.ICP Date Analyzed: 04/11/19 Methods: EPA 200.7, SW846 6010D
QC Limits: 95 to 105 % Recovery Run ID: MA46484 Units: ug/l

	Time:				00:09			01:09	
Sample ID:	CCV	23:08	CCV13	CCV	CCV14	CCV	CCV15	CCV	CCV15
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec

Zirconium

(*) Outside of QC limits
(anr) Analyte not requested



10.2.5 10

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC86043
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SC041119M1.ICP Date Analyzed: 04/11/19 Methods: EPA 200.7, SW846 6010D
QC Limits: 95 to 105 % Recovery Run ID: MA46484 Units: ug/l

Metal	Time:	02:05			03:05			04:06		
	Sample ID:	CCV	CCV16	% Rec	CCV	CCV17	% Rec	CCV	CCV18	% Rec
Aluminum		40000	40600	101.5	40000	40800	102.0	40000	40700	101.8
Antimony		2000	2030	101.5	2000	2030	101.5	2000	2050	102.5
Arsenic		2000	2000	100.0	2000	2010	100.5	2000	2040	102.0
Barium		2000	2070	103.5	2000	2080	104.0	2000	2080	104.0
Beryllium		2000	2060	103.0	2000	2070	103.5	2000	2060	103.0
Bismuth										
Boron										
Cadmium		2000	2060	103.0	2000	2060	103.0	2000	2080	104.0
Calcium		40000	40700	101.8	40000	41000	102.5	40000	40800	102.0
Chromium		2000	2040	102.0	2000	2050	102.5	2000	2040	102.0
Cobalt		2000	2060	103.0	2000	2070	103.5	2000	2090	104.5
Copper		2000	2030	101.5	2000	2040	102.0	2000	2030	101.5
Iron		40000	41500	103.8	40000	41800	104.5	40000	41700	104.3
Lead		2000	2050	102.5	2000	2060	103.0	2000	2070	103.5
Lithium		anr								
Magnesium		40000	41200	103.0	40000	41500	103.8	40000	41300	103.3
Manganese		2000	2090	104.5	2000	2060	103.0	2000	2070	103.5
Molybdenum										
Nickel		2000	2050	102.5	2000	2070	103.5	2000	2080	104.0
Phosphorus										
Potassium		40000	42200	105.5	40000	42500	106.3	40000	42500	106.3
Selenium		2000	2020	101.0	2000	2040	102.0	2000	2060	103.0
Silicon										
Silver		250	250	100.0	250	252	100.8	250	252	100.8
Sodium		40000	42200	105.5	40000	42500	106.3	40000	42500	106.3
Strontium										
Sulfur										
Thallium		2000	2100	105.0	2000	2110	105.5	2000	2130	106.5
Tin										
Titanium										
Tungsten										
Vanadium		2000	2040	102.0	2000	2040	102.0	2000	2040	102.0
Zinc		2000	2060	103.0	2000	2060	103.0	2000	2080	104.0

10.2.5 10

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

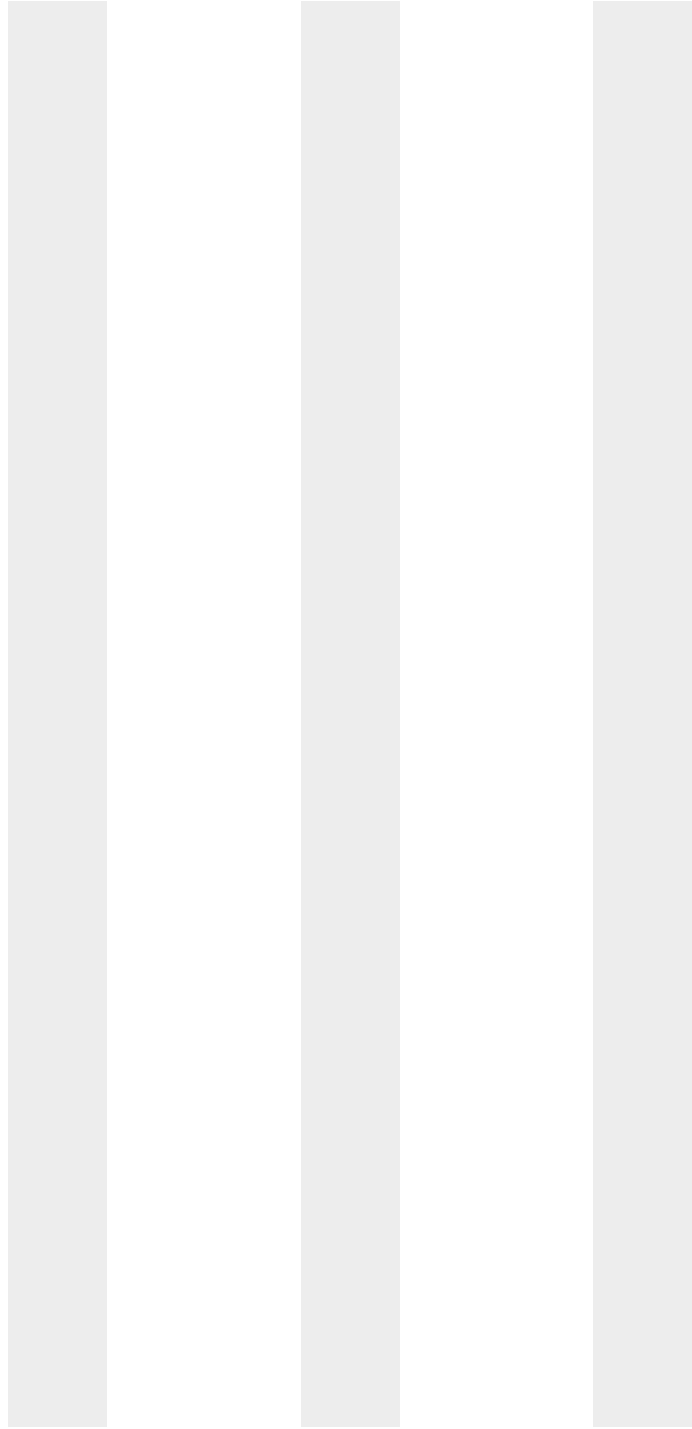
Login Number: JC86043
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SC041119M1.ICP Date Analyzed: 04/11/19 Methods: EPA 200.7, SW846 6010D
QC Limits: 95 to 105 % Recovery Run ID: MA46484 Units: ug/l

	Time:								
Sample ID:	CCV	02:05 CCV16		CCV	03:05 CCV17		CCV	04:06 CCV18	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec

Zirconium

(*) Outside of QC limits
(anr) Analyte not requested



10.2.5
10

HIGH STANDARD CHECK SUMMARY

Login Number: JC86043
 Account: BBLNYS - Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SC041119M1.ICP Date Analyzed: 04/11/19 Methods: EPA 200.7, SW846 6010D
 QC Limits: 90 to 110 % Recovery Run ID: MA46484 Units: ug/l

Time:	11:52			12:13		
Sample ID:	HSTD	HSTD1		HSTD	HSTD3	
Metal	True	Results	% Rec	True	Results	% Rec
Aluminum	300000	308000	102.7			
Antimony				8000	8210	102.6
Arsenic				8000	8020	100.3
Barium				8000	8190	102.4
Beryllium				8000	8080	101.0
Bismuth						
Boron						
Cadmium				8000	8040	100.5
Calcium	200000	199000	99.5			
Chromium				8000	8240	103.0
Cobalt				8000	8080	101.0
Copper				8000	8200	102.5
Iron	200000	204000	102.0			
Lead				8000	8170	102.1
Lithium						
Magnesium	300000	303000	101.0			
Manganese				8000	8180	102.3
Molybdenum						
Nickel				8000	8050	100.6
Phosphorus						
Potassium	200000	202000	101.0			
Selenium				8000	8090	101.1
Silicon						
Silver				625	641	102.6
Sodium	200000	200000	100.0			
Strontium						
Sulfur						
Thallium				8000	8300	103.8
Tin						
Titanium						
Tungsten						
Vanadium				8000	8100	101.3
Zinc				8000	8330	104.1

10.2.6
10

HIGH STANDARD CHECK SUMMARY

Login Number: JC86043
 Account: BBLNYS - Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SC041119M1.ICP Date Analyzed: 04/11/19 Methods: EPA 200.7, SW846 6010D
 QC Limits: 90 to 110 % Recovery Run ID: MA46484 Units: ug/l

Time:	11:52	12:13				
Sample ID:	HSTD	HSTD1	HSTD	HSTD3		
Metal	True	Results	% Rec	True	Results	% Rec

Zirconium

(*) Outside of QC limits
 (anr) Analyte not requested

10.2.6
10

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC86043
 Account: BBLNYS - Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SC041119M1.ICP Date Analyzed: 04/11/19 Methods: EPA 200.7, SW846 6010D
 QC Limits: CRI 80-120% CRIA 80-120% Run ID: MA46484 Units: ug/l

Time:	11:16	11:21	15:21						
Sample ID:	CRI1	CRID1	CRID2	Results	% Rec	Results	% Rec	Results	% Rec
Metal	True	True	True						
Aluminum	200	500	100	207	103.5	99.5	99.5	203	101.5
Antimony	6.0	20	3.0	5.70	95.0			5.30	88.3
Arsenic	8.0	20	3.0	9.10	113.8	3.10	103.3	7.80	97.5
Barium	200		4.0	195	97.5	3.50	87.5	196	98.0
Beryllium	2.0		1.0	1.90	95.0	1.00	100.0	1.90	95.0
Bismuth	20								
Boron	100		10						
Cadmium	3.0		1.0	2.80	93.3	0.800	80.0	2.80	93.3
Calcium	5000	2000	1000	5090	101.8	1020	102.0	5070	101.4
Chromium	10		2.0	9.70	97.0	1.80	90.0	10.2	102.0
Cobalt	50		3.0	49.4	98.8	2.80	93.3	50.0	100.0
Copper	10		2.0	9.30	93.0			9.20	92.0
Iron	100	500		100	100.0			102	102.0
Lead	3.0	20	2.5	2.60	86.7			2.50	83.3
Lithium	50			anr					
Magnesium	5000	2000	100	5210	104.2	92.0	92.0	5200	104.0
Manganese	15		3.0	15.3	102.0	3.00	100.0	15.4	102.7
Molybdenum	20								
Nickel	10		4.0	9.70	97.0	4.10	102.5	10.1	101.0
Phosphorus	50								
Potassium	5000		2000	4940	98.8	1890	94.5	4970	99.4
Selenium	10	20	5.0	11.2	112.0			10.7	107.0
Silicon	200								
Silver	5.0		2.0	4.20	84.0			4.40	88.0
Sodium	5000		1000	5140	102.8	1020	102.0	5190	103.8
Strontium	10								
Sulfur	50								
Thallium	10		2.0	9.10	91.0			9.70	97.0
Tin	10								
Titanium	10								
Tungsten	50								
Vanadium	50		2.0	49.1	98.2	1.90	95.0	49.8	99.6
Zinc	20		10	20.3	101.5	10.2	102.0	20.4	102.0

10.2.7
10

LOW CALIBRATION CHECK STANDARDS SUMMARY

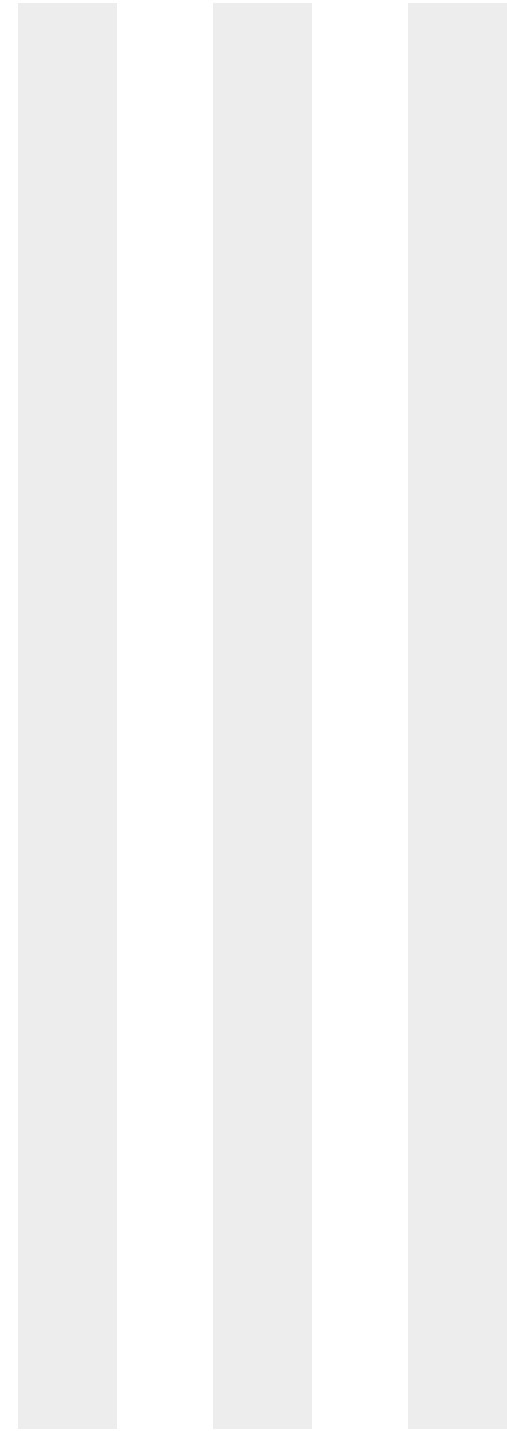
Login Number: JC86043
 Account: BBLNYS - Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SC041119M1.ICP Date Analyzed: 04/11/19 Methods: EPA 200.7, SW846 6010D
 QC Limits: CRI 80-120% CRIA 80-120% Run ID: MA46484 Units: ug/l

Time:				11:16			11:21			15:21
Sample ID:	CRI	CRIA	CRID	CRI1		CRID1		CRID2		CRID3
Metal	True	True	True	Results	% Rec	Results	% Rec	Results	% Rec	Results

Zirconium 10

(*) Outside of QC limits
 (anr) Analyte not requested



10.2.7
 10

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC86043
 Account: BBLNYS - Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SC041119M1.ICP Date Analyzed: 04/11/19 Methods: EPA 200.7, SW846 6010D
 QC Limits: CRI 80-120% CRIA 80-120% Run ID: MA46484 Units: ug/l

Time:	15:26	16:18					
Sample ID:	CRID2	CRID3					
Metal	True	True	True	Results	% Rec	Results	% Rec
Aluminum	200	500	100	106	106.0	98.3	98.3
Antimony	6.0	20	3.0				
Arsenic	8.0	20	3.0	2.90	96.7	3.50	116.7
Barium	200		4.0	3.60	90.0	3.80	95.0
Beryllium	2.0		1.0	1.00	100.0	0.900	90.0
Bismuth	20						
Boron	100		10				
Cadmium	3.0		1.0	0.900	90.0	0.800	80.0
Calcium	5000	2000	1000	1040	104.0	1040	104.0
Chromium	10		2.0	2.00	100.0	2.00	100.0
Cobalt	50		3.0	2.80	93.3	2.70	90.0
Copper	10		2.0				
Iron	100	500					
Lead	3.0	20	2.5				
Lithium	50						
Magnesium	5000	2000	100	113	113.0		
Manganese	15		3.0	3.20	106.7	2.90	96.7
Molybdenum	20						
Nickel	10		4.0	4.00	100.0	4.20	105.0
Phosphorus	50						
Potassium	5000		2000	1910	95.5	1880	94.0
Selenium	10	20	5.0	5.10	102.0	5.30	106.0
Silicon	200						
Silver	5.0		2.0				
Sodium	5000		1000	1030	103.0	1050	105.0
Strontium	10						
Sulfur	50						
Thallium	10		2.0			1.60	80.0
Tin	10						
Titanium	10						
Tungsten	50						
Vanadium	50		2.0	1.90	95.0	1.70	85.0
Zinc	20		10	10.4	104.0	10.3	103.0

10.2.7
10

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC86043
 Account: BBLNYS - Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SC041119M1.ICP Date Analyzed: 04/11/19 Methods: EPA 200.7, SW846 6010D
 QC Limits: CRI 80-120% CRIA 80-120% Run ID: MA46484 Units: ug/l

Time:				15:26			16:18
Sample ID:	CRI	CRIA	CRID	CRID2			CRID3
Metal	True	True	True	Results	% Rec	Results	% Rec

Zirconium 10

(*) Outside of QC limits
 (anr) Analyte not requested

10.2.7
10

INTERFERING ELEMENT CHECK STANDARDS SUMMARY
Part 1 - ICSA and ICSAB Standards

Login Number: JC86043
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SC041119M1.ICP Date Analyzed: 04/11/19 Methods: EPA 200.7, SW846 6010D
QC Limits: 80 to 120 % Recovery Run ID: MA46484 Units: ug/l

Time:			11:36			11:41			16:23			16:28
Sample ID:	ICSA	ICSAB	ICSAL	% Rec	ICSAB1	% Rec	ICSAB2	% Rec	ICSAB2	% Rec		
Metal	True	True	Results		Results		Results		Results		Results	% Rec
Aluminum	500000	500000	512000	102.4	507000	101.4	514000	102.8	509000	101.8		
Antimony		1000	4.30		1060	106.0	3.50		1060	106.0		
Arsenic		1000	-0.300		1050	105.0	-0.600		1050	105.0		
Barium		500	0.100		507	101.4	0.100		518	103.6		
Beryllium		500	0.00		496	99.2	0.00		501	100.2		
Bismuth		500	-0.900		468	93.6	-4.40		473	94.6		
Boron		500	-3.40		483	96.6	-2.30		488	97.6		
Cadmium		1000	0.00		1020	102.0	-0.200		1030	103.0		
Calcium	400000	400000	381000	95.3	379000	94.8	387000	96.8	391000	97.8		
Chromium		500	-1.80		488	97.6	-1.50		494	98.8		
Cobalt		500	0.800		492	98.4	0.800		495	99.0		
Copper		500	-7.60		493	98.6	-7.70		502	100.4		
Iron	200000	200000	194000	97.0	197000	98.5	196000	98.0	200000	100.0		
Lead		1000	0.100		957	95.7	0.800		962	96.2		
Lithium		500	3.60		509	101.8	4.70		519	103.8		
Magnesium	500000	500000	494000	98.8	496000	99.2	498000	99.6	502000	100.4		
Manganese		500	3.20		515	103.0	3.20		522	104.4		
Molybdenum		500	0.200		474	94.8	-0.200		480	96.0		
Nickel		1000	0.00		971	97.1	-0.300		977	97.7		
Phosphorus		500	15.5		485	97.0	18.2		495	99.0		
Potassium			58.6		80.4		95.6		61.9			
Selenium		1000	-1.50		1040	104.0	0.300		1050	105.0		
Silicon		500	-0.800		520	104.0	1.20		528	105.6		
Silver		1000	2.40		1090	109.0	2.20		1110	111.0		
Sodium			11.4		9.80		-0.900		-1.80			
Strontium		500	-0.600		520	104.0	-0.600		530	106.0		
Sulfur		500	-4.60		469	93.8	-4.90		476	95.2		
Thallium		1000	-0.900		966	96.6	0.300		975	97.5		
Tin		500	-0.200		461	92.2	-0.600		467	93.4		
Titanium		500	-1.80		487	97.4	-1.70		495	99.0		
Tungsten		500	-1.60		462	92.4	0.800		467	93.4		
Vanadium		500	-3.60		497	99.4	-3.30		504	100.8		
Zinc		1000	-1.20		962	96.2	-1.20		966	96.6		

10.2.8
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INTERFERING ELEMENT CHECK STANDARDS SUMMARY
 Part 1 - ICSA and ICSAB Standards

Login Number: JC86043
 Account: BBLNYS - Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SC041119M1.ICP Date Analyzed: 04/11/19 Methods: EPA 200.7, SW846 6010D
 QC Limits: 80 to 120 % Recovery Run ID: MA46484 Units: ug/l

Time:			11:36		11:41		16:23		16:28	
Sample ID:	ICSA	ICSAB	ICSAL	% Rec	ICSAB1	% Rec	ICSA2	% Rec	ICSAB2	% Rec
Metal	True	True	Results		Results		Results		Results	

Zirconium		500	1.10		489	97.8	0.900		497	99.4
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(*) Outside of QC limits
 (anr) Analyte not requested

10.2.8
 10

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC86043
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SC041219M1.ICP Date Analyzed: 04/12/19 Methods: EPA 200.7, SW846 6010D
Analyst: ND Run ID: MA46494
Parameters: Sb,Ca,Pb,Mn

Time	Sample Description	Dilution Factor	PS Recov	Comments
11:02	MA46494-STD1	1		STDA
11:07	MA46494-STD2	1		STDB
11:13	ZZZZZZ	1		
11:18	ZZZZZZ	1		
11:23	MA46494-ICV1	1		
11:29	MA46494-ICB1	1		
11:37	MA46494-ICCV1	1		
11:42	MA46494-ICCV2	1		
11:51	MA46494-CCB1	1		
11:57	MA46494-CRI1	1		
12:02	MA46494-CRID1	1		
12:07	MA46494-ICSA1	1		
12:12	MA46494-ICSAB1	1		
12:17	MA46494-HSTD1	1		
12:23	MA46494-HSTD2	1		
12:29	ZZZZZZ	1		
12:34	ZZZZZZ	1		
12:39	ZZZZZZ	1		
12:44	ZZZZZZ	2		
12:49	MA46494-CCV1	1		
12:54	MA46494-CCB2	1		
12:59	MA46494-CRI2	1		
13:04	MA46494-CRID2	1		
13:10	ZZZZZZ	1		
13:15	MP14093-S1	5		
13:19	MP14093-S2	5		
13:24	JC86043-4	5		
13:29	MP14093-SD1	25		
13:34	MP14093-PS1	1		
13:39	JC86043-2	5		
13:44	MA46494-CCV2	1		
13:52	MA46494-CCB3	1		
13:57	JC86043-3	2		
----->	Last reportable sample/prep for job JC86043			

10.3
10

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC86043
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SC041219M1.ICP Date Analyzed: 04/12/19 Methods: EPA 200.7, SW846 6010D
Analyst: ND Run ID: MA46494
Parameters: Sb,Ca,Pb,Mn

Time	Sample Description	Dilution Factor	PS Recov	Comments
14:02	ZZZZZZ	2		
14:07	ZZZZZZ	2		
14:12	ZZZZZZ	2		
14:17	ZZZZZZ	2		
14:22	ZZZZZZ	2		
14:27	ZZZZZZ	5		
14:32	ZZZZZZ	2		
14:37	ZZZZZZ	1		
14:42	MA46494-CCV3	1		
14:47	MA46494-CCB4	1		
14:53	ZZZZZZ	1		
14:58	ZZZZZZ	1		
15:03	ZZZZZZ	1		
15:08	ZZZZZZ	1		
15:13	ZZZZZZ	1		
15:18	MP14029-PS1	1		
15:23	ZZZZZZ	1		
15:28	ZZZZZZ	2		
15:33	ZZZZZZ	2		
15:38	MA46494-CCV4	1		
15:43	MA46494-CCB5	1		
15:48	ZZZZZZ	2		
15:53	ZZZZZZ	1		
15:58	ZZZZZZ	1		
16:03	ZZZZZZ	1		
16:08	ZZZZZZ	1		
16:13	MP14139-MB1	1		
16:19	MP14139-B1	1		
16:24	ZZZZZZ	1		
16:29	MP14140-MB1	1		
16:34	MA46494-CCV5	1		
16:39	MA46494-CCB6	1		
16:44	ZZZZZZ	1		

10.3
10

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC86043
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SC041219M1.ICP Date Analyzed: 04/12/19 Methods: EPA 200.7, SW846 6010D
Analyst: ND Run ID: MA46494
Parameters: Sb,Ca,Pb,Mn

Time	Sample Description	Dilution Factor	PS Recov	Comments
16:49	ZZZZZZ	1		
16:55	MA46494-ICSA2	1		
17:00	MA46494-ICSAB2	1		
17:05	JC86230-1	1		(sample used for QC only; not part of login JC86043)
17:10	ZZZZZZ	1		
17:15	ZZZZZZ	1		
17:20	ZZZZZZ	1		
17:25	MA46494-CCV6	1		
17:30	MA46494-CCB7	1		
----->	Last reportable CCB for job JC86043			
17:36	MP14140-B1	1		
17:41	MP14140-S1	1		Needs post spike for Sb, Ca
17:46	MP14140-S2	1		
17:51	MP14140-SD1	5		
17:56	MP14120-MB1	5		
18:01	MP14120-MB2	5		
18:06	MP14120-B1	5		
18:11	MP14120-B2	5		
18:16	MP14120-S1	5		
18:21	MA46494-CCV7	1		
18:26	MA46494-CCB8	1		
18:31	MP14120-S2	5		
18:36	JC85914-2A	5		(sample used for QC only; not part of login JC86043)
18:42	MP14120-SD1	25		
18:47	ZZZZZZ	5		
18:52	ZZZZZZ	5		
18:57	ZZZZZZ	5		
19:03	ZZZZZZ	5		
19:08	ZZZZZZ	5		
19:13	ZZZZZZ	5		
19:18	MA46494-CCV8	1		
19:23	MA46494-CCB9	1		
19:28	ZZZZZZ	1		
19:34	ZZZZZZ	1		

10.3
10

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC86043
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SC041219M1.ICP Date Analyzed: 04/12/19 Methods: EPA 200.7, SW846 6010D
Analyst: ND Run ID: MA46494
Parameters: Sb,Ca,Pb,Mn

Time	Sample Description	Dilution Factor	PS Recov	Comments
19:39	ZZZZZZ	1		
19:44	ZZZZZZ	1		
19:49	ZZZZZZ	1		
19:54	ZZZZZZ	1		
19:59	ZZZZZZ	1		
20:04	ZZZZZZ	1		
20:10	ZZZZZZ	1		
20:15	ZZZZZZ	1		
20:20	ZZZZZZ	1		
20:25	ZZZZZZ	1		
20:30	ZZZZZZ	1		
20:35	ZZZZZZ	1		
20:41	ZZZZZZ	1		
20:46	MA46494-CCV9	1		
20:51	MA46494-CCB10	1		
20:56	ZZZZZZ	5		
21:01	ZZZZZZ	5		
21:06	ZZZZZZ	5		
21:12	ZZZZZZ	5		
21:17	ZZZZZZ	5		
21:22	ZZZZZZ	5		
21:27	MP14040-MB1	1		
21:32	MP14040-B1	1		
21:37	MP14040-B2	1		
21:42	JC85907-1	1		(sample used for QC only; not part of login JC86043)
21:48	MA46494-CCV10	1		
21:53	MA46494-CCB11	1		
21:58	MP14040-SD1	5		
22:03	ZZZZZZ	1		
22:08	ZZZZZZ	1		
22:13	ZZZZZZ	1		
22:18	ZZZZZZ	1		
22:23	ZZZZZZ	1		

10.3
10

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC86043
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SC041219M1.ICP Date Analyzed: 04/12/19 Methods: EPA 200.7, SW846 6010D
Analyst: ND Run ID: MA46494
Parameters: Sb,Ca,Pb,Mn

Time	Sample Description	Dilution Factor	PS Recov	Comments
22:28	ZZZZZZ	1		
22:33	ZZZZZZ	1		
22:38	ZZZZZZ	1		
22:43	ZZZZZZ	1		
22:49	MA46494-CCV11	1		
22:54	MA46494-CCB12	1		
22:59	ZZZZZZ	1		
23:04	ZZZZZZ	1		
23:09	ZZZZZZ	1		
23:14	ZZZZZZ	1		
23:19	ZZZZZZ	1		
23:24	ZZZZZZ	1		
23:29	ZZZZZZ	1		
23:34	ZZZZZZ	5		
23:39	ZZZZZZ	1		
23:45	ZZZZZZ	1		
23:50	MA46494-CCV12	1		
23:55	MA46494-CCB13	1		
00:00	ZZZZZZ	1		

Refer to raw data for calibration curve and standards.

10.3
10

REPORTED ELEMENTS SUMMARY

Login Number: JC86043
 Account: BBLNYS - Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SC041219M1.ICP Date Analyzed: 04/12/19 Methods: EPA 200.7, SW846 6010D
 Analyst: ND Run ID: MA46494
 Parameters: Sb,Ca,Pb,Mn

Time	Sample Description	Element: Dilution	S	C	P	M
			b	a	b	n
11:13	ZZZZZZ	1				
11:18	ZZZZZZ	1				
11:23	MA46494-ICV1	1	X	X	X	X
11:29	MA46494-ICB1	1	X	X	X	X
11:37	MA46494-ICCV1	1				
11:42	MA46494-ICCV2	1	X	X	X	X
11:51	MA46494-CCB1	1	X	X	X	X
11:57	MA46494-CRI1	1				
12:02	MA46494-CRID1	1				
12:07	MA46494-ICSA1	1	X	X	X	X
12:12	MA46494-ICSAB1	1	X	X	X	X
12:17	MA46494-HSTD1	1	X	X	X	X
12:23	MA46494-HSTD2	1	X	X	X	X
12:29	ZZZZZZ	1				
12:34	ZZZZZZ	1				
12:39	ZZZZZZ	1				
12:44	ZZZZZZ	2				
12:49	MA46494-CCV1	1	X	X	X	X
12:54	MA46494-CCB2	1	X	X	X	X
12:59	MA46494-CRI2	1	X	X	X	X
13:04	MA46494-CRID2	1	X	X	X	X
13:10	ZZZZZZ	1				
13:15	MP14093-S1	5		X		
13:19	MP14093-S2	5		X		
13:24	JC86043-4	5		X		
13:29	MP14093-SD1	25		X		
13:34	MP14093-PS1	1	X			X
13:39	JC86043-2	5			X	
13:44	MA46494-CCV2	1	X	X	X	X
13:52	MA46494-CCB3	1	X	X	X	X
13:57	JC86043-3	2		X		
14:02	ZZZZZZ	2				
14:07	ZZZZZZ	2				

Element: S C P M
 b a b n

10.3.1
 10

REPORTED ELEMENTS SUMMARY

Login Number: JC86043
 Account: BBLNYS - Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SC041219M1.ICP Date Analyzed: 04/12/19 Methods: EPA 200.7, SW846 6010D
 Analyst: ND Run ID: MA46494
 Parameters: Sb,Ca,Pb,Mn

Time	Sample Description	Element: Dilution	S	C	P	M
			b	a	b	n
14:12	ZZZZZZ	2				
14:17	ZZZZZZ	2				
14:22	ZZZZZZ	2				
14:27	ZZZZZZ	5				
14:32	ZZZZZZ	2				
14:37	ZZZZZZ	1				
14:42	MA46494-CCV3	1	X	X	X	X
14:47	MA46494-CCB4	1	X	X	X	X
14:53	ZZZZZZ	1				
14:58	ZZZZZZ	1				
15:03	ZZZZZZ	1				
15:08	ZZZZZZ	1				
15:13	ZZZZZZ	1				
15:18	MP14029-PS1	1				
15:23	ZZZZZZ	1				
15:28	ZZZZZZ	2				
15:33	ZZZZZZ	2				
15:38	MA46494-CCV4	1	X	X	X	X
15:43	MA46494-CCB5	1	X	X	X	X
15:48	ZZZZZZ	2				
15:53	ZZZZZZ	1				
15:58	ZZZZZZ	1				
16:03	ZZZZZZ	1				
16:08	ZZZZZZ	1				
16:13	MP14139-MB1	1	X			
16:19	MP14139-B1	1	X			
16:24	ZZZZZZ	1				
16:29	MP14140-MB1	1	X	X	X	X
16:34	MA46494-CCV5	1	X	X	X	X
16:39	MA46494-CCB6	1	X	X	X	X
16:44	ZZZZZZ	1				
16:49	ZZZZZZ	1				
16:55	MA46494-ICSA2	1	X	X	X	X

Element: S C P M
 b a b n

10.3.1
 10

REPORTED ELEMENTS SUMMARY

Login Number: JC86043
 Account: BBLNYS - Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SC041219M1.ICP Date Analyzed: 04/12/19 Methods: EPA 200.7, SW846 6010D
 Analyst: ND Run ID: MA46494
 Parameters: Sb,Ca,Pb,Mn

Time	Sample Description	Element: Dilution	S	C	P	M
			b	a	b	n
17:00	MA46494-ICSAB2	1	X	X	X	X
17:05	JC86230-1	1			X	(a)
17:10	ZZZZZZ	1				
17:15	ZZZZZZ	1				
17:20	ZZZZZZ	1				
17:25	MA46494-CCV6	1	X	X	X	X
17:30	MA46494-CCB7	1	X	X	X	X
17:36	MP14140-B1	1	X	X	X	X
17:41	MP14140-S1	1	X	X	X	X
17:46	MP14140-S2	1	X	X	X	X
17:51	MP14140-SD1	5	X	X	X	X
17:56	MP14120-MB1	5			X	
18:01	MP14120-MB2	5			X	
18:06	MP14120-B1	5			X	
18:11	MP14120-B2	5			X	
18:16	MP14120-S1	5			X	
18:21	MA46494-CCV7	1	X	X	X	X
18:26	MA46494-CCB8	1	X	X	X	X
18:31	MP14120-S2	5			X	
18:36	JC85914-2A	5			X	(a)
18:42	MP14120-SD1	25			X	
18:47	ZZZZZZ	5				
18:52	ZZZZZZ	5				
18:57	ZZZZZZ	5				
19:03	ZZZZZZ	5				
19:08	ZZZZZZ	5				
19:13	ZZZZZZ	5				
19:18	MA46494-CCV8	1	X	X	X	X
19:23	MA46494-CCB9	1	X	X	X	X
19:28	ZZZZZZ	1				
19:34	ZZZZZZ	1				
19:39	ZZZZZZ	1				
19:44	ZZZZZZ	1				

Element: S C P M
 b a b n

10.3.1
 10

REPORTED ELEMENTS SUMMARY

Login Number: JC86043
 Account: BBLNYS - Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SC041219M1.ICP Date Analyzed: 04/12/19 Methods: EPA 200.7, SW846 6010D
 Analyst: ND Run ID: MA46494
 Parameters: Sb,Ca,Pb,Mn

Time	Sample Description	Element: Dilution	S	C	P	M
			b	a	b	n
19:49	ZZZZZZ	1				
19:54	ZZZZZZ	1				
19:59	ZZZZZZ	1				
20:04	ZZZZZZ	1				
20:10	ZZZZZZ	1				
20:15	ZZZZZZ	1				
20:20	ZZZZZZ	1				
20:25	ZZZZZZ	1				
20:30	ZZZZZZ	1				
20:35	ZZZZZZ	1				
20:41	ZZZZZZ	1				
20:46	MA46494-CCV9	1	X	X	X	X
20:51	MA46494-CCB10	1	X	X	X	X
20:56	ZZZZZZ	5				
21:01	ZZZZZZ	5				
21:06	ZZZZZZ	5				
21:12	ZZZZZZ	5				
21:17	ZZZZZZ	5				
21:22	ZZZZZZ	5				
21:27	MP14040-MB1	1			X	
21:32	MP14040-B1	1			X	
21:37	MP14040-B2	1			X	
21:42	JC85907-1	1			X	(a)
21:48	MA46494-CCV10	1	X	X	X	X
21:53	MA46494-CCB11	1	X	X	X	X
21:58	MP14040-SD1	5			X	
22:03	ZZZZZZ	1				
22:08	ZZZZZZ	1				
22:13	ZZZZZZ	1				
22:18	ZZZZZZ	1				
22:23	ZZZZZZ	1				
22:28	ZZZZZZ	1				
22:33	ZZZZZZ	1				

Element: S C P M
 b a b n

10.3.1
 10

REPORTED ELEMENTS SUMMARY

Login Number: JC86043
 Account: BBLNYS - Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SC041219M1.ICP Date Analyzed: 04/12/19 Methods: EPA 200.7, SW846 6010D
 Analyst: ND Run ID: MA46494
 Parameters: Sb,Ca,Pb,Mn

Time	Sample Description	Element: Dilution	S	C	P	M
		b a b n				
22:38	ZZZZZZ	1				
22:43	ZZZZZZ	1				
22:49	MA46494-CCV11	1	X	X	X	X
22:54	MA46494-CCB12	1	X	X	X	X
22:59	ZZZZZZ	1				
23:04	ZZZZZZ	1				
23:09	ZZZZZZ	1				
23:14	ZZZZZZ	1				
23:19	ZZZZZZ	1				
23:24	ZZZZZZ	1				
23:29	ZZZZZZ	1				
23:34	ZZZZZZ	5				
23:39	ZZZZZZ	1				
23:45	ZZZZZZ	1				
23:50	MA46494-CCV12	1	X	X	X	X
23:55	MA46494-CCB13	1	X	X	X	X
00:00	ZZZZZZ	1				

(a) Sample used for QC only; not part of login JC86043.

Element: S C P M
 b a b n

10.3.1
 10

INTERNAL STANDARD SUMMARY

Login Number: JC86043
 Account: BBLNYS - Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SC041219M1.ICP Date Analyzed: 04/12/19 Methods: EPA 200.7, SW846 6010D
 Analyst: ND Run ID: MA46494
 Parameters: Sb,Ca,Pb,Mn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
11:02	MA46494-STD1	6176 R	139580 R	15575 R	9865 R
11:07	MA46494-STD2	5721	128240	15285	8674
11:13	ZZZZZZ	5908	133630	15510	8942
11:18	ZZZZZZ	6207	141760	15666	9898
11:23	MA46494-ICV1	5969	133670	15525	9002
11:29	MA46494-ICB1	6209	141340	15741	9889
11:37	MA46494-ICCV1	No results reported for the elements associated with this internal standard.			
11:42	MA46494-ICCV2	5952	133600	15582	8954
11:51	MA46494-CCB1	6235	141650	15711	9913
11:57	MA46494-CRI1	No results reported for the elements associated with this internal standard.			
12:02	MA46494-CRID1	No results reported for the elements associated with this internal standard.			
12:07	MA46494-ICSA1	5531	116680	15055	8188
12:12	MA46494-ICSAB1	5534	119780	15069	8227
12:17	MA46494-HSTD1	5984	137580	15765	9582
12:23	MA46494-HSTD2	5593	123780	15055	8215
12:29	ZZZZZZ	6105	139380	15644	9811
12:34	ZZZZZZ	6049	142520	15773	9872
12:39	ZZZZZZ	6069	137910	15096	9468
12:44	ZZZZZZ	6061	139480	15892	9442
12:49	MA46494-CCV1	5969	132520	15381	8960
12:54	MA46494-CCB2	6192	142300	15674	9833
12:59	MA46494-CRI2	6153	140420	15648	9604
13:04	MA46494-CRID2	6167	141150	15622	9757
13:10	ZZZZZZ	6264	139900	15759	9930
13:15	MP14093-S1	6207	140500	15807	9490
13:19	MP14093-S2	6145	141910	15966	9405
13:24	JC86043-4	6044	136270	15603	9068
13:29	MP14093-SD1	6142	140500	15665	9561
13:34	MP14093-PS1	5736	129610	15654	8300
13:39	JC86043-2	6200	140590	15895	9543
13:44	MA46494-CCV2	5934	129590	15447	8910
13:52	MA46494-CCB3	6202	141610	15596	9818
13:57	JC86043-3	6053	137190	15863	8872

INTERNAL STANDARD SUMMARY

Login Number: JC86043
 Account: BBLNYS - Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SC041219M1.ICP Date Analyzed: 04/12/19 Methods: EPA 200.7, SW846 6010D
 Analyst: ND Run ID: MA46494
 Parameters: Sb,Ca,Pb,Mn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
14:02	ZZZZZZ	6306	141570	16013	9489
14:07	ZZZZZZ	6299	141680	15866	9477
14:12	ZZZZZZ	6238	140370	15915	9342
14:17	ZZZZZZ	6245	141340	15909	9344
14:22	ZZZZZZ	6151	135640	15814	9013
14:27	ZZZZZZ	6199	137840	15511	9199
14:32	ZZZZZZ	6175	137490	15804	9059
14:37	ZZZZZZ	6222	138930	16026	9165
14:42	MA46494-CCV3	5879	132570	15308	8750
14:47	MA46494-CCB4	6266	142290	15255	9823
14:53	ZZZZZZ	6254	145010	15898	9743
14:58	ZZZZZZ	6378	143330	16430	9358
15:03	ZZZZZZ	6463	145020	16795	9289
15:08	ZZZZZZ	6461	143630	16604	9354
15:13	ZZZZZZ	6377	144870	15952	9967
15:18	MP14029-PS1	6176	137260	15975	8905
15:23	ZZZZZZ	6335	144170	15762	9849
15:28	ZZZZZZ	6445	144330	16224	9428
15:33	ZZZZZZ	6470	143200	16149	9461
15:38	MA46494-CCV4	6036	134720	15257	8928
15:43	MA46494-CCB5	6253	137570	15662	9770
15:48	ZZZZZZ	6351	136680	16003	9270
15:53	ZZZZZZ	6200	138270	16041	8766
15:58	ZZZZZZ	6729	148940	16717	9370
16:03	ZZZZZZ	6601	145160	16557	9419
16:08	ZZZZZZ	6081	137060	15432	9061
16:13	MP14139-MB1	6321	144190	15712	9831
16:19	MP14139-B1	6102	133930	15525	9096
16:24	ZZZZZZ	6374	144390	15813	9909
16:29	MP14140-MB1	6352	142770	15724	9881
16:34	MA46494-CCV5	5995	133070	15120	8867
16:39	MA46494-CCB6	6282	138580	15443	9800
16:44	ZZZZZZ	6358	143780	15590	10070

10.3.2
10

INTERNAL STANDARD SUMMARY

Login Number: JC86043
 Account: BBLNYS - Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SC041219M1.ICP Date Analyzed: 04/12/19 Methods: EPA 200.7, SW846 6010D
 Analyst: ND Run ID: MA46494
 Parameters: Sb,Ca,Pb,Mn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
16:49	ZZZZZZ	6324	142930	15656	10019
16:55	MA46494-ICSA2	5604	122050	14928	8141
17:00	MA46494-ICSAB2	5562	121690	14817	8121
17:05	JC86230-1	6353	140890	16067	9263
17:10	ZZZZZZ	6469	145080	16786	8936
17:15	ZZZZZZ	6466	144870	16450	9251
17:20	ZZZZZZ	6471	143260	16181	9350
17:25	MA46494-CCV6	6016	133640	15205	8883
17:30	MA46494-CCB7	6267	139620	15555	9774
17:36	MP14140-B1	6101	136440	15491	9086
17:41	MP14140-S1	6208	138880	15971	8940
17:46	MP14140-S2	6281	139910	16049	8998
17:51	MP14140-SD1	6123	140090	15577	9312
17:56	MP14120-MB1	5885	130920	15135	8606
18:01	MP14120-MB2	6244	142350	15484	9756
18:06	MP14120-B1	5939	132240	15260	8596
18:11	MP14120-B2	6244	140810	15510	9509
18:16	MP14120-S1	5909	131070	15219	8526
18:21	MA46494-CCV7	5971	133700	15216	8842
18:26	MA46494-CCB8	6246	142640	15357	9765
18:31	MP14120-S2	5858	131400	15118	8449
18:36	JC85914-2A	5903	130830	15253	8541
18:42	MP14120-SD1	6077	136850	15214	9096
18:47	ZZZZZZ	5581	128410	15032	8096
18:52	ZZZZZZ	5906	133630	15183	8630
18:57	ZZZZZZ	5913	132670	15119	8648
19:03	ZZZZZZ	5927	133360	15198	8662
19:08	ZZZZZZ	5924	133020	15271	8635
19:13	ZZZZZZ	5872	132440	15167	8577
19:18	MA46494-CCV8	5978	134010	15050	8838
19:23	MA46494-CCB9	6230	141970	15174	9732
19:28	ZZZZZZ	6230	140800	15184	9699
19:34	ZZZZZZ	6252	142340	15349	9685

10.3.2
10

INTERNAL STANDARD SUMMARY

Login Number: JC86043
 Account: BBLNYS - Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SC041219M1.ICP Date Analyzed: 04/12/19 Methods: EPA 200.7, SW846 6010D
 Analyst: ND Run ID: MA46494
 Parameters: Sb,Ca,Pb,Mn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
19:39	ZZZZZZ	6231	142190	14718	9732
19:44	ZZZZZZ	6198	142010	15203	9612
19:49	ZZZZZZ	6291	143020	15377	9764
19:54	ZZZZZZ	6275	141840	15305	9708
19:59	ZZZZZZ	6260	142810	15217	9762
20:04	ZZZZZZ	5761	128590	14460	8455
20:10	ZZZZZZ	6156	126160	15419	8734
20:15	ZZZZZZ	6292	142580	15201	9836
20:20	ZZZZZZ	6312	143120	15148	9796
20:25	ZZZZZZ	6107	140770	15222	9504
20:30	ZZZZZZ	6281	142510	15246	9698
20:35	ZZZZZZ	12521 !	266540 !	999999 !	18858 !
20:41	ZZZZZZ	12448 !	999999 !	15210	18754 !
20:46	MA46494-CCV9	5949	133210	14888	8770
20:51	MA46494-CCB10	6221	137120	15046	9677
20:56	ZZZZZZ	5917	132390	14990	8576
21:01	ZZZZZZ	5910	133890	14937	8564
21:06	ZZZZZZ	5915	132280	14888	8565
21:12	ZZZZZZ	5906	133480	15025	8564
21:17	ZZZZZZ	5975	133210	14773	8646
21:22	ZZZZZZ	5970	132180	15074	8632
21:27	MP14040-MB1	6385	145190	15626	9859
21:32	MP14040-B1	6061	135770	14975	9000
21:37	MP14040-B2	6099	137570	15135	9061
21:42	JC85907-1	6054	136750	15270	8855
21:48	MA46494-CCV10	6001	134180	14969	8852
21:53	MA46494-CCB11	6272	142760	15127	9789
21:58	MP14040-SD1	6176	140390	15303	9381
22:03	ZZZZZZ	5935	135430	15193	8637
22:08	ZZZZZZ	5906	134480	15279	8613
22:13	ZZZZZZ	5938	138370	15348	9107
22:18	ZZZZZZ	6383	145100	15607	9880
22:23	ZZZZZZ	6175	144070	15437	9594

10.3.2
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INTERNAL STANDARD SUMMARY

Login Number: JC86043
 Account: BBLNYS - Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SC041219M1.ICP Date Analyzed: 04/12/19 Methods: EPA 200.7, SW846 6010D
 Analyst: ND Run ID: MA46494
 Parameters: Sb,Ca,Pb,Mn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
22:28	ZZZZZZ	6298	142890	15345	9739
22:33	ZZZZZZ	6301	143550	15539	9763
22:38	ZZZZZZ	6304	143520	15497	9768
22:43	ZZZZZZ	6330	143890	15562	9790
22:49	MA46494-CCV11	5973	131180	14860	8799
22:54	MA46494-CCB12	6302	144050	15156	9810
22:59	ZZZZZZ	6243	143720	15442	9671
23:04	ZZZZZZ	6289	143100	15345	9738
23:09	ZZZZZZ	6281	142240	15462	9669
23:14	ZZZZZZ	6288	143770	15379	9723
23:19	ZZZZZZ	6267	142940	15353	9690
23:24	ZZZZZZ	6315	143940	15529	9745
23:29	ZZZZZZ	6294	143160	15516	9759
23:34	ZZZZZZ	6319	141610	15282	9511
23:39	ZZZZZZ	6439	141620	16731	8892
23:45	ZZZZZZ	6886	153150	17034	9440
23:50	MA46494-CCV12	6078	135700	15026	8912
23:55	MA46494-CCB13	6284	142480	15103	9740
00:00	ZZZZZZ	6470	144100	15789	9240

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
10

BLANK RESULTS SUMMARY
 Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC86043
 Account: BBLNYS - Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SC041219M1.ICP Date Analyzed: 04/12/19 Methods: EPA 200.7, SW846 6010D
 QC Limits: result < RL Run ID: MA46494 Units: ug/l

Metal	Time:		11:29		11:51		12:54		13:52		
	Sample ID:	RL	IDL	ICB1	final	CCB1	final	CCB2	final	CCB3	final
Aluminum	200	14	anr								
Antimony	6.0	1.4	0.700	<6.0	1.30	<6.0	0.900	<6.0	1.00	<6.0	
Arsenic	3.0	1.5	anr								
Barium	200	.5	anr								
Beryllium	1.0	.1	anr								
Bismuth	20	1.8									
Boron	100	.8	anr								
Cadmium	3.0	.3	anr								
Calcium	5000	3.9	-0.500	<5000	3.40	<5000	-0.500	<5000	5.70	<5000	
Chromium	10	.3	anr								
Cobalt	50	.3	anr								
Copper	10	.6	anr								
Iron	100	2.6	anr								
Lead	3.0	1.6	-0.600	<3.0	-0.500	<3.0	-0.800	<3.0	-0.300	<3.0	
Lithium	50	2.1	anr								
Magnesium	5000	16	anr								
Manganese	15	.1	0.200	<15	0.300	<15	0.100	<15	0.600	<15	
Molybdenum	20	.4									
Nickel	10	.5	anr								
Phosphorus	50	1.9									
Potassium	10000	79	anr								
Selenium	10	3	anr								
Silicon	200	1.2									
Silver	10	.5	anr								
Sodium	10000	9.9	anr								
Strontium	10	.3									
Sulfur	50	3.5									
Thallium	10	1.3	anr								
Tin	10	.7									
Titanium	10	.5									
Tungsten	50	1.7									
Vanadium	50	.5	anr								
Zinc	20	.2	anr								

10.3.3
10

BLANK RESULTS SUMMARY
 Part 1 - Initial and Continuing Calibration Blanks

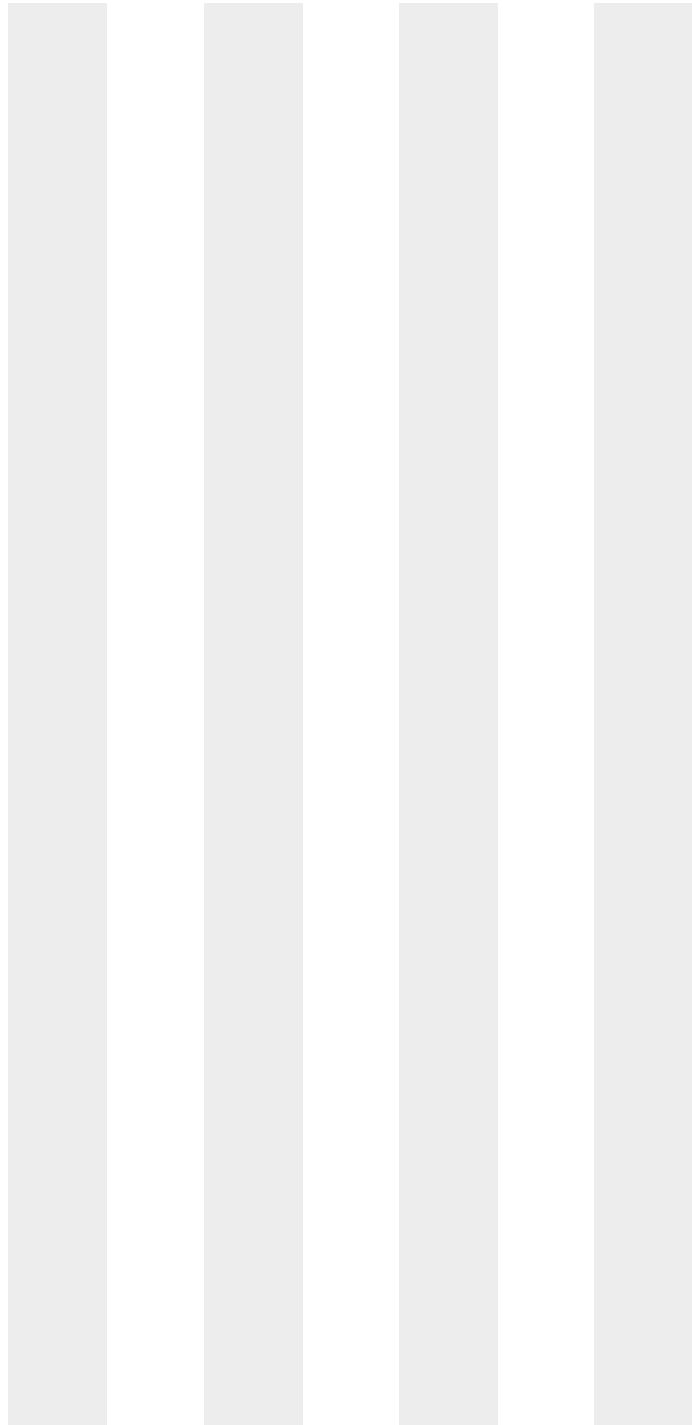
Login Number: JC86043
 Account: BBLNYS - Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SC041219M1.ICP Date Analyzed: 04/12/19 Methods: EPA 200.7, SW846 6010D
 QC Limits: result < RL Run ID: MA46494 Units: ug/l

Time:			11:29		11:51		12:54		13:52	
Sample ID:			ICB1		CCB1		CCB2		CCB3	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final

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: JC86043
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SC041219M1.ICP Date Analyzed: 04/12/19 Methods: EPA 200.7, SW846 6010D
QC Limits: result < RL Run ID: MA46494 Units: ug/l

Metal	RL	IDL	Time:	14:47	15:43	16:39	17:30				
			Sample ID:	CCB4	CCB5	CCB6	CCB7	raw	final		
Aluminum	200	14		anr							
Antimony	6.0	1.4		0.600	<6.0	1.40	<6.0	2.40	<6.0	1.80	<6.0
Arsenic	3.0	1.5		anr							
Barium	200	.5		anr							
Beryllium	1.0	.1		anr							
Bismuth	20	1.8									
Boron	100	.8		anr							
Cadmium	3.0	.3		anr							
Calcium	5000	3.9		2.70	<5000	4.30	<5000	7.30	<5000	5.70	<5000
Chromium	10	.3		anr							
Cobalt	50	.3		anr							
Copper	10	.6		anr							
Iron	100	2.6		anr							
Lead	3.0	1.6		-0.800	<3.0	-0.500	<3.0	-0.700	<3.0	0.100	<3.0
Lithium	50	2.1		anr							
Magnesium	5000	16		anr							
Manganese	15	.1		0.200	<15	0.500	<15	0.300	<15	0.500	<15
Molybdenum	20	.4									
Nickel	10	.5		anr							
Phosphorus	50	1.9									
Potassium	10000	79		anr							
Selenium	10	3		anr							
Silicon	200	1.2									
Silver	10	.5		anr							
Sodium	10000	9.9		anr							
Strontium	10	.3									
Sulfur	50	3.5									
Thallium	10	1.3		anr							
Tin	10	.7									
Titanium	10	.5									
Tungsten	50	1.7									
Vanadium	50	.5		anr							
Zinc	20	.2		anr							

10.3.3
10

BLANK RESULTS SUMMARY
 Part 1 - Initial and Continuing Calibration Blanks

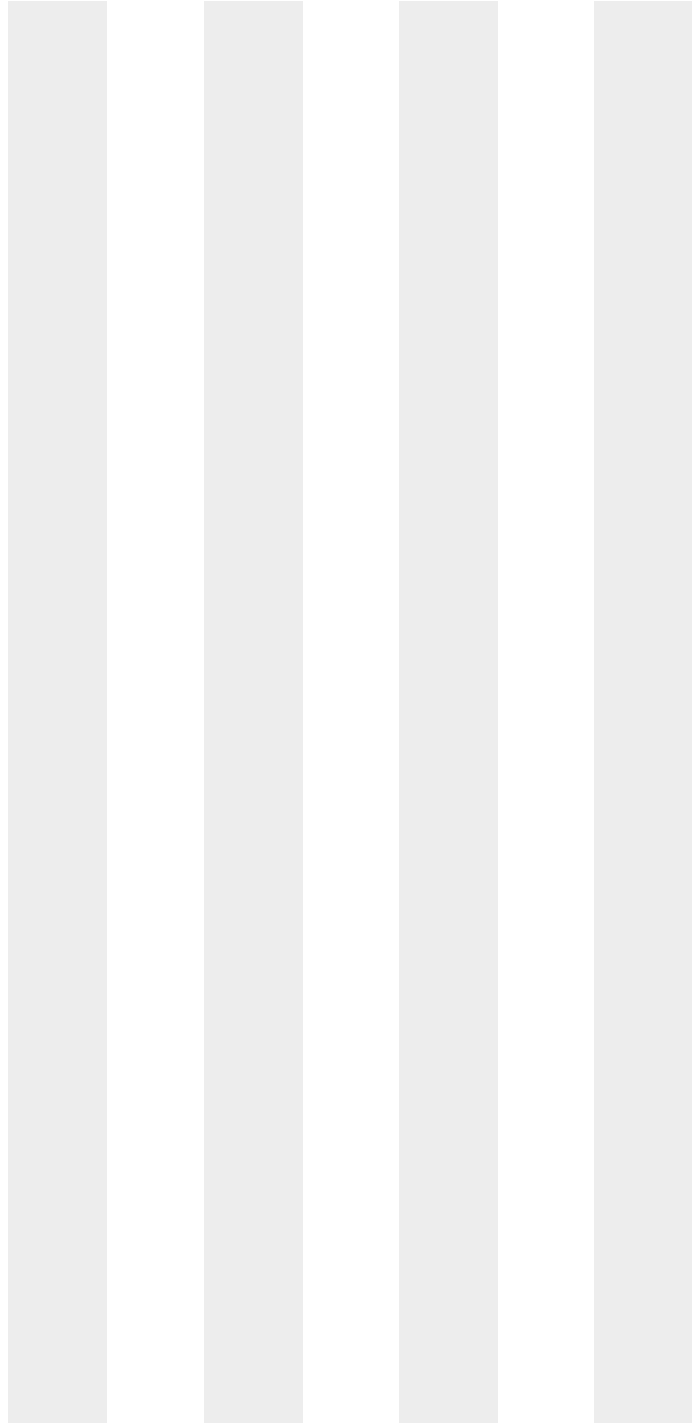
Login Number: JC86043
 Account: BBLNYS - Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SC041219M1.ICP Date Analyzed: 04/12/19 Methods: EPA 200.7, SW846 6010D
 QC Limits: result < RL Run ID: MA46494 Units: ug/l

Time:	14:47	15:43	16:39	17:30						
Sample ID:	CCB4	CCB5	CCB6	CCB7						
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final

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: JC86043
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SC041219M1.ICP Date Analyzed: 04/12/19 Methods: EPA 200.7, SW846 6010D
QC Limits: to % Recovery Run ID: MA46494 Units: ug/l

Time:	11:42		
Sample ID:	ICCV	ICCV2	
Metal	True	Results	% Rec
Aluminum	anr		
Antimony	2000	1970	98.5
Arsenic	anr		
Barium	anr		
Beryllium	anr		
Bismuth			
Boron	anr		
Cadmium	anr		
Calcium	40000	39400	98.5
Chromium	anr		
Cobalt	anr		
Copper	anr		
Iron	anr		
Lead	2000	2020	101.0
Lithium	anr		
Magnesium	anr		
Manganese	2000	2010	100.5
Molybdenum			
Nickel	anr		
Phosphorus			
Potassium	anr		
Selenium	anr		
Silicon			
Silver	anr		
Sodium	anr		
Strontium			
Sulfur			
Thallium	anr		
Tin			
Titanium			
Tungsten			
Vanadium	anr		
Zinc	anr		

10.3.4
10

CALIBRATION CHECK STANDARDS SUMMARY
Initial Continuing Calibration Check

Login Number: JC86043
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SC041219M1.ICP Date Analyzed: 04/12/19 Methods: EPA 200.7, SW846 6010D
QC Limits: to % Recovery Run ID: MA46494 Units: ug/l

Time:	11:42
Sample ID:	ICCV ICCV2
Metal	True Results % Rec

Zirconium

(*) Outside of QC limits
(anr) Analyte not requested

10.3.4
10

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC86043
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SC041219M1.ICP Date Analyzed: 04/12/19 Methods: EPA 200.7, SW846 6010D
QC Limits: 95 to 105 % Recovery Run ID: MA46494 Units: ug/l

Metal	Time: Sample ID: ICV True	11:23		CCV True	12:49		CCV True	13:44	
		ICV1	% Rec		CCV1	% Rec		CCV2	% Rec
Aluminum	anr								
Antimony	2000	1910	95.5	2000	1980	99.0	2000	1980	99.0
Arsenic	anr								
Barium	anr								
Beryllium	anr								
Bismuth									
Boron	anr								
Cadmium	anr								
Calcium	40000	38300	95.8	40000	40000	100.0	40000	39900	99.8
Chromium	anr								
Cobalt	anr								
Copper	anr								
Iron	anr								
Lead	2000	1950	97.5	2000	2030	101.5	2000	2030	101.5
Lithium	anr								
Magnesium	anr								
Manganese	2000	1970	98.5	2000	2050	102.5	2000	2080	104.0
Molybdenum									
Nickel	anr								
Phosphorus									
Potassium	anr								
Selenium	anr								
Silicon									
Silver	anr								
Sodium	anr								
Strontium									
Sulfur									
Thallium	anr								
Tin									
Titanium									
Tungsten									
Vanadium	anr								
Zinc	anr								

10.3.5
10

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC86043
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SC041219M1.ICP Date Analyzed: 04/12/19 Methods: EPA 200.7, SW846 6010D
QC Limits: 95 to 105 % Recovery Run ID: MA46494 Units: ug/l

	Time:								
	Sample ID:	ICV	11:23 ICV1	CCV	12:49 CCV1	CCV	13:44 CCV2	CCV	CCV2
Metal		True	Results	% Rec	True	Results	% Rec	True	Results

Zirconium

(*) Outside of QC limits
(anr) Analyte not requested



10.3.5
10

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC86043
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SC041219M1.ICP Date Analyzed: 04/12/19 Methods: EPA 200.7, SW846 6010D
QC Limits: 95 to 105 % Recovery Run ID: MA46494 Units: ug/l

Time:	14:42	15:38	16:34						
Sample ID:	CCV3	CCV4	CCV5						
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	2000	2000	100.0	2000	1960	98.0	2000	1970	98.5
Arsenic	anr								
Barium	anr								
Beryllium	anr								
Bismuth									
Boron	anr								
Cadmium	anr								
Calcium	40000	40500	101.3	40000	40500	101.3	40000	41000	102.5
Chromium	anr								
Cobalt	anr								
Copper	anr								
Iron	anr								
Lead	2000	2060	103.0	2000	2030	101.5	2000	2030	101.5
Lithium	anr								
Magnesium	anr								
Manganese	2000	2030	101.5	2000	1990	99.5	2000	2020	101.0
Molybdenum									
Nickel	anr								
Phosphorus									
Potassium	anr								
Selenium	anr								
Silicon									
Silver	anr								
Sodium	anr								
Strontium									
Sulfur									
Thallium	anr								
Tin									
Titanium									
Tungsten									
Vanadium	anr								
Zinc	anr								

10.3.5 10

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

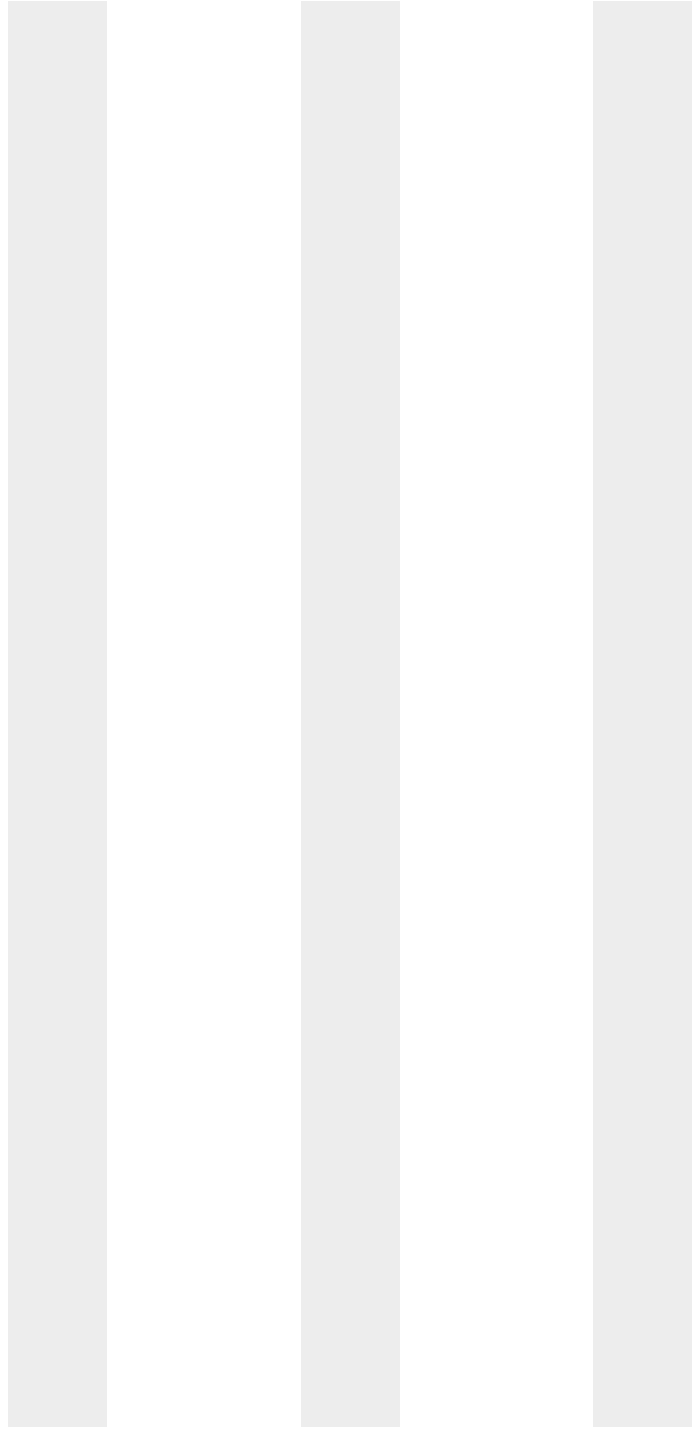
Login Number: JC86043
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SC041219M1.ICP Date Analyzed: 04/12/19 Methods: EPA 200.7, SW846 6010D
QC Limits: 95 to 105 % Recovery Run ID: MA46494 Units: ug/l

	Time:		14:42		15:38		16:34		
Sample ID:	CCV	CCV3		CCV		CCV4		CCV	
Metal	True	Results	% Rec	True <td></td> <th>Results</th> <td>% Rec</td> <th>True <td></td> </th>		Results	% Rec	True <td></td>	

Zirconium

(*) Outside of QC limits
(anr) Analyte not requested



10.3.5
10

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC86043
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SC041219M1.ICP Date Analyzed: 04/12/19 Methods: EPA 200.7, SW846 6010D
QC Limits: 95 to 105 % Recovery Run ID: MA46494 Units: ug/l

Time:	17:25		
Sample ID:	CCV6		
Metal	True	Results	% Rec
Aluminum	anr		
Antimony	2000	1960	98.0
Arsenic	anr		
Barium	anr		
Beryllium	anr		
Bismuth			
Boron	anr		
Cadmium	anr		
Calcium	40000	40700	101.8
Chromium	anr		
Cobalt	anr		
Copper	anr		
Iron	anr		
Lead	2000	2020	101.0
Lithium	anr		
Magnesium	anr		
Manganese	2000	2010	100.5
Molybdenum			
Nickel	anr		
Phosphorus			
Potassium	anr		
Selenium	anr		
Silicon			
Silver	anr		
Sodium	anr		
Strontium			
Sulfur			
Thallium	anr		
Tin			
Titanium			
Tungsten			
Vanadium	anr		
Zinc	anr		

10.3.5
10

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC86043
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SC041219M1.ICP Date Analyzed: 04/12/19 Methods: EPA 200.7, SW846 6010D
QC Limits: 95 to 105 % Recovery Run ID: MA46494 Units: ug/l

Time:	17:25		
Sample ID: CCV	CCV6		
Metal	True	Results	% Rec

Zirconium

(*) Outside of QC limits
(anr) Analyte not requested

HIGH STANDARD CHECK SUMMARY

Login Number: JC86043
 Account: BBLNYS - Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SC041219M1.ICP Date Analyzed: 04/12/19 Methods: EPA 200.7, SW846 6010D
 QC Limits: 90 to 110 % Recovery Run ID: MA46494 Units: ug/l

Metal	Time: 12:17		% Rec	Time: 12:23		% Rec
	Sample ID: HSTD	HSTD1		HSTD	HSTD2	
Aluminum						
Antimony	8000	8230	102.9			
Arsenic	anr					
Barium	anr					
Beryllium	anr					
Bismuth						
Boron	anr					
Cadmium	anr					
Calcium				200000	194000	97.0
Chromium	anr					
Cobalt	anr					
Copper	anr					
Iron						
Lead	8000	8120	101.5			
Lithium	anr					
Magnesium						
Manganese	8000	7970	99.6			
Molybdenum						
Nickel	anr					
Phosphorus						
Potassium						
Selenium	anr					
Silicon						
Silver	anr					
Sodium						
Strontium						
Sulfur						
Thallium	anr					
Tin						
Titanium						
Tungsten						
Vanadium	anr					
Zinc	anr					

10.3.6
10

HIGH STANDARD CHECK SUMMARY

Login Number: JC86043
 Account: BBLNYS - Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SC041219M1.ICP Date Analyzed: 04/12/19 Methods: EPA 200.7, SW846 6010D
 QC Limits: 90 to 110 % Recovery Run ID: MA46494 Units: ug/l

	Time:	12:17		12:23	
Sample ID:	HSTD	HSTD1	HSTD	HSTD2	
Metal	True	Results	% Rec	True	Results

Zirconium

(*) Outside of QC limits
 (anr) Analyte not requested

10.3.6
10

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC86043
 Account: BBLNYS - Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SC041219M1.ICP Date Analyzed: 04/12/19 Methods: EPA 200.7, SW846 6010D
 QC Limits: CRI 80-120% CRIA 80-120% Run ID: MA46494 Units: ug/l

Time:				12:59				13:04
Sample ID:	CRI	CRIA	CRID	CRI2	% Rec	CRID2	% Rec	
Metal	True	True	True	Results		Results	% Rec	
Aluminum	200	500	100	anr				
Antimony	6.0	20	3.0	6.40	106.7			
Arsenic	8.0	20	3.0	anr				
Barium	200		4.0	anr				
Beryllium	2.0		1.0	anr				
Bismuth	20							
Boron	100		10	anr				
Cadmium	3.0		1.0	anr				
Calcium	5000	2000	1000	5140	102.8	1020	102.0	
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	2.70	90.0			
Lithium	50			anr				
Magnesium	5000	2000	100	anr				
Manganese	15		3.0	15.6	104.0	3.10	103.3	
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				
Zinc	20		10	anr				

10.3.7
10

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC86043
 Account: BBLNYS - Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SC041219M1.ICP Date Analyzed: 04/12/19 Methods: EPA 200.7, SW846 6010D
 QC Limits: CRI 80-120% CRIA 80-120% Run ID: MA46494 Units: ug/l

Time:		12:59		13:04	
Sample ID:	CRI	CRIA	CRID	CRI2	CRID2
Metal	True	True	True	Results	% Rec

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: JC86043
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SC041219M1.ICP Date Analyzed: 04/12/19 Methods: EPA 200.7, SW846 6010D
QC Limits: 80 to 120 % Recovery Run ID: MA46494 Units: ug/l

Time:			12:07			12:12			16:55			17:00
Sample ID:	ICSA	ICSAB	ICSAL	% Rec	ICSAB1	% Rec	ICSAB2	% Rec	ICSAB2	% Rec		
Metal	True	True	Results		Results		Results		Results			
Aluminum	500000	500000	504000	100.8	496000	99.2	501000	100.2	495000	99.0		
Antimony		1000	-2.90		1060	106.0	-1.50		1050	105.0		
Arsenic		1000	0.700		1070	107.0	1.40		1060	106.0		
Barium		500	0.600		506	101.2	0.300		521	104.2		
Beryllium		500	0.100		491	98.2	0.00		498	99.6		
Bismuth		500	-1.40		510	102.0	-4.30		512	102.4		
Boron		500	-1.30		482	96.4	0.500		483	96.6		
Cadmium		1000	0.00		1010	101.0	0.100		1000	100.0		
Calcium	400000	400000	376000	94.0	374000	93.5	383000	95.8	386000	96.5		
Chromium		500	-1.20		499	99.8	-0.800		490	98.0		
Cobalt		500	1.10		490	98.0	1.10		490	98.0		
Copper		500	-9.70		507	101.4	-6.00		502	100.4		
Iron	200000	200000	190000	95.0	195000	97.5	193000	96.5	198000	99.0		
Lead		1000	1.20		956	95.6	0.600		956	95.6		
Lithium		500	-0.200		526	105.2	0.300		537	107.4		
Magnesium	500000	500000	491000	98.2	496000	99.2	498000	99.6	506000	101.2		
Manganese		500	1.90		526	105.2	2.60		510	102.0		
Molybdenum		500	1.00		485	97.0	0.900		487	97.4		
Nickel		1000	0.100		975	97.5	-0.200		983	98.3		
Phosphorus		500	-29.3		481	96.2	28.8		332	66.4*		
Potassium			518		430		277		190			
Selenium		1000	-0.900		1050	105.0	-0.900		1050	105.0		
Silicon		500	-0.600		473	94.6	-0.500		469	93.8		
Silver		1000	0.200		1150	115.0	0.00		1120	112.0		
Sodium			68.6		55.8		32.6		38.4			
Strontium		500	-0.200		526	105.2	-0.100		535	107.0		
Sulfur		500	-1.00		481	96.2	7.60		448	89.6		
Thallium		1000	1.50		982	98.2	0.200		967	96.7		
Tin		500	-0.900		473	94.6	-1.20		471	94.2		
Titanium		500	-1.00		510	102.0	-1.40		498	99.6		
Tungsten		500	0.800		471	94.2	2.50		473	94.6		
Vanadium		500	-3.10		504	100.8	-2.30		487	97.4		
Zinc		1000	0.400		951	95.1	-1.60		940	94.0		

10.3.8
10

INTERFERING ELEMENT CHECK STANDARDS SUMMARY
 Part 1 - ICSA and ICSAB Standards

Login Number: JC86043
 Account: BBLNYS - Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SC041219M1.ICP Date Analyzed: 04/12/19 Methods: EPA 200.7, SW846 6010D
 QC Limits: 80 to 120 % Recovery Run ID: MA46494 Units: ug/l

Time:		12:07		12:12		16:55		17:00		
Sample ID:	ICSAB	ICSAB	ICSAB1	ICSAB1	ICSAB1	ICSAB2	ICSAB2	ICSAB2	ICSAB2	
Metal	True	True	Results	% Rec	Results	% Rec	Results	% Rec	Results	% Rec

Zirconium		500	0.100		508	101.6	0.600		495	99.0
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(*) Outside of QC limits
 (anr) Analyte not requested

10.3.8
 10

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: JC86043
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA

QC Batch ID: MP14056
Matrix Type: SOLID

Methods: SW846 7471B
Units: mg/kg

Prep Date: 04/11/19

Metal	RL	IDL	MDL	MB	
				raw	final
Mercury	0.033	.0058	.015	0.0063	<0.033

Associated samples MP14056: JC86043-1, JC86043-2, JC86043-3, JC86043-4, JC86043-5

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: JC86043
 Account: BBLNYS - Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

QC Batch ID: MP14056
 Matrix Type: SOLID

Methods: SW846 7471B
 Units: mg/kg

Prep Date: 04/11/19

Metal	JC85833-1A Original MS	Spikelot HGPWS1	% Rec	QC Limits
-------	---------------------------	--------------------	-------	--------------

Mercury 0.041 0.31 0.329 81.7 80-120

Associated samples MP14056: JC86043-1, JC86043-2, JC86043-3, JC86043-4, JC86043-5

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

10.4.2
10

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC86043
 Account: BBLNYS - Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

QC Batch ID: MP14056
 Matrix Type: SOLID

Methods: SW846 7471B
 Units: mg/kg

Prep Date: 04/11/19

Metal	JC85833-1A Original MSD	Spike HGPWS1	lot % Rec	MSD RPD	QC Limit
Mercury	0.041	0.30	0.312	82.9	3.3 20

Associated samples MP14056: JC86043-1, JC86043-2, JC86043-3, JC86043-4, JC86043-5

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

10.4.2
 10

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: JC86043
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA

QC Batch ID: MP14056
Matrix Type: SOLID

Methods: SW846 7471B
Units: mg/kg

Prep Date: 04/11/19

Metal	BSP Result	Spikelot HGPWS1	% Rec	QC Limits
Mercury	0.29	0.333	87.0	80-120

Associated samples MP14056: JC86043-1, JC86043-2, JC86043-3, JC86043-4, JC86043-5

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

10.4.3
10

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: JC86043
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA

QC Batch ID: MP14093
Matrix Type: SOLID

Methods: SW846 6010D
Units: mg/kg

Prep Date: 04/11/19

Metal	RL	IDL	MDL	MB raw	final
Aluminum	48	1.4	7.7	0.80	<48
Antimony	1.9	.13	.39	-0.12	<1.9
Arsenic	1.9	.14	.27	-0.019	<1.9
Barium	19	.048	1.8	-0.067	<19
Beryllium	0.19	.0095	.076	-0.0095	<0.19
Bismuth	1.9	.17	.5		
Boron	9.5	.076	1.4		
Cadmium	0.48	.029	.067	-0.0095	<0.48
Calcium	480	.37	42	6.2	<480
Chromium	0.95	.029	.35	0.076	<0.95
Cobalt	4.8	.029	.27	-0.029	<4.8
Copper	2.4	.057	.8	0.20	<2.4
Iron	48	.25	18	1.6	<48
Lead	1.9	.15	.39	0.038	<1.9
Lithium	4.8	.2	.88		
Magnesium	480	1.6	13	0.50	<480
Manganese	1.4	.0095	.39	0.019	<1.4
Molybdenum	1.9	.038	.3		
Nickel	3.8	.048	.33	0.048	<3.8
Phosphorus	19	.18	3.1		
Potassium	950	7.5	30	-16	<950
Selenium	1.9	.29	.62	0.18	<1.9
Silicon	19	.11	10		
Silver	0.48	.048	.16	-0.038	<0.48
Sodium	950	.94	74	3.5	<950
Strontium	4.8	.029	.17		
Sulfur	9.5	.33	8.9		
Thallium	0.95	.12	.55	-0.086	<0.95
Tin	19	.067	3.6		
Titanium	0.95	.048	.32		
Tungsten	4.8	.16	1.7		
Vanadium	4.8	.048	.18	-0.029	<4.8
Zinc	4.8	.019	2.2	0.80	<4.8

10.5.1
10

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: JC86043
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA

QC Batch ID: MP14093
Matrix Type: SOLID

Methods: SW846 6010D
Units: mg/kg

Prep Date: 04/11/19

Metal	RL	IDL	MDL	MB raw	final
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Zirconium 1.9 .029 .22

Associated samples MP14093: JC86043-1, JC86043-2, JC86043-3, JC86043-4, JC86043-5

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

10.5.1
10

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC86043
 Account: BBLNYS - Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

QC Batch ID: MP14093
 Matrix Type: SOLID

Methods: SW846 6010D
 Units: mg/kg

Prep Date: 04/11/19

Metal	JC86043-4 Original MS		SpikeLot MPSPK2	% Rec	QC Limits
Aluminum	4290	11000	3280	204.7N(a)	75-125
Antimony	0.26	195	262	74.2N(a)	75-125
Arsenic	3.9	249	262	93.5	75-125
Barium	30.3	304	262	104.4	75-125
Beryllium	0.22	252	262	96.0	75-125
Bismuth					
Boron					
Cadmium	0.13	250	262	95.3	75-125
Calcium	65200	5230	3280	-1829.2b	75-125
Chromium	14.6	274	262	98.9	75-125
Cobalt	4.2	259	262	97.1	75-125
Copper	13.8	268	262	96.9	75-125
Iron	9540	15600	3280	184.8N(a)	75-125
Lead	21.3	285	262	100.5	75-125
Lithium					
Magnesium	37200	5380	3280	-970.6(b)	75-125
Manganese	196	524	262	125.1N(a)	75-125
Molybdenum					
Nickel	8.6	264	262	97.4	75-125
Phosphorus					
Potassium	679	4530	3280	117.5	75-125
Selenium	0.66	244	262	92.8	75-125
Silicon					
Silver	0.0	32.8	32.8	100.0	75-125
Sodium	76.7	3380	3280	100.8	75-125
Strontium					
Sulfur					
Thallium	0.0	262	262	99.9	75-125
Tin					
Titanium					
Tungsten					
Vanadium	10.6	263	262	96.2	75-125
Zinc	66.5	334	262	102.0	75-125

10.5.2
10

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC86043
 Account: BBLNYS - Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

QC Batch ID: MP14093
 Matrix Type: SOLID

Methods: SW846 6010D
 Units: mg/kg

Prep Date: 04/11/19

Metal	JC86043-4 Original MS	Spike/lot MPSPK2	% Rec	QC Limits
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Zirconium

Associated samples MP14093: JC86043-1, JC86043-2, JC86043-3, JC86043-4, JC86043-5

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
- (a) Spike recovery indicates possible matrix interference and/or sample nonhomogeneity.
- (b) Spike amount low relative to the sample amount. Refer to lab control or spike blank for recovery information.

10.5.2 10

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC86043
 Account: BBLNYS - Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

QC Batch ID: MP14093
 Matrix Type: SOLID

Methods: SW846 6010D
 Units: mg/kg

Prep Date: 04/11/19

Metal	JC86043-4 Original MSD	MSD	Spike lot MPSPK2	% Rec	MSD RPD	QC Limit
Aluminum	4290	10500	3180	195.0N(a)	4.7	20
Antimony	0.26	185	255	72.5N(a)	5.3	20
Arsenic	3.9	239	255	92.3	4.1	20
Barium	30.3	292	255	102.7	4.0	20
Beryllium	0.22	243	255	95.3	3.6	20
Bismuth						
Boron						
Cadmium	0.13	240	255	94.2	4.1	20
Calcium	65200	4990	3180	-1891.1b	4.7	20
Chromium	14.6	264	255	97.9	3.7	20
Cobalt	4.2	249	255	96.1	3.9	20
Copper	13.8	260	255	96.7	3.0	20
Iron	9540	15200	3180	177.8N(a)	2.6	20
Lead	21.3	270	255	97.6	5.4	20
Lithium						
Magnesium	37200	5210	3180	-1004.7b	3.2	20
Manganese	196	504	255	120.9	3.9	20
Molybdenum						
Nickel	8.6	255	255	96.7	3.5	20
Phosphorus						
Potassium	679	4340	3180	115.0	4.3	20
Selenium	0.66	233	255	91.2	4.6	20
Silicon						
Silver	0.0	31.8	31.8	99.9	3.1	20
Sodium	76.7	3270	3180	100.3	3.3	20
Strontium						
Sulfur						
Thallium	0.0	251	255	98.5	4.3	20
Tin						
Titanium						
Tungsten						
Vanadium	10.6	255	255	96.0	3.1	20
Zinc	66.5	321	255	99.9	4.0	20

10.5.2
10

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC86043
 Account: BBLNYS - Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

QC Batch ID: MP14093
 Matrix Type: SOLID

Methods: SW846 6010D
 Units: mg/kg

Prep Date: 04/11/19

Metal	JC86043-4 Original MSD	SpikeLot MPSPK2	% Rec	MSD RPD	QC Limit
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Zirconium

Associated samples MP14093: JC86043-1, JC86043-2, JC86043-3, JC86043-4, JC86043-5

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
- (a) Spike recovery indicates possible matrix interference and/or sample nonhomogeneity.
- (b) Spike amount low relative to the sample amount. Refer to lab control or spike blank for recovery information.

10.5.2
10

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: JC86043
 Account: BBLNYS - Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

QC Batch ID: MP14093
 Matrix Type: SOLID

Methods: SW846 6010D
 Units: mg/kg

Prep Date: 04/11/19

Metal	BSP Result	Spikelot MPSPK2	% Rec	QC Limits
Aluminum	2450	2500	98.0	80-120
Antimony	191	200	95.5	80-120
Arsenic	189	200	94.5	80-120
Barium	196	200	98.0	80-120
Beryllium	197	200	98.5	80-120
Bismuth				
Boron				
Cadmium	193	200	96.5	80-120
Calcium	2470	2500	98.8	80-120
Chromium	193	200	96.5	80-120
Cobalt	195	200	97.5	80-120
Copper	193	200	96.5	80-120
Iron	2490	2500	99.6	80-120
Lead	195	200	97.5	80-120
Lithium				
Magnesium	2480	2500	99.2	80-120
Manganese	195	200	97.5	80-120
Molybdenum				
Nickel	195	200	97.5	80-120
Phosphorus				
Potassium	2480	2500	99.2	80-120
Selenium	190	200	95.0	80-120
Silicon				
Silver	25.0	25	100.0	80-120
Sodium	2530	2500	101.2	80-120
Strontium				
Sulfur				
Thallium	203	200	101.5	80-120
Tin				
Titanium				
Tungsten				
Vanadium	193	200	96.5	80-120
Zinc	195	200	97.5	80-120

10.5.3
10

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: JC86043
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA

QC Batch ID: MP14093
Matrix Type: SOLID

Methods: SW846 6010D
Units: mg/kg

Prep Date: 04/11/19

Metal	BSP Result	Spikelot MPSPK2	% Rec	QC Limits
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Zirconium

Associated samples MP14093: JC86043-1, JC86043-2, JC86043-3, JC86043-4, JC86043-5

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

10.5.3
10

SERIAL DILUTION RESULTS SUMMARY

Login Number: JC86043
 Account: BBLNYS - Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

QC Batch ID: MP14093
 Matrix Type: SOLID

Methods: SW846 6010D
 Units: ug/l

Prep Date: 04/11/19

Metal	JC86043-4 Original	SDL 1:5	%DIF	QC Limits
Aluminum	33000	33400	1.2	0-10
Antimony	2.00	8.20	310.0(a)	0-10
Arsenic	30.1	34.5	14.6 (a)	0-10
Barium	233	230	1.2	0-10
Beryllium	1.70	1.00	41.2 (a)	0-10
Bismuth				
Boron				
Cadmium	1.00	0.00	100.0(a)	0-10
Calcium	502000	513000	2.1	0-10
Chromium	112	113	0.4	0-10
Cobalt	32.3	31.8	1.5	0-10
Copper	106	108	1.8	0-10
Iron	73500	76500	4.1	0-10
Lead	164	170	3.8	0-10
Lithium				
Magnesium	287000	298000	4.1	0-10
Manganese	1510	1560	3.0	0-10
Molybdenum				
Nickel	66.2	65.3	1.4	0-10
Phosphorus				
Potassium	5230	4260	18.6*(b)	0-10
Selenium	5.10	0.00	100.0(a)	0-10
Silicon				
Silver	0.00	0.00	NC	0-10
Sodium	590	515	12.7*(b)	0-10
Strontium				
Sulfur				
Thallium	0.00	0.00	NC	0-10
Tin				
Titanium				
Tungsten				
Vanadium	82.0	82.6	0.7	0-10
Zinc	512	541	5.7	0-10

10.5.4
10

SERIAL DILUTION RESULTS SUMMARY

Login Number: JC86043
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA

QC Batch ID: MP14093
Matrix Type: SOLID

Methods: SW846 6010D
Units: ug/l

Prep Date: 04/11/19

	JC86043-4	QC
Metal	Original SDL 1:5 %DIF	Limits

Zirconium

Associated samples MP14093: JC86043-1, JC86043-2, JC86043-3, JC86043-4, JC86043-5

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.

POST DIGESTATE SPIKE SUMMARY

Login Number: JC86043
 Account: BBLNYS - Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

QC Batch ID: MP14093
 Matrix Type: SOLID

Methods: SW846 6010D
 Units: ug/l

Prep Date:

04/11/19

Metal	Sample ml	Final ml	JC86043-4 Raw	PS Corr.**	PS ug/l	Spike ml	Spike ug/ml	Spike ug/l	% Rec	QC Limits
Aluminum										
Antimony	19.25	20	2	1.925	1960	0.2	200	2000	97.9	80-120
Arsenic										
Barium										
Beryllium										
Bismuth										
Boron										
Cadmium										
Calcium										
Chromium										
Cobalt										
Copper										
Iron										
Lead										
Lithium										
Magnesium										
Manganese	19.25	20	1512	1455.3	3309	0.2	200	2000	92.7	80-120
Molybdenum										
Nickel										
Phosphorus										
Potassium										
Selenium										
Silicon										
Silver										
Sodium										
Strontium										
Sulfur										
Thallium										
Tin										
Titanium										
Tungsten										
Vanadium										
Zinc										

10.5.5
10

POST DIGESTATE SPIKE SUMMARY

Login Number: JC86043
 Account: BBLNYS - Arcadis
 Project: National Grid, Philly Coke, Philadelphia, PA

QC Batch ID: MP14093
 Matrix Type: SOLID

Methods: SW846 6010D
 Units: ug/l

Prep Date:

04/11/19

Metal	Sample ml	Final ml	JC86043-4 Raw	PS Corr.**	PS ug/l	Spike ml	Spike ug/ml	Spike ug/l	% Rec	QC Limits
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Zirconium

Associated samples MP14093: JC86043-1, JC86043-2, JC86043-3, JC86043-4, JC86043-5

Results < IDL are shown as zero for calculation purposes
 (*) Outside of QC limits
 (**) Corr. sample result = Raw * (sample volume / final volume)
 (anr) Analyte not requested

10.5.5
 10

Instrument Detection Limits

Job Number: JC86043

Account: BBLNYS Arcadis

Project: National Grid, Philly Coke, Philadelphia, PA

Instrument ID: LEEMANHG7

Effective Date: 02/18/19

Analyte	IDL ug/l
Mercury	.0349

The above applies to the following instrument runs:

MA46477

Instrument Detection Limits

Job Number: JC86043
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:
MA46484,MA46494

10.6
10

Instrument Linear Ranges

Job Number: JC86043

Account: BBLNYS Arcadis

Project: National Grid, Philly Coke, Philadelphia, PA

Instrument ID: LEEMANHG7

Effective Date: 03/10/17

Analyte	Linear Range ug/l
Mercury	5

The above applies to the following instrument runs:

MA46477

Instrument Linear Ranges

Job Number: JC86043
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA

Instrument ID: SSTRACE3	Effective Date: 07/16/18
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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
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:
MA46484,MA46494

10.6
10

Metals Analysis

Raw Data

MA46477

Method: ACCUTEST

Operator: Admin

Date of Analysis: 11 Apr 2019 10:45:06

Sample ID	Date	Type	Units	Conc.	μ Abs.	Wt.	Vol.
STDA - 1	11 Apr 2019 10:58:43	Std	ug/l	-	278	1.000	1.000
STDB - 1	11 Apr 2019 11:00:01	Std	ug/l	-	1501	1.000	1.000
STDC - 1	11 Apr 2019 11:01:22	Std	ug/l	-	3664	1.000	1.000
STDD - 1	11 Apr 2019 11:02:57	Std	ug/l	-	10218	1.000	1.000
STDE - 1	11 Apr 2019 11:04:42	Std	ug/l	-	25791	1.000	1.000
STDF - 1	11 Apr 2019 11:06:37	Std	ug/l	-	50577	1.000	1.000
ICV - 1	11 Apr 2019 11:09:14	CK STND	ug/l	101.4% 3.0430	30801	1.000	1.000
ICB - 1	11 Apr 2019 11:11:00	CK STND	ug/l	0.0062	-304	1.000	1.000
CCV - 1	11 Apr 2019 11:13:03	CK STND	ug/l	99.5% 2.4873	25110	1.000	1.000
CCB - 1	11 Apr 2019 11:14:21	CK STND	ug/l	0.0181	-182	1.000	1.000
CRI - 1	11 Apr 2019 11:16:24	CK STND	ug/l	88.2% 0.1764	1439	1.000	1.000
CCV - 1	11 Apr 2019 11:27:42	CK STND	ug/l	98.1% 2.4516	24744	1.000	1.000
CCB - 1	11 Apr 2019 11:28:59	CK STND	ug/l	0.0211	-151	1.000	1.000
MP14055-MB1 - 1	11 Apr 2019 11:39:04	SMPL	ug/l	0.0753	404	1.000	1.000
MP14055-B1 - 1	11 Apr 2019 11:40:20	SMPL	ug/l	1.8433	18513	1.000	1.000
MP14055-S1 - 1	11 Apr 2019 11:41:39	SMPL	ug/l	1.7481	17538	1.000	1.000
MP14055-S2 - 1	11 Apr 2019 11:43:42	SMPL	ug/l	1.7275	17327	1.000	1.000
MP14055-D1 - 1	11 Apr 2019 11:45:43	SMPL	ug/l	0.0892	546	1.000	1.000
JC85997-1 - 1	11 Apr 2019 11:47:45	SMPL	ug/l	0.0754	405	1.000	1.000
JC85997-2 - 1	11 Apr 2019 11:49:14	SMPL	ug/l	0.1666	1339	1.000	1.000
JC85997-3 - 1	11 Apr 2019 11:50:38	SMPL	ug/l	0.1624	1296	1.000	1.000
JC85997-4 - 1	11 Apr 2019 11:52:16	SMPL	ug/l	0.1317	981	1.000	1.000
CCV - 1	11 Apr 2019 11:53:52	CK STND	ug/l	(L)88.3% 2.2065	22233	1.000	1.000
CCB - 1	11 Apr 2019 11:57:37	CK STND	ug/l	0.0528	173	1.000	1.000
JC85997-5 - 1	11 Apr 2019 11:58:53	SMPL	ug/l	0.1374	1040	1.000	1.000
JC85997-6 - 1	11 Apr 2019 12:00:12	SMPL	ug/l	0.1318	983	1.000	1.000
JC85997-7 - 1	11 Apr 2019 12:01:45	SMPL	ug/l	0.0937	592	1.000	1.000
JC85997-8 - 1	11 Apr 2019 12:03:18	SMPL	ug/l	0.0753	404	1.000	1.000
JC85997-9 - 1	11 Apr 2019 12:04:46	SMPL	ug/l	0.1455	1123	1.000	1.000
JC85997-10 - 1	11 Apr 2019 12:06:10	SMPL	ug/l	0.1403	1070	1.000	1.000
JC85998-1 - 1	11 Apr 2019 12:07:43	SMPL	ug/l	0.1675	1348	1.000	1.000
JC85998-2 - 1	11 Apr 2019 12:09:16	SMPL	ug/l	0.1359	1024	1.000	1.000
JC85998-3 - 1	11 Apr 2019 12:10:51	SMPL	ug/l	0.1434	1101	1.000	1.000
CCV - 1	11 Apr 2019 12:12:24	CK STND	ug/l	103.5% 2.5869	26130	1.000	1.000
CCB - 1	11 Apr 2019 12:13:58	CK STND	ug/l	0.0207	-156	1.000	1.000
JC85998-4 - 1	11 Apr 2019 12:16:03	SMPL	ug/l	0.2593	2288	1.000	1.000
MP14056-MB1 - 1	11 Apr 2019 12:17:22	SMPL	ug/l	0.0380	22	1.000	1.000
MP14056-B1 - 1	11 Apr 2019 12:19:02	SMPL	ug/l	1.7362	17416	1.000	1.000
MP14056-S1 - 1	11 Apr 2019 12:20:22	SMPL	ug/l	1.8919	19011	1.000	1.000
MP14056-S2 - 1	11 Apr 2019 12:22:26	SMPL	ug/l	1.9062	19157	1.000	1.000
JC85833-1A - 1	11 Apr 2019 12:24:28	SMPL	ug/l	0.2573	2268	1.000	1.000
JC85833-2A - 1	11 Apr 2019 12:26:30	SMPL	ug/l	0.2828	2529	1.000	1.000
JC85833-3A - 1	11 Apr 2019 12:28:10	SMPL	ug/l	0.2933	2637	1.000	1.000
JC86043-1 - 1	11 Apr 2019 12:29:50	SMPL	ug/l	1.2219	12148	1.000	1.000
CCV - 1	11 Apr 2019 12:31:32	CK STND	ug/l	106.5% 2.6628	26907	1.000	1.000
CCB - 1	11 Apr 2019 12:33:29	CK STND	ug/l	0.0144	-220	1.000	1.000
JC86043-2 - 1	11 Apr 2019 12:35:34	SMPL	ug/l	0.9235	9092	1.000	1.000
JC86043-3 - 1	11 Apr 2019 12:36:53	SMPL	ug/l	2.8097	28412	1.000	1.000
JC86043-4 - 1	11 Apr 2019 12:38:45	SMPL	ug/l	1.1085	10987	1.000	1.000
JC86043-5 - 1	11 Apr 2019 12:40:50	SMPL	ug/l	4.7999	48797	1.000	1.000
JC85947-5 - 1	11 Apr 2019 12:42:46	SMPL	ug/l	0.0766	417	1.000	1.000
JC85947-10 - 1	11 Apr 2019 12:45:00	SMPL	ug/l	1.6290	16318	1.000	1.000
JC85947-15 - 1	11 Apr 2019 12:46:31	SMPL	ug/l	1.4711	14701	1.000	1.000
JC85947-20 - 1	11 Apr 2019 12:48:30	SMPL	ug/l	2.9187	29528	1.000	1.000
JC85947-25 - 1	11 Apr 2019 12:50:29	SMPL	ug/l	0.8667	8510	1.000	1.000
CCV - 1	11 Apr 2019 12:52:34	CK STND	ug/l	105.8% 2.6454	26729	1.000	1.000
CCB - 1	11 Apr 2019 12:54:25	CK STND	ug/l	0.0156	-208	1.000	1.000
JC85947-30 - 1	11 Apr 2019 12:56:32	SMPL	ug/l	1.7194	17244	1.000	1.000
MP14121-MB1 - 1	11 Apr 2019 12:57:50	SMPL	ug/l	0.0223	-139	1.000	1.000
MP14121-B1 - 1	11 Apr 2019 12:59:49	SMPL	ug/l	1.8670	18756	1.000	1.000
MP14121-S1 - 1	11 Apr 2019 13:01:07	SMPL	ug/l	14.2517	145610	1.000	1.000
MP14121-S1 - 1	11 Apr 2019 13:20:05	SMPL	ug/l	13.9368	28183	1.000	5.000
MP14121-S2 - 1	11 Apr 2019 13:21:22	SMPL	ug/l	16.0529	32518	1.000	5.000
JC85964-19 - 1	11 Apr 2019 13:23:29	SMPL	ug/l	12.3396	24911	1.000	5.000
JC85964-1 - 1	11 Apr 2019 13:25:39	SMPL	ug/l	4.1319	8097	1.000	5.000
JC85964-2 - 1	11 Apr 2019 13:27:45	SMPL	ug/l	5.1834	10251	1.000	5.000
CCV - 1	11 Apr 2019 13:29:39	CK STND	ug/l	106.4% 2.6590	26868	1.000	1.000
CCB - 1	11 Apr 2019 13:31:37	CK STND	ug/l	0.0124	-241	1.000	1.000
JC85964-3 - 1	11 Apr 2019 13:33:42	SMPL	ug/l	5.1780	10240	1.000	5.000

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Method: ACCUTEST

Operator: Admin

Date of Analysis: 11 Apr 2019 10:45:06

Sample ID	Date	Type	Units	Conc.	μ Abs.	Wt.	Vol.
JC85964-4 - 1	11 Apr 2019 13:35:02	SMPL	ug/l	6.7498	13460	1.000	5.000
JC85964-5 - 1	11 Apr 2019 13:36:58	SMPL	ug/l	7.0906	14158	1.000	5.000
JC85964-6 - 1	11 Apr 2019 13:38:59	SMPL	ug/l	3.5452	6895	1.000	5.000
JC85964-7 - 1	11 Apr 2019 13:41:00	SMPL	ug/l	5.6681	11244	1.000	5.000
JC85964-8 - 1	11 Apr 2019 13:42:51	SMPL	ug/l	6.9558	13882	1.000	5.000
JC85964-9 - 1	11 Apr 2019 13:44:48	SMPL	ug/l	5.8990	11717	1.000	5.000
JC85964-10 - 1	11 Apr 2019 13:46:46	SMPL	ug/l	7.1423	14264	1.000	5.000
JC85964-11 - 1	11 Apr 2019 13:48:43	SMPL	ug/l	7.7671	15544	1.000	5.000
CCV - 1	11 Apr 2019 13:50:41	CK STND	ug/l	104.5% 2.6131	26398	1.000	1.000
CCB - 1	11 Apr 2019 13:52:42	CK STND	ug/l	0.0121	-244	1.000	1.000
JC85964-12 - 1	11 Apr 2019 13:54:49	SMPL	ug/l	16.6997	33843	1.000	5.000
JC85964-13 - 1	11 Apr 2019 13:56:08	SMPL	ug/l	25.2262	51310	1.000	5.000
JC85964-14 - 1	11 Apr 2019 13:58:16	SMPL	ug/l	30.4659	62044	1.000	5.000
JC85964-15 - 1	11 Apr 2019 14:00:31	SMPL	ug/l	34.2622	69821	1.000	5.000
JC85964-16 - 1	11 Apr 2019 14:02:49	SMPL	ug/l	8.1040	16234	1.000	5.000
JC85964-17 - 1	11 Apr 2019 14:05:07	SMPL	ug/l	9.3092	18703	1.000	5.000
JC85964-18 - 1	11 Apr 2019 14:07:09	SMPL	ug/l	9.4473	18986	1.000	5.000
JC85964-20 - 1	11 Apr 2019 14:09:12	SMPL	ug/l	17.9465	36397	1.000	5.000
MP14124-MB1 - 1	11 Apr 2019 14:17:30	SMPL	ug/l	0.0755	406	1.000	1.000
CCV - 1	11 Apr 2019 14:18:47	CK STND	ug/l	97.3% 2.4322	24545	1.000	1.000
CCB - 1	11 Apr 2019 14:20:07	CK STND	ug/l	0.0181	-182	1.000	1.000
MP14124-B1 - 1	11 Apr 2019 14:22:14	SMPL	ug/l	1.8404	18483	1.000	1.000
MP14124-S1 - 1	11 Apr 2019 14:33:24	SMPL	ug/l	14.0974	28512	1.000	5.000
MP14124-S2 - 1	11 Apr 2019 14:34:41	SMPL	ug/l	14.4650	29265	1.000	5.000
JC85964-67 - 1	11 Apr 2019 14:36:49	SMPL	ug/l	13.5053	27299	1.000	5.000
JC85964-61 - 1	11 Apr 2019 14:38:57	SMPL	ug/l	4.7353	9333	1.000	5.000
JC85964-62 - 1	11 Apr 2019 14:41:04	SMPL	ug/l	2.9589	5694	1.000	5.000
JC85964-63 - 1	11 Apr 2019 14:42:59	SMPL	ug/l	9.1252	18326	1.000	5.000
JC85964-64 - 1	11 Apr 2019 14:44:50	SMPL	ug/l	8.2699	16574	1.000	5.000
JC85964-65 - 1	11 Apr 2019 14:46:52	SMPL	ug/l	10.5598	21265	1.000	5.000
CCV - 1	11 Apr 2019 14:48:55	CK STND	ug/l	102.7% 2.5682	25938	1.000	1.000
CCB - 1	11 Apr 2019 14:50:59	CK STND	ug/l	0.0129	-235	1.000	1.000
JC85964-66 - 1	11 Apr 2019 14:53:05	SMPL	ug/l	13.3384	26957	1.000	5.000
JC85964-68 - 1	11 Apr 2019 14:54:26	SMPL	ug/l	10.7663	21688	1.000	5.000
JC85964-69 - 1	11 Apr 2019 14:56:33	SMPL	ug/l	4.3516	8547	1.000	5.000
JC85964-70 - 1	11 Apr 2019 14:58:38	SMPL	ug/l	4.4678	8785	1.000	5.000
JC85964-71 - 1	11 Apr 2019 15:00:33	SMPL	ug/l	4.5454	8944	1.000	5.000
JC85964-72 - 1	11 Apr 2019 15:02:27	SMPL	ug/l	16.4488	33329	1.000	5.000
JC85964-73 - 1	11 Apr 2019 15:04:21	SMPL	ug/l	23.3141	47393	1.000	5.000
JC85964-74 - 1	11 Apr 2019 15:06:29	SMPL	ug/l	8.6897	17434	1.000	5.000
JC85964-75 - 1	11 Apr 2019 15:08:44	SMPL	ug/l	6.4008	12745	1.000	5.000
CCV - 1	11 Apr 2019 15:10:46	CK STND	ug/l	101.6% 2.5390	25639	1.000	1.000
CCB - 1	11 Apr 2019 15:12:45	CK STND	ug/l	0.0203	-160	1.000	1.000
JC85964-76 - 1	11 Apr 2019 15:14:51	SMPL	ug/l	40.1068	81794	1.000	5.000
JC85964-77 - 1	11 Apr 2019 15:16:10	SMPL	ug/l	5.7384	11388	1.000	5.000
JC85964-78 - 1	11 Apr 2019 15:18:36	SMPL	ug/l	4.6479	9154	1.000	5.000
JC85964-79 - 1	11 Apr 2019 15:20:36	SMPL	ug/l	2.5601	4877	1.000	5.000
JC85964-80 - 1	11 Apr 2019 15:22:34	SMPL	ug/l	4.7758	9416	1.000	5.000
SAMPLECONF - 1	11 Apr 2019 15:24:24	SMPL	ug/l	22.1094	44925	1.000	5.000
JC85964-6 - 1	11 Apr 2019 15:26:19	SMPL	ug/l	3.7030	37562	1.000	1.000
JC85964-61 - 1	11 Apr 2019 15:28:33	SMPL	ug/l	4.7510	48296	1.000	1.000
JC85964-62 - 1	11 Apr 2019 15:30:47	SMPL	ug/l	2.9914	30273	1.000	1.000
CCV - 1	11 Apr 2019 15:32:59	CK STND	ug/l	100.9% 2.5219	25464	1.000	1.000
CCB - 1	11 Apr 2019 15:35:07	CK STND	ug/l	-0.0009	-377	1.000	1.000
JC85964-69 - 1	11 Apr 2019 15:37:13	SMPL	ug/l	4.4712	45430	1.000	1.000
JC85964-70 - 1	11 Apr 2019 15:38:33	SMPL	ug/l	4.5165	45894	1.000	1.000
JC85964-71 - 1	11 Apr 2019 15:40:50	SMPL	ug/l	4.8231	49035	1.000	1.000
JC85964-13 - 1	11 Apr 2019 15:43:05	SMPL	ug/l	23.8650	24077	1.000	10.000
JC85964-14 - 1	11 Apr 2019 15:45:16	SMPL	ug/l	29.9483	30308	1.000	10.000
JC85964-15 - 1	11 Apr 2019 15:47:25	SMPL	ug/l	33.4063	33850	1.000	10.000
JC85964-76 - 1	11 Apr 2019 15:49:37	SMPL	ug/l	39.9289	40531	1.000	10.000
JC85964-78 - 1	11 Apr 2019 15:51:51	SMPL	ug/l	4.9601	50438	1.000	1.000
JC85964-79 - 1	11 Apr 2019 15:54:02	SMPL	ug/l	2.7322	27618	1.000	1.000
CCV - 1	11 Apr 2019 15:56:17	CK STND	ug/l	99.3% 2.4822	25057	1.000	1.000
CCB - 1	11 Apr 2019 15:58:24	CK STND	ug/l	0.0105	-260	1.000	1.000
JC85964-80 - 1	11 Apr 2019 16:00:31	SMPL	ug/l	4.6909	47681	1.000	1.000
JC85964-1 - 1	11 Apr 2019 16:01:51	SMPL	ug/l	4.2117	42772	1.000	1.000
SAMPLECONF - 1	11 Apr 2019 16:04:05	CK STND	ug/l	(H)140.2% 0.2803	2504	1.000	1.000
SAMPLECONF - 1	11 Apr 2019 16:08:05	CK STND	ug/l	(H)139.1% 0.2782	2482	1.000	1.000

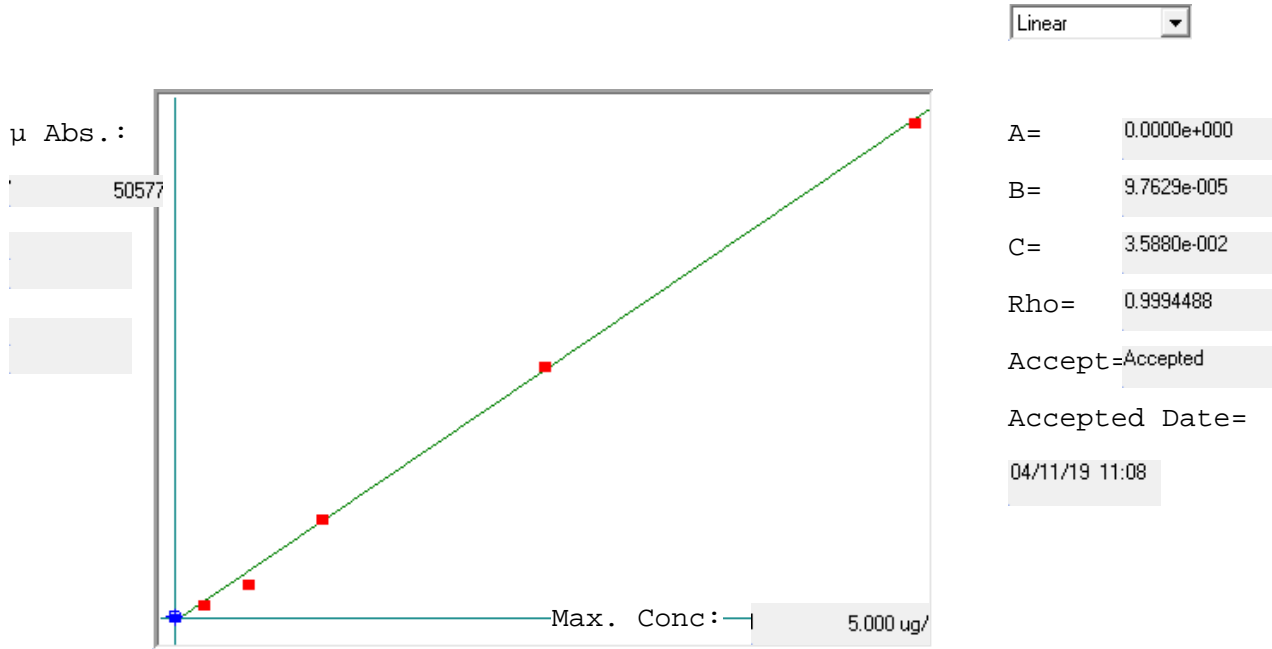
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Method: ACCUTEST Operator: Admin Date of Analysis: 11 Apr 2019 10:45:06

Sample ID	Date	Type	Units	Conc.	μ Abs.	Wt.	Vol.
CRI - 1	11 Apr 2019 16:10:24	CK STND	ug/l	119.0% 0.2381	2071	1.000	1.000
CCV - 1	11 Apr 2019 16:11:40	CK STND	ug/l	97.7% 2.4420	24646	1.000	1.000
CCB - 1	11 Apr 2019 16:13:20	CK STND	ug/l	0.0188	-175	1.000	1.000

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ACCUTEST



Std ID	Conc.	Calc.	Dev.	Mean	SD or %RSD	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
STDA	0.000	0.063	0.063	278	0.000	278				
STDB	0.200	0.182	-0.018	1501	0.0 %	1501				
STDC	0.500	0.394	-0.106	3664	0.0 %	3664				
STDD	1.000	1.033	0.033	10218	0.0 %	10218				
STDE	2.500	2.554	0.054	25791	0.0 %	25791				
STDF	5.000	4.974	-0.026	50577	0.0 %	50577				

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Sample Name: STDA Acquired: 4/11/2019 10:19:26 Type: Cal
 Method: SGS 3 NO Valve(v263) 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	0139	-0004	0007	-0000	-0001	0029	0002	-0002	-0002
Stddev	.0002	.0001	.0001	.0000	.0000	.0000	.0001	.0001	.0000
%RSD	1.080	31.25	10.45	76.93	11.48	1.496	30.99	39.74	15.92
#1	.0138	-.0006	.0008	-.0000	-.0001	.0029	.0002	-.0002	-.0002
#2	.0139	-.0004	.0008	-.0000	-.0001	.0029	.0003	-.0002	-.0002
#3	.0141	-.0003	.0006	-.0000	-.0001	.0029	.0002	-.0001	-.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	0004	-0001	0001	-0001	0005	-0001	0009	0003	0074
Stddev	.0000	.0001	.0000	.0000	.0002	.0002	.0001	.0004	.0001
%RSD	10.50	63.89	25.99	24.10	30.14	128.8	16.36	141.6	1.756
#1	.0004	-.0001	.0001	-.0001	.0004	-.0002	.0009	.0001	.0072
#2	.0004	-.0000	.0001	-.0001	.0007	-.0002	.0007	.0007	.0074
#3	.0004	-.0002	.0001	-.0001	.0004	.0001	.0009	.0000	.0075
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	-0002	0016	-0145	0009	-0004	0030	0007	-0016
Stddev	.0001	.0001	.0008	.0010	.0001	.0001	.0002	.0001	.0006
%RSD	38.45	76.70	52.17	6.645	15.42	31.56	6.516	9.751	41.56
#1	.0002	-.0003	.0006	-.0150	.0010	-.0003	.0028	.0008	-.0011
#2	.0004	-.0001	.0021	-.0151	.0008	-.0006	.0032	.0007	-.0023
#3	.0003	-.0000	.0020	-.0134	.0007	-.0004	.0030	.0007	-.0013
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S		
Avg	0001	0012	-0005	-0001	-0004	0009	-0102		
Stddev	.0000	.0002	.0001	.0001	.0004	.0003	.0001		
%RSD	22.13	18.87	13.16	156.7	95.53	28.06	.9908		
#1	.0001	.0009	-.0006	.0000	-.0002	.0006	-.0103		
#2	.0001	.0012	-.0004	-.0000	-.0002	.0010	-.0101		
#3	.0002	.0013	-.0005	-.0002	-.0008	.0012	-.0101		

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Sample Name: STDA Acquired: 4/11/2019 10:19:26 Type: Cal
 Method: SGS 3 NO Valve(v263) 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	157830	20210	7196.3	11094
Stddev	2203	50	106.3	135
%RSD	1.3959	.24556	1.4778	1.2210
#1	157700	20203	7148.1	11033
#2	160100	20165	7122.7	11000
#3	155700	20263	7318.3	11250

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Sample Name: STDb Acquired: 4/11/2019 10:24:31 Type: Cal
 Method: SGS 3 NO Valve(v263) 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	6982	9543	4109	2681	5757	9226	3215	2142	0670
Stddev	.009	.011	.004	.001	.0015	.0030	.004	.001	.0002
%RSD	.1214	.1112	.1031	.0374	.2600	.3239	.1414	.0383	.2922
#1	6.992	9.555	4.112	2.682	5.767	.9235	3.210	2.143	.0671
#2	6.980	9.537	4.104	2.681	5.765	.9250	3.217	2.142	.0672
#3	6.975	9.536	4.111	2.681	5.740	.9192	3.218	2.142	.0668
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	8265	6255	4186	2640	9539	3270	5724	3129	6531
Stddev	.0006	.012	.0010	.0021	.0010	.0005	.0003	.005	.011
%RSD	.0785	.1865	.2444	.7811	.1035	.1587	.0566	.1476	.1692
#1	.8269	6.261	.4181	.2622	.9540	.3272	.5721	3.134	6.544
#2	.8268	6.242	.4179	.2636	.9548	.3264	.5727	3.129	6.526
#3	.8257	6.264	.4198	.2663	.9528	.3273	.5724	3.125	6.524
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	3670	6787	1917	6762	8630	2656	1892	7991	1229
Stddev	.005	.0018	.004	.006	.0004	.005	.002	.0027	.01
%RSD	.1318	.2676	.2268	.0924	.0446	.1862	.1121	.3400	.1199
#1	3.675	.6806	1.921	6.769	.8629	2.654	1.892	.7974	12.30
#2	3.670	.6785	1.916	6.761	.8627	2.652	1.889	.7976	12.30
#3	3.665	.6769	1.912	6.757	.8634	2.662	1.893	.8022	12.28
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S		
Avg	6469	1408	1868	1970	6280	2124	2272		
Stddev	.0002	.002	.016	.0015	.0007	.002	.0005		
%RSD	.0307	.1593	.8288	.7519	.1068	.0758	.2011		
#1	.6467	1.407	1.860	.1958	.6273	2.126	.2270		
#2	.6469	1.407	1.886	.1966	.6284	2.123	.2268		
#3	.6471	1.411	1.859	.1986	.6285	2.124	.2277		

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Sample Name: STDb Acquired: 4/11/2019 10:24:31 Type: Cal
 Method: SGS 3 NO Valve(v263) 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	148330	19771	6680.9	9728.1
Stddev	108	69	24.5	25.3
%RSD	.07277	.34698	.36694	.26008
#1	148290	19695	6669.1	9709.1
#2	148250	19791	6709.1	9756.8
#3	148450	19828	6664.5	9718.4

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11.2
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Sample Name: CCVCONF Acquired: 4/11/2019 10:29:39 Type: QC Method: SGS 3 NO Valve(v263) 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 for various elements like Ba, Be, Cd, Co, Cr, Cu, Mn, Ni, Ag.

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, Units, Avg, Stddev, %RSD, #1, #2, #3 for elements V, Zn, As, Ti, Pb, Se, Sb, Al, Ca.

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, Units, Avg, Stddev, %RSD, #1, #2, #3 for elements Fe, Mg, K, Na, B, Mo, Si, Sn, Sr.

Check ? Value Range Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass

Sample Name: CCVCONF Acquired: 4/11/2019 10:29:39 Type: QC Method: SGS 3 NO Valve(v263) Mode: CONC Corr. Factor: 1.000000 User: admin Custom ID1: Custom ID2: Custom ID3: Comment:

Table with 13 columns: Elem, Units, Avg, Stddev, %RSD, #1, #2, #3 for elements Ti, W, Zr, S, Bi, Li, P.

Check ? Value Range Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass

Table with 4 columns: Int. Std. Units, Avg, Stddev, %RSD for Y, Zr, In elements.

Check ? Value Range Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass

Table with 8 columns: #1, #2, #3 for Y, Zr, In elements.

Sample Name: CCBCONF Acquired: 4/11/2019 10:34:42 Type: QC Method: SGS 3 NO Valve(v263) 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 for various elements like Ba, Be, Cd, Co, Cr, Cu, Mn, Ni, Ag.

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 10 columns: Elem, Units, Avg, Stddev, %RSD, #1, #2, #3 for elements V, Zn, As, Ti, Pb, Se, Sb, Al, Ca.

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 10 columns: Elem, Units, Avg, Stddev, %RSD, #1, #2, #3 for elements Fe, Mg, K, Na, B, Mo, Si, Sn, Sr.

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: CCBCONF Acquired: 4/11/2019 10:34:42 Type: QC Method: SGS 3 NO Valve(v263) Mode: CONC Corr. Factor: 1.000000 User: admin Custom ID1: Custom ID2: Custom ID3: Comment:

Table with 13 columns: Elem, Units, Avg, Stddev, %RSD, #1, #2, #3 for elements Ti, W, Zr, S, Bi, Li, P.

Check ? High Limit Low Limit Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Fail Chk Pass

Table with 4 columns: Int. Std. Units, Avg, Stddev, %RSD for Y, Zr, In elements.

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 8 columns: #1, #2, #3 for Y, Zr, In elements.

Sample Name: icv 1 Acquired: 4/11/2019 10:39:51 Type: QC
 Method: SGS 3 NO Valve(v263) 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	1.974	1.976	1.968	2.020	1.927	1.932	1.980	1.971	2.529
Stddev	.005	.004	.002	.002	.004	.003	.025	.002	.0005
%RSD	.2701	.2118	.0760	.0719	.2282	.1270	1.258	.1118	.2039
#1	1.968	1.972	1.967	2.022	1.931	1.934	1.996	1.974	2.532
#2	1.979	1.981	1.968	2.019	1.923	1.930	1.951	1.971	2.523
#3	1.973	1.976	1.970	2.019	1.926	1.931	1.993	1.970	2.532

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	1.947	1.948	1.919	2.010	1.952	1.930	1.905	39.39	39.33
Stddev	.002	.001	.001	.008	.002	.003	.002	.07	.06
%RSD	.0925	.0611	.0405	.3809	.0825	.1271	.1070	.1668	.1630
#1	1.949	1.947	1.918	2.019	1.954	1.933	1.903	39.34	39.26
#2	1.945	1.948	1.919	2.005	1.951	1.928	1.905	39.47	39.38
#3	1.948	1.949	1.919	2.006	1.953	1.929	1.907	39.38	39.35

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	39.72	40.02	39.71	40.08	1.986	1.924	5.223	1.940	1.973
Stddev	.03	.05	.09	.05	.003	.000	.003	.001	.002
%RSD	.0736	.1188	.2371	.1252	.1672	.0160	.0557	.0445	.0902
#1	39.70	40.08	39.60	40.06	1.986	1.925	5.221	1.941	1.972
#2	39.75	39.99	39.77	40.14	1.983	1.924	5.221	1.940	1.975
#3	39.70	40.01	39.76	40.04	1.989	1.924	5.226	1.940	1.972

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: icv 1 Acquired: 4/11/2019 10:39:51 Type: QC
 Method: SGS 3 NO Valve(v263) 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
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.928	F 1.871	1.905	F 1.873	F 1.865	1.905	1.985
Stddev	.001	.002	.001	.008	.003	.004	.006
%RSD	.0313	.0831	.0466	.4371	.1622	.2130	.3138
#1	1.929	1.873	1.906	1.882	1.865	1.901	1.993
#2	1.928	1.870	1.904	1.869	1.862	1.909	1.982
#3	1.927	1.871	1.905	1.868	1.868	1.903	1.982

Check ? Chk Pass Chk Fail Chk Pass Chk Fail Chk Fail Chk Pass Chk Pass
 Value Range -5.000% 2.000 -5.000% 2.000 2.000 -5.000%

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	152180.	19847.	6856.8	10004.
Stddev	918.	107.	20.0	21.
%RSD	.60304	.53737	.29113	.20648
#1	151130.	19799.	6879.6	10027.
#2	152820.	19969.	6848.5	9990.9
#3	152590.	19773.	6842.3	9992.4

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11.2
11

Sample Name: icb 7 Acquired: 4/11/2019 10:59:35 Type: QC
 Method: SGS 3 NO Valve(v263) 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	.0001	.0001	.0001	-0.003	-0.002	.0000	-0.001	.0001
Stddev	.0002	.0000	.0001	.0001	.0002	.0003	.0001	.0001	.0001
%RSD	45.73	4.498	66.31	159.4	78.79	127.8	1018.	103.6	87.54
#1	-0.003	.0001	.0001	-0.000	-0.004	.0000	-0.000	-0.000	.0000
#2	-0.002	.0001	.0000	.0000	-0.004	-0.002	.0001	-0.002	.0002
#3	-0.006	.0001	.0001	.0001	-0.000	-0.006	-0.000	-0.001	.0001

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	-0.002	.0000	.0005	-0.013	-0.001	.0010	.0013	.0098	-0.015
Stddev	.0004	.0001	.0011	.0007	.0001	.0022	.0011	.0018	.0025
%RSD	202.3	140.9	199.0	52.17	175.9	207.0	85.07	18.56	161.4
#1	-0.005	.0001	.0013	-0.012	-0.000	-0.008	.0007	.0119	-0.018
#2	-0.004	.0000	-0.007	-0.006	-0.000	.0004	.0027	.0086	.0011
#3	.0003	.0000	.0010	-0.019	-0.002	.0035	.0007	.0090	-0.039

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	.0015	.0110	-0.1326	-0.0132	-0.006	-0.002	-0.004	-0.004	.0001
Stddev	.0019	.0099	.0118	.0073	.0004	.0003	.0011	.0006	.0002
%RSD	126.2	89.62	8.869	55.43	75.71	153.3	284.0	140.7	201.6
#1	.0035	.0020	-.1192	-.0194	-.0005	-0.004	.0005	.0001	.0001
#2	.0013	.0095	-.1375	-.0051	-0.010	-0.003	-0.016	-0.011	.0002
#3	-0.003	.0215	-.1411	-0.0153	-0.0002	.0001	-0.001	-0.003	.0001

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: icb 7 Acquired: 4/11/2019 10:59:35 Type: QC
 Method: SGS 3 NO Valve(v263) 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
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.004	-0.011	-0.000	-0.016	.0018	-0.004	.0002
Stddev	.0004	.0004	.0001	.0013	.0013	.0010	.0008
%RSD	110.5	37.08	717.9	79.15	70.46	235.5	500.3
#1	.0000	-0.009	-0.001	-0.029	.0006	-0.010	-0.000
#2	-0.003	-0.016	.0001	-0.004	.0031	-0.010	.0010
#3	-0.008	-0.009	-0.001	-0.015	.0018	.0007	-0.005

Check ? 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	161010.	20236.	7132.7	11062.
Stddev	215.	67.	8.3	18.
%RSD	.13347	.33182	.11706	.16024
#1	160980.	20304.	7125.4	11042.
#2	161240.	20234.	7141.8	11069.
#3	160820.	20170.	7131.0	11076.

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Zoom In
Zoom Out

Sample Name: iccv 1 Acquired: 4/11/2019 11:04:56 Type: QC
Method: SGS 3 NO Valve(v263) 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	2.006	2.030	1.998	2.019	2.001	1.983	2.030	2.013	2.450
Stddev	.004	.006	.005	.006	.004	.004	.029	.004	.0004
%RSD	.1970	.3164	.2493	.2910	.1855	.1977	1.414	.2219	.1752
#1	2.007	2.036	2.003	2.025	2.002	1.981	2.020	2.018	2.453
#2	2.001	2.025	1.999	2.022	2.006	1.987	2.062	2.015	2.448
#3	2.010	2.036	1.996	2.017	1.997	1.979	2.044	2.012	2.445
#4	2.004	2.025	1.992	2.011	2.001	1.986	1.996	2.008	2.454

Check ?
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	2.009	1.955	2.057	2.007	1.977	1.969	39.84	40.10
Stddev	.004	.005	.006	.012	.006	.003	.003	.10	.08
%RSD	.1913	.2514	.2863	.5699	.2770	.1390	.1381	.2621	.1977
#1	2.005	2.016	1.956	2.054	2.013	1.978	1.971	39.88	40.14
#2	2.003	2.009	1.961	2.075	2.010	1.978	1.971	39.73	40.04
#3	2.000	2.007	1.957	2.051	2.003	1.978	1.965	39.97	40.19
#4	1.997	2.005	1.948	2.049	2.002	1.973	1.969	39.78	40.02

Check ?
Value
Range

Raw Data MA46484 page 13 of 413

Zoom In
Zoom Out

Sample Name: iccv 1 Acquired: 4/11/2019 11:04:56 Type: QC
Method: SGS 3 NO Valve(v263) 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	40.29	40.19	39.83	40.34	2.010	1.976	5.133	1.995	2.007
Stddev	.09	.09	.12	.09	.004	.004	.012	.005	.004
%RSD	.2289	.2171	.3088	.2342	.2222	.1938	.2303	.2388	.2137
#1	40.34	40.21	39.82	40.35	2.016	1.981	5.146	2.000	2.010
#2	40.24	40.28	39.69	40.34	2.009	1.978	5.135	1.999	2.006
#3	40.39	40.19	39.99	40.44	2.008	1.975	5.133	1.994	2.011
#4	40.19	40.07	39.83	40.21	2.006	1.972	5.118	1.989	2.001

Check ?
Value
Range

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.975	1.933	1.982	1.962	1.987	2.019	1.941
Stddev	.002	.005	.002	.008	.005	.005	.012
%RSD	.0991	.2482	.1211	.4241	.2703	.2554	.6103
#1	1.975	1.939	1.983	1.960	1.990	2.020	1.925
#2	1.977	1.933	1.985	1.974	1.994	2.014	1.953
#3	1.974	1.933	1.982	1.957	1.982	2.026	1.940
#4	1.972	1.927	1.979	1.957	1.984	2.016	1.946

Check ?
Value
Range

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11.2
11

Zoom In
Zoom Out

Sample Name: iccv 1 Acquired: 4/11/2019 11:04:56 Type: QC
Method: SGS 3 NO Valve(v263) 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	152830.	19986.	6932.8	10115.
Stddev	664.	81.	15.5	21.
%RSD	.43431	.40496	.22412	.20830
#1	152270.	20077.	6912.3	10088.
#2	152850.	19889.	6937.4	10116.
#3	152440.	19967.	6949.6	10139.
#4	153750.	19930.	6932.2	10118.

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Zoom In
Zoom Out

Sample Name: ccb 7 Acquired: 4/11/2019 11:11:57 Type: QC
Method: SGS 3 NO Valve(v263) 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	.0007	.0004	.0001	.0004	.0001	.0004	.0004	.0000
Stddev	.0004	.0001	.0002	.0001	.0001	.0005	.0005	.0005	.0006
%RSD	51.75	19.85	46.55	138.1	33.69	483.4	21.50	114.2	1220.
#1	.0006	.0008	.0006	-.0000	.0005	.0007	.0005	.0008	.0004
#2	.0011	.0006	.0003	.0002	.0004	-.0001	.0003	-.0001	.0003
#3	.0004	.0006	.0003	.0000	.0003	-.0002	.0004	.0006	-.0006

Check ?
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	.0004	.0004	.0008	.0009	-.0005	.0012	.0005	.0034	.0120
Stddev	.0005	.0000	.0009	.0007	.0004	.0019	.0014	.0126	.0043
%RSD	143.9	10.44	115.4	68.87	72.38	158.6	261.6	376.1	35.57
#1	.0010	.0004	-.0002	.0002	-.0002	.0022	.0004	.0116	.0160
#2	.0002	.0004	.0015	.0012	-.0005	.0024	.0020	.0097	.0075
#3	-.0000	.0003	.0011	.0014	-.0009	-.0010	-.0008	-.0112	.0126

Check ?
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	.0128	.0132	-.0564	.0142	.0005	.0004	.0006	-.0000	.0006
Stddev	.0033	.0149	.0323	.0032	.0007	.0001	.0004	.0002	.0001
%RSD	25.66	112.6	57.25	22.46	150.6	30.08	64.12	891.3	18.95
#1	.0166	.0163	-.0257	.0105	.0008	.0002	.0003	-.0002	.0007
#2	.0111	-.0030	-.0535	.0164	.0010	.0004	.0011	-.0001	.0006
#3	.0108	.0263	-.0901	.0157	-.0004	.0004	.0005	.0002	.0005

Check ?
High Limit
Low Limit

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Sample Name: ccb 7 Acquired: 4/11/2019 11:11:57 Type: QC
Method: SGS 3 NO Valve(v263) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Table with 8 columns: Elem, Units, Ti3349, W_2079, Zr3391, S_1820, Bi2230, Li6707, P_1774. Rows include Avg, Stddev, %RSD and replicates #1, #2, #3.

Table with 8 columns: #1, #2, #3. Values for various elements and units.

Check ? High Limit Low Limit

Table with 5 columns: Int. Std. Units, Y_3600, Y_3710, Y_2243, In2306. Rows include Avg, Stddev, %RSD and replicates #1, #2, #3.

Table with 5 columns: #1, #2, #3. Values for various elements and units.

Sample Name: CRI Acquired: 4/11/2019 11:16:07 Type: QC
Method: SGS 3 NO Valve(v263) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Table with 12 columns: Elem, Units, Ba4554, Be3130, Cd2288, Co2286, Cr2677, Cu3247, Mn2576, Ni2316, Ag3280. Rows include Avg, Stddev, %RSD and replicates #1, #2, #3.

Table with 12 columns: #1, #2, #3. Values for various elements and units.

Check ? Value Range

Table with 12 columns: Elem, Units, V_2924, Zn2062, As1890, Tl1908, Pb2203, Se1960, Sb2068, Al3961, Ca3179. Rows include Avg, Stddev, %RSD and replicates #1, #2, #3.

Table with 12 columns: #1, #2, #3. Values for various elements and units.

Check ? Value Range

Table with 12 columns: Elem, Units, Fe2599, Mg2790, K_7664, Na5895, B_2089, Mo2020, Si2124, Sn1899, Sr4077. Rows include Avg, Stddev, %RSD and replicates #1, #2, #3.

Table with 12 columns: #1, #2, #3. Values for various elements and units.

Check ? Value Range

11.2 1

Sample Name: CRI Acquired: 4/11/2019 11:16:07 Type: QC
Method: SGS 3 NO Valve(v263) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Table with 8 columns: Elem, Units, Ti3349, W_2079, Zr3391, S_1820, Bi2230, Li6707, P_1774. Rows include Avg, Stddev, %RSD and replicates #1, #2, #3.

Table with 8 columns: #1, #2, #3. Values for various elements and units.

Check ? Value Range

Table with 5 columns: Int. Std. Units, Y_3600, Y_3710, Y_2243, In2306. Rows include Avg, Stddev, %RSD and replicates #1, #2, #3.

Table with 5 columns: #1, #2, #3. Values for various elements and units.

Sample Name: CRID Acquired: 4/11/2019 11:21:10 Type: QC
Method: SGS 3 NO Valve(v263) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Table with 12 columns: Elem, Units, Ba4554, Be3130, Cd2288, Co2286, Cr2677, Cu3247, Mn2576, Ni2316. Rows include Avg, Stddev, %RSD and replicates #1, #2, #3.

Table with 12 columns: #1, #2, #3. Values for various elements and units.

Check ? Value Range

Table with 12 columns: Elem, Units, Ag3280, V_2924, Zn2062, As1890, Tl1908, Pb2203, Se1960, Sb2068. Rows include Avg, Stddev, %RSD and replicates #1, #2, #3.

Table with 12 columns: #1, #2, #3. Values for various elements and units.

Check ? Value Range

Table with 12 columns: Elem, Units, Al3961, Ca3179, Fe2599, Mg2790, K_7664, Na5895, B_2089, Mo2020. Rows include Avg, Stddev, %RSD and replicates #1, #2, #3.

Table with 12 columns: #1, #2, #3. Values for various elements and units.

Check ? Value Range

Sample Name: ICSAB Acquired: 4/11/2019 11:41:45 Type: QC
 Method: SGS 3 NO Valve(v263) 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
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4870	.4615	.4892	.4689	.4684	.5089	.4845
Stddev	.0027	.0024	.0035	.0032	.0027	.0047	.0013
%RSD	.5628	.5147	.7079	.6840	.5763	.9184	.2640

#1	.4838	.4595	.4852	.4653	.4654	.5077	.4840
#2	.4882	.4641	.4915	.4713	.4706	.5140	.4860
#3	.4888	.4609	.4908	.4702	.4691	.5049	.4836

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
 Value Range

Int. Std. Units	Y_3600 Cts/S	Y_3710 Cts/S	Y_2243 Cts/S	In2306 Cts/S
Avg	139440.	19430.	6324.8	9118.3
Stddev	699.	77.	25.2	31.9
%RSD	.50100	.39522	.39892	.34946

#1	140210.	19507.	6347.6	9144.8
#2	139250.	19353.	6297.7	9082.9
#3	138850.	19430.	6329.1	9127.2

Sample Name: emptyconf Acquired: 4/11/2019 11:46:55 Type: Unk
 Method: SGS 3 NO Valve(v263) 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	-.0024	-.0003	*****	*****	W_ .0020	-.0009	-.0006	*****
Stddev	.0004	.0001	----	----	.0019	.0029	.0003	----
%RSD	17.69	25.68	----	----	96.86	310.6	56.68	----

#1	-.0027	-.0003	----	----	.0002	-.0041	-.0002	----
#2	-.0019	-.0003	8.096	8.112	-.0029	.0017	-.0007	8.048
#3	-.0025	-.0004	8.073	8.099	-.0034	-.0004	-.0008	8.033

Elem Ag3280 V_2924 Zn2062 As1890 Tl1908 Pb2203 Se1960 Sb2068
 Units ppm ppm ppm ppm ppm ppm ppm ppm
 Avg -.0001 .0010 *****
 Stddev .0001 .0015
 %RSD 132.6 145.2

#1	-.0002	-.0007	----	----	----	----	----	----
#2	.0000	.0020	8.391	7.978	7.862	8.188	8.052	8.398
#3	-.0001	.0018	8.377	7.980	7.888	8.166	8.040	8.352

Elem Al3961 Ca3179 Fe2599 Mg2790 K_7664 Na5895 B_2089 Mo2020
 Units ppm ppm ppm ppm ppm ppm ppm ppm
 Avg F -.2508 -.0418 -.0176 .1166 .0175 .0104
 Stddev .2189 .0342 .0134 .0983 .1188 .0036
 %RSD 87.29 81.98 76.16 84.31 677.5 34.92

#1	.0020	-.0023	-.0021	.0031	-.1153	.0138	----	----
#2	-.3764	-.0591	-.0249	.1716	.1136	.0066	8.212	8.230
#3	-.3779	-.0639	-.0257	.1751	.0543	.0106	8.189	8.217

Elem Si2124 Sn1899 Sr4077 Ti3349 W_2079 Zr3391 S_1820 Bi2230
 Units ppm ppm ppm ppm ppm ppm ppm ppm
 Avg *****
 Stddev
 %RSD

#1	----	----	-.0000	-.0004	----	-.0002	----	----
#2	27.74	8.352	-.0010	-.0124	8.386	-.0106	91.37	7.216
#3	27.78	8.354	-.0010	-.0122	8.372	-.0107	91.55	7.190

Sample Name: emptyconf Acquired: 4/11/2019 11:46:55 Type: Unk
 Method: SGS 3 NO Valve(v263) Mode: CONC Corr. Factor: 1.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Li6707	P_1774
Units	ppm	ppm
Avg	-.0028	6.223
Stddev	.0001	1.453
%RSD	4.487	23.34

#1	-.0028	4.545
#2	-.0027	7.049
#3	-.0029	7.074

Int. Std. Units	Y_3600 Cts/S	Y_3710 Cts/S	Y_2243 Cts/S	In2306 Cts/S
Avg	281920.	30581.	7258.0	11284.
Stddev	3777.	174.	794.3	1175.
%RSD	1.3399	.57038	10.943	10.414

#1	281890.	30743.	8174.8	12641.
#2	278160.	30397.	6819.3	10635.
#3	285710.	30603.	6779.8	10577.

Sample Name: HSTD Acquired: 4/11/2019 11:52:01 Type: QC
 Method: SGS 3 NO Valve(v263) 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	.0001	.0003	.0011	-.0010	-.0057	.0043	.0005	.0033
Stddev	.0003	.0001	.0002	.0002	.0001	.0004	.0002	.0004	.0003
%RSD	43.65	66.47	71.01	19.43	12.21	6.468	4.657	82.02	10.24

#1	.0003	.0000	.0005	.0012	-.0011	-.0052	.0041	.0008	.0029
#2	.0009	.0001	.0001	.0011	-.0009	-.0059	.0044	.0000	.0036
#3	.0008	.0001	.0004	.0008	-.0009	-.0058	.0044	.0008	.0034

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
 Avg -.0036 .0005 .0018 -.0008 .0020 -.0020 .0027 308.3 199.4
 Stddev .0009 .0001 .0023 .0017 .0011 .0041 .0031 3.2 1.4
 %RSD 24.09 24.43 128.1 206.4 53.04 201.5 114.1 1.022 .7147

#1	-.0035	.0006	.0037	-.0019	.0019	-.0031	-.0007	309.0	198.7
#2	-.0045	.0003	.0024	-.0011	.0010	-.0055	.0054	304.9	201.0
#3	-.0028	.0005	-.0007	-.0016	.0032	.0025	.0034	311.1	198.4

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
 Avg 204.2 303.0 202.3 199.6 .0010 .0008 .0027 .0010 -.0003
 Stddev .3 .8 1.1 5.0 .0005 .0003 .0024 .0002 .0001
 %RSD .1606 .2668 .5503 2.515 47.75 37.69 89.21 16.04 33.81

#1	204.6	303.7	203.4	204.8	.0015	.0010	.0054	.0011	-.0004
#2	204.2	303.2	202.1	194.8	.0009	.0009	.0009	.0010	-.0003
#3	203.9	302.2	201.2	199.2	.0006	.0005	.0017	.0008	-.0002

Check ? Value Range
 Chk Pass Chk Pass Chk Pass Chk Pass None None None None None

Sample Name: FECONF Acquired: 4/11/2019 12:03:17 Type: Unk
 Method: SGS 3 NO Valve(v263) Mode: CONC Corr. Factor: 1.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Li6707	P_1774		
Units	ppm	ppm		
Avg	-0048	-0020		
Stddev	.0005	.0016		
%RSD	9.696	80.99		
#1	-.0054	-.0003		
#2	-.0047	-.0035		
#3	-.0045	-.0022		
Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	156720.	19847.	6936.3	10850.
Stddev	358.	169.	15.3	19.
%RSD	.22847	.85216	.22005	.17910
#1	156320.	19818.	6920.5	10829.
#2	157020.	19693.	6951.0	10867.
#3	156810.	20028.	6937.3	10853.

Sample Name: CRCONF Acquired: 4/11/2019 12:08:23 Type: Unk
 Method: SGS 3 NO Valve(v263) 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	-0006	-0001	-0003	-0006	9.770	-0004	-0016	-0000	-0001
Stddev	.0004	.0000	.0003	.0001	.067	.0001	.0000	.0004	.0008
%RSD	59.87	38.10	100.8	11.02	.6845	16.76	2.290	7184.	1103.
#1	-.0009	-.0001	-.0001	-.0007	9.756	-.0004	-.0016	.0002	.0001
#2	-.0002	-.0001	-.0006	-.0006	9.842	-.0004	-.0016	-.0005	-.0009
#3	-.0007	-.0001	-.0002	-.0006	9.710	-.0005	-.0016	.0003	.0006
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0003	.0022	.0012	-0018	-0003	.0006	.0004	.0024	.0009
Stddev	.0008	.0001	.0010	.0021	.0007	.0021	.0031	.0121	.0016
%RSD	302.9	4.381	82.84	114.2	235.3	352.9	724.7	511.8	175.2
#1	.0002	.0023	.0004	.0006	-.0011	-.0011	-.0001	-.0077	.0021
#2	.0002	.0022	.0023	-.0029	.0004	.0030	-.0023	.0157	-.0009
#3	-.0012	.0021	.0009	-.0031	-.0003	-.0001	.0037	-.0009	.0014
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0024	-0018	-1073	.0125	.0028	.0001	.0067	-0004	-0001
Stddev	.0018	.0032	.0245	.0105	.0005	.0003	.0005	.0007	.0000
%RSD	72.76	174.7	22.79	83.62	19.58	334.7	7.728	203.4	50.66
#1	-.0015	-.0053	-.1265	.0212	.0033	.0001	.0062	-.0012	-.0001
#2	-.0013	.0009	-.1157	.0009	.0028	-.0002	.0067	.0000	-.0000
#3	-.0044	-.0010	-.0798	.0155	.0022	.0004	.0073	.0001	-.0001
Elem	Tl3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	-0028	.0027	.0036	-0006	-0013	.0066	-0095		
Stddev	.0004	.0003	.0001	.0014	.0021	.0011	.0032		
%RSD	15.22	11.17	3.843	241.5	167.7	17.32	33.70		
#1	-.0024	.0024	.0035	-.0006	-.0003	.0078	-.0132		
#2	-.0028	.0030	.0037	-.0020	.0002	.0055	-.0081		
#3	-.0033	.0026	.0036	.0008	-.0037	.0064	-.0073		

Sample Name: CRCONF Acquired: 4/11/2019 12:08:23 Type: Unk
 Method: SGS 3 NO Valve(v263) 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	160360.	20100.	6884.0	10945.
Stddev	341.	94.	14.2	18.
%RSD	.21270	.46908	.20609	.16686
#1	160260.	20207.	6874.9	10932.
#2	160080.	20033.	6876.7	10938.
#3	160740.	20059.	6900.3	10966.

Sample Name: hstd Acquired: 4/11/2019 12:13:39 Type: QC
 Method: SGS 3 NO Valve(v263) 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	8.188	8.084	8.041	8.082	8.237	8.204	8.179	8.050	8.410
Stddev	.151	.098	.013	.009	.007	.011	.055	.008	.0008
%RSD	1.845	1.207	.1653	.1167	.0824	.1380	.6780	.0976	.1302
#1	8.356	8.103	8.037	8.092	8.237	8.192	8.141	8.058	.6406
#2	8.063	8.171	8.056	8.081	8.244	8.215	8.242	8.049	.6420
#3	8.147	7.979	8.031	8.073	8.231	8.205	8.153	8.043	.6405
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	8.101	8.334	8.020	8.297	8.167	8.092	8.208	.0433	-0.180
Stddev	.043	.014	.027	.055	.009	.016	.006	.0052	.0016
%RSD	.5320	.1665	.3420	.6646	.1036	.1937	.0686	12.01	8.967
#1	8.104	8.319	8.039	8.339	8.175	8.106	8.208	.0389	-0.179
#2	8.057	8.347	8.033	8.318	8.168	8.094	8.214	.0490	-0.197
#3	8.143	8.337	7.989	8.235	8.158	8.075	8.203	.0420	-0.165
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	-0282	.0755	.3931	.0812	8.202	8.259	27.16	8.425	8.206
Stddev	.0020	.0087	.0170	.0039	.008	.013	.03	.019	.036
%RSD	6.943	11.50	4.334	4.771	.0931	.1543	.1272	.2276	.4441
#1	-.0292	.0706	.3872	.0780	8.200	8.263	27.12	8.424	8.204
#2	-.0293	.0704	.3798	.0855	8.210	8.270	27.18	8.444	8.243
#3	-.0259	.0855	.4123	.0802	8.195	8.245	27.18	8.406	8.170
Check ?	None	None	None	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Sample Name: hstd Acquired: 4/11/2019 12:13:39 Type: QC
Method: SGS 3 NO Valve(v263) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Table with 8 columns: Elem, Units, Avg, Stddev, %RSD. Rows for Ti3349, W_2079, Zr3391, S_1820, Bi2230, Li6707, P_1774.

Table with 8 columns: #1, #2, #3. Rows for 8.109, 8.144, 8.147.

Check ? Value Range 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, ln2306. Rows for Avg, Stddev, %RSD.

Table with 4 columns: #1, #2, #3. Rows for 155140., 154680., 154680.

Sample Name: CCV Acquired: 4/11/2019 12:19:33 Type: QC
Method: SGS 3 NO Valve(v263) 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 for Ba4554, Be3130, Cd2288, Co2286, Cr2677, Cu3247, Mn2576, Ni2316, Ag3280.

Table with 11 columns: #1, #2, #3. Rows for 2.023, 2.023, 2.022.

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 10 columns: Elem, Units, Avg, Stddev, %RSD. Rows for V_2924, Zn2062, As1890, Ti1908, Pb2203, Se1960, Sb2068, Al3961, Ca3179.

Table with 10 columns: #1, #2, #3. Rows for 2.028, 2.031, 2.033.

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 10 columns: Elem, Units, Avg, Stddev, %RSD. Rows for Fe2599, Mg2790, K_7664, Na5895, B_2089, Mo2020, Si2124, Sn1899, Sr4077.

Table with 10 columns: #1, #2, #3. Rows for 40.59, 40.63, 40.58.

Check ? Value Range Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass

11.2 11

Sample Name: CCV Acquired: 4/11/2019 12:19:33 Type: QC
Method: SGS 3 NO Valve(v263) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Table with 8 columns: Elem, Units, Avg, Stddev, %RSD. Rows for Ti3349, W_2079, Zr3391, S_1820, Bi2230, Li6707, P_1774.

Table with 8 columns: #1, #2, #3. Rows for 2.003, 2.003, 2.009.

Check ? Value Range 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, ln2306. Rows for Avg, Stddev, %RSD.

Table with 4 columns: #1, #2, #3. Rows for 151250., 150030., 150180.

Sample Name: CCB Acquired: 4/11/2019 12:24:34 Type: QC
Method: SGS 3 NO Valve(v263) 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 for Ba4554, Be3130, Cd2288, Co2286, Cr2677, Cu3247, Mn2576, Ni2316, Ag3280.

Table with 11 columns: #1, #2, #3. Rows for -0.003, -0.003, -0.001.

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

Table with 10 columns: Elem, Units, Avg, Stddev, %RSD. Rows for V_2924, Zn2062, As1890, Ti1908, Pb2203, Se1960, Sb2068, Al3961, Ca3179.

Table with 10 columns: #1, #2, #3. Rows for -0.002, -0.001, -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 Chk Pass

Table with 10 columns: Elem, Units, Avg, Stddev, %RSD. Rows for Fe2599, Mg2790, K_7664, Na5895, B_2089, Mo2020, Si2124, Sn1899, Sr4077.

Table with 10 columns: #1, #2, #3. Rows for -0.024, -0.001, -0.032.

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

Sample Name: CCB Acquired: 4/11/2019 12:24:34 Type: QC
Method: SGS 3 NO Valve(v263) 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
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0003	-0.0006	-0.0000	.0005	-0.0007	F .0159	-0.0043
Stddev	.0007	.0006	.0002	.0026	.0009	.0005	.0012
%RSD	228.2	100.2	747.7	570.5	138.6	3.192	28.97
#1	.0001	-0.0003	.0001	.0032	-0.012	.0164	-0.0057
#2	-0.0010	-0.0002	-0.0001	.0002	-0.0012	.0154	-0.0035
#3	.0000	-0.0013	-0.0002	-0.0020	.0004	.0159	-0.0036
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						.0040	
Low Limit						-0.0040	
Int. Std.	Y_3600	Y_3710	Y_2243	In2306			
Units	Cts/S	Cts/S	Cts/S	Cts/S			
Avg	160750.	19746.	7077.5	10971.			
Stddev	535.	212.	4.1	4.			
%RSD	.33302	1.0734	.05846	.03550			
#1	161310.	19925.	7075.9	10972.			
#2	160680.	19511.	7082.2	10967.			
#3	160240.	19800.	7074.4	10974.			

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Sample Name: ASCONF Acquired: 4/11/2019 12:29:43 Type: Unk
Method: SGS 3 NO Valve(v263) 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	-0.0008	-0.0001	-0.0007	-0.0003	-0.0005	-0.0000	-0.0000	-0.0001	-0.0000
Stddev	.0003	.0001	.0003	.0001	.0001	.0001	.0000	.0005	.0004
%RSD	38.55	105.1	45.85	32.32	32.14	23.10	46.38	446.0	956.7
#1	-0.0005	-0.0002	-0.0004	-0.0002	-0.0006	-0.0003	-0.0000	-0.0005	-0.0002
#2	-0.0011	.0000	-0.0010	-0.0003	-0.0003	-0.0003	-0.0000	.0004	-0.0004
#3	-0.0008	-0.0001	-0.0006	-0.0004	-0.0004	-0.0004	-0.0000	-0.0002	.0004
Elem	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0002	-0.0003	5.299	-0.0019	-0.0008	.0006	-0.0007	.0036	-0.0548
Stddev	.0004	.0001	.011	.0001	.0006	.0013	.0019	.0093	.0012
%RSD	184.3	22.39	2098	5.852	66.63	221.9	272.4	258.8	2.212
#1	.0000	-0.0002	5.292	-0.0018	-0.0005	.0020	.0001	.0005	-0.0559
#2	-0.0000	-0.0003	5.312	-0.0020	-0.0005	.0002	-0.0029	.0140	-0.0535
#3	-0.0007	-0.0003	5.294	-0.0019	-0.0015	-0.0005	.0007	-0.0037	-0.0551
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0020	.0012	-1.357	-0.0072	.0031	-0.0002	.0019	-0.0004	-0.0001
Stddev	.0018	.0142	.0391	.0084	.0009	.0001	.0010	.0006	.0000
%RSD	88.07	1213.	28.84	117.5	27.53	25.12	51.19	153.0	28.88
#1	-0.0037	-0.0101	-1.116	.0026	.0033	-0.0002	.0030	-0.0008	-0.0001
#2	-0.0002	-0.0035	-1.147	-0.0122	.0038	-0.0002	.0018	-0.0008	-0.0001
#3	-0.0020	.0171	-1.809	-0.0119	.0022	-0.0003	.0010	.0003	-0.0001
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	-0.0006	-0.0018	-0.0001	-0.0033	.0005	.0088	-0.0050		
Stddev	.0002	.0008	.0001	.0018	.0010	.0013	.0012		
%RSD	43.25	45.16	160.8	54.76	215.9	15.23	23.54		
#1	-0.0004	-0.0011	.0000	-0.0025	.0005	.0089	-0.0061		
#2	-0.0008	-0.0015	-0.0001	-0.0054	-0.0005	.0074	-0.0052		
#3	-0.0005	-0.0027	-0.0002	-0.0021	.0015	.0101	-0.0037		

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11.2

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Sample Name: ASCONF Acquired: 4/11/2019 12:29:43 Type: Unk
Method: SGS 3 NO Valve(v263) 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	160230.	19991.	7073.4	10969.
Stddev	830.	47.	13.0	21.
%RSD	.51790	.23701	.18367	.19067
#1	159320.	19948.	7063.9	10946.
#2	160430.	19983.	7068.1	10971.
#3	160950.	20041.	7088.2	10988.

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Sample Name: mp14033-mb1 7 Acquired: 4/11/2019 12:34:45 Type: Unk
Method: SGS 3 NO Valve(v263) 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	-0.0007	-0.0001	-0.0003	-0.0003	.0006	.0012	.0001	.0002	-0.0003
Stddev	.0001	.0001	.0001	.0001	.0003	.0004	.0000	.0005	.0003
%RSD	16.22	66.93	56.52	21.99	58.14	30.93	38.07	196.0	92.22
#1	-0.0006	-0.0002	-0.0004	-0.0002	.0009	.0008	.0001	.0003	-0.0006
#2	-0.0008	-0.0001	-0.0002	-0.0003	.0003	.0015	.0001	.0007	-0.0001
#3	-0.0006	-0.0000	-0.0001	-0.0003	.0004	.0012	.0001	-0.0003	-0.0002
Elem	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0003	.0085	.0004	-0.0003	-0.0006	.0008	-0.0000	.0050	.0580
Stddev	.0003	.0001	.0006	.0004	.0007	.0024	.0018	.0077	.0035
%RSD	82.60	.6201	157.0	140.2	105.9	284.7	118.10	152.2	5.952
#1	-0.0005	.0084	.0010	-0.0006	-0.0012	-0.0018	.0019	.0071	.0612
#2	-0.0000	.0085	-0.0002	-0.0004	.0001	.0016	-0.0002	.0115	.0544
#3	-0.0005	.0085	.0003	.0002	-0.0008	.0028	-0.0017	-0.0034	.0585
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0193	.0132	-1.633	-.0628	.0031	.0003	.0007	.0246	.0002
Stddev	.0036	.0314	.0413	.0046	.0007	.0000	.0013	.0002	.0001
%RSD	18.42	237.9	25.26	7.364	22.08	10.37	14.90	.6678	54.76
#1	.0166	-0.197	-1.992	.0658	-0.0032	.0003	.0100	.0246	.0001
#2	.0234	.0429	-1.724	.0651	.0024	.0003	.0074	.0247	.0003
#3	.0180	.0164	-1.183	.0575	.0038	.0003	.0087	.0244	.0001
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	.0002	-0.0009	-0.0001	.0033	-0.0010	.0053	.0218		
Stddev	.0001	.0008	.0002	.0014	.0008	.0015	.0005		
%RSD	26.89	95.07	179.8	43.39	75.71	28.09	2.454		
#1	.0002	-0.0003	-0.0000	.0050	.0004	.0043	.0211		
#2	.0002	-0.0019	.0000	.0026	.0007	.0045	.0221		
#3	.0003	-0.0006	-0.0003	.0025	.0019	.0070	.0220		

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Zoom In
Zoom Out

Sample Name: mp14033-mb1 7 Acquired: 4/11/2019 12:34:45 Type: Unk
Method: SGS 3 NO Valve(v263) 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	163210.	20279.	7162.9	11052.
Stddev	621.	6.	19.4	21.
%RSD	.38059	.03194	.27103	.18861
#1	163810.	20278.	7153.3	11048.
#2	163250.	20274.	7185.2	11075.
#3	162570.	20286.	7150.1	11034.

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Zoom In
Zoom Out

Sample Name: mp14033-b1 Acquired: 4/11/2019 12:39:50 Type: Unk
Method: SGS 3 NO Valve(v263) 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	1.986	1.949	1.968	1.945	1.939	1.980	1.959	2.582
Stddev	.004	.001	.002	.002	.005	.006	.008	.001	.0009
%RSD	.2059	.0371	.0769	.0844	.2516	.2993	.3985	.0714	.3625
#1	1.961	1.985	1.948	1.966	1.946	1.940	1.987	1.958	2.576
#2	1.954	1.986	1.949	1.969	1.950	1.943	1.980	1.958	2.592
#3	1.961	1.986	1.951	1.969	1.940	1.932	1.972	1.961	2.576
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.946	1.974	1.907	2.019	1.955	1.907	1.928	24.96	25.18
Stddev	.002	.001	.002	.001	.000	.001	.002	.01	.02
%RSD	.0926	.0330	.0813	.0556	.0216	.0673	.1008	.0398	.0710
#1	1.947	1.974	1.905	2.018	1.954	1.906	1.926	24.97	25.18
#2	1.948	1.975	1.907	2.020	1.955	1.908	1.929	24.96	25.16
#3	1.944	1.974	1.908	2.018	1.955	1.908	1.930	24.95	25.20
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	25.29	25.28	25.03	25.44	1.922	1.948	-0.0449	1.998	1.953
Stddev	.01	.04	.08	.03	.004	.001	.0018	.002	.001
%RSD	.0196	.1642	.3291	.1235	.2334	.0414	3.936	.0834	.0504
#1	25.29	25.24	24.95	25.45	1.918	1.947	-.0456	1.997	1.952
#2	25.28	25.28	25.02	25.41	1.923	1.948	-.0429	2.000	1.952
#3	25.29	25.32	25.11	25.47	1.927	1.949	-.0462	1.997	1.954
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	1.937	1.676	1.940	0.195	0.819	0.051	1.913		
Stddev	.001	.002	.002	.0016	.0015	.0010	.014		
%RSD	.0626	.0980	.0859	8.464	1.886	19.24	.7241		
#1	1.936	1.677	1.941	0.200	0.820	0.048	1.897		
#2	1.938	1.676	1.938	0.208	0.803	0.043	1.917		
#3	1.937	1.674	1.940	0.176	0.833	0.061	1.924		

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11.2
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Zoom In
Zoom Out

Sample Name: mp14033-b1 Acquired: 4/11/2019 12:39:50 Type: Unk
Method: SGS 3 NO Valve(v263) 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	154480.	19906.	6900.4	10210.
Stddev	322.	26.	5.9	4.
%RSD	.20826	.13050	.08507	.04241
#1	154340.	19934.	6897.5	10211.
#2	154260.	19883.	6896.7	10206.
#3	154850.	19900.	6907.2	10214.

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Zoom In
Zoom Out

Sample Name: mp14033-s1 Acquired: 4/11/2019 12:44:48 Type: Unk
Method: SGS 3 NO Valve(v263) 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	2.227	1.934	1.929	1.995	1.975	1.970	3.388	2.019	2.558
Stddev	.001	.001	.002	.002	.005	.005	.024	.002	.0007
%RSD	.0411	.0261	.0847	.0898	.2386	.2706	.6931	.0770	.2637
#1	2.227	1.934	1.931	1.997	1.971	1.964	3.410	2.020	2.555
#2	2.226	1.934	1.928	1.995	1.980	1.974	3.391	2.019	2.566
#3	2.227	1.935	1.928	1.993	1.974	1.972	3.364	2.017	2.554
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.024	2.088	1.880	2.004	1.986	1.868	1.485	83.59	35.53
Stddev	.002	.003	.003	.010	.004	.002	.001	.11	.05
%RSD	.1084	.1470	.1661	.5142	.1920	.1048	.0851	.1288	.1356
#1	2.022	2.091	1.884	2.015	1.990	1.871	1.495	83.60	35.51
#2	2.026	2.088	1.878	1.995	1.983	1.867	1.496	83.48	35.49
#3	2.023	2.085	1.878	2.001	1.983	1.867	1.494	83.70	35.58
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	105.8	43.32	38.26	25.96	1.876	1.861	3.439	1.895	1.947
Stddev	.1	.11	.03	.03	.002	.002	.012	.004	.003
%RSD	.1123	.2490	.0789	.1151	.1007	.1292	.3389	.2153	.1505
#1	105.8	43.30	38.25	25.93	1.877	1.864	3.450	1.900	1.948
#2	105.7	43.23	38.24	25.96	1.876	1.859	3.441	1.893	1.944
#3	105.9	43.44	38.30	25.99	1.873	1.860	3.427	1.892	1.950
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	5.938	.8859	1.877	.3581	1.749	.0666	4.660		
Stddev	.005	.0020	.002	.0028	.0012	.0015	.017		
%RSD	.0780	.2267	.1147	.7831	.7133	2.282	.3584		
#1	5.935	.8849	1.876	.3613	1.756	.0673	4.679		
#2	5.943	.8846	1.880	.3570	1.757	.0648	4.648		
#3	5.936	.8882	1.876	.3560	1.735	.0676	4.652		

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Sample Name: mp14033-s1 Acquired: 4/11/2019 12:44:48 Type: Unk
 Method: SGS 3 NO Valve(v263) 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	156640.	20360.	7040.5	10125.
Stddev	727.	140.	12.3	9.
%RSD	.46390	.68909	.17425	.08441
#1	157460.	20495.	7039.8	10127.
#2	156060.	20370.	7028.5	10116.
#3	156400.	20215.	7053.1	10133.

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Sample Name: mp14033-s2 Acquired: 4/11/2019 12:49:47 Type: Unk
 Method: SGS 3 NO Valve(v263) 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	2.189	1.915	1.914	1.973	1.967	1.965	3.399	2.002	2.548
Stddev	.022	.017	.013	.013	.010	.008	.040	.013	.0011
%RSD	1.019	.8745	.6943	.6641	.5169	.4021	1.187	.6589	.4142
#1	2.186	1.913	1.928	1.986	1.978	1.974	3.364	2.014	2.560
#2	2.168	1.900	1.901	1.960	1.960	1.960	3.390	1.988	2.541
#3	2.213	1.933	1.914	1.973	1.962	1.960	3.443	2.003	2.543
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.047	2.061	1.871	2.001	1.971	1.868	1.512	80.18	34.19
Stddev	.007	.016	.013	.004	.014	.017	.011	.72	.32
%RSD	.3288	.7895	.6755	.1996	.7060	.8938	.7053	.8954	.9442
#1	2.054	2.074	1.882	2.005	1.985	1.885	1.523	80.06	34.13
#2	2.041	2.043	1.857	1.999	1.957	1.852	1.501	79.52	33.89
#3	2.046	2.066	1.874	1.997	1.972	1.866	1.513	80.94	34.53
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	103.7	41.55	36.53	25.51	1.856	1.849	3.300	1.884	1.923
Stddev	.9	.40	.34	.25	.014	.012	.031	.013	.019
%RSD	.8673	.9539	.9178	.9763	.7253	.6484	.9271	.7121	1.003
#1	103.5	41.44	36.47	25.46	1.868	1.861	3.336	1.897	1.919
#2	103.0	41.21	36.24	25.29	1.841	1.837	3.280	1.871	1.906
#3	104.7	41.99	36.90	25.78	1.859	1.850	3.286	1.883	1.944
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	5.654	.9334	1.883	2.972	.1719	.0642	4.520		
Stddev	.016	.0082	.005	.0019	.0014	.0015	.031		
%RSD	.2883	.8741	.2755	.6256	.8142	2.295	.6807		
#1	5.671	.9395	1.889	2.984	.1717	.0642	4.528		
#2	5.638	.9241	1.879	2.951	.1733	.0627	4.486		
#3	5.653	.9366	1.882	2.982	.1705	.0656	4.546		

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11.2
11

Sample Name: mp14033-s2 Acquired: 4/11/2019 12:49:47 Type: Unk
 Method: SGS 3 NO Valve(v263) 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	156030.	20432.	7018.1	10112.
Stddev	871.	104.	52.4	63.
%RSD	.55791	.50684	.74691	.62578
#1	155310.	20428.	6987.0	10071.
#2	157000.	20538.	7078.6	10185.
#3	155800.	20331.	6988.6	10080.

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Sample Name: jc85997-1 Acquired: 4/11/2019 12:54:45 Type: Unk
 Method: SGS 3 NO Valve(v263) 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	.2942	.0014	-0.002	.0313	.0727	.0690	1.437	.0683	.0001
Stddev	.0006	.0001	.0001	.0001	.0002	.0001	.001	.0003	.0007
%RSD	.1947	9.892	82.56	.4641	.2948	.1107	.0316	.4700	491.6
#1	.2946	.0015	-0.003	.0311	.0725	.0690	1.437	.0680	.0008
#2	.2945	.0012	-0.001	.0314	.0729	.0689	1.437	.0687	-0.0006
#3	.2936	.0014	-0.001	.0314	.0726	.0690	1.437	.0683	.0002
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1319	.1764	.0122	.0017	.0307	-0.0004	.0054	52.61	9.307
Stddev	.0002	.0003	.0006	.0003	.0007	.0013	.0005	.06	.006
%RSD	.1200	.1447	4.705	15.04	2.239	288.0	9.533	.1048	.6637
#1	.1320	.1762	.0128	.0016	.0305	.0010	.0053	52.67	9.313
#2	.1317	.1767	.0118	.0015	.0301	-.0010	.0059	52.60	9.305
#3	.1320	.1763	.0119	.0020	.0315	-.0014	.0049	52.57	9.302
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	87.61	19.52	11.79	.7584	.0282	.0016	1.719	.0275	.0290
Stddev	.09	.02	.06	.0099	.0002	.0003	.016	.0008	.0000
%RSD	.1057	.0800	.5143	1.300	.6458	20.91	.9320	3.084	.0847
#1	87.69	19.51	11.84	.7538	.0279	.0012	1.701	.0285	.0290
#2	87.62	19.54	11.81	.7517	.0283	.0018	1.722	.0270	.0290
#3	87.51	19.52	11.72	.7697	.0283	.0017	1.733	.0270	.0290
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	3.789	.0053	.0130	2.547	.0984	.0685	2.896		
Stddev	.004	.0002	.0001	.0007	.0024	.0004	.006		
%RSD	.1061	3.800	1.091	.2709	2.457	.6029	.1948		
#1	3.785	.0055	.0129	2.546	.0994	.0686	2.892		
#2	3.790	.0053	.0130	2.554	.0956	.0680	2.893		
#3	3.793	.0051	.0132	2.540	.1001	.0688	2.902		

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Sample Name: jc85997-1 Acquired: 4/11/2019 12:54:45 Type: Unk
Method: SGS 3 NO Valve(v263) 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	161280.	20717.	7215.4	10502.
Stddev	941.	102.	6.3	9.
%RSD	.58336	.49417	.08679	.08549
#1	160230.	20646.	7208.6	10494.
#2	162050.	20834.	7220.9	10512.
#3	161550.	20670.	7216.6	10499.

Sample Name: mp14033-sd1 Acquired: 4/11/2019 12:59:44 Type: Unk
Method: SGS 3 NO Valve(v263) 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	.2937	.0011	-.0013	.0302	.0717	.0727	1.454	.0707	.0000
Stddev	.0009	.0003	.0013	.0005	.0002	.0016	.009	.0013	.0011
%RSD	.2934	29.17	101.4	1.817	.2107	2.250	.6044	1.869	9481.
#1	.2946	.0013	.0002	.0296	.0719	.0728	1.448	.0701	.0003
#2	.2929	.0007	-.0017	.0306	.0716	.0743	1.451	.0722	-.0012
#3	.2936	.0011	-.0024	.0304	.0717	.0710	1.465	.0697	.0009
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1323	.2080	.0156	-.0028	.0287	.0070	.0037	53.15	9.484
Stddev	.0021	.0018	.0028	.0016	.0037	.0025	.0023	.28	.075
%RSD	1.604	.8686	18.21	57.81	12.99	35.90	62.47	.5180	.7866
#1	.1317	.2065	.0161	-.0046	.0262	.0100	.0020	53.31	9.568
#2	.1306	.2076	.0125	-.0015	.0330	.0055	.0028	52.83	9.426
#3	.1347	.2100	.0181	-.0022	.0269	.0057	.0063	53.31	9.458
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	89.14	19.80	11.23	.7230	.0347	.0022	1.747	.0253	.0289
Stddev	.52	.07	.17	.0089	.0020	.0010	.024	.0037	.0002
%RSD	.5830	.3563	1.547	1.224	5.846	44.87	1.382	14.80	6.112
#1	89.66	19.87	11.38	.7200	.0344	.0011	1.749	.0230	.0288
#2	88.62	19.73	11.26	.7160	.0329	.0026	1.722	.0232	.0287
#3	89.15	19.78	11.04	.7329	.0369	.0029	1.770	.0296	.0291
Elem	Tl3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	3.781	.0131	.0129	.2379	.0906	.0802	2.819		
Stddev	.026	.0033	.0010	.0109	.0008	.0113	.026		
%RSD	.7020	24.85	7.913	4.592	8.557	14.06	.9159		
#1	3.766	.0138	.0121	.2494	.0912	.0734	2.839		
#2	3.765	.0160	.0141	.2276	.0908	.0932	2.829		
#3	3.811	.0096	.0126	.2368	.0897	.0740	2.790		

Sample Name: mp14033-sd1 Acquired: 4/11/2019 12:59:44 Type: Unk
Method: SGS 3 NO Valve(v263) 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	159320.	20150.	7121.0	10751.
Stddev	942.	165.	54.1	71.
%RSD	.59143	.82106	.76000	.66332
#1	160390.	19961.	7148.3	10788.
#2	158980.	20265.	7156.1	10796.
#3	158600.	20226.	7058.7	10669.

Sample Name: mpcnf Acquired: 4/11/2019 13:04:47 Type: Unk
Method: SGS 3 NO Valve(v263) 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	-.0001	-.0004	-.0003	-.0005	.0021	-.0001	.0007	-.0001
Stddev	.0001	.0000	.0001	.0003	.0002	.0004	.0000	.0003	.0003
%RSD	40.25	9.684	27.10	91.96	44.55	19.68	32.86	43.37	264.0
#1	-.0002	-.0001	-.0004	-.0005	-.0007	.0025	-.0001	.0005	-.0005
#2	-.0005	-.0001	-.0003	-.0004	-.0004	.0022	-.0001	.0010	-.0001
#3	-.0005	-.0001	-.0005	-.0000	-.0003	.0017	-.0002	.0005	.0002
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0005	.0077	.0015	.0003	-.0002	-.0005	-.0011	-.0013	.0060
Stddev	.0001	.0005	.0019	.0007	.0004	.0009	.0011	.0045	.0016
%RSD	14.16	5.997	130.5	228.9	186.2	187.8	99.22	337.1	26.57
#1	-.0006	.0082	.0020	-.0004	-.0006	-.0005	-.0002	-.0050	.0048
#2	-.0005	.0074	-.0007	.0002	-.0002	.0004	-.0023	-.0027	.0079
#3	-.0005	.0074	.0030	.0011	.0002	-.0013	-.0009	.0037	.0055
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0004	.0208	-.2088	-.0367	.0002	-.0000	-.0041	-.0010	-.0000
Stddev	.0020	.0032	.0352	.0100	.0005	.0001	.0005	.0005	.0001
%RSD	541.4	15.48	16.84	27.17	249.6	727.6	12.05	48.13	320.0
#1	.0013	.0202	-.1682	-.0432	.0004	-.0001	-.0038	-.0012	-.0001
#2	.0002	.0179	-.2277	-.0418	.0005	.0000	-.0047	-.0013	-.0001
#3	-.0026	.0242	-.2304	-.0252	-.0004	.0001	-.0038	-.0004	-.0001
Elem	Tl3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	-.0002	.0040	-.0002	.0052	.0004	-.0082	-.0092		
Stddev	.0005	.0001	.0001	.0010	.0029	.0019	.0027		
%RSD	191.4	1.947	89.28	19.65	722.5	22.61	28.96		
#1	.0002	.0039	-.0000	.0062	.0015	-.0097	-.0078		
#2	-.0007	.0040	-.0002	.0042	.0026	-.0061	-.0122		
#3	-.0003	.0040	-.0003	.0053	-.0029	-.0088	-.0075		

Sample Name: mpcnf Acquired: 4/11/2019 13:04:47 Type: Unk
 Method: SGS 3 NO Valve(v263) 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	163730.	20426.	7260.1	11388.
Stddev	346.	65.	10.8	11.
%RSD	.21139	.31834	.14808	.10013
#1	164090.	20376.	7271.4	11398.
#2	163690.	20500.	7250.0	11376.
#3	163400.	20403.	7258.9	11391.

Sample Name: bconf Acquired: 4/11/2019 13:09:55 Type: Unk
 Method: SGS 3 NO Valve(v263) 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	2.004	2.011	2.088	2.030	2.000	1.992	2.025	2.030	2.665
Stddev	.007	.006	.032	.034	.005	.003	.011	.034	.0005
%RSD	.3471	.2875	1.538	1.678	.2441	.1705	.5181	1.648	.1749
#1	2.005	2.012	2.069	2.013	2.004	1.994	2.029	2.013	2.668
#2	2.010	2.016	2.069	2.009	2.003	1.994	2.013	2.008	2.668
#3	1.996	2.004	2.125	2.070	1.995	1.988	2.033	2.068	2.660
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.990	2.071	2.002	2.147	2.046	2.096	2.037	25.14	25.22
Stddev	.004	.035	.030	.033	.035	.035	.034	.07	.08
%RSD	.1877	1.666	1.502	1.549	1.705	1.677	1.667	.2734	.3187
#1	1.992	2.051	1.987	2.140	2.027	2.077	2.020	25.17	25.24
#2	1.992	2.051	1.982	2.119	2.025	2.075	2.015	25.19	25.29
#3	1.986	2.110	2.036	2.184	2.087	2.137	2.076	25.06	25.14
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	25.31	25.40	25.21	25.59	2.090	1.994	-0.0507	2.054	1.998
Stddev	.06	.03	.04	.02	.031	.030	.0025	.030	.003
%RSD	.2409	.1217	.1622	.0759	1.466	1.532	4.969	1.465	1.324
#1	25.33	25.40	25.17	25.58	2.074	1.981	-.0536	2.040	1.998
#2	25.37	25.43	25.25	25.62	2.071	1.972	-.0494	2.033	2.001
#3	25.25	25.37	25.20	25.58	2.125	2.029	-.0491	2.088	1.996
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	1.954	1.944	1.962	0.193	0.853	-0.0082	2.069		
Stddev	.003	.031	.002	.0019	.0031	.0022	.030		
%RSD	.1337	1.598	.1067	9.647	3.648	26.45	1.434		
#1	1.951	1.928	1.963	.0172	.0876	-.0107	2.056		
#2	1.956	1.924	1.963	.0203	.0865	-.0067	2.049		
#3	1.953	1.980	1.959	.0205	.0818	-.0072	2.103		

Sample Name: bconf Acquired: 4/11/2019 13:09:55 Type: Unk
 Method: SGS 3 NO Valve(v263) 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	150050.	20118.	6915.3	10308.
Stddev	79.	82.	87.8	129.
%RSD	.05053	.40826	1.2695	1.2476
#1	155960.	20149.	6975.4	10388.
#2	156110.	20025.	6956.1	10377.
#3	156080.	20181.	6814.6	10160.

Sample Name: ccv Acquired: 4/11/2019 13:14:56 Type: QC
 Method: SGS 3 NO Valve(v263) 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	2.048	2.049	2.055	2.033	2.015	2.049	2.048	2.490
Stddev	.013	.010	.001	.001	.003	.002	.018	.000	.0005
%RSD	.6213	.4925	.0291	.0485	.1367	.0966	.8561	.0206	.1983
#1	2.041	2.056	2.049	2.055	2.033	2.014	2.056	2.048	2.486
#2	2.019	2.037	2.050	2.056	2.030	2.014	2.029	2.048	2.489
#3	2.042	2.053	2.049	2.054	2.035	2.018	2.061	2.047	2.495
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	2.054	2.001	2.102	2.044	2.028	2.019	40.26	40.42
Stddev	.001	.002	.004	.013	.003	.005	.002	.19	.20
%RSD	.0364	.0931	.2100	.6338	.1207	.2560	.1072	.4745	.4937
#1	2.031	2.051	2.006	2.117	2.045	2.034	2.017	40.38	40.51
#2	2.032	2.054	2.000	2.096	2.046	2.027	2.021	40.04	40.20
#3	2.033	2.055	1.997	2.093	2.041	2.024	2.018	40.36	40.56
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	40.56	40.50	40.49	40.80	2.064	2.024	5.255	2.041	2.034
Stddev	.18	.16	.18	.07	.003	.002	.002	.003	.007
%RSD	.4395	.3920	.4516	.1821	.1295	.1117	.0379	.1337	.3623
#1	40.65	40.43	40.58	40.84	2.066	2.025	5.258	2.042	2.037
#2	40.35	40.39	40.28	40.72	2.061	2.025	5.254	2.038	2.026
#3	40.68	40.68	40.62	40.85	2.063	2.021	5.255	2.043	2.040
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: 4/11/2019 13:14:56 Type: QC
 Method: SGS 3 NO Valve(v263) 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
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.004	1.978	2.014	2.032	2.031	2.047	2.045
Stddev	.002	.001	.001	.016	.003	.012	.007
%RSD	.0974	.0515	.0321	.8041	.1549	.5610	.3548

#1	2.005	1.978	2.014	2.049	2.027	2.047	2.052
#2	2.002	1.979	2.014	2.029	2.033	2.035	2.044
#3	2.005	1.978	2.013	2.017	2.031	2.058	2.037

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
 Value High Limit Low Limit

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	150460.	19628.	6761.1	9918.7
Stddev	490.	169.	20.4	18.1
%RSD	.32542	.86336	.30155	.18264

#1	150030.	19701.	6781.2	9936.6
#2	150990.	19749.	6761.6	9919.2
#3	150370.	19434.	6740.5	9900.4

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Sample Name: ccb Acquired: 4/11/2019 13:19:58 Type: QC
 Method: SGS 3 NO Valve(v263) 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	0.001	-0.001	-0.001	-0.001	-0.002	-0.000	0.002	-0.000
Stddev	.0003	.0001	.0001	.0002	.0001	.0002	.0000	.0003	.0004
%RSD	62.74	108.5	117.1	329.6	140.8	96.45	85.38	185.4	1276.

#1	-0.008	.0001	-0.000	.0001	.0000	.0000	-0.000	-0.002	.0003
#2	-0.003	-0.000	-0.001	-0.003	-0.001	-0.003	-0.000	.0002	.0001
#3	-0.003	.0001	-0.000	.0001	-0.001	-0.003	-0.000	.0004	-0.005

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
 Value 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	-0.001	0.002	0.007	-0.002	-0.003	-0.015	0.011	-0.042	0.001
Stddev	.0004	.0001	.0005	.0003	.0006	.0010	.0019	.0166	.0006
%RSD	434.3	54.64	72.20	201.3	169.7	65.75	168.9	399.1	494.8

#1	-0.002	.0001	.0005	-0.002	-0.004	-0.004	.0002	-0.056	.0005
#2	.0004	.0003	.0004	-0.004	.0003	-0.017	.0034	-0.200	.0005
#3	-0.005	.0001	.0013	.0002	-0.008	-0.024	-0.001	.0131	-0.006

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
 Value 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	0.019	0.093	-0.504	0.169	0.034	0.000	0.017	-0.001	0.001
Stddev	.0028	.0085	.0719	0.103	.0005	.0002	.0006	.0001	.0000
%RSD	143.2	90.98	142.7	61.29	15.92	1394.	33.67	92.70	10.39

#1	.0031	.0046	.0241	.0279	.0037	.0002	.0011	-0.000	.0001
#2	.0039	.0191	-0.1194	.0073	.0037	.0001	.0021	-0.001	.0001
#3	-0.012	.0043	-0.0559	.0154	.0028	-0.002	.0020	-0.003	.0001

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
 Value High Limit Low Limit

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Sample Name: ccb Acquired: 4/11/2019 13:19:58 Type: QC
 Method: SGS 3 NO Valve(v263) 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
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.003	0.011	0.000	-0.051	-0.007	0.062	-0.079
Stddev	.0001	.0012	.0001	.0020	.0003	.0011	.0009
%RSD	35.33	104.4	257.6	39.98	50.22	17.03	11.42

#1	-0.002	.0013	.0001	-0.0065	-0.003	.0071	-0.073
#2	-0.003	.0022	-0.000	-0.027	-0.009	.0066	-0.089
#3	-0.005	-0.001	.0000	-0.0060	-0.008	.0050	-0.074

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Fail Chk Pass
 Value High Limit Low Limit

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	160620.	19972.	7058.3	10954.
Stddev	1158.	121.	16.4	24.
%RSD	.72121	.60705	.23195	.21754

#1	161640.	20103.	7065.7	10964.
#2	159360.	19863.	7069.7	10971.
#3	160860.	19950.	7039.6	10927.

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Sample Name: mp14033-d1 Acquired: 4/11/2019 13:25:05 Type: Unk
 Method: SGS 3 NO Valve(v263) 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	0.2715	0.011	-0.002	0.272	0.687	0.572	1.260	0.066	0.002
Stddev	.0006	.0001	.0001	.0002	.0004	.0003	.001	.0002	.0006
%RSD	.2060	4.956	57.46	.7792	5.382	.5628	.1018	.2974	341.9

#1	.2710	.0011	-0.001	.0274	.0688	.0569	1.259	.0604	.0002
#2	.2714	.0010	-0.002	.0272	.0682	.0574	1.260	.0608	.0008
#3	.2721	.0011	-0.003	.0270	.0690	.0574	1.261	.0605	-0.005

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
 Value 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	0.1137	0.1553	0.090	0.007	0.281	-0.000	0.030	45.84	7.989
Stddev	.0002	.0001	.0010	.0007	.0006	.0022	.0017	.10	.006
%RSD	.1598	.0934	10.73	98.31	2.002	63080.	58.50	.2144	.0804

#1	.1137	.1553	.0099	.0002	.0283	-0.0007	.0022	45.79	7.982
#2	.1136	.1554	.0090	.0004	.0275	.0025	.0018	45.77	7.995
#3	.1139	.1551	.0080	.0015	.0286	-0.0018	.0050	45.95	7.990

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	76.90	16.89	10.33	595.3	0.164	0.014	1.670	0.026	0.263
Stddev	.12	.02	.04	0.065	.0005	.0004	.002	.0002	.0001
%RSD	.1586	.0944	.3604	1.086	2.891	24.45	.1368	.8938	.2370

#1	76.79	16.89	10.30	6026	.0160	.0017	1.673	.0266	.0263
#2	76.88	16.88	10.37	5928	.0169	.0010	1.668	.0266	.0264
#3	77.03	16.91	10.32	5905	.0161	.0016	1.671	.0270	.0263

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.453	-0.004	0.117	2.004	-0.868	0.566	2.554
Stddev	.005	.0010	.0002	.0029	.0007	.0008	.012
%RSD	.1423	215.9	1.334	1.434	.8527	1.427	.4520

#1	3.447	-0.003	.0117	1.980	.0860	.0558	2.540
#2	3.454	.0004	.0115	2.036	.0869	.0568	2.562
#3	3.456	-0.015	.0119	1.996	.0875	.0574	2.558

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Zoom In
Zoom Out

Sample Name: mp14033-d1 Acquired: 4/11/2019 13:25:05 Type: Unk
 Method: SGS 3 NO Valve(v263) 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	160310.	20558.	7173.5	10511.
Stddev	764.	59.	4.8	12.
%RSD	.47679	.28919	.06714	.11037
#1	159800.	20489.	7178.8	10524.
#2	161190.	20591.	7169.4	10502.
#3	159940.	20593.	7172.5	10507.

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Zoom In
Zoom Out

Sample Name: jc85997-2 Acquired: 4/11/2019 13:30:05 Type: Unk
 Method: SGS 3 NO Valve(v263) 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	2745	.0021	.0002	.0326	.0927	0.680	1.720	0.714
Stddev	.0003	.0001	.0002	.0033	.0080	.0051	.151	.0008
%RSD	.1016	5.534	97.58	10.08	8.654	7.445	8.776	1.080
#1	2748	.0022	.0000	.0310	.0897	.0718	1.633	.0712
#2	2744	.0020	.0001	.0364	.1018	.0622	1.894	.0722
#3	2742	.0021	.0004	.0304	.0867	.0699	1.632	.0707
Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F -.0079	.1653	.2223	.0142	F -.0039	.0625	-.0039	.0035
Stddev	.0139	.0113	.0006	.0043	.0051	.0054	.0073	.0024
%RSD	176.0	6.820	.2624	30.44	131.9	8.565	190.4	68.78
#1	-.0002	.1599	.2227	.0161	-.0000	.0651	-.0003	.0032
#2	-.0240	.1783	.2225	.0092	-.0096	.0563	-.0123	.0061
#3	.0005	.1578	.2216	.0172	-.0019	.0660	.0010	.0013
Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	73.55	5.378	84.92	17.33	5.913	.7979	.0294	.0019
Stddev	.07	.005	.04	.02	.036	.0034	.0005	.0006
%RSD	.0934	.1027	.0444	.1084	.6101	.4199	1.767	33.32
#1	73.63	5.383	84.93	17.35	5.926	.8018	.0300	.0023
#2	73.52	5.372	84.94	17.33	5.872	.7959	.0293	.0011
#3	73.51	5.379	84.87	17.31	5.941	.7960	.0290	.0022
Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.114	.0239	.0276	2.327	.0017	.0065	.3447	.0089
Stddev	.014	.0024	.0002	.202	.0025	.0033	.0027	.0830
%RSD	.6665	10.24	.5469	8.676	145.4	50.90	.7929	938.1
#1	2.119	.0253	.0275	2.229	-.0004	.0082	.3421	.0577
#2	2.126	.0211	.0277	2.559	.0045	.0027	.3476	-.0870
#3	2.099	.0253	.0274	2.192	.0011	.0087	.3445	.0558

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11.2

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Zoom In
Zoom Out

Sample Name: jc85997-2 Acquired: 4/11/2019 13:30:05 Type: Unk
 Method: SGS 3 NO Valve(v263) Mode: CONC Corr. Factor: 1.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Li6707	P_1774		
Units	ppm	ppm		
Avg	0.692	2.632		
Stddev	.0031	.020		
%RSD	4.529	.7463		
#1	.0674	2.655		
#2	.0728	2.623		
#3	.0674	2.619		
Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	-----	20676.	7333.3	10578.
Stddev	-----	108.	10.8	10.
%RSD	-----	.52353	.14791	.09519
#1	159620.	20788.	7321.5	10567.
#2	---	20668.	7342.9	10579.
#3	163040.	20572.	7335.5	10587.

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Zoom In
Zoom Out

Sample Name: jc85997-3 Acquired: 4/11/2019 13:35:07 Type: Unk
 Method: SGS 3 NO Valve(v263) 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	2.450	.0022	.0001	.0392	.0934	0.831	1.903	0.734	0.005
Stddev	.0009	.0000	.0000	.0003	.0004	.0001	.019	.0003	.0004
%RSD	.3756	2.197	50.29	.6677	4.183	.1709	1.000	.3546	82.15
#1	.2442	.0022	.0000	.0389	.0939	.0831	1.923	.0735	.0000
#2	.2460	.0022	.0001	.0394	.0933	.0830	1.902	.0736	.0008
#3	.2449	.0022	.0001	.0392	.0931	.0833	1.885	.0731	.0007
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.886	.2047	.0194	.0002	.0637	-.0009	.0044	78.00	10.01
Stddev	.0002	.0001	.0004	.0007	.0016	.0007	.0012	.32	.04
%RSD	.1163	.0616	2.004	441.4	2.434	73.27	26.03	.4087	.4015
#1	.1864	.2049	.0190	-.0004	.0619	-.0003	.0053	77.65	9.965
#2	.1865	.2046	.0196	-.0001	.0647	-.0008	.0031	78.28	10.04
#3	.1868	.2047	.0197	.0010	.0644	-.0016	.0048	78.06	10.02
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	103.7	21.80	6.099	9.056	.0824	0.024	2.050	.0256	0.464
Stddev	.4	.07	.018	.0089	.0006	.0003	.013	.0005	.0001
%RSD	.4301	.3405	.2900	.9803	.6897	11.21	.6100	2.083	.1655
#1	103.3	21.73	6.087	9.117	.0830	.0022	2.060	.0259	.0463
#2	104.2	21.88	6.120	9.098	.0822	.0024	2.054	.0250	.0464
#3	103.8	21.80	6.091	8.954	.0819	.0027	2.036	.0260	.0465
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	2.440	-.0007	.0130	.7430	.0615	.0727	2.493		
Stddev	.004	.0013	.0002	.0012	.0009	.0010	.016		
%RSD	.1421	195.6	1.171	.1599	1.394	1.369	.6555		
#1	2.437	-.0008	.0129	.7426	.0610	.0724	2.511		
#2	2.444	-.0018	.0130	.7421	.0625	.0719	2.479		
#3	2.439	-.0010	.0132	.7444	.0611	.0738	2.491		

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Sample Name: jc85997-3 Acquired: 4/11/2019 13:35:07 Type: Unk
 Method: SGS 3 NO Valve(v263) 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	159700.	20573.	7181.0	10393.
Stddev	96.	117.	19.2	19.
%RSD	.06024	.56919	.26733	.18485
#1	159710.	20706.	7159.9	10375.
#2	159600.	20483.	7185.7	10391.
#3	159790.	20532.	7197.4	10414.

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Sample Name: jc85997-4 Acquired: 4/11/2019 13:40:12 Type: Unk
 Method: SGS 3 NO Valve(v263) 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	2438	0.0019	0.001	0.0321	0.922	0.748	1.580	0.0639	0.004
Stddev	0.006	0.001	0.002	0.002	0.001	0.006	0.01	0.001	0.007
%RSD	0.2303	4.829	131.5	7.271	0.1355	0.8422	0.362	0.1340	167.9
#1	2440	0.019	0.000	0.0321	0.922	0.748	1.580	0.0639	0.004
#2	2432	0.018	0.003	0.0324	0.924	0.756	1.580	0.0640	-0.003
#3	2442	0.020	0.000	0.0319	0.924	0.761	1.581	0.0639	0.011
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1654	0.2049	0.178	0.008	0.603	-0.006	0.030	66.88	16.83
Stddev	0.002	0.005	0.004	0.012	0.012	0.023	0.009	0.11	0.3
%RSD	0.1431	2.367	2.506	142.7	1.976	396.2	31.01	0.1670	2005
#1	1654	0.2043	0.173	0.021	0.601	-0.031	0.022	66.97	16.86
#2	1652	0.2051	0.181	-0.003	0.615	-0.000	0.040	66.75	16.80
#3	1657	0.2052	0.181	0.008	0.592	0.014	0.028	66.91	16.83
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	88.67	18.36	6.345	7.529	0.726	0.024	2.170	0.278	0.626
Stddev	.15	.09	.024	0.129	0.004	0.003	0.009	0.003	0.002
%RSD	0.1702	0.5034	0.3840	1.716	0.5310	12.00	4.163	1.198	0.3418
#1	88.83	18.47	6.368	7.571	0.730	0.027	2.175	0.278	0.628
#2	88.53	18.29	6.346	7.384	0.722	0.021	2.175	0.282	0.624
#3	88.66	18.34	6.319	7.631	0.726	0.024	2.159	0.275	0.627
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	2.480	0.024	0.098	0.5220	0.636	0.619	2.303		
Stddev	0.002	0.005	0.000	0.030	0.033	0.025	0.08		
%RSD	0.0727	21.67	0.3437	5.824	5.133	4.047	3.361		
#1	2.479	0.030	0.099	0.5226	0.663	0.594	2.311		
#2	2.479	0.022	0.098	0.5247	0.647	0.644	2.295		
#3	2.482	0.020	0.098	0.5187	0.600	0.618	2.303		

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Sample Name: jc85997-4 Acquired: 4/11/2019 13:40:12 Type: Unk
 Method: SGS 3 NO Valve(v263) 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	159010.	20381.	7186.0	10435.
Stddev	200.	172.	22.5	29.
%RSD	.12566	.84148	.31312	.28262
#1	159130.	20184.	7209.8	10465.
#2	158780.	20494.	7165.1	10406.
#3	159130.	20465.	7183.1	10432.

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Sample Name: jc85997-5 Acquired: 4/11/2019 13:45:11 Type: Unk
 Method: SGS 3 NO Valve(v263) 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	3316	0.0025	0.003	0.437	1.016	0.850	1.938	0.0808	0.000
Stddev	0.002	0.000	0.001	0.007	0.013	0.010	0.015	0.009	0.004
%RSD	0.0526	1.194	21.03	1.701	1.317	1.209	0.793	1.117	144.1
#1	3314	0.025	0.003	0.446	1.007	0.841	1.933	0.0817	-0.002
#2	3318	0.025	0.002	0.434	1.009	0.847	1.926	0.0799	0.004
#3	3317	0.025	0.003	0.432	1.031	0.861	1.955	0.0809	-0.002
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1825	0.2339	0.211	0.005	0.841	-0.013	0.037	73.95	7.369
Stddev	0.030	0.027	0.009	0.012	0.002	0.016	0.006	0.10	0.06
%RSD	1.661	1.172	4.417	241.2	2.106	124.8	15.19	0.1351	0.846
#1	1806	0.2361	0.217	-0.009	0.842	-0.021	0.031	73.85	7.375
#2	1810	0.2308	0.215	0.012	0.839	-0.006	0.042	74.05	7.363
#3	1860	0.2346	0.200	0.012	0.842	-0.022	0.037	73.95	7.369
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	99.96	22.86	7.970	5.938	0.401	0.026	1.993	0.258	0.361
Stddev	.09	.06	0.43	0.083	0.009	0.001	0.027	0.004	0.000
%RSD	0.0921	0.2636	5.410	1.400	2.285	5.708	1.367	1.461	0.1228
#1	99.85	22.82	7.929	5.918	0.408	0.027	2.017	0.257	0.362
#2	100.0	22.84	7.967	6.029	0.390	0.024	1.964	0.262	0.361
#3	100.0	22.93	8.015	5.866	0.404	0.027	1.998	0.255	0.361
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	2.638	-0.0005	0.119	0.7447	0.690	0.846	2.730		
Stddev	0.41	0.010	0.002	0.098	0.039	0.006	0.49		
%RSD	1.557	214.8	1.708	1.312	5.610	0.7526	1.797		
#1	2.610	-0.009	0.117	0.7515	0.659	0.854	2.754		
#2	2.619	-0.012	0.121	0.7335	0.677	0.843	2.674		
#3	2.685	0.007	0.120	0.7492	0.733	0.843	2.763		

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Sample Name: jc85997-5 Acquired: 4/11/2019 13:45:11 Type: Unk
 Method: SGS 3 NO Valve(v263) 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	163040.	21028.	7314.6	10529.
Stddev	2141.	157.	71.3	93.
%RSD	1.3133	.74857	.97496	.88516
#1	164900.	20969.	7258.0	10460.
#2	163520.	21207.	7394.7	10635.
#3	160700.	20909.	7291.2	10491.

Sample Name: jc85997-2 Acquired: 4/11/2019 13:50:18 Type: Unk
 Method: SGS 3 NO Valve(v263) 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	2752	.0022	.0001	0312	.0889	.0714	1.660	.0719	-0.002
Stddev	.0005	.0001	.0001	.0003	.0005	.0003	.001	.0002	.0006
%RSD	.1810	3.565	64.56	.8995	.5062	.4764	.0569	.2305	355.5
#1	.2753	.0023	.0002	.0310	.0887	.0718	1.660	.0717	-0.001
#2	.2747	.0021	.0001	.0311	.0894	.0713	1.659	.0719	.0004
#3	.2757	.0021	.0001	.0315	.0886	.0711	1.661	.0720	-0.008
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1607	.2238	.0175	.0010	.0664	.0007	.0024	73.73	5.379
Stddev	.0003	.0004	.0002	.0007	.0010	.0022	.0020	.08	.007
%RSD	.1899	.1702	1.263	71.27	1.561	323.2	83.00	.1090	.1326
#1	.1606	.2239	.0175	.0017	.0669	.0032	.0046	73.66	5.371
#2	.1611	.2241	.0177	.0009	.0652	-.0008	.0005	73.70	5.380
#3	.1605	.2234	.0173	.0003	.0672	-.0004	.0023	73.82	5.385
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	85.05	17.38	5.974	8.000	.0292	.0022	2.188	.0256	.0276
Stddev	.10	.03	.034	.0053	.0007	.0003	.011	.0003	.0002
%RSD	.1191	.1862	.5729	.6623	2.229	11.44	.5166	1.044	.5750
#1	84.96	17.36	6.009	.8014	.0300	.0020	2.187	.0258	.0275
#2	85.01	17.42	5.941	.8045	.0289	.0025	2.177	.0256	.0277
#3	85.16	17.37	5.972	.7942	.0288	.0021	2.199	.0253	.0278
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	2.235	.0002	.0081	.3467	.0573	.0643	2.658		
Stddev	.001	.0011	.0002	.0036	.0012	.0010	.014		
%RSD	.0253	471.5	1.991	1.036	2.017	1.537	.5238		
#1	2.235	.0014	.0079	.3434	.0563	.0645	2.642		
#2	2.235	.0000	.0080	.3505	.0586	.0651	2.668		
#3	2.236	-.0007	.0083	.3462	.0571	.0632	2.664		

Sample Name: jc85997-2 Acquired: 4/11/2019 13:50:18 Type: Unk
 Method: SGS 3 NO Valve(v263) 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	160510.	20708.	7274.7	10492.
Stddev	345.	103.	6.6	7.
%RSD	.21494	.49580	.09131	.06604
#1	160240.	20778.	7279.2	10498.
#2	160900.	20590.	7267.1	10484.
#3	160400.	20755.	7277.9	10493.

Sample Name: jc85997-6 Acquired: 4/11/2019 13:55:16 Type: Unk
 Method: SGS 3 NO Valve(v263) 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	.2977	.0023	.0004	.0349	.0950	.0809	1.917	.0746	.0005
Stddev	.0008	.0001	.0003	.0002	.0014	.0016	.042	.0002	.0006
%RSD	.2625	3.893	83.95	.5423	1.468	1.938	2.194	.2037	116.5
#1	.2982	.0024	.0001	.0348	.0962	.0824	1.903	.0744	-0.001
#2	.2968	.0023	.0003	.0349	.0953	.0811	1.964	.0747	.0005
#3	.2981	.0022	.0007	.0352	.0934	.0793	1.883	.0746	.0012
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1733	.2054	.0170	.0016	.0704	.0007	.0020	78.67	7.162
Stddev	.0031	.0006	.0006	.0006	.0010	.0018	.0012	.13	.005
%RSD	1.791	.2962	3.556	37.82	1.432	255.1	58.42	.1697	.0763
#1	.1758	.2059	.0176	.0018	.0714	.0020	.0014	78.80	7.166
#2	.1742	.2055	.0171	.0009	.0694	.0014	.0013	78.53	7.156
#3	.1698	.2047	.0164	.0021	.0704	-.0013	.0034	78.67	7.165
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	95.55	20.11	6.656	.5471	.0302	.0021	2.117	.0257	.0353
Stddev	.19	.07	.046	.0106	.0003	.0003	.006	.0006	.0000
%RSD	.1973	.3716	.6859	1.931	.9201	16.03	.2774	2.277	.0358
#1	95.74	20.19	6.708	.5446	.0304	.0022	2.119	.0262	.0353
#2	95.37	20.04	6.640	.5587	.0299	.0023	2.122	.0250	.0353
#3	95.54	20.10	6.621	.5380	.0304	.0017	2.111	.0258	.0353
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	2.374	-.0016	.0078	.5362	.0643	.0753	3.164		
Stddev	.043	.0003	.0001	.0046	.0030	.0009	.024		
%RSD	1.812	21.07	1.035	.8524	4.707	1.194	.7643		
#1	2.414	-.0012	.0078	.5363	.0674	.0757	3.164		
#2	2.380	-.0016	.0078	.5407	.0641	.0759	3.188		
#3	2.329	-.0019	.0077	.5316	.0613	.0742	3.140		

Sample Name: jc85997-6 Acquired: 4/11/2019 13:55:16 Type: Unk
 Method: SGS 3 NO Valve(v263) 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	161140.	20866.	7435.2	10639.
Stddev	2229.	156.	12.7	12.
%RSD	1.3833	.74969	.17121	.11399
#1	159410.	20686.	7425.7	10635.
#2	160350.	20967.	7449.7	10653.
#3	163650.	20946.	7430.2	10629.

Sample Name: jc85997-7 Acquired: 4/11/2019 14:00:24 Type: Unk
 Method: SGS 3 NO Valve(v263) 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	.3239	.0025	.0002	.0382	.0834	.0992	2.616	.0727	-0.000
Stddev	.0010	.0001	.0002	.0001	.0004	.0001	.014	.0002	.0003
%RSD	.3027	2.838	94.11	.3376	4.734	1.423	.5481	.2511	866.7
#1	.3241	.0025	.0003	.0384	.0838	.0992	2.604	.0729	-0.002
#2	.3228	.0026	.0001	.0382	.0831	.0990	2.632	.0726	-0.002
#3	.3247	.0025	.0001	.0381	.0832	.0993	2.613	.0727	-0.003

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1905	.1926	.0163	-0.0004	.0534	.0011	.0019	70.79	4.826
Stddev	.0010	.0001	.0003	.0022	.0007	.0011	.0014	.13	.014
%RSD	.5160	.0522	1.702	514.4	1.402	103.8	75.80	.1827	2889
#1	.1900	.1927	.0162	-0.0021	.0538	-0.001	.0029	70.80	4.824
#2	.1916	.1925	.0166	-0.0013	.0526	.0022	.0024	70.65	4.814
#3	.1898	.1926	.0160	.0021	.0539	.0012	.0003	70.91	4.841

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	110.5	21.07	6.655	.5942	.0381	.0025	2.108	.0246	.0259
Stddev	.3	.05	.042	.0136	.0008	.0002	.012	.0011	.0001
%RSD	.2376	.2396	.6372	2.294	1.979	8.886	.5463	4.293	.5124
#1	110.4	21.13	6.695	.5848	.0375	.0024	2.120	.0253	.0257
#2	110.3	21.03	6.611	.6099	.0389	.0024	2.098	.0234	.0260
#3	110.8	21.06	6.659	.5880	.0379	.0028	2.105	.0252	.0260

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.269	-0.0008	.0157	2.156	.0594	.0701	2.110
Stddev	.001	.0004	.0003	.0008	.0010	.0021	.011
%RSD	.0415	50.62	1.935	.3862	1.609	3.035	.5045
#1	2.270	-0.0004	.0157	2.164	.0583	.0708	2.104
#2	2.268	-0.0012	.0161	2.156	.0595	.0677	2.103
#3	2.268	-0.0007	.0155	2.148	.0602	.0717	2.122

11.2

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Sample Name: jc85997-7 Acquired: 4/11/2019 14:00:24 Type: Unk
 Method: SGS 3 NO Valve(v263) 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	162220.	20861.	7331.0	10508.
Stddev	508.	100.	11.4	15.
%RSD	.31299	.47931	.15585	.14394
#1	162800.	20904.	7337.4	10522.
#2	162030.	20931.	7337.9	10511.
#3	161840.	20746.	7317.9	10492.

Sample Name: jc85997-8 Acquired: 4/11/2019 14:05:32 Type: Unk
 Method: SGS 3 NO Valve(v263) 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	.2585	.0008	-0.0002	.0222	.0531	.0475	.9881	.0559	-0.001
Stddev	.0012	.0000	.0001	.0003	.0002	.0003	.0015	.0001	.0005
%RSD	.4828	4.944	70.46	1.524	4.439	.5824	.1469	.2314	323.4
#1	.2592	.0008	-0.0002	.0221	.0529	.0474	.9897	.0560	-0.002
#2	.2592	.0008	-0.0003	.0219	.0533	.0473	.9869	.0559	.0004
#3	.2570	.0008	-0.0000	.0225	.0533	.0478	.9878	.0557	-0.005

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0874	.1314	.0063	.0017	.0162	.0004	.0034	31.99	7.006
Stddev	.0003	.0003	.0005	.0007	.0009	.0011	.0012	.21	.040
%RSD	.3512	.2185	7.630	42.21	5.353	285.2	36.45	.6574	.5724
#1	.0878	.1317	.0066	.0023	.0166	.0013	.0030	32.18	7.028
#2	.0873	.1314	.0058	.0009	.0168	-0.0008	.0024	32.03	7.029
#3	.0872	.1312	.0065	.0021	.0152	.0006	.0048	31.77	6.959

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	59.31	14.17	9.632	.5950	.0033	.0007	1.286	.0291	.0188
Stddev	.35	.06	.024	.0100	.0006	.0000	.005	.0002	.0000
%RSD	.5917	.4311	.2487	1.680	18.29	3.055	.3546	.5895	.0341
#1	59.58	14.20	9.616	.6042	.0030	.0007	1.291	.0292	.0188
#2	59.44	14.20	9.620	.5844	.0028	.0007	1.283	.0291	.0188
#3	58.92	14.10	9.660	.5963	.0039	.0007	1.285	.0289	.0188

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.296	-0.0019	.0080	.0688	.0849	.0456	1.904
Stddev	.004	.0009	.0003	.0021	.0003	.0029	.007
%RSD	.1103	46.86	3.534	3.077	4.114	6.323	.3779
#1	3.299	-0.0026	.0080	.0697	.0853	.0489	1.901
#2	3.292	-0.0022	.0078	.0664	.0848	.0447	1.899
#3	3.296	-0.0009	.0083	.0703	.0847	.0434	1.912

Zoom In

Zoom Out

Sample Name: jc85997-8 Acquired: 4/11/2019 14:05:32 Type: Unk
Method: SGS 3 NO Valve(v263) 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, ln2306. Rows include Units, Avg, Stddev, %RSD and sample results #1, #2, #3.

Zoom In

Zoom Out

Sample Name: ccv Acquired: 4/11/2019 14:10:32 Type: QC
Method: SGS 3 NO Valve(v263) 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 results #1, #2, #3.

11.2

1

Zoom In

Zoom Out

Sample Name: ccv Acquired: 4/11/2019 14:10:32 Type: QC
Method: SGS 3 NO Valve(v263) 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. Rows include Units, Avg, Stddev, %RSD and sample results #1, #2, #3.

Check ? Value Range

Table with 5 columns: Int. Std., Y_3600, Y_3710, Y_2243, ln2306. Rows include Units, Avg, Stddev, %RSD and sample results #1, #2, #3.

Zoom In

Zoom Out

Sample Name: ccb Acquired: 4/11/2019 14:15:34 Type: QC
Method: SGS 3 NO Valve(v263) 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 results #1, #2, #3.

Check ? High Limit Low Limit

Table with 11 columns: Elem, V_2924, Zn2062, As1890, Tl1908, Pb2203, Se1960, Sb2068, Al3961, Ca3179. Rows include Units, Avg, Stddev, %RSD and sample results #1, #2, #3.

Check ? High Limit Low Limit

Table with 11 columns: Elem, Fe2599, Mg2790, K_7664, Na5895, B_2089, Mo2020, Si2124, Sn1899, Sr4077. Rows include Units, Avg, Stddev, %RSD and sample results #1, #2, #3.

Check ? High Limit Low Limit

Sample Name: ccb Acquired: 4/11/2019 14:15:34 Type: QC
Method: SGS 3 NO Valve(v263) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Table with 8 columns: Elem, Units, Ti3349, W_2079, Zr3391, S_1820, Bi2230, Li6707, P_1774. Rows include Avg, Stddev, %RSD and sample numbers #1, #2, #3.

Check ? High Limit Low Limit

Table with 5 columns: Int. Std. Units, Y_3600, Y_3710, Y_2243, In2306. Rows include Avg, Stddev, %RSD and sample numbers #1, #2, #3.

Sample Name: jc85997-9 Acquired: 4/11/2019 14:20:41 Type: Unk
Method: SGS 3 NO Valve(v263) 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 sample numbers #1, #2, #3.

Table with 11 columns: Elem, Units, V_2924, Zn2062, As1890, Tl1908, Pb2203, Se1960, Sb2068, Al3961, Ca3179. Rows include Avg, Stddev, %RSD and sample numbers #1, #2, #3.

Table with 11 columns: Elem, Units, Fe2599, Mg2790, K_7664, Na5895, B_2089, Mo2020, Si2124, Sn1899, Sr4077. Rows include Avg, Stddev, %RSD and sample numbers #1, #2, #3.

Table with 8 columns: Elem, Units, Ti3349, W_2079, Zr3391, S_1820, Bi2230, Li6707, P_1774. Rows include Avg, Stddev, %RSD and sample numbers #1, #2, #3.

Sample Name: jc85997-9 Acquired: 4/11/2019 14:20:41 Type: Unk
Method: SGS 3 NO Valve(v263) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Table with 5 columns: Int. Std. Units, Y_3600, Y_3710, Y_2243, In2306. Rows include Avg, Stddev, %RSD and sample numbers #1, #2, #3.

Table with 5 columns: Int. Std. Units, Y_3600, Y_3710, Y_2243, In2306. Rows include Avg, Stddev, %RSD and sample numbers #1, #2, #3.

Sample Name: jc85997-10 Acquired: 4/11/2019 14:25:45 Type: Unk
Method: SGS 3 NO Valve(v263) 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 sample numbers #1, #2, #3.

Table with 11 columns: Elem, Units, V_2924, Zn2062, As1890, Tl1908, Pb2203, Se1960, Sb2068, Al3961, Ca3179. Rows include Avg, Stddev, %RSD and sample numbers #1, #2, #3.

Table with 11 columns: Elem, Units, Fe2599, Mg2790, K_7664, Na5895, B_2089, Mo2020, Si2124, Sn1899, Sr4077. Rows include Avg, Stddev, %RSD and sample numbers #1, #2, #3.

Table with 8 columns: Elem, Units, Ti3349, W_2079, Zr3391, S_1820, Bi2230, Li6707, P_1774. Rows include Avg, Stddev, %RSD and sample numbers #1, #2, #3.

Sample Name: jc85997-10 Acquired: 4/11/2019 14:25:45 Type: Unk
 Method: SGS 3 NO Valve(v263) 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	161430.	20553.	7273.7	10448.
Stddev	705.	82.	19.1	26.
%RSD	.43680	.39923	.26313	.24644
#1	161140.	20458.	7266.1	10438.
#2	162230.	20600.	7259.5	10429.
#3	160910.	20600.	7295.4	10478.

Sample Name: jc85998-1 Acquired: 4/11/2019 14:30:51 Type: Unk
 Method: SGS 3 NO Valve(v263) 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	4578	0.0023	0.001	0.356	0.912	0.096	2.119	0.767	-0.003
Stddev	0.011	0.000	0.002	0.004	0.006	0.009	0.012	0.006	0.006
%RSD	.2329	.6247	170.7	1.220	.6141	1.039	.5518	.7509	230.4
#1	4573	0.0023	0.001	0.351	0.906	0.898	2.106	0.762	0.003
#2	4571	0.0023	-0.000	0.356	0.913	0.916	2.124	0.766	-0.009
#3	4590	0.0023	0.003	0.360	0.917	0.902	2.128	0.774	-0.002
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1609	2896	0.171	0.013	0.636	-0.010	0.019	60.97	13.43
Stddev	0.003	0.025	0.007	0.006	0.012	0.012	0.007	.11	.03
%RSD	.1656	.8741	4.067	47.64	1.958	116.7	38.80	.1733	.1968
#1	1609	2876	0.177	0.020	0.639	-0.024	0.024	60.87	13.41
#2	1611	2888	0.163	0.010	0.622	-0.002	0.022	60.95	13.41
#3	1606	2925	0.172	0.008	0.646	-0.005	0.011	61.08	13.46
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	89.63	20.95	7.610	7.672	0.421	0.017	1.688	0.250	0.421
Stddev	.10	.02	.028	0.040	0.009	0.002	0.018	0.007	0.002
%RSD	.1156	.1126	.3735	.5166	2.085	9.669	1.065	2.789	3.850
#1	89.54	20.93	7.584	7.635	0.417	0.017	1.676	0.243	0.420
#2	89.60	20.98	7.606	7.714	0.415	0.015	1.680	0.257	0.423
#3	89.74	20.95	7.641	7.668	0.431	0.019	1.709	0.251	0.420
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	2.251	-0.010	0.164	4.404	0.556	0.744	2.016		
Stddev	0.004	0.003	0.002	0.014	0.002	0.011	0.006		
%RSD	.1713	35.39	.9840	3.255	3.400	1.456	2.770		
#1	2.252	-0.006	0.162	4.392	0.558	0.738	2.012		
#2	2.246	-0.013	0.164	4.420	0.554	0.756	2.013		
#3	2.254	-0.010	0.165	4.400	0.556	0.737	2.022		

Sample Name: jc85998-1 Acquired: 4/11/2019 14:30:51 Type: Unk
 Method: SGS 3 NO Valve(v263) 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	159280.	20489.	7226.5	10471.
Stddev	473.	161.	43.0	42.
%RSD	.29694	.78411	.59569	.40372
#1	159830.	20564.	7249.9	10497.
#2	159020.	20304.	7252.8	10495.
#3	159000.	20598.	7176.9	10423.

Sample Name: jc85998-2 Acquired: 4/11/2019 14:35:57 Type: Unk
 Method: SGS 3 NO Valve(v263) 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	6577	0.0026	0.001	0.429	1.014	0.103	2.939	0.868	0.005
Stddev	0.012	0.001	0.001	0.002	0.003	0.005	0.016	0.008	0.003
%RSD	.1837	2.426	83.60	5.194	2.972	4.967	.5572	.8929	70.37
#1	6582	0.0027	0.001	0.428	1.014	0.103	2.927	0.867	0.008
#2	6564	0.0025	0.001	0.427	1.011	0.1028	2.958	0.860	0.001
#3	6586	0.0026	0.002	0.432	1.017	0.1038	2.933	0.876	0.006
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1980	2557	0.193	0.010	0.632	0.010	0.031	67.12	27.99
Stddev	0.002	0.024	0.008	0.010	0.002	0.022	0.009	.12	.05
%RSD	.1215	.9512	4.234	100.2	3.466	208.2	29.73	.1861	.1797
#1	1978	2544	0.200	0.015	0.632	0.011	0.027	67.22	28.04
#2	1982	2542	0.195	0.017	0.634	0.032	0.042	66.98	27.94
#3	1979	2585	0.184	-0.002	0.630	-0.012	0.024	67.16	28.01
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	107.6	25.04	8.955	1.027	0.472	0.024	1.743	0.256	0.664
Stddev	.1	.03	0.022	0.009	0.009	0.002	0.012	0.007	0.001
%RSD	.1108	.1282	.2446	.8525	1.813	10.06	.6941	2.795	.1646
#1	107.6	25.05	8.960	1.017	0.463	0.023	1.732	0.256	0.665
#2	107.4	25.00	8.931	1.034	0.474	0.022	1.743	0.248	0.665
#3	107.6	25.06	8.974	1.030	0.480	0.026	1.756	0.263	0.663
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	2.710	-0.004	0.252	6.242	0.689	0.844	2.111		
Stddev	0.003	0.013	0.002	0.065	0.031	0.017	0.018		
%RSD	.1103	338.7	.8611	1.039	4.536	2.016	.8467		
#1	2.713	-0.011	0.254	6.177	0.703	0.863	2.090		
#2	2.711	0.011	0.253	6.241	0.710	0.841	2.123		
#3	2.707	-0.011	0.250	6.307	0.653	0.829	2.118		

Zoom In
Zoom Out

Sample Name: jc85998-2 Acquired: 4/11/2019 14:35:57 Type: Unk
Method: SGS 3 NO Valve(v263) 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	160230.	20480.	7150.1	10311.
Stddev	418.	69.	69.4	85.
%RSD	.26073	.33903	.97020	.81984
#1	160530.	20484.	7190.7	10353.
#2	159750.	20547.	7189.6	10366.
#3	160400.	20409.	7070.0	10214.

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Zoom In
Zoom Out

Sample Name: jc85998-3 Acquired: 4/11/2019 14:41:03 Type: Unk
Method: SGS 3 NO Valve(v263) 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	2664	0022	0001	0436	0941	0963	2164	0744	0005
Stddev	0002	0000	0002	0003	0001	0008	013	0002	0003
%RSD	0644	2087	170.8	7463	1086	8089	5834	2186	51.19
#1	2664	0023	0002	0439	0940	0964	2177	0743	0008
#2	2662	0022	0002	0436	0941	0971	2164	0745	0005
#3	2665	0022	-0001	0433	0941	0955	2152	0746	0003
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2109	2910	0214	0002	0662	0015	0041	84.48	11.20
Stddev	0001	0001	0002	0008	0010	0008	0007	.13	.02
%RSD	0658	0511	1.155	435.7	1.479	55.85	16.87	1517	1742
#1	2108	2911	0215	0008	0668	0021	0045	84.63	11.22
#2	2110	2909	0211	0004	0651	0017	0033	84.39	11.19
#3	2110	2908	0215	-0007	0668	0005	0044	84.44	11.18
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	121.3	26.74	5.754	8216	0352	0027	2.520	0248	0432
Stddev	.1	.04	.056	0111	0009	0002	.016	0003	0001
%RSD	0860	1660	9740	1.351	2.599	5.760	6488	1.108	2568
#1	121.4	26.79	5.808	8247	0341	0028	2.525	0246	0432
#2	121.2	26.71	5.696	8309	0359	0025	2.533	0249	0432
#3	121.3	26.72	5.756	8093	0354	0027	2.501	0251	0430
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	2520	-0005	0110	5696	0638	0781	2441		
Stddev	002	0006	0001	0027	0012	0027	011		
%RSD	0623	124.2	7090	4769	1.821	3.485	4353		
#1	2519	0001	0109	5708	0625	0759	2453		
#2	2522	-0012	0111	5716	0647	0811	2436		
#3	2519	-0005	0109	5665	0642	0772	2434		

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Zoom In
Zoom Out

Sample Name: jc85998-3 Acquired: 4/11/2019 14:41:03 Type: Unk
Method: SGS 3 NO Valve(v263) 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	158400.	20252.	7144.4	10373.
Stddev	554.	175.	9.9	11.
%RSD	.35003	.86494	.13833	.10516
#1	158510.	20130.	7137.3	10365.
#2	158900.	20452.	7155.7	10385.
#3	157800.	20173.	7140.3	10369.

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Zoom In
Zoom Out

Sample Name: jc85998-4 Acquired: 4/11/2019 14:46:12 Type: Unk
Method: SGS 3 NO Valve(v263) 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	3500	0025	0003	0457	1095	0988	1301	0942	0007
Stddev	0031	0001	0001	0002	0003	0004	001	0004	0004
%RSD	9000	3.259	24.85	4764	3.123	4328	0729	4391	57.95
#1	3471	0026	0004	0457	1093	0983	1300	0938	0010
#2	3496	0024	0004	0460	1092	0988	1301	0945	0002
#3	3533	0026	0002	0455	1099	0991	1302	0944	0010
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1758	2548	0193	-0000	0684	-0003	0042	69.66	10.72
Stddev	0004	0007	0008	0005	0007	0009	0011	.50	.09
%RSD	2077	2885	4.268	1044.	1.081	284.8	27.39	7109	8289
#1	1755	2539	0200	-0003	0702	-0012	0045	69.24	10.65
#2	1762	2552	0184	-0003	0692	-0004	0029	69.52	10.70
#3	1759	2552	0194	0005	0687	0007	0051	70.21	10.82
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	106.3	27.04	8.114	7988	0537	0022	1.823	0243	0382
Stddev	.7	.16	.074	0045	0003	0004	013	0000	0003
%RSD	6316	6043	9107	5679	6463	18.86	7250	1427	7018
#1	105.8	26.91	8.056	7965	0536	0026	1.809	0243	0379
#2	106.0	26.98	8.088	7959	0540	0018	1.835	0243	0381
#3	107.0	27.22	8.197	8041	0533	0022	1.826	0243	0385
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	2324	-0011	0233	5966	0569	0987	1940		
Stddev	000	0001	0001	0051	0011	0007	022		
%RSD	0068	11.16	3064	8492	1.866	7023	1.120		
#1	2324	-0010	0233	5940	0563	0990	1935		
#2	2324	-0012	0233	6025	0581	0979	1964		
#3	2323	-0012	0234	5935	0563	0992	1921		

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Sample Name: jc85998-4 Acquired: 4/11/2019 14:46:12 Type: Unk
Method: SGS 3 NO Valve(v263) 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, #1, #2, #3.

Sample Name: jc85008-14t Acquired: 4/11/2019 14:51:11 Type: Unk
Method: SGS 3 NO Valve(v263) 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, #1, #2, #3.

Sample Name: jc85008-14t Acquired: 4/11/2019 14:51:11 Type: Unk
Method: SGS 3 NO Valve(v263) 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, #1, #2, #3.

Sample Name: mp14042-mb1conf Acquired: 4/11/2019 14:56:17 Type: Unk
Method: SGS 3 NO Valve(v263) 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, #1, #2, #3.

Sample Name: mp14042-mb1conf Acquired: 4/11/2019 14:56:17 Type: Unk
Method: SGS 3 NO Valve(v263) 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: mp14042-ps1 Acquired: 4/11/2019 15:01:24 Type: Unk
Method: SGS 3 NO Valve(v263) 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 sample numbers #1, #2, #3. Elements include Ba4554, Be3130, Cd2288, Co2286, Cr2677, Cu3247, Mn2576, Ni2316, Ag3280, V_2924, Zn2062, As1890, Tl1908, 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.

11.2 11

Sample Name: mp14042-ps1 Acquired: 4/11/2019 15:01:24 Type: Unk
Method: SGS 3 NO Valve(v263) 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: ccv Acquired: 4/11/2019 15:06:24 Type: QC
Method: SGS 3 NO Valve(v263) 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 sample numbers #1, #2, #3. Elements include Ba4554, Be3130, Cd2288, Co2286, Cr2677, Cu3247, Mn2576, Ni2316, Ag3280, V_2924, Zn2062, As1890, Tl1908, Pb2203, Se1960, Sb2068, Al3961, Ca3179, Fe2599, Mg2790, K_7664, Na5895, B_2089, Mo2020, Si2124, Sn1899, Sr4077. Includes 'Check ? Value Range' rows.

Zoom In

Sample Name: ccv Acquired: 4/11/2019 15:06:24 Type: QC
Method: SGS 3 NO Valve(v263) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Table with 7 columns: Elem, Units, W_2079, Zr3391, S_1820, Bi2230, Li6707, P_1774. Rows for Avg, Stddev, %RSD and replicate #1-3.

Table with 8 columns for replicate data (#1-3) and 8 Check? Value Range columns.

Table with 4 columns: Int. Std. Units, Y_3600, Y_3710, Y_2243, ln2306.

Table with 4 columns: Avg, Stddev, %RSD for Y_3600, Y_3710, Y_2243, ln2306.

Table with 4 columns for replicate data (#1-3) and 4 Int. Std. Units columns.

Table with 8 Check? Value Range columns.

Table with 9 columns: Elem, Units, Fe2599, Mg2790, K_7664, Na5895, B_2089, Mo2020, Si2124, Sn1899, Sr4077.

Table with 9 columns for replicate data (#1-3) and 9 Int. Std. Units columns.

Table with 8 Check? Value Range columns.

Zoom In

Sample Name: ccv Acquired: 4/11/2019 15:11:25 Type: QC
Method: SGS 3 NO Valve(v263) 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.

Table with 11 columns for replicate data (#1-3) and 11 Check? Value Range columns.

Table with 9 columns: Elem, Units, V_2924, Zn2062, As1890, Ti1908, Pb2203, Se1960, Sb2068, Al3961, Ca3179.

Table with 9 columns for replicate data (#1-3) and 9 Int. Std. Units columns.

Table with 9 columns for replicate data (#1-3) and 9 Int. Std. Units columns.

Table with 8 Check? Value Range columns.

Table with 10 columns: Elem, Units, Fe2599, Mg2790, K_7664, Na5895, B_2089, Mo2020, Si2124, Sn1899, Sr4077.

Table with 10 columns for replicate data (#1-3) and 10 Int. Std. Units columns.

Table with 8 Check? Value Range columns.

Zoom In

Sample Name: ccv Acquired: 4/11/2019 15:11:25 Type: QC
Method: SGS 3 NO Valve(v263) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Table with 7 columns: Elem, Units, Ti3349, W_2079, Zr3391, S_1820, Bi2230, Li6707, P_1774.

Table with 8 columns for replicate data (#1-3) and 8 Check? Value Range columns.

Table with 8 Check? Value Range columns.

Table with 4 columns: Int. Std. Units, Y_3600, Y_3710, Y_2243, ln2306.

Table with 4 columns for replicate data (#1-3) and 4 Int. Std. Units columns.

Table with 8 Check? Value Range columns.

Zoom In

Sample Name: ccb Acquired: 4/11/2019 15:16:27 Type: QC
Method: SGS 3 NO Valve(v263) 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.

Table with 11 columns for replicate data (#1-3) and 11 High Limit Low Limit columns.

Table with 11 High Limit Low Limit columns.

Table with 9 columns: Elem, Units, V_2924, Zn2062, As1890, Ti1908, Pb2203, Se1960, Sb2068, Al3961, Ca3179.

Table with 9 columns for replicate data (#1-3) and 9 High Limit Low Limit columns.

Table with 8 High Limit Low Limit columns.

Table with 10 columns: Elem, Units, Fe2599, Mg2790, K_7664, Na5895, B_2089, Mo2020, Si2124, Sn1899, Sr4077.

Table with 10 columns for replicate data (#1-3) and 10 High Limit Low Limit columns.

Table with 8 High Limit Low Limit columns.

Sample Name: ccb Acquired: 4/11/2019 15:16:27 Type: QC
Method: SGS 3 NO Valve(v263) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Table with 8 columns: Elem, Units, Avg, Stddev, %RSD. Values include Ti3349, W_2079, Zr3391, S_1820, Bi2230, Li6707, P_1774.

Table with 8 columns: #1, #2, #3. Values include -0.001, -0.000, -0.005.

Check ? High Limit Low Limit. Values include Chk Pass, Chk Fail, .0040, -.0040.

Int. Std. Units Avg Stddev %RSD. Values include Y_3600, Y_3710, Y_2243, In2306.

Table with 4 columns: #1, #2, #3. Values include 158940, 160070, 159690.

Sample Name: cri Acquired: 4/11/2019 15:21:34 Type: QC
Method: SGS 3 NO Valve(v263) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Table with 11 columns: Elem, Units, Avg, Stddev, %RSD. Values include Ba4554, Be3130, Cd2288, Co2286, Cr2677, Cu3247, Mn2576, Ni2316, Ag3280.

Table with 11 columns: #1, #2, #3. Values include .1980, .1961, .1936.

Check ? Value Range. Values include 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, Avg, Stddev, %RSD. Values include V_2924, Zn2062, As1890, Ti1908, Pb2203, Se1960, Sb2068, Al3961, Ca3179.

Table with 11 columns: #1, #2, #3. Values include .0499, .0496, .0498.

Check ? Value Range. Values include Chk Pass, Chk Pass, Chk Pass, Chk Pass, Chk Pass, Chk Pass, Chk Pass, Chk Pass, Chk Pass, Chk Pass.

Table with 10 columns: Elem, Units, Avg, Stddev, %RSD. Values include Fe2599, Mg2790, K_7664, Na5895, B_2089, Mo2020, Si2124, Sn1899, Sr4077.

Table with 10 columns: #1, #2, #3. Values include .1011, .1054, .0995.

Check ? Value Range. Values include Chk Pass, Chk Pass, Chk Pass, Chk Pass, Chk Pass, Chk Pass, Chk Pass, Chk Pass, Chk Pass, Chk Pass.

Sample Name: cri Acquired: 4/11/2019 15:21:34 Type: QC
Method: SGS 3 NO Valve(v263) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Table with 8 columns: Elem, Units, Avg, Stddev, %RSD. Values include Ti3349, W_2079, Zr3391, S_1820, Bi2230, Li6707, P_1774.

Table with 8 columns: #1, #2, #3. Values include .0090, .0097, .0097.

Check ? Value Range. Values include Chk Pass, Chk Pass, Chk Pass, Chk Pass, Chk Pass, Chk Pass, Chk Pass, Chk Pass.

Int. Std. Units Avg Stddev %RSD. Values include Y_3600, Y_3710, Y_2243, In2306.

Table with 4 columns: #1, #2, #3. Values include 158020, 158470, 158620.

Sample Name: crid Acquired: 4/11/2019 15:26:38 Type: Unk
Method: SGS 3 NO Valve(v263) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Table with 11 columns: Elem, Units, Avg, Stddev, %RSD. Values include Ba4554, Be3130, Cd2288, Co2286, Cr2677, Cu3247, Mn2576, Ni2316, Ag3280.

Table with 11 columns: #1, #2, #3. Values include .0038, .0035, .0036.

Table with 11 columns: Elem, Units, Avg, Stddev, %RSD. Values include V_2924, Zn2062, As1890, Ti1908, Pb2203, Se1960, Sb2068, Al3961, Ca3179.

Table with 11 columns: #1, #2, #3. Values include .0020, .0017, .0021.

Table with 10 columns: Elem, Units, Avg, Stddev, %RSD. Values include Fe2599, Mg2790, K_7664, Na5895, B_2089, Mo2020, Si2124, Sn1899, Sr4077.

Table with 10 columns: #1, #2, #3. Values include -.0019, -.0020, .0025.

Table with 8 columns: Elem, Units, Avg, Stddev, %RSD. Values include Ti3349, W_2079, Zr3391, S_1820, Bi2230, Li6707, P_1774.

Table with 8 columns: #1, #2, #3. Values include -.0009, -.0002, -.0002.

Sample Name: crid Acquired: 4/11/2019 15:26:38 Type: Unk
Method: SGS 3 NO Valve(v263) 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 replicate values (#1, #2, #3).

Sample Name: mp14093-mb1 7 Acquired: 4/11/2019 15:31:45 Type: Unk
Method: SGS 3 NO Valve(v263) 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 replicate values (#1, #2, #3).

Sample Name: mp14093-mb1 7 Acquired: 4/11/2019 15:31:45 Type: Unk
Method: SGS 3 NO Valve(v263) 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 replicate values (#1, #2, #3).

Sample Name: mp14093-b1 Acquired: 4/11/2019 15:37:48 Type: Unk
Method: SGS 3 NO Valve(v263) 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 replicate values (#1, #2, #3).

11.2
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Zoom In
Zoom Out

Sample Name: mp14093-b1 Acquired: 4/11/2019 15:37:48 Type: Unk
Method: SGS 3 NO Valve(v263) 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	153250.	19481.	6842.7	10097.
Stddev	834.	37.	17.3	20.
%RSD	.54451	.19186	.25292	.19779

#1	152500.	19509.	6837.5	10104.
#2	154150.	19439.	6828.6	10074.
#3	153100.	19496.	6862.0	10112.

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Sample Name: mp14093-s1 Acquired: 4/11/2019 15:42:49 Type: Unk
Method: SGS 3 NO Valve(v263) 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	2.320	1.922	1.908	1.976	2.093	2.045	3.994	2.014	2.498
Stddev	.011	.007	.001	.002	.002	.002	.029	.001	.0004
%RSD	.4517	.3852	.0727	.0978	.0709	.0715	.7276	.0593	.1536

#1	2.325	1.924	1.906	1.975	2.092	2.045	4.025	2.014	2501
#2	2.328	1.928	1.909	1.978	2.095	2.047	3.988	2.015	2498
#3	2.309	1.913	1.908	1.974	2.092	2.044	3.968	2.013	2494

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.005	2.549	1.902	2.000	2.172	1.857	1.489	83.61	36.87
Stddev	.002	.001	.004	.018	.001	.004	.001	.30	.15
%RSD	.0908	.0394	.1920	.8885	.0563	.1994	.0889	.3598	.3959

#1	2.007	2.548	1.898	1.989	2.171	1.853	1.490	83.76	36.95
#2	2.004	2.549	1.903	1.991	2.173	1.858	1.488	83.79	36.97
#3	2.005	2.550	1.906	2.021	2.172	1.860	1.488	83.26	36.71

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	118.9	41.03	34.52	25.77	1.861	1.873	6.394	1.917	1.997
Stddev	.4	.19	.13	.05	.003	.003	.053	.007	.004
%RSD	.3100	.4660	.3746	.1762	.1389	.1652	.8372	.3467	.1946

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Zoom In
Zoom Out

Sample Name: mp14093-s1 Acquired: 4/11/2019 15:42:49 Type: Unk
Method: SGS 3 NO Valve(v263) 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	155860.	19959.	6990.8	10078.
Stddev	275.	126.	18.1	22.
%RSD	.17688	.62890	.25903	.21369

#1	155860.	19817.	6989.4	10077.
#2	155350.	20056.	7009.5	10100.
#3	155760.	20004.	6973.4	10057.

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Zoom In
Zoom Out

Sample Name: mp14093-s2 Acquired: 4/11/2019 15:47:47 Type: Unk
Method: SGS 3 NO Valve(v263) 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	2.295	1.910	1.884	1.958	2.075	2.040	3.954	2.001	2.495
Stddev	.003	.003	.013	.003	.004	.004	.031	.013	.0010
%RSD	.1263	.1573	.7100	.6570	.2096	.1824	.7919	.6514	.4052

#1	2.295	1.909	1.899	1.972	2.070	2.036	3.918	2.014	2484
#2	2.292	1.908	1.878	1.956	2.079	2.043	3.977	1.999	2505
#3	2.298	1.914	1.874	1.947	2.075	2.040	3.965	1.989	2495

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.000	2.517	1.880	1.870	2.119	1.832	1.455	82.24	37.59
Stddev	.004	.017	.010	.005	.011	.007	.012	.06	.02
%RSD	.1913	.6910	.5141	.2406	.5357	.3909	.8207	.0739	.0581

#1	1.996	2.536	1.889	1.965	2.131	1.840	1.469	82.24	37.58
#2	2.003	2.513	1.880	1.975	2.117	1.828	1.449	82.18	37.57
#3	2.002	2.502	1.870	1.971	2.109	1.828	1.447	82.31	37.61

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	119.7	40.90	34.08	25.66	1.843	1.847	6.027	1.895	1.983
Stddev	.0	.04	.05	.02	.011	.011	.098	.011	.001
%RSD	.0304	.0884	.1433	.0704	.6048	.5923	1.632	.5622	.0377

#1	119.7	40.86	34.13	25.64	1.856	1.859	6.133	1.906	1.984
#2	119.7	40.93	34.03	25.67	1.840	1.845	6.012	1.892	1.984
#3	119.7	40.90	34.09	25.66	1.834	1.837	5.938	1.885	1.982

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Sample Name: mp14093-s2 Acquired: 4/11/2019 15:47:47 Type: Unk
 Method: SGS 3 NO Valve(v263) 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	155090.	19918.	7012.6	10098.
Stddev	905.	47.	39.6	51.
%RSD	.58383	.23610	.56458	.50103
#1	156120.	19867.	6968.2	10044.
#2	154770.	19960.	7025.3	10105.
#3	154400.	19925.	7044.2	10145.

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Sample Name: jc86043-4 Acquired: 4/11/2019 15:52:46 Type: Unk
 Method: SGS 3 NO Valve(v263) 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	.2329	.0017	.0010	.0323	.1124	.1063	1.512	.0662	.0004
Stddev	.0001	.0001	.0001	.0001	.0004	.0004	.002	.0003	.0001
%RSD	.0426	5.136	14.12	.2321	.3168	.3321	.1040	.4560	25.13
#1	.2329	.0016	.0009	.0322	.1127	.1064	1.513	.0664	.0004
#2	.2330	.0017	.0012	.0323	.1124	.1059	1.510	.0663	.0003
#3	.2331	.0018	.0010	.0323	.1120	.1066	1.511	.0658	.0005

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0820	.5121	.0301	-.0016	.1641	.0051	.0020	33.02	455.5
Stddev	.0001	.0012	.0008	.0007	.0014	.0024	.0019	.07	3.8
%RSD	.1439	.2407	2.669	42.55	.8267	46.68	93.58	1.984	.8324
#1	.0819	.5135	.0310	-.0023	.1645	.0024	.0006	32.99	453.7
#2	.0821	.5112	.0294	-.0009	.1626	.0061	.0013	32.98	452.9
#3	.0821	.5116	.0298	-.0015	.1652	.0068	.0042	33.10	459.8

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	73.48	286.7	5.228	.5904	.0205	.0032	4.587	.0393	1.290
Stddev	.15	.4	.015	.0008	.0001	.0002	.035	.0006	.0002
%RSD	.1997	.1345	.2766	.1325	.6044	6.778	.7695	1.568	1.499
#1	73.44	286.7	5.235	.5902	.0204	.0035	4.623	.0400	.1291
#2	73.36	286.3	5.211	.5897	.0207	.0031	4.587	.0392	.1288
#3	73.64	287.1	5.237	.5912	.0205	.0031	4.552	.0388	.1291

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.447	.0083	.0299	18.33	.0441	.0769	1.772
Stddev	.002	.0020	.0005	.02	.0019	.0014	.006
%RSD	.1395	24.34	1.826	.1283	4.422	1.801	.3303
#1	1.449	.0098	.0297	18.31	.0446	.0763	1.769
#2	1.445	.0092	.0295	18.35	.0419	.0759	1.779
#3	1.447	.0060	.0306	18.34	.0457	.0785	1.768

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Sample Name: jc86043-4 Acquired: 4/11/2019 15:52:46 Type: Unk
 Method: SGS 3 NO Valve(v263) 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	146870.	19322.	6585.0	9192.8
Stddev	786.	104.	25.5	25.3
%RSD	.53492	.53866	.38748	.27467
#1	146960.	19330.	6555.9	9164.4
#2	146040.	19422.	6595.3	9201.0
#3	147600.	19214.	6603.7	9212.8

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Sample Name: mp14093-sd1 Acquired: 4/11/2019 15:57:53 Type: Unk
 Method: SGS 3 NO Valve(v263) 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	.2302	.0010	.0005	.0318	.1128	.1082	1.557	.0653	-.0008
Stddev	.0013	.0001	.0008	.0005	.0028	.0030	.003	.0032	.0023
%RSD	.5432	9.897	153.0	1.707	2.466	2.745	.2164	4.936	278.5
#1	.2317	.0009	.0008	.0315	.1126	.1115	1.555	.0689	.0014
#2	.2295	.0011	.0011	.0315	.1157	.1056	1.554	.0628	-.0032
#3	.2295	.0011	-.0004	.0325	.1102	.1076	1.561	.0642	-.0007

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0826	.5414	.0345	-.0024	.1703	.0010	.0082	33.42	490.3
Stddev	.0013	.0010	.0073	.0038	.0012	.0076	.0091	.07	.3
%RSD	1.563	.1886	21.20	155.0	.7016	776.6	109.8	.2194	.0546
#1	.0826	.5417	.0348	-.0047	.1693	.0025	-.0022	33.46	490.6
#2	.0839	.5402	.0271	.0019	.1700	.0077	.0138	33.46	490.3
#3	.0813	.5422	.0417	-.0045	.1716	-.0072	.0132	33.33	490.1

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	76.50	298.4	4.255	.5153	.0209	.0036	4.636	.0378	1.293
Stddev	.14	.1	.168	.0379	.0035	.0014	.100	.0020	.0001
%RSD	.1850	.0324	3.955	7.355	16.66	38.06	2.152	5.254	.0755
#1	76.64	298.3	4.442	.4761	.0212	.0029	4.586	.0366	.1292
#2	76.51	298.5	4.116	.5181	.0241	.0052	4.572	.0367	.1294
#3	76.35	298.3	4.206	.5517	.0172	.0028	4.751	.0401	.1293

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.455	.0234	.0287	18.05	.0367	.0766	1.751
Stddev	.008	.0041	.0008	.06	.0058	.0024	.008
%RSD	.5204	17.62	2.697	.3548	15.69	3.114	.4353
#1	1.446	.0281	.0284	18.00	.0301	.0777	1.746
#2	1.458	.0206	.0295	18.12	.0393	.0783	1.760
#3	1.460	.0214	.0281	18.04	.0408	.0739	1.748

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Zoom In
Zoom Out

Sample Name: mp14093-sd1 Acquired: 4/11/2019 15:57:53 Type: Unk
 Method: SGS 3 NO Valve(v263) 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	153860.	19532.	6897.9	10108.
Stddev	260.	76.	11.3	11.
%RSD	.16879	.38951	.16344	.10697
#1	153810.	19581.	6887.6	10097.
#2	154140.	19444.	6896.2	10109.
#3	153630.	19570.	6909.9	10118.

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Zoom In
Zoom Out

Sample Name: jc86122-2a Acquired: 4/11/2019 16:02:55 Type: Unk
 Method: SGS 3 NO Valve(v263) Mode: CONC Corr. Factor: 1.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment: due

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2843	.0018	.0015	.0197	.0412	.3516	.5229	.0444	.0010
Stddev	.0010	.0001	.0003	.0004	.0003	.0021	.0021	.0011	.0002
%RSD	.3368	4.981	18.96	1.831	.6999	.6087	.3976	2.426	15.36
#1	.2848	.0018	.0012	.0197	.0414	.3541	.5248	.0445	.0008
#2	.2832	.0017	.0015	.0194	.0409	.3502	.5207	.0433	.0011
#3	.2849	.0017	.0018	.0201	.0414	.3506	.5232	.0454	.0010
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0580	2.142	.0164	-0.0003	.7253	.0055	.0019	42.24	9.487
Stddev	.0006	.037	.0011	.0016	.0111	.0027	.0012	.15	.028
%RSD	1.051	1.748	6.553	511.1	1.531	49.66	66.36	.3562	2.969
#1	.0586	2.130	.0155	.0015	.7238	.0086	.0005	42.30	9.505
#2	.0573	2.112	.0161	-0.013	.7150	.0036	.0028	42.07	9.455
#3	.0580	2.184	.0176	-0.011	.7371	.0043	.0022	42.35	9.501
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	59.34	9.151	6.135	6.350	.0244	.0036	5.100	.0257	.0476
Stddev	.16	.037	.011	.027	.0004	.0002	.092	.0006	.0001
%RSD	.2671	.4063	.1719	.4289	1.767	6.701	1.814	2.363	.1589
#1	59.45	9.183	6.125	6.380	.0241	.0038	5.088	.0252	.0477
#2	59.16	9.110	6.135	6.326	.0241	.0033	5.013	.0264	.0476
#3	59.40	9.160	6.146	6.346	.0249	.0036	5.197	.0256	.0476
Elem	Tl3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	.9969	.0018	.0286	17.73	.0246	.0757	.9211		
Stddev	.0031	.0006	.0002	.30	.0011	.0015	.0155		
%RSD	.3149	32.93	.6141	1.693	4.612	2.027	1.682		
#1	1.000	.0023	.0288	17.85	.0240	.0774	.9329		
#2	.9944	.0019	.0284	17.39	.0259	.0745	.9036		
#3	.9959	.0011	.0285	17.95	.0239	.0752	.9268		

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Zoom In
Zoom Out

Sample Name: jc86122-2a Acquired: 4/11/2019 16:02:55 Type: Unk
 Method: SGS 3 NO Valve(v263) Mode: CONC Corr. Factor: 1.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment: due

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	164170.	20612.	7221.1	10620.
Stddev	853.	299.	111.9	145.
%RSD	.51958	1.4527	1.5493	1.3633
#1	163350.	20458.	7276.2	10678.
#2	165060.	20957.	7294.7	10726.
#3	164110.	20420.	7092.3	10455.

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Zoom In
Zoom Out

Sample Name: ccv Acquired: 4/11/2019 16:07:56 Type: QC
 Method: SGS 3 NO Valve(v263) 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	2.078	2.076	2.065	2.074	2.059	2.039	2.080	2.068	.2510
Stddev	.006	.006	.002	.001	.001	.002	.017	.001	.0007
%RSD	.3044	.2686	.0922	.0690	.0220	.1131	.8141	.0319	.2707
#1	2.071	2.070	2.065	2.072	2.059	2.039	2.064	2.067	.2517
#2	2.080	2.076	2.067	2.075	2.059	2.036	2.098	2.068	.2503
#3	2.083	2.081	2.063	2.074	2.059	2.041	2.077	2.068	.2510
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	2.054	2.073	2.012	2.079	2.062	2.030	2.032	40.99	41.06
Stddev	.001	.002	.006	.007	.002	.004	.002	.11	.08
%RSD	.0360	.0873	.2921	.3414	.1052	.2228	.0809	.2660	.2030
#1	2.054	2.073	2.014	2.083	2.063	2.032	2.033	40.87	40.97
#2	2.053	2.075	2.016	2.084	2.064	2.034	2.033	41.01	41.09
#3	2.053	2.071	2.005	2.071	2.060	2.025	2.030	41.09	41.13
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	41.21	40.97	41.50	41.65	2.079	2.039	5.295	2.044	2.065
Stddev	.07	.13	.11	.03	.002	.003	.006	.005	.004
%RSD	.1664	.3060	.2638	.0688	.0760	.1628	.1199	.2371	.1748
#1	41.13	40.95	41.39	41.63	2.079	2.039	5.290	2.045	2.062
#2	41.24	40.86	41.48	41.62	2.080	2.042	5.302	2.048	2.064
#3	41.26	41.11	41.61	41.68	2.077	2.035	5.292	2.038	2.069
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: ccv Acquired: 4/11/2019 16:07:56 Type: QC
 Method: SGS 3 NO Valve(v263) 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
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.026	1.997	2.035	1.995	2.052	2.093	1.906
Stddev	.002	.003	.001	.010	.003	.008	.017
%RSD	.0770	.1344	.0413	.5039	.1305	.3645	.9047
#1	2.024	1.997	2.035	1.998	2.052	2.084	1.923
#2	2.027	1.999	2.035	2.004	2.055	2.096	1.908
#3	2.027	1.994	2.036	1.984	2.050	2.099	1.888

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
 Value High Limit Low Limit

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	149130.	19038.	6708.1	9831.5
Stddev	612.	7.	9.8	5.8
%RSD	.41049	.03540	.14647	.05895
#1	149820.	19044.	6699.8	9825.5
#2	148660.	19031.	6705.6	9832.1
#3	148900.	19040.	6718.9	9837.0

Sample Name: ccb Acquired: 4/11/2019 16:12:58 Type: QC
 Method: SGS 3 NO Valve(v263) 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	.0000	-0.001	-0.001	-0.000	-0.003	-0.000	.0002	-0.002
Stddev	.0000	.0000	.0001	.0002	.0004	.0004	.0000	.0001	.0002
%RSD	12.03	168.7	99.81	310.7	122.1	111.3	696.3	69.18	89.67
#1	-0.003	-0.000	.0000	-0.001	-0.005	.0001	.0000	.0001	-0.002
#2	-0.004	.0001	-0.002	.0002	.0002	-0.005	.0000	.0004	-0.004
#3	-0.003	.0000	-0.001	-0.003	.0002	-0.005	-0.000	.0002	-0.000

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
 Value 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	.0001	.0011	-0.001	-0.006	.0018	.0001	-0.0126	-0.018
Stddev	.0002	.0001	.0008	.0014	.0001	.0014	.0013	.0104	.0016
%RSD	160.1	187.0	70.98	121.3	9.399	81.34	106.3	82.47	86.93
#1	-0.002	-0.000	.0012	-0.017	-0.006	.0010	-0.008	-0.106	-0.035
#2	.0003	.0000	.0003	.0010	-0.006	.0008	-0.004	-0.033	-0.003
#3	-0.000	.0002	.0019	.0003	-0.007	.0034	.0016	-0.0238	-0.017

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
 Value 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	-0.003	.0007	-0.1450	-0.134	.0004	.0002	.0017	-0.001	.0000
Stddev	.0016	.0172	.0214	.0013	.0007	.0002	.0027	.0006	.0001
%RSD	549.8	256.4	14.78	9.542	159.8	76.24	163.5	682.6	497.3
#1	.0000	-0.182	-.1442	-0.145	.0012	.0002	-0.008	.0003	.0001
#2	-0.0020	.0153	-.1240	-0.120	.0003	.0001	.0046	.0002	-0.001
#3	.0011	.0049	-.1669	-0.138	-0.002	.0004	.0011	-0.008	.0001

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
 Value High Limit Low Limit

Sample Name: ccb Acquired: 4/11/2019 16:12:58 Type: QC
 Method: SGS 3 NO Valve(v263) 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
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.003	.0024	.0000	-0.005	-0.008	F .0043	-0.013
Stddev	.0001	.0002	.0001	.0014	.0007	.0022	.0021
%RSD	29.76	8.465	3340.	291.7	88.99	50.12	155.5
#1	-0.003	.0022	-0.001	-0.020	-0.004	.0041	-0.016
#2	-0.002	.0023	.0001	-0.001	-0.003	.0066	.0009
#3	-0.004	.0026	.0000	.0007	-0.015	.0023	-0.032

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Fail Chk Pass
 Value High Limit Low Limit

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	159990.	19399.	7046.7	10916.
Stddev	580.	117.	56.1	75.
%RSD	.36261	.60204	.79622	.68474
#1	159710.	19523.	7083.9	10965.
#2	160660.	19291.	7074.0	10953.
#3	159610.	19384.	6982.2	10829.

Sample Name: crid Acquired: 4/11/2019 16:18:07 Type: QC
 Method: SGS 3 NO Valve(v263) 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	.0038	.0009	F .0008	.0027	.0020	F -.0004	.0029	.0042
Stddev	.0002	.0002	.0001	.0002	.0002	.0003	.0000	.0005
%RSD	5.504	18.54	17.92	6.661	7.564	61.54	1.400	12.79
#1	.0037	.0007	.0007	.0028	.0019	-0.006	.0029	.0046
#2	.0037	.0009	.0010	.0029	.0020	-0.001	.0029	.0044
#3	.0040	.0011	.0008	.0025	.0022	-0.005	.0030	.0036

Check ? Chk Pass Chk Pass Chk Fail Chk Pass Chk Pass Chk Fail Chk Pass Chk Pass
 Value High Limit Low Limit

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F -.0000	.0017	.0103	.0035	F .0016	F -.0002	.0053	F -.0008
Stddev	.0004	.0004	.0001	.0014	.0009	.0009	.0006	.0008
%RSD	164.1	22.18	.8016	39.10	59.82	546.0	10.92	90.18
#1	-0.005	.0018	.0104	.0047	.0012	.0001	.0047	-0.017
#2	.0003	.0021	.0103	.0020	.0027	.0006	.0058	-0.003
#3	.0001	.0013	.0103	.0036	.0009	-0.012	.0054	-0.005

Check ? Chk Fail Chk Pass Chk Pass Chk Pass Chk Fail Chk Fail Chk Pass Chk Fail
 Value High Limit Low Limit

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0983	1.041	-0.022	F .1211	1.884	1.046	-0.001	.0000
Stddev	.0078	.005	.0030	.0070	.010	.004	.0006	.0001
%RSD	7.964	.4999	135.4	5.794	5.350	.3472	428.6	237.7
#1	.0963	1.035	-0.026	.1191	1.880	1.042	.0004	-0.001
#2	.1069	1.044	.0010	.1289	1.895	1.049	-0.000	.0001
#3	.0916	1.044	-0.050	.1153	1.876	1.048	-0.008	.0001

Check ? Chk Pass Chk Pass None Chk Fail Chk Pass Chk Pass None None
 Value High Limit Low Limit

Sample Name: crid Acquired: 4/11/2019 16:18:07 Type: QC
 Method: SGS 3 NO Valve(v263) 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	-0011	-0008	-0001	-0005	.0030	-0002	-0004	-0006
Stddev	.0017	.0009	.0002	.0003	.0009	.0000	.0010	.0007
%RSD	152.5	109.3	131.2	54.36	30.91	26.46	257.0	109.5
#1	-0013	-0002	-0000	-0002	.0027	-0001	-0013	-0013
#2	.0007	-0014	-0003	-0004	.0023	-0002	-0004	-0006
#3	-0028	-0011	-0000	-0008	.0041	-0002	.0006	.0000
Check ?	None	None	None	None	None	None	None	None
Value								
Range								
Elem	Li6707	P_1774						
Units	ppm	ppm						
Avg	.0022	-0005						
Stddev	.0004	.0023						
%RSD	18.75	443.9						
#1	.0018	.0020						
#2	.0026	-0011						
#3	.0021	-0025						
Check ?	None	None						
Value								
Range								
Int. Std.	Y_3600	Y_3710	Y_2243	In2306				
Units	Cts/S	Cts/S	Cts/S	Cts/S				
Avg	159080.	19493.	7002.0	10812.				
Stddev	976.	116.	9.8	8.				
%RSD	.61326	.59388	.14025	.07368				
#1	159080.	19603.	7012.1	10820.				
#2	160060.	19372.	6992.5	10804.				
#3	158110.	19504.	7001.3	10812.				

Sample Name: icsa Acquired: 4/11/2019 16:23:14 Type: QC
 Method: SGS 3 NO Valve(v263) 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	-0002	.0008	-0015	-0077	.0032	-0003	.0022
Stddev	.0002	.0001	.0002	.0002	.0003	.0002	.0001	.0001	.0004
%RSD	243.0	197.6	82.74	25.04	23.21	2.267	2.870	24.26	19.92
#1	-0001	-0001	-0000	.0010	-0013	-0078	.0033	-0004	.0026
#2	.0004	-0000	-0002	.0008	-0019	-0075	.0031	-0003	.0022
#3	.0000	.0000	-0004	.0006	-0013	-0078	.0032	-0002	.0017
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
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	-0033	-0012	-0006	-0003	.0008	.0003	.0035	513.7	387.1
Stddev	.0003	.0001	.0016	.0017	.0030	.0020	.0012	9.8	2.1
%RSD	8.634	11.13	289.6	516.1	392.6	646.5	33.52	1.912	.5319
#1	-0030	-0011	-0013	-0014	.0035	-0020	.0046	522.9	385.4
#2	-0035	-0013	-0017	.0020	-0024	.0019	.0035	514.9	389.4
#3	-0035	-0013	.0013	.0004	.0012	.0010	.0023	503.3	386.6
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
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	195.5	497.6	.0956	-0009	-0023	-0002	.0012	-0006	-0006
Stddev	.2	.9	.0347	.0135	.0012	.0002	.0018	.0012	.0001
%RSD	.0823	.1787	36.34	1519.	50.44	83.79	155.9	208.1	9.966
#1	195.7	498.6	.0556	-0021	-0032	-0004	.0008	.0000	-0005
#2	195.3	497.5	.1176	-0137	-0029	-0002	-0005	.0002	-0006
#3	195.4	496.8	.1137	.0132	-0010	-0001	.0032	-0020	-0006
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
High Limit									
Low Limit									

Sample Name: icsa Acquired: 4/11/2019 16:23:14 Type: QC
 Method: SGS 3 NO Valve(v263) 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
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0017	.0008	.0009	-0049	-0044	.0047	.0182
Stddev	.0004	.0007	.0003	.0033	.0021	.0014	.0026
%RSD	22.16	90.91	30.30	66.61	47.48	29.04	14.38
#1	-0022	.0006	.0012	-0029	-0059	.0033	.0183
#2	-0016	.0001	.0007	-0087	-0020	.0060	.0156
#3	-0015	.0015	.0008	-0032	-0053	.0046	.0208
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
High Limit							
Low Limit							
Int. Std.	Y_3600	Y_3710	Y_2243	In2306			
Units	Cts/S	Cts/S	Cts/S	Cts/S			
Avg	136960.	18503.	6269.9	9003.8			
Stddev	968.	141.	12.6	9.4			
%RSD	.70655	.75984	.20125	.10475			
#1	137450.	18371.	6284.1	9013.8			
#2	135850.	18486.	6260.0	9002.5			
#3	137590.	18651.	6265.4	8995.1			

Sample Name: ICSAB Acquired: 4/11/2019 16:28:29 Type: QC
 Method: SGS 3 NO Valve(v263) 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	.5179	.5007	1.025	.4949	.4944	.5015	.5219	.9774	1.113
Stddev	.0010	.0009	.004	.0015	.0015	.0023	.0022	.0025	.005
%RSD	.2000	.1859	.3481	.3053	.3101	.4562	.4167	.2592	.4451
#1	.5181	.5012	1.026	.4961	.4939	.5010	.5212	.9775	1.111
#2	.5167	.4996	1.028	.4955	.4932	.4995	.5202	.9799	1.110
#3	.5188	.5013	1.021	.4932	.4961	.5040	.5244	.9748	1.119
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	.5042	.9663	1.054	.9750	.9623	1.049	1.064	508.8	390.9
Stddev	.0021	.0032	.002	.0022	.0052	.002	.006	4.0	3.8
%RSD	.4113	.3277	.1804	.2227	.5426	.1637	.5559	.7880	.9677
#1	.5031	.9661	1.056	.9744	.9595	1.051	1.064	504.2	394.8
#2	.5029	.9696	1.053	.9731	.9683	1.049	1.071	510.7	387.2
#3	.5066	.9632	1.053	.9774	.9590	1.048	1.059	511.5	390.9
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	199.6	502.4	.0619	-0018	.4882	.4803	.5283	.4674	.5298
Stddev	.3	.8	.0460	.0079	.0012	.0010	.0018	.0008	.0009
%RSD	.1698	.1577	74.35	429.8	.2377	.2186	.3500	.1745	.1630
#1	199.6	502.6	.1138	-0098	.4894	.4803	.5268	.4668	.5288
#2	199.2	501.5	.0461	-0059	.4881	.4813	.5304	.4684	.5300
#3	199.9	503.1	.0259	-0015	.4870	.4792	.5278	.4671	.5305
Check ?	Chk Pass	Chk Pass	None	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

11.2
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Sample Name: ICSAB Acquired: 4/11/2019 16:28:29 Type: QC
 Method: SGS 3 NO Valve(v263) 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
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4954	.4673	.4972	.4762	.4732	.5194	.4945
Stddev	.0036	.0020	.0024	.0023	.0016	.0018	.0026
%RSD	.7271	.4203	.4871	.4758	.3476	.3532	.5193

#1	.4934	.4665	.4958	.4775	.4722	.5204	.4970
#2	.4933	.4695	.4957	.4774	.4751	.5173	.4919
#3	.4996	.4658	.4999	.4735	.4723	.5206	.4947

Check ? 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	137440.	18599.	6267.1	9035.0
Stddev	145.	92.	33.0	36.9
%RSD	.10543	.49454	.52640	.40837

#1	137370.	18622.	6279.4	9046.1
#2	137610.	18678.	6229.8	8993.8
#3	137350.	18498.	6292.3	9065.1

Sample Name: jc86122-3a Acquired: 4/11/2019 16:33:38 Type: Unk
 Method: SGS 3 NO Valve(v263) Mode: CONC Corr. Factor: 1.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment: due

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6681	.0057	.0005	.0541	.0994	.0953	2.989	.1016	.0010
Stddev	.0050	.0000	.0001	.0001	.0003	.0002	.025	.0003	.0000
%RSD	.7436	.5190	9.884	2.559	2.959	2.237	.8264	.3267	3.725

#1	.6625	.0057	.0006	.0542	.0992	.0951	2.966	.1019	.0010
#2	.6697	.0057	.0005	.0540	.0997	.0952	2.987	.1013	.0010
#3	.6720	.0057	.0006	.0539	.0993	.0955	3.015	.1015	.0011

Elem V_2924 Zn2062 As1890 Tl1908 Pb2203 Se1960 Sb2068 Al3961 Ca3179
 Units ppm ppm ppm ppm ppm ppm ppm ppm ppm
 Avg **.1580** **.3606** **.0356** **.0003** **.2704** **.0015** **-0.0000** **115.8** **98.49**
 Stddev .0003 .0003 .0011 .0014 .0013 .0017 .0002 1.2 1.51
 %RSD .1937 .0836 3.060 458.6 4.979 111.0 983.2 1.029 1.536

#1	.1581	.3608	.0357	.0010	.2717	-.0003	-.0001	114.5	96.74
#2	.1583	.3607	.0344	-.0013	.2690	.0018	.0002	116.4	99.27
#3	.1577	.3602	.0366	.0012	.2707	.0031	-.0002	116.7	99.45

Elem Fe2599 Mg2790 K_7664 Na5895 B_2089 Mo2020 Si2124 Sn1899 Sr4077
 Units ppm ppm ppm ppm ppm ppm ppm ppm ppm
 Avg **111.1** **19.10** **6.642** **1.129** **.0812** **.0031** **4.217** **.0098** **.3667**
 Stddev 1.3 .37 .134 .009 .0012 .0003 .030 .0005 .0019
 %RSD 1.155 1.925 2.019 8.290 1.437 8.625 .7200 4.764 5048

#1	109.6	18.69	6.490	1.121	.0822	.0034	4.246	.0097	.3646
#2	111.7	19.25	6.696	1.126	.0815	.0031	4.186	.0094	.3674
#3	111.9	19.38	6.741	1.139	.0799	.0029	4.220	.0103	.3681

Elem Ti3349 W_2079 Zr3391 S_1820 Bi2230 Li6707 P_1774
 Units ppm ppm ppm ppm ppm ppm ppm ppm
 Avg **1.116** **.0033** **.0435** **1.908** **.0282** **.0866** **7.263**
 Stddev .003 .0009 .0003 .025 .0018 .0009 .081
 %RSD .2899 26.51 .7433 1.287 6.345 1.045 1.118

#1	1.116	.0043	.0435	1.929	.0282	.0856	7.340
#2	1.112	.0026	.0432	1.915	.0264	.0874	7.272
#3	1.119	.0029	.0438	1.881	.0300	.0868	7.178

Sample Name: jc86122-3a Acquired: 4/11/2019 16:33:38 Type: Unk
 Method: SGS 3 NO Valve(v263) Mode: CONC Corr. Factor: 1.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment: due

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	162810.	20833.	7410.5	10101.
Stddev	565.	220.	39.8	35.
%RSD	.34685	1.0556	.53666	.34450

#1	162600.	20582.	7368.1	10063.
#2	163440.	20995.	7447.0	10132.
#3	162370.	20921.	7416.2	10107.

Sample Name: jc86122-4a Acquired: 4/11/2019 16:38:43 Type: Unk
 Method: SGS 3 NO Valve(v263) Mode: CONC Corr. Factor: 1.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment: due

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2627	.0025	.0001	.0691	.0979	.0905	4.385	.0986	.0001
Stddev	.0002	.0001	.0001	.0010	.0001	.0006	.023	.0016	.0001
%RSD	.0620	3.293	101.8	1.375	.1472	.6504	.5211	1.647	107.5

#1	.2625	.0025	.0000	.0696	.0980	.0908	4.381	.0989	-.0000
#2	.2628	.0024	.0001	.0698	.0977	.0898	4.409	.1000	.0001
#3	.2626	.0025	.0003	.0681	.0979	.0909	4.364	.0968	.0002

Elem V_2924 Zn2062 As1890 Tl1908 Pb2203 Se1960 Sb2068 Al3961 Ca3179
 Units ppm ppm ppm ppm ppm ppm ppm ppm ppm
 Avg **.1614** **.2422** **.0374** **.0001** **.0927** **-0.0004** **.0017** **93.68** **8.226**
 Stddev .0004 .0030 .0014 .0005 .0014 .0031 .0004 .10 .012
 %RSD .2486 1.259 3.817 405.4 1.539 880.3 23.90 .1108 .1454

#1	.1611	.2428	.0385	-.0001	.0934	.0011	.0019	93.69	8.220
#2	.1618	.2449	.0378	-.0007	.0936	-.0039	.0020	93.77	8.240
#3	.1612	.2389	.0358	-.0002	.0911	.0018	.0013	93.57	8.218

Elem Fe2599 Mg2790 K_7664 Na5895 B_2089 Mo2020 Si2124 Sn1899 Sr4077
 Units ppm ppm ppm ppm ppm ppm ppm ppm ppm
 Avg **137.3** **22.73** **7.844** **.5621** **.0375** **.0022** **6.793** **.0113** **.0708**
 Stddev .1 .02 .024 .0044 .0005 .0004 .085 .0004 .0001
 %RSD .0407 .0762 .3089 .7798 1.299 18.65 1.252 3.658 .1300

#1	137.2	22.72	7.870	.5624	.0370	.0026	6.826	.0117	.0709
#2	137.4	22.75	7.841	.5663	.0380	.0018	6.856	.0109	.0707
#3	137.3	22.73	7.822	.5575	.0374	.0020	6.696	.0112	.0708

Elem Ti3349 W_2079 Zr3391 S_1820 Bi2230 Li6707 P_1774
 Units ppm ppm ppm ppm ppm ppm ppm ppm
 Avg **1.874** **.0011** **.0663** **.2179** **.0451** **.0837** **1.962**
 Stddev .001 .0014 .0003 .0026 .0010 .0013 .020
 %RSD .0689 129.1 .3861 1.183 2.318 1.592 .9932

#1	1.874	.0025	.0661	.2200	.0463	.0836	1.965
#2	1.875	.0010	.0665	.2187	.0447	.0851	1.979
#3	1.873	-.0003	.0665	.2150	.0443	.0824	1.941

Zoom In

Zoom Out

Sample Name: jc86122-4a Acquired: 4/11/2019 16:38:43 Type: Unk
Method: SGS 3 NO Valve(v263) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment: due

Table with 5 columns: Int. Std., Y_3600, Y_3710, Y_2243, In2306. Rows include Units, Avg, Stddev, %RSD, and sample replicates #1, #2, #3.

Zoom In

Zoom Out

Sample Name: jc86122-5a Acquired: 4/11/2019 16:43:52 Type: Unk
Method: SGS 3 NO Valve(v263) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment: due

Table with 11 columns: Elem, Ba4554, Be3130, Cd2288, Co2286, Cr2677, Cu3247, Mn2576, Ni2316, Ag3280. Rows include Units, Avg, Stddev, %RSD, and sample replicates #1, #2, #3.

11.2
11

Zoom In

Zoom Out

Sample Name: jc86122-5a Acquired: 4/11/2019 16:43:52 Type: Unk
Method: SGS 3 NO Valve(v263) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment: due

Table with 5 columns: Int. Std., Y_3600, Y_3710, Y_2243, In2306. Rows include Units, Avg, Stddev, %RSD, and sample replicates #1, #2, #3.

Zoom In

Zoom Out

Sample Name: mp14094-b1 Acquired: 4/11/2019 16:48:59 Type: Unk
Method: SGS 3 NO Valve(v263) 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 replicates #1, #2, #3.

Sample Name: mp14094-b1 Acquired: 4/11/2019 16:48:59 Type: Unk
 Method: SGS 3 NO Valve(v263) 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	153480.	19357.	6856.6	10103.
Stddev	620.	143.	19.7	16.
%RSD	.40424	.73975	.28705	.16082
#1	152950.	19383.	6849.5	10095.
#2	154160.	19203.	6878.8	10121.
#3	153310.	19486.	6841.4	10091.

Sample Name: mp14094-mb1 Acquired: 4/11/2019 16:53:59 Type: Unk
 Method: SGS 3 NO Valve(v263) 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	-0.008	-0.001	-0.003	-0.003	-0.003	-0.001	-0.001	-0.000	-0.000
Stddev	.0007	.0000	.0000	.0002	.0004	.0001	.0000	.0002	.0004
%RSD	82.52	36.11	7.965	80.67	144.7	35.81	17.74	520.0	1700.
#1	-0.005	-0.000	-0.003	-0.000	-0.001	-0.004	-0.001	-0.003	.0004
#2	-0.016	-0.001	-0.003	-0.004	.0000	-0.003	-0.001	.0002	-0.002
#3	-0.004	-0.001	-0.003	-0.004	-0.007	-0.002	-0.001	.0000	-0.003
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0001	.0004	.0014	-0.007	.0007	.0024	.0003	.0021	.0037
Stddev	.0003	.0001	.0007	.0014	.0002	.0013	.0013	.0074	.0014
%RSD	324.2	19.12	51.85	190.8	30.92	53.61	418.4	350.6	37.75
#1	.0004	.0005	.0017	-.0023	.0005	.0029	-.0005	-.0064	.0047
#2	-.0002	.0004	.0019	.0001	.0010	.0035	-.0004	.0056	.0043
#3	.0001	.0003	.0006	.0000	.0007	.0010	.0018	.0071	.0021
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.013	.0024	-0.2071	-0.146	.0005	.0002	.0120	-0.006	-0.001
Stddev	.0011	.0040	.0131	.0026	.0005	.0002	.0020	.0003	.0001
%RSD	81.39	165.8	6.334	17.81	90.10	92.44	16.39	55.37	111.8
#1	-.0020	.0071	-.2215	-.0118	.0006	-.0000	.0097	-.0003	-.0002
#2	-.0001	.0000	-.1959	-.0151	.0010	.0003	.0133	-.0010	-.0001
#3	-.0019	.0002	-.2037	-.0169	.0000	.0003	.0130	-.0006	.0000
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	-0.001	.0030	.0001	.0029	-0.010	.0032	.0052		
Stddev	.0001	.0007	.0001	.0021	.0005	.0015	.0005		
%RSD	198.3	22.65	92.13	71.06	51.32	46.86	10.53		
#1	-.0002	.0023	.0001	.0022	-.0008	.0045	.0057		
#2	.0001	.0032	-.0000	.0053	-.0006	.0016	.0053		
#3	-.0001	.0036	.0001	.0013	-.0015	.0036	.0046		

Sample Name: mp14094-mb1 Acquired: 4/11/2019 16:53:59 Type: Unk
 Method: SGS 3 NO Valve(v263) 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	160730.	19544.	7074.7	10929.
Stddev	804.	68.	43.4	57.
%RSD	.50029	.35032	.61413	.52057
#1	161540.	19507.	7122.2	10989.
#2	160710.	19503.	7037.0	10876.
#3	159930.	19623.	7064.9	10921.

Sample Name: jc86122-1a Acquired: 4/11/2019 16:59:06 Type: Unk
 Method: SGS 3 NO Valve(v263) Mode: CONC Corr. Factor: 1.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment: due

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0016	-0.001	-0.001	-0.003	.0001	.0000	.0001	.0009	.0000
Stddev	.0004	.0000	.0002	.0002	.0001	.0005	.0000	.0000	.0005
%RSD	24.93	39.83	189.7	76.11	108.6	185.3	31.84	1.657	1057.
#1	.0011	-.0002	-.0001	-.0001	.0002	.0005	.0001	.0009	-.0005
#2	.0019	-.0001	-.0004	-.0002	.0002	-.0004	.0001	.0009	.0004
#3	.0018	-.0001	.0001	-.0005	-.0000	-.0000	.0001	.0009	.0003
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.000	.0029	.0001	-0.007	-0.003	-0.001	.0006	.0258	.0331
Stddev	.0003	.0000	.0004	.0005	.0006	.0013	.0011	.0063	.0007
%RSD	572.8	1.031	418.9	71.60	208.0	1649.	190.9	24.64	2.217
#1	.0003	.0029	-.0002	-.0002	-.0006	.0012	.0018	.0235	.0324
#2	-.0002	.0029	-.0000	-.0008	.0004	-.0014	-.0004	.0329	.0339
#3	-.0003	.0029	.0005	-.0012	-.0007	-.0001	.0003	.0208	.0330
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0016	.0102	-0.2460	.0260	.0007	.0001	.1911	-0.004	.0021
Stddev	.0031	.0047	.0464	.0114	.0006	.0004	.0017	.0004	.0002
%RSD	197.3	46.29	18.88	43.98	88.45	363.5	.9020	103.3	7.757
#1	.0041	.0146	-.1979	.0271	.0010	.0002	.1907	-.0004	.0019
#2	.0024	.0106	-.2906	.0140	-.0000	.0004	.1929	.0000	.0022
#3	-.0019	.0052	-.2495	.0368	.0010	-.0003	.1895	-.0009	.0022
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	-0.001	.0012	-0.001	.0033	-0.007	-0.007	.0032		
Stddev	.0002	.0005	.0001	.0006	.0009	.0005	.0016		
%RSD	338.5	47.07	61.18	19.53	125.3	68.98	48.57		
#1	.0000	.0006	-.0001	.0030	-.0003	-.0009	.0034		
#2	-.0002	.0012	-.0001	.0041	-.0017	-.0011	.0016		
#3	.0001	.0017	-.0000	.0029	-.0001	-.0002	.0047		

Sample Name: jc86122-1a Acquired: 4/11/2019 16:59:06 Type: Unk
Method: SGS 3 NO Valve(v263) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment: due

Table with 5 columns: Int. Std., Y_3600, Y_3710, Y_2243, ln2306. Rows include Units, Avg, Stddev, %RSD and sample numbers #1, #2, #3.

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Sample Name: ccv Acquired: 4/11/2019 17:04:14 Type: QC
Method: SGS 3 NO Valve(v263) 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 numbers #1, #2, #3.

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11.2 1

Sample Name: ccv Acquired: 4/11/2019 17:04:14 Type: QC
Method: SGS 3 NO Valve(v263) 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. Rows include Units, Avg, Stddev, %RSD and sample numbers #1, #2, #3.

Check ? Value Range Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass

Table with 5 columns: Int. Std., Y_3600, Y_3710, Y_2243, ln2306. Rows include Units, Avg, Stddev, %RSD and sample numbers #1, #2, #3.

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Sample Name: ccb Acquired: 4/11/2019 17:09:16 Type: QC
Method: SGS 3 NO Valve(v263) 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 numbers #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

Table with 11 columns: Elem, V_2924, Zn2062, As1890, Ti1908, Pb2203, Se1960, Sb2068, Al3961, Ca3179. Rows include Units, Avg, Stddev, %RSD and sample numbers #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

Table with 11 columns: Elem, Fe2599, Mg2790, K_7664, Na5895, B_2089, Mo2020, Si2124, Sn1899, Sr4077. Rows include Units, Avg, Stddev, %RSD and sample numbers #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

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Sample Name: ccb Acquired: 4/11/2019 17:09:16 Type: QC
Method: SGS 3 NO Valve(v263) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Table with 8 columns: Elem, Units, Avg, Stddev, %RSD. Values for Ti3349, W_2079, Zr3391, S_1820, Bi2230, Li6707, P_1774.

Table with 8 columns: #1, #2, #3. Values for various elements.

Check ? High Limit Low Limit Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass

Table with 5 columns: Int. Std. Units, Y_3600, Y_3710, Y_2243, In2306. Values for Cts/S.

Table with 5 columns: #1, #2, #3. Values for various elements.

Table with 5 columns: #1, #2, #3. Values for various elements.

Table with 8 columns: Elem, Units, Avg, Stddev, %RSD. Values for Ti3349, W_2079, Zr3391, S_1820, Bi2230, Li6707, P_1774.

Table with 8 columns: #1, #2, #3. Values for various elements.

Sample Name: jc86122-5a Acquired: 4/11/2019 17:14:25 Type: Unk
Method: SGS 3 NO Valve(v263) Mode: CONC Corr. Factor: 2.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Table with 12 columns: Elem, Units, Avg, Stddev, %RSD. Values for Ba4554, Be3130, Cd2288, Co2286, Cr2677, Cu3247, Mn2576, Ni2316, Ag3280.

Table with 12 columns: #1, #2, #3. Values for various elements.

Table with 12 columns: Elem, Units, Avg, Stddev, %RSD. Values for V_2924, Zn2062, As1890, Ti1908, Pb2203, Se1960, Sb2068, Al3961, Ca3179.

Table with 12 columns: #1, #2, #3. Values for various elements.

Table with 12 columns: Elem, Units, Avg, Stddev, %RSD. Values for Fe2599, Mg2790, K_7664, Na5895, B_2089, Mo2020, Si2124, Sn1899, Sr4077.

Table with 12 columns: #1, #2, #3. Values for various elements.

Table with 8 columns: Elem, Units, Avg, Stddev, %RSD. Values for Ti3349, W_2079, Zr3391, S_1820, Bi2230, Li6707, P_1774.

Table with 8 columns: #1, #2, #3. Values for various elements.

Sample Name: jc86122-5a Acquired: 4/11/2019 17:14:25 Type: Unk
Method: SGS 3 NO Valve(v263) Mode: CONC Corr. Factor: 2.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Table with 5 columns: Int. Std. Units, Y_3600, Y_3710, Y_2243, In2306. Values for Cts/S.

Table with 5 columns: #1, #2, #3. Values for various elements.

Sample Name: jc85590-1r Acquired: 4/11/2019 17:19:35 Type: Unk
Method: SGS 3 NO Valve(v263) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Table with 12 columns: Elem, Units, Avg, Stddev, %RSD. Values for Ba4554, Be3130, Cd2288, Co2286, Cr2677, Cu3247, Mn2576, Ni2316, Ag3280.

Table with 12 columns: #1, #2, #3. Values for various elements.

Table with 12 columns: Elem, Units, Avg, Stddev, %RSD. Values for V_2924, Zn2062, As1890, Ti1908, Pb2203, Se1960, Sb2068, Al3961, Ca3179.

Table with 12 columns: #1, #2, #3. Values for various elements.

Table with 12 columns: Elem, Units, Avg, Stddev, %RSD. Values for Fe2599, Mg2790, K_7664, Na5895, B_2089, Mo2020, Si2124, Sn1899, Sr4077.

Table with 12 columns: #1, #2, #3. Values for various elements.

Table with 8 columns: Elem, Units, Avg, Stddev, %RSD. Values for Ti3349, W_2079, Zr3391, S_1820, Bi2230, Li6707, P_1774.

Table with 8 columns: #1, #2, #3. Values for various elements.

Sample Name: jc85590-1r Acquired: 4/11/2019 17:19:35 Type: Unk
 Method: SGS 3 NO Valve(v263) 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	146620.	19040.	6582.9	9424.7
Stddev	116.	53.	11.8	10.3
%RSD	.07926	.28029	.17882	.10966
#1	146750.	19092.	6573.0	9418.4
#2	146520.	19041.	6579.8	9419.2
#3	146600.	18985.	6595.9	9436.7

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Sample Name: jc85835-3 Acquired: 4/11/2019 17:24:48 Type: Unk
 Method: SGS 3 NO Valve(v263) 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	.2416	-0.0010	.0051	.0091	3.173	16.73	6.600	.0226	-0.015
Stddev	.0011	.0001	.0011	.0012	.006	.01	.004	.0017	.0008
%RSD	.4623	14.61	21.30	13.10	.2031	.0408	.0655	7.681	54.76
#1	.2428	-0.0010	.0053	.0097	3.170	16.74	6.596	.0219	-0.019
#2	.2406	-0.0009	.0039	.0099	3.168	16.73	6.599	.0213	-0.006
#3	.2414	-0.0011	.0061	.0077	3.180	16.74	6.604	.0246	-0.020
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0228	6.219	.2171	-0.0010	.0012	.0003	.0086	.2582	107.0
Stddev	.0027	.004	.0048	.0127	.0042	.0025	.0040	.0705	.1
%RSD	12.03	.0577	2.192	1310.	344.7	760.1	46.67	27.31	.0555
#1	.0213	6.217	.2166	-.0145	-.0031	.0028	.0040	.3388	107.0
#2	.0212	6.223	.2127	.0107	.0015	-.0023	.0108	.2284	106.9
#3	.0260	6.216	.2221	.0008	.0052	-.0005	.0111	.2076	107.0
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sr1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2178	7.262	7.327	F 1183.	.1076	-0.0010	1.577	.0014	.5227
Stddev	.0036	.075	.016	10.	.0037	.0003	.017	.0011	.0003
%RSD	1.666	1.027	.2165	.8475	3.473	31.79	1.078	78.18	.0489
#1	.2148	7.213	7.315	1194.	.1119	-.0014	1.594	.0011	.5226
#2	.2218	7.225	7.345	1174.	.1059	-.0007	1.560	.0025	.5224
#3	.2167	7.348	7.320	1182.	.1049	-.0010	1.577	.0005	.5229
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	-0.0033	-0.0054	.0017	3.566	-0.0115	.1776	.5009		
Stddev	.0014	.0049	.0004	.023	.0012	.0096	.0070		
%RSD	42.50	90.60	21.46	.6429	10.43	5.422	1.400		
#1	-.0044	.0002	.0016	3.540	-.0104	.1707	.4940		
#2	-.0017	-.0091	.0014	3.585	-.0114	.1736	.5008		
#3	-.0038	-.0073	.0021	3.573	-.0128	.1886	.5080		

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Sample Name: jc85835-3 Acquired: 4/11/2019 17:24:48 Type: Unk
 Method: SGS 3 NO Valve(v263) 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	148120.	19067.	6640.7	9587.2
Stddev	428.	120.	11.5	9.5
%RSD	.28880	.62880	.17283	.09873
#1	147900.	19119.	6637.6	9586.7
#2	148620.	19152.	6631.0	9577.9
#3	147850.	18930.	6653.4	9596.8

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Sample Name: jc85947-5a Acquired: 4/11/2019 17:30:02 Type: Unk
 Method: SGS 3 NO Valve(v263) 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	.0812	-0.0001	-0.0003	-0.0005	-0.0008	.0057	.0214	.0064	-0.0007
Stddev	.0003	.0004	.0005	.0004	.0013	.0010	.0002	.0009	.0020
%RSD	.3338	306.7	163.4	74.33	157.3	18.18	.9015	14.77	295.6
#1	.0810	-0.0003	.0002	-.0004	-.0022	.0051	.0216	.0074	-.0003
#2	.0810	.0003	-.0007	-.0002	.0002	.0069	.0216	.0055	.0011
#3	.0815	-.0005	-.0004	-.0009	-.0004	.0051	.0212	.0064	-.0029
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0007	.0308	.0015	-0.0094	.0114	.0008	-0.0024	.2643	21.94
Stddev	.0018	.0003	.0082	.0091	.0031	.0054	.0073	.0468	.03
%RSD	269.3	1.010	542.9	97.59	27.23	673.2	299.5	17.69	.1179
#1	-.0014	.0305	.0034	-.0116	.0116	-.0012	-.0097	.2398	21.92
#2	.0013	.0311	-.0075	-.0172	.0082	-.0033	-.0026	.2350	21.97
#3	.0020	.0307	.0085	.0007	.0144	.0069	.0050	.3183	21.94
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sr1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0612	.8673	11.92	F 1309.	.1071	-0.0015	1.911	-0.0001	.1180
Stddev	.0069	.0375	.15	27.	.0014	.0004	.007	.0021	.0006
%RSD	11.32	4.320	1.233	2.095	1.336	29.84	.3580	1748.	.5274
#1	.0612	.8554	11.77	1324.	.1084	-.0020	1.906	.0023	.1178
#2	.0682	.9093	12.07	1325.	.1073	-.0012	1.919	-.0019	.1175
#3	.0543	.8372	11.93	1277.	.1056	-.0013	1.910	-.0007	.1187
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	.0006	-0.0010	-0.0011	.7438	-0.0027	.1904	.0298		
Stddev	.0002	.0032	.0005	.0132	.0100	.0066	.0050		
%RSD	39.83	318.6	46.70	1.773	367.6	3.478	16.91		
#1	.0003	-.0046	-.0006	.7312	-.0142	.1841	.0244		
#2	.0008	.0014	-.0016	.7426	.0014	.1896	.0344		
#3	.0007	.0002	-.0010	.7575	.0046	.1973	.0306		

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Zoom In
Zoom Out

Sample Name: jc85947-5a Acquired: 4/11/2019 17:30:02 Type: Unk
Method: SGS 3 NO Valve(v263) 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	147900.	19045.	6643.1	9579.7
Stddev	567.	60.	18.7	27.7
%RSD	.38343	.31300	.28195	.28941
#1	147250.	19109.	6643.2	9582.8
#2	148320.	19033.	6624.4	9550.6
#3	148120.	18992.	6661.8	9605.8

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Zoom In
Zoom Out

Sample Name: jc85947-10a Acquired: 4/11/2019 17:35:18 Type: Unk
Method: SGS 3 NO Valve(v263) 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	.3718	-0.004	.0016	-0.0024	.0026	.0101	.0818	.0125	-0.0004
Stddev	.0009	.0001	.0014	.0006	.0011	.0023	.0003	.0025	.0012
%RSD	.2476	16.98	92.78	23.89	43.71	22.69	.3087	19.83	269.6
#1	.3717	-0.004	.0007	-0.0017	.0038	.0089	.0817	.0146	.0008
#2	.3727	-0.005	.0007	-0.0028	.0015	.0127	.0821	.0098	-0.0005
#3	.3709	-0.004	.0032	-0.0025	.0024	.0087	.0816	.0131	-0.0016
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0011	.1086	.0101	-0.0019	-0.0050	-0.0010	.0022	.0850	800.4
Stddev	.0015	.0005	.0126	.0026	.0011	.0045	.0022	.0370	19.4
%RSD	137.6	.4456	124.7	139.6	22.50	425.5	102.5	43.53	2.421
#1	.0009	.1086	.0229	.0011	-.0049	-.0051	-.0001	.1066	794.5
#2	.0027	.1082	.0099	-.0033	-.0061	-.0018	.0023	.0423	822.0
#3	-.0003	-.1091	-.0024	-.0035	-.0039	.0037	.0043	.1062	784.6
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sr1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0159	4.709	20.62	F 1363.	.1477	.0010	9.188	-.0071	3.915
Stddev	.0065	.059	.30	7.	.0044	.0017	.010	.0006	.007
%RSD	40.60	1.254	1.431	4.779	2.953	177.3	.1064	8.548	.1906
#1	.0117	4.708	20.41	1371.	.1523	.0022	9.198	-.0078	3.922
#2	.0127	4.769	20.50	1359.	.1471	-.0010	9.187	-.0070	3.916
#3	.0233	4.651	20.96	1360.	.1436	.0016	9.179	-.0066	3.907
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	-.0019	.0037	-.0025	5.355	-.0027	.2321	.2005		
Stddev	.0021	.0023	.0009	.061	.0072	.0090	.0020		
%RSD	112.6	63.29	36.62	1.140	269.1	3.858	1.019		
#1	-.0041	.0032	-.0016	5.286	-.0090	.2263	.2014		
#2	-.0001	.0062	-.0025	5.377	.0052	.2275	.2019		
#3	-.0017	.0016	-.0034	5.401	-.0042	.2424	.1982		

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Zoom In
Zoom Out

Sample Name: jc85947-10a Acquired: 4/11/2019 17:35:18 Type: Unk
Method: SGS 3 NO Valve(v263) 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	145630.	18788.	6477.3	9290.2
Stddev	362.	49.	15.2	16.6
%RSD	.24889	.25942	.23542	.17853
#1	145210.	18767.	6482.2	9301.1
#2	145870.	18754.	6460.2	9271.1
#3	145800.	18844.	6489.5	9298.3

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Zoom In
Zoom Out

Sample Name: jc85947-15a Acquired: 4/11/2019 17:40:39 Type: Unk
Method: SGS 3 NO Valve(v263) 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	.5026	-0.004	.0013	.0001	.0028	.0465	.5282	.0142	-0.0018
Stddev	.0020	.0002	.0002	.0012	.0004	.0032	.0005	.0014	.0019
%RSD	.3909	52.47	17.49	1583.	14.73	6.934	.0981	9.670	106.0
#1	.5048	-.0005	.0012	-.0002	.0032	.0461	.5278	.0135	-.0007
#2	.5016	-.0006	.0015	-.0010	.0023	.0499	.5280	.0133	-.0007
#3	.5013	-.0002	.0011	.0014	.0028	.0435	.5268	.0158	-.0039
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0133	5.340	.0085	-.0030	.0054	-.0031	.0036	.0689	783.2
Stddev	.0016	.001	.0047	.0055	.0023	.0073	.0105	.0121	5.5
%RSD	12.29	.0114	56.04	180.9	42.27	237.2	294.7	17.58	.7024
#1	.0148	5.340	.0137	-.0014	.0050	-.0047	-.0056	.0601	783.1
#2	.0116	5.340	.0072	-.0092	.0034	.0049	-.0013	.0828	788.7
#3	.0134	5.341	.0045	.0014	.0079	-.0095	.0151	.0639	777.7
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sr1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0159	10.81	26.43	F 1318.	.2319	.0020	28.69	-.0065	3.380
Stddev	.0170	.08	.18	13.	.0007	.0020	.01	.0026	.002
%RSD	106.9	.7385	.6756	.9890	.2937	103.6	.0256	40.16	.0586
#1	-.0073	10.72	26.39	1322.	.2312	-.0001	28.69	-.0047	3.381
#2	-.0049	10.86	26.28	1328.	.2322	.0019	28.68	-.0095	3.377
#3	-.0355	10.86	26.63	1303.	.2324	.0040	28.69	-.0054	3.380
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	-.0041	-.0112	-.0038	11.78	-.0062	.2286	.1386		
Stddev	.0007	.0037	.0003	.05	.0055	.0109	.0129		
%RSD	18.12	32.73	7.623	4.410	89.06	4.756	9.287		
#1	-.0033	-.0096	-.0041	11.80	-.0031	.2328	.1473		
#2	-.0044	-.0086	-.0035	11.81	.0029	.2368	.1446		
#3	-.0047	-.0154	-.0037	11.72	.0125	.2163	.1238		

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Zoom In
Zoom Out

Sample Name: jc85947-15a Acquired: 4/11/2019 17:40:39 Type: Unk
Method: SGS 3 NO Valve(v263) 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	144990.	18795.	6452.8	9275.4
Stddev	581.	104.	9.5	17.5
%RSD	.40104	.55449	.14680	.18864
#1	145220.	18677.	6444.4	9256.0
#2	145430.	18834.	6451.0	9280.0
#3	144330.	18874.	6463.1	9290.1

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Zoom In
Zoom Out

Sample Name: jc85947-20a Acquired: 4/11/2019 17:46:02 Type: Unk
Method: SGS 3 NO Valve(v263) 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	.4628	-0.004	.0009	.0055	.0005	.0192	1.535	.0189	.0002
Stddev	.0004	.0002	.0006	.0008	.0001	.0012	.002	.0007	.0031
%RSD	.0763	41.86	62.88	14.10	14.66	6.050	.1039	3.472	1296.
#1	.4631	-0.005	.0013	.0064	.0004	.0202	1.536	.0185	.0004
#2	.4624	-0.002	.0003	.0049	.0005	.0179	1.536	.0185	.0033
#3	.4628	-0.006	.0010	.0052	.0004	.0194	1.533	.0196	-0.030
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0186	.3168	.0092	.0027	-0.0039	.0034	.0074	.0599	853.7
Stddev	.0017	.0004	.0027	.0011	.0042	.0083	.0046	.0260	7.8
%RSD	9.095	.1378	28.97	41.65	108.5	246.9	61.91	43.46	.9140
#1	.0172	.3164	.0063	.0014	-.0070	.0113	.0034	.0392	860.5
#2	.0204	.3172	.0097	.0036	-.0056	-.0053	.0063	.0891	855.3
#3	.0181	.3170	.0116	.0032	.0009	.0042	.0124	.0514	845.2
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sr1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0348	10.56	30.16	1358.	.2685	.0012	37.73	-0.0087	3.064
Stddev	.0055	.03	.27	7.	.0005	.0008	.05	.0021	.004
%RSD	15.79	.2585	.8821	.5181	.1857	.64.65	.1392	24.46	.1228
#1	-.0337	10.53	30.01	1366.	.2681	.0003	37.76	-.0063	3.068
#2	-.0407	10.59	30.00	1353.	.2690	.0019	37.76	-.0102	3.064
#3	-.0299	10.55	30.47	1353.	.2683	.0014	37.67	-.0096	3.061
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	-0.0032	.0029	-0.0048	15.27	.0046	.2331	.1475		
Stddev	.0008	.0026	.0004	.08	.0070	.0031	.0140		
%RSD	23.86	88.52	8.012	505.1	151.8	1.328	9.460		
#1	-.0030	.0025	-.0049	15.18	-.0030	.2320	.1521		
#2	-.0026	.0057	-.0051	15.33	.0108	.2307	.1585		
#3	-.0041	.0006	-.0044	15.29	.0061	.2366	.1318		

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11.2
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Zoom In
Zoom Out

Sample Name: jc85947-20a Acquired: 4/11/2019 17:46:02 Type: Unk
Method: SGS 3 NO Valve(v263) 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	144910.	18739.	6463.6	9276.0
Stddev	459.	10.	17.1	20.4
%RSD	.31685	.05190	.26468	.22009
#1	144760.	18748.	6475.8	9293.6
#2	144550.	18740.	6471.0	9280.7
#3	145430.	18729.	6444.1	9253.6

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Zoom In
Zoom Out

Sample Name: jc85947-25a Acquired: 4/11/2019 17:51:24 Type: Unk
Method: SGS 3 NO Valve(v263) 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	.4909	-0.005	.0007	.0039	.0019	.0096	1.635	.0189	.0002
Stddev	.0053	.0004	.0010	.0002	.0023	.0031	.011	.0008	.0013
%RSD	1.082	92.84	149.1	5.350	119.2	32.45	.6923	4.330	564.3
#1	.4964	-.0001	-.0004	.0037	.0024	.0079	1.648	.0181	-.0003
#2	.4906	-.0009	.0016	.0038	-.0006	.0078	1.628	.0187	-.0007
#3	.4858	-.0003	.0008	.0041	.0040	.0132	1.630	.0197	.0017
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0181	.1236	.0039	-0.0013	-0.0001	-0.0011	.0074	.1246	789.2
Stddev	.0011	.0005	.0016	.0057	.0032	.0066	.0031	.0238	2.8
%RSD	6.227	.3936	40.40	429.4	247.0	588.1	41.86	19.11	.3576
#1	.0169	.1230	.0021	.0052	-.0031	-.0049	.0049	.1004	791.6
#2	.0190	.1239	.0051	-.0047	.0033	-.0049	.0063	.1254	789.9
#3	.0185	.1238	.0045	-.0045	-.0006	.0065	.0108	.1480	786.1
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sr1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0310	11.48	12.48	1208.	.2584	.0080	26.84	-0.0083	2.942
Stddev	.0170	.09	.40	13.	.0033	.0017	.04	.0017	.014
%RSD	54.99	.7789	3.221	1.101	1.284	20.79	.1303	21.08	.4618
#1	.0303	11.51	12.04	1223.	.2555	.0064	26.85	-.0063	2.949
#2	.0143	11.55	12.58	1199.	.2620	.0097	26.80	-.0097	2.949
#3	.0483	11.38	12.83	1202.	.2578	.0079	26.87	-.0087	2.926
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	-0.0028	.0207	-0.0027	12.97	.0041	.1903	.1297		
Stddev	.0016	.0055	.0009	.10	.0098	.0021	.0186		
%RSD	56.43	26.46	32.40	.7421	240.0	1.104	14.35		
#1	-.0046	.0270	-.0019	12.90	.0104	.1898	.1467		
#2	-.0017	.0170	-.0025	13.07	.0090	.1926	.1098		
#3	-.0021	.0181	-.0037	12.92	-.0072	.1884	.1326		

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Sample Name: jc85947-25a Acquired: 4/11/2019 17:51:24 Type: Unk
 Method: SGS 3 NO Valve(v263) 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	145610.	18861.	6499.4	9351.5
Stddev	1022.	96.	15.7	17.4
%RSD	.70219	.50879	.24167	.18570
#1	144440.	18856.	6506.1	9356.6
#2	146050.	18768.	6481.4	9332.2
#3	146330.	18959.	6510.6	9365.8

Sample Name: jc85947-30a Acquired: 4/11/2019 17:56:46 Type: Unk
 Method: SGS 3 NO Valve(v263) 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	.5300	-0.0004	.0016	.0030	.0020	.0130	1.458	0.129	-0.010
Stddev	.0006	.0001	.0008	.0007	.0015	.0010	.003	.0006	.0014
%RSD	.1205	20.16	47.59	21.95	72.91	7.980	.1818	4.565	142.5
#1	.5293	-0.0004	.0023	.0037	.0009	.0141	1.455	0.133	-0.013
#2	.5305	-0.0004	.0018	.0024	.0037	.0130	1.460	0.122	.0005
#3	.5302	-0.0005	.0008	.0028	.0015	.0120	1.459	0.131	-0.022
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0146	.5419	.0110	-0.0055	.0113	-0.0020	.0027	.0980	703.6
Stddev	.0009	.0047	.0041	.0042	.0047	.0019	.0095	.0245	.3
%RSD	6.243	8.750	37.75	77.38	42.00	98.39	358.5	25.06	.0466
#1	.0141	.5474	.0143	-.0089	.0155	-.0003	.0063	.1233	703.4
#2	.0157	.5389	.0063	-.0007	.0062	-.0015	-.0082	.0962	703.5
#3	.0141	.5395	.0122	-.0067	.0122	-.0041	.0098	.0743	704.0
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0563	11.43	17.31	1286.	.1971	.0013	27.94	-0.0084	2.720
Stddev	.0049	.07	.05	18.	.0044	.0007	.25	.0030	.003
%RSD	8.769	.6324	.3049	1.371	2.228	53.83	.9002	35.14	.1166
#1	.0569	11.36	17.26	1268.	.2022	.0005	28.23	-.0115	2.718
#2	.0510	11.51	17.37	1303.	.1945	.0016	27.81	-.0080	2.719
#3	.0609	11.42	17.30	1285.	.1947	.0019	27.78	-.0057	2.724
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	-0.0010	-0.0010	-0.0036	10.67	.0048	.1933	.1306		
Stddev	.0014	.0006	.0010	.16	.0133	.0149	.0112		
%RSD	142.5	64.44	27.15	1.542	278.0	7.730	8.598		
#1	-.0020	-.0017	-.0048	10.83	.0200	.1761	.1271		
#2	-.0015	-.0008	-.0031	10.67	-.0021	.2028	.1216		
#3	.0006	-.0005	-.0031	10.50	-.0037	.2011	.1432		

Sample Name: jc85947-30a Acquired: 4/11/2019 17:56:46 Type: Unk
 Method: SGS 3 NO Valve(v263) 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	146450.	18822.	6552.2	9395.0
Stddev	728.	76.	47.6	52.8
%RSD	.49742	.40139	.72647	.56186
#1	147030.	18895.	6501.3	9336.9
#2	146680.	18744.	6559.8	9408.1
#3	145630.	18827.	6595.6	9440.0

Sample Name: ccv Acquired: 4/11/2019 18:02:00 Type: QC
 Method: SGS 3 NO Valve(v263) 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	2.048	2.048	2.053	2.029	2.011	2.061	2.046	2.492
Stddev	.016	.017	.013	.012	.019	.018	.008	.012	.0019
%RSD	.7945	.8084	.6412	.5724	.9242	.9141	.4086	.5627	.7592
#1	2.061	2.067	2.035	2.040	2.051	2.032	2.071	2.034	2.514
#2	2.036	2.040	2.061	2.064	2.017	1.997	2.058	2.057	2.480
#3	2.031	2.036	2.047	2.054	2.020	2.003	2.055	2.047	2.483
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	2.025	2.052	1.989	2.064	2.043	2.017	2.017	40.32	40.34
Stddev	.019	.014	.011	.005	.012	.009	.016	.36	.34
%RSD	.9377	.6983	.5618	.2616	.5983	.4665	.7932	.8843	.8372
#1	2.047	2.037	1.978	2.069	2.031	2.006	2.000	40.72	40.73
#2	2.014	2.066	2.000	2.058	2.055	2.024	2.031	40.16	40.19
#3	2.014	2.054	1.990	2.065	2.042	2.021	2.021	40.07	40.11
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	40.88	40.54	41.45	40.77	2.061	2.018	5.256	2.028	2.032
Stddev	.30	.25	.27	.28	.012	.013	.034	.012	.015
%RSD	.7358	.6216	.6471	.6968	.5721	.6193	.6432	.5923	.7565
#1	41.22	40.81	41.75	41.08	2.048	2.005	5.220	2.015	2.050
#2	40.75	40.48	41.37	40.71	2.072	2.030	5.287	2.039	2.027
#3	40.66	40.32	41.24	40.52	2.062	2.018	5.262	2.030	2.020
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: 4/11/2019 18:02:00 Type: QC
Method: SGS 3 NO Valve(v263) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Table with 8 columns: Elem, Units, Ti3349, W_2079, Zr3391, S_1820, Bi2230, Li6707, P_1774. Rows include Avg, Stddev, %RSD and #1-#3 data.

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
Value High Limit Low Limit

Table with 5 columns: Int. Std. Units, Y_3600, Y_3710, Y_2243, In2306. Rows include Avg, Stddev, %RSD and #1-#3 data.

Zoom In
Zoom Out

Sample Name: ccb Acquired: 4/11/2019 18:08:46 Type: QC
Method: SGS 3 NO Valve(v263) 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 data.

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 11 columns: Elem, Units, V_2924, Zn2062, As1890, Tl1908, Pb2203, Se1960, Sb2068, Al3961, Ca3179. Rows include Avg, Stddev, %RSD and #1-#3 data.

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 10 columns: Elem, Units, Fe2599, Mg2790, K_7664, Na5895, B_2089, Mo2020, Si2124, Sn1899, Sr4077. Rows include Avg, Stddev, %RSD and #1-#3 data.

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
High Limit Low Limit

Zoom In
Zoom Out

Sample Name: ccb Acquired: 4/11/2019 18:08:46 Type: QC
Method: SGS 3 NO Valve(v263) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Table with 8 columns: Elem, Units, Ti3349, W_2079, Zr3391, S_1820, Bi2230, Li6707, P_1774. Rows include Avg, Stddev, %RSD and #1-#3 data.

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Fail Chk Pass
High Limit .0040 Low Limit -.0040

Table with 5 columns: Int. Std. Units, Y_3600, Y_3710, Y_2243, In2306. Rows include Avg, Stddev, %RSD and #1-#3 data.

Zoom In
Zoom Out

Sample Name: ticonf Acquired: 4/11/2019 18:13:55 Type: Unk
Method: SGS 3 NO Valve(v263) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Table with 10 columns: Elem, Units, Ba4554, Be3130, Cd2288, Co2286, Cr2677, Cu3247, Mn2576, Ni2316. Rows include Avg, Stddev, %RSD and #1-#3 data.

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass

Table with 10 columns: Elem, Units, Ag3280, V_2924, Zn2062, As1890, Tl1908, Pb2203, Se1960, Sb2068. Rows include Avg, Stddev, %RSD and #1-#3 data.

Table with 10 columns: Elem, Units, Al3961, Ca3179, Fe2599, Mg2790, K_7664, Na5895, B_2089, Mo2020. Rows include Avg, Stddev, %RSD and #1-#3 data.

Table with 10 columns: Elem, Units, Si2124, Sn1899, Sr4077, Ti3349, W_2079, Zr3391, S_1820, Bi2230. Rows include Avg, Stddev, %RSD and #1-#3 data.

Sample Name: ticonf Acquired: 4/11/2019 18:13:55 Type: Unk
Method: SGS 3 NO Valve(v263) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Table with 5 columns: Elem, Units, Avg, Stddev, %RSD. Rows include Li6707, P_1774, and Int. Std. Y_3600, Y_3710, Y_2243, In2306.

Sample Name: vconf Acquired: 4/11/2019 18:19:12 Type: Unk
Method: SGS 3 NO Valve(v263) 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, V_2924, Zn2062, As1890, Tl1908, Pb2203, Se1960, Sb2068, Al3961, Ca3179.

Sample Name: vconf Acquired: 4/11/2019 18:19:12 Type: Unk
Method: SGS 3 NO Valve(v263) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Table with 5 columns: Int. Std. Units, Avg, Stddev, %RSD. Rows include Y_3600, Y_3710, Y_2243, In2306.

Sample Name: moconf Acquired: 4/11/2019 18:24:28 Type: Unk
Method: SGS 3 NO Valve(v263) 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, V_2924, Zn2062, As1890, Tl1908, Pb2203, Se1960, Sb2068, Al3961, Ca3179.

Sample Name: moconf Acquired: 4/11/2019 18:24:28 Type: Unk
 Method: SGS 3 NO Valve(v263) 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	159330.	19052.	7002.0	10872.
Stddev	1046.	36.	14.1	18.
%RSD	.65624	.18888	.20161	.16541
#1	158140.	19078.	7002.7	10871.
#2	159770.	19067.	7015.8	10891.
#3	160080.	19011.	6987.6	10855.

Sample Name: siconf Acquired: 4/11/2019 18:29:34 Type: Unk
 Method: SGS 3 NO Valve(v263) 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	-0.001	-0.001	-0.003	-0.000	-0.008	-0.003	-0.000	-0.002
Stddev	.0001	.0001	.0001	.0001	.0002	.0003	.0000	.0004	.0004
%RSD	9.977	88.69	95.50	32.77	13380.	33.43	3.249	1967.	173.3
#1	-0.005	-0.000	-0.002	-0.002	-0.001	-0.005	-0.003	-0.004	-0.007
#2	-0.006	-0.002	-0.001	-0.004	-0.003	-0.010	-0.003	-0.003	-0.003
#3	-0.006	-0.000	-0.000	-0.003	-0.001	-0.008	-0.003	-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	-0.002	-0.001	.0007	-0.015	-0.002	-0.003	-0.009	-0.001	-0.031
Stddev	.0001	.0001	.0008	.0006	.0004	.0016	.0015	.0189	.0036
%RSD	67.81	46.38	117.5	39.71	160.1	487.6	166.9	30790.	118.1
#1	-0.004	-0.002	.0015	-0.019	.0003	-0.022	.0006	.0093	-0.004
#2	-0.001	-0.002	-0.001	-0.008	-0.002	.0005	-0.024	.0123	.0068
#3	-0.002	-0.001	.0006	-0.017	.0005	.0007	-0.009	-0.018	.0029

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0110	.0043	-1.724	.0148	-0.012	.0005	11.83	-0.012	-0.006
Stddev	.0015	.0290	.0376	.0083	.0003	.0002	.04	.0005	.0001
%RSD	13.55	676.9	21.83	56.56	24.79	34.77	.3560	42.23	19.59
#1	-0.093	-0.156	-2.141	.0244	-0.013	.0007	11.78	-0.018	-0.004
#2	-0.115	-0.092	-1.409	.0100	-0.013	.0006	11.85	-0.011	-0.006
#3	-0.121	.0376	-1.623	.0099	-0.008	.0003	11.86	-0.008	-0.006

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.005	-0.001	-0.006	.0049	-0.013	.0010	.0205
Stddev	.0002	.0007	.0002	.0014	.0015	.0018	.0014
%RSD	31.72	944.8	30.35	28.50	122.5	179.4	6.915
#1	-0.006	.0007	-0.006	.0044	-0.015	.0016	.0211
#2	-0.006	-0.002	-0.004	.0038	-0.027	-0.010	.0216
#3	-0.003	-0.007	-0.008	.0064	.0004	.0025	.0189

11.2
11

Sample Name: siconf Acquired: 4/11/2019 18:29:34 Type: Unk
 Method: SGS 3 NO Valve(v263) 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	159220.	18922.	7045.0	10868.
Stddev	584.	157.	21.1	19.
%RSD	.36699	.82949	.29884	.17161
#1	159540.	18768.	7067.0	10889.
#2	159580.	18916.	7042.8	10864.
#3	158550.	19082.	7025.1	10852.

Sample Name: snconf Acquired: 4/11/2019 18:34:42 Type: Unk
 Method: SGS 3 NO Valve(v263) 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	-0.001	-0.002	-0.001	.0001	-0.003	-0.002	.0003	.0003
Stddev	.0002	.0001	.0002	.0001	.0002	.0003	.0001	.0000	.0002
%RSD	38.70	81.45	78.16	106.9	141.7	103.6	29.85	3.342	83.07
#1	-0.007	-0.001	-0.002	-0.003	.0004	-0.001	-0.002	.0003	.0006
#2	-0.003	-0.001	-0.004	-0.000	.0000	-0.001	-0.003	.0003	.0002
#3	-0.006	-0.002	-0.001	-0.001	.0000	-0.007	-0.002	.0003	.0001

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.003	.0002	.0021	.0003	-0.006	.0006	.0026	.0016	-0.015
Stddev	.0000	.0001	.0003	.0007	.0012	.0016	.0002	.0022	.0061
%RSD	13.44	37.41	12.95	205.5	180.6	287.3	5.887	142.4	402.6
#1	-0.003	.0002	.0023	.0008	-0.018	.0001	.0025	.0033	.0052
#2	-0.003	.0003	.0018	.0006	-0.007	.0023	.0026	.0023	-0.068
#3	-0.003	.0001	.0020	-0.004	.0005	-0.008	.0028	-0.009	-0.030

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.004	.0031	-2.119	.0271	-0.009	-0.001	-0.0508	F 10.42	-0.000
Stddev	.0019	.0023	.0369	.0109	.0001	.0001	.0033	.04	.0002
%RSD	433.1	74.38	17.43	40.01	15.95	174.5	6.477	4.118	457.8
#1	-0.013	.0043	-1.724	.0384	-0.010	-0.002	-0.472	10.39	-0.002
#2	.0018	.0046	-2.456	.0263	-0.008	.0001	-0.517	10.40	.0002
#3	-0.017	.0004	-2.177	.0167	-0.010	-0.002	-0.536	10.47	-0.001

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.004	-0.0128	-0.001	.0009	-0.005	.0003	-0.003
Stddev	.0004	.0010	.0002	.0027	.0014	.0009	.0018
%RSD	101.0	7.631	138.7	303.0	285.4	303.8	656.7
#1	-0.008	-0.0121	.0001	.0039	-0.014	.0008	.0017
#2	-0.001	-0.0123	-0.002	-0.002	.0012	.0009	-0.005
#3	-0.002	-0.0139	-0.002	-0.011	-0.012	-0.007	-0.020

Zoom In
Zoom Out

Sample Name: snconf Acquired: 4/11/2019 18:34:42 Type: Unk
Method: SGS 3 NO Valve(v263) 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	158460.	19140.	6991.1	10838.
Stddev	525.	37.	14.0	32.
%RSD	.33129	.19272	.20070	.29556

#1	157860.	19163.	6974.9	10801.
#2	158650.	19160.	6999.3	10857.
#3	158850.	19097.	6999.2	10856.

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Zoom In
Zoom Out

Sample Name: mnconf Acquired: 4/11/2019 18:39:50 Type: Unk
Method: SGS 3 NO Valve(v263) 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	-0.003	-0.007	-0.003	0.019	-0.004	F 10.07	0.003	-0.006
Stddev	.002	.001	.001	.001	.002	.0005	.04	.001	.003
%RSD	67.94	21.08	14.29	42.92	10.48	112.5	.3552	20.23	56.40

#1	-0.003	-0.003	-0.008	-0.004	.0021	-0.001	10.05	.004	-0.009
#2	-0.006	-0.002	-0.008	-0.005	.0017	-0.002	10.11	.003	-0.002
#3	-0.001	-0.003	-0.006	-0.002	.0018	-0.010	10.05	.003	-0.006

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	0.261	0.010	-0.003	-0.001	-0.010	0.028	0.009	0.010	0.107
Stddev	.002	.001	.001	.008	.007	.0017	.013	.0079	.047
%RSD	.7860	8.140	46.03	1136.	70.30	61.05	140.5	783.0	43.76

#1	.0258	.0009	-0.002	.001	-0.014	.0045	.025	-.0025	.0124
#2	.0262	.0009	-0.004	.006	-0.002	.0030	.002	.0101	.0143
#3	.0261	.0011	-0.003	-0.009	-0.014	.0010	.001	-.0045	.0054

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.039	0.124	-0.150	0.323	-0.010	-0.011	0.038	-0.004	-0.001
Stddev	.008	.077	.038	.096	.005	.004	.016	.004	.001
%RSD	21.17	61.99	25.36	29.56	45.47	36.33	41.16	99.60	101.6

#1	-0.043	.0203	-.1939	.0344	-0.009	-0.016	.0030	-0.002	-0.002
#2	-0.030	.0049	-.1284	.0219	-0.016	-0.008	.0057	-0.009	.0000
#3	-0.045	.0120	-.1276	.0407	-0.007	-0.009	.0029	-0.002	-0.001

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.002	-0.001	-0.002	0.043	0.004	0.002	0.264
Stddev	.001	.011	.002	.014	.011	.006	.002
%RSD	51.20	881.5	147.3	32.02	308.1	277.1	6540

#1	-0.001	-0.003	-0.004	.0058	.0014	-0.003	.0262
#2	-0.003	-0.011	.0000	.0035	-0.008	.0009	.0265
#3	-0.002	.0011	-0.001	.0035	.0006	.0000	.0265

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11.2
11

Zoom In
Zoom Out

Sample Name: mnconf Acquired: 4/11/2019 18:39:50 Type: Unk
Method: SGS 3 NO Valve(v263) 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	158240.	18876.	7005.5	10829.
Stddev	607.	119.	11.0	15.
%RSD	.38390	.62867	.15714	.14188

#1	157640.	18758.	7014.0	10841.
#2	158210.	18995.	7009.6	10834.
#3	158860.	18876.	6993.1	10812.

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Zoom In
Zoom Out

Sample Name: snconf Acquired: 4/11/2019 18:45:07 Type: Unk
Method: SGS 3 NO Valve(v263) 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	-0.005	-0.002	-0.001	-0.001	0.001	-0.010	-0.001	-0.000
Stddev	.001	.001	.000	.000	.002	.003	.000	.001
%RSD	22.53	71.52	66.70	10.42	137.2	29.65	4.217	259.9

#1	-0.004	-0.003	-0.000	-0.001	-0.001	-0.008	-0.001	-0.001
#2	-0.006	-0.000	-0.001	-0.001	.002	-0.013	-0.001	.001
#3	-0.005	-0.002	-0.001	-0.001	.003	-0.009	-0.001	-0.001

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	0.000	0.000	0.000	-0.006	F -0.021	-0.020	0.024	0.004
Stddev	.001	.004	.000	.007	.011	.012	.016	.017
%RSD	526.6	7817.	394.3	111.4	50.82	60.23	66.09	433.5

#1	-0.000	-0.003	.0000	-0.005	-0.031	-0.016	.0041	.0017
#2	-0.001	.0004	-0.000	-0.000	-0.010	-0.010	.0024	.0010
#3	.001	-0.000	.0000	-0.013	-0.023	-0.033	.0008	-0.015

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.050	-0.021	-0.011	0.096	-0.2469	0.052	-0.020	-0.001
Stddev	.0110	.006	.012	.093	.0323	.033	.004	.002
%RSD	219.0	30.06	106.7	96.88	13.07	62.82	20.40	314.2

#1	-0.147	-0.023	.0000	-0.003	-.2131	.0080	-.0023	-0.003
#2	-.069	-.0014	-.0010	.0109	-.2774	.0062	-.0021	-.001
#3	-.073	-.0025	-.0024	.0183	-.2503	.0016	-.0015	.002

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	0.019	-0.003	-0.002	0.001	0.002	0.000	91.40	-0.001
Stddev	.021	.003	.001	.004	.007	.000	.52	.004
%RSD	108.3	103.5	43.89	673.5	384.4	81.48	.5677	323.3

#1	-0.003	-0.005	-0.002	-0.003	.0010	.0000	91.91	-0.003
#2	.0022	-0.006	-0.001	.0005	-0.001	.0001	91.43	-0.004
#3	.0039	.0001	-0.002	-0.000	-0.003	.0000	90.87	.003

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Sample Name: sconf Acquired: 4/11/2019 18:45:07 Type: Unk
 Method: SGS 3 NO Valve(v263) Mode: CONC Corr. Factor: 1.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Li6707	P_1774		
Units	ppm	ppm		
Avg	-0.024	.0131		
Stddev	.0010	.0005		
%RSD	40.41	4.042		
#1	-.0015	.0128		
#2	-.0034	.0137		
#3	-.0024	.0128		
Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	159470.	19026.	7049.3	10925.
Stddev	866.	52.	20.6	21.
%RSD	.54330	.27423	.29189	.19018
#1	158580.	18975.	7047.7	10915.
#2	159520.	19023.	7029.6	10910.
#3	160310.	19079.	7070.6	10948.

Sample Name: coconf Acquired: 4/11/2019 18:50:13 Type: Unk
 Method: SGS 3 NO Valve(v263) 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	-0.0006	-0.0002	.0006	F 11.17	-0.0000	-0.0010	-0.0001	-0.0010	-0.0002
Stddev	.0002	.0001	.0001	.18	.0005	.0006	.0000	.0002	.0003
%RSD	41.57	52.59	20.76	1.572	1346.	60.04	12.27	24.84	128.2
#1	-0.0007	-0.0001	.0004	11.37	-0.0002	-0.0003	-0.0001	-0.0013	-0.0001
#2	-0.0003	-0.0003	.0006	11.07	.0005	-0.0013	-0.0001	-0.0009	-0.0001
#3	-0.0007	-0.0001	.0006	11.07	-0.0004	-0.0014	-0.0001	-0.0008	-0.0006
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0001	.0001	.0002	.0020	-0.0021	.0033	.0040	-0.0008	.0008
Stddev	.0002	.0001	.0010	.0006	.0011	.0015	.0016	.0078	.0007
%RSD	182.7	90.73	643.7	30.83	53.43	46.17	40.30	947.7	81.57
#1	-0.0004	.0001	-0.0000	.0019	-0.0011	.0044	.0053	-.0055	.0001
#2	-0.0000	.0000	-0.0007	.0027	-0.0034	.0016	.0046	-.0051	.0015
#3	.0000	.0001	.0012	.0014	-0.0020	.0040	.0022	.0082	.0009
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sr1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0040	.0216	-0.2182	.0111	-0.0024	-0.0004	-0.0047	-0.0002	-0.0003
Stddev	.0025	.0179	.0133	.0109	.0008	.0002	.0008	.0005	.0002
%RSD	63.24	82.56	6.098	98.02	33.59	62.10	17.29	203.8	57.43
#1	-0.0069	.0089	-0.2035	.0020	-0.0030	-0.0005	-0.0041	.0000	-0.0005
#2	-0.0021	.0140	-0.2214	.0231	-0.0026	-0.0004	-0.0056	.0000	-0.0002
#3	-0.0031	.0421	-0.2296	.0081	-0.0015	-0.0001	-0.0045	-0.0007	-0.0002
Elem	Tl3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	-0.0006	.0108	-0.0001	.0055	.0070	-0.0023	.0206		
Stddev	.0000	.0006	.0000	.0022	.0020	.0010	.0009		
%RSD	8.096	5.835	50.41	40.59	28.34	43.35	4.433		
#1	-0.0007	.0106	-0.0001	.0076	.0047	-0.0033	.0196		
#2	-0.0006	.0116	-0.0000	.0056	.0079	-0.0023	.0214		
#3	-0.0006	.0104	-0.0001	.0032	.0083	-0.0013	.0208		

Sample Name: coconf Acquired: 4/11/2019 18:50:13 Type: Unk
 Method: SGS 3 NO Valve(v263) 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	158620.	18971.	6923.9	10841.
Stddev	783.	111.	126.1	164.
%RSD	.49362	.58757	1.8214	1.5156
#1	158640.	18842.	6778.4	10652.
#2	159390.	19034.	6989.9	10923.
#3	157820.	19037.	7003.2	10948.

Sample Name:alconf Acquired: 4/11/2019 18:55:22 Type: Unk
 Method: SGS 3 NO Valve(v263) 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	-0.0005	-0.0001	-0.0001	-0.0004	.0001	-0.0014	-0.0014	-0.0002	.0028
Stddev	.0001	.0001	.0001	.0001	.0002	.0002	.0000	.0001	.0004
%RSD	28.49	48.14	115.9	22.35	308.3	15.93	2.182	62.06	15.83
#1	-0.0004	-0.0002	-0.0002	-0.0005	.0001	-0.0015	-0.0014	-0.0003	.0031
#2	-0.0005	-0.0001	-0.0000	-0.0003	-0.0002	-0.0015	-0.0014	-0.0003	.0023
#3	-0.0006	-0.0001	-0.0002	-0.0004	.0003	-0.0012	-0.0014	-0.0001	.0029
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0003	.0001	-0.0024	-0.0003	-0.0012	-0.0016	-0.0025	F 560.2	.0167
Stddev	.0003	.0001	.0011	.0023	.0059	.0035	.0009	15.0	.0019
%RSD	130.5	99.49	45.36	721.0	493.6	221.3	35.16	2.677	11.46
#1	-0.0002	.0001	-0.0011	.0000	.0055	-0.0001	-0.0020	576.7	.0186
#2	.0001	-0.0000	-0.0031	.0018	-0.0057	.0009	-0.0020	556.4	.0165
#3	-0.0006	.0002	-0.0028	-0.0028	-0.0034	-0.0056	-0.0035	547.4	.0148
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sr1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0037	.0161	-0.2605	.0593	-0.0036	-0.0003	-0.0013	.0017	.0000
Stddev	.0014	.0160	.0297	.0079	.0011	.0002	.0008	.0009	.0000
%RSD	37.83	99.28	11.41	13.32	29.24	90.87	58.73	53.44	97.62
#1	.0052	-0.0019	-0.2948	.0681	-0.0024	-0.0004	-0.0017	.0007	.0001
#2	.0024	.0285	-0.2421	.0527	-0.0043	-0.0004	-0.0018	.0021	.0000
#3	.0036	.0216	-0.2445	.0573	-0.0041	.0000	-0.0004	.0024	.0000
Elem	Tl3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	-0.0001	.0010	-0.0003	.0097	-0.0052	-0.0010	.0022		
Stddev	.0003	.0008	.0001	.0011	.0004	.0009	.0028		
%RSD	547.2	76.32	22.87	11.22	7.415	97.28	127.3		
#1	-0.0003	.0018	-0.0003	.0094	-0.0053	-0.0015	.0049		
#2	-0.0002	.0002	-0.0004	.0109	-0.0048	-0.0015	-0.0006		
#3	.0003	.0011	-0.0002	.0088	-0.0055	.0001	.0023		

Sample Name:alconf Acquired: 4/11/2019 18:55:22 Type: Unk
 Method: SGS 3 NO Valve(v263) 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	142290.	19180.	6953.6	9840.6
Stddev	2412.	132.	100.8	119.4
%RSD	1.6951	.68909	1.4498	1.2132
#1	141630.	19037.	7047.2	9949.7
#2	140280.	19206.	6846.8	9713.1
#3	144970.	19297.	6966.7	9859.2

Sample Name:caconf Acquired: 4/11/2019 19:00:31 Type: Unk
 Method: SGS 3 NO Valve(v263) 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	-0.000	-0.001	-0.004	-0.002	0.002	0.003	-0.000	-0.002
Stddev	.0001	.0001	.0001	.0003	.0003	.0005	.0000	.0000	.0004
%RSD	8220.	252.2	44.83	95.14	161.0	257.3	5.861	27.03	249.8
#1	.0001	-0.001	-0.001	-0.004	.0001	-0.003	.0003	-0.000	-0.006
#2	-0.001	.0000	-0.002	.0000	-0.002	.0003	.0003	-0.000	-0.002
#3	.0001	.0000	-0.001	-0.007	-0.005	.0006	.0003	-0.000	.0003

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.003	0.003	-0.011	-0.004	-0.026	0.024	0.008	0.085	F 411.1
Stddev	.0004	.0001	.0009	.0007	.0009	.0008	.0013	.0012	1.3
%RSD	154.8	25.73	78.44	154.2	33.70	32.91	168.9	14.47	3.125
#1	.0002	.0003	-0.019	.0000	-0.017	.0033	-0.005	.0090	411.5
#2	-0.007	.0003	-0.002	-0.001	-0.035	.0017	.0007	.0095	412.1
#3	-0.003	.0002	-0.013	-0.012	-0.026	.0023	.0021	.0071	409.6

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.091	0.063	-1.746	-0.418	-0.014	0.000	0.045	-0.014	-0.009
Stddev	.0013	0.183	.0439	.0068	.0007	.0002	.0002	.0005	.0000
%RSD	14.71	290.9	25.13	16.26	54.38	1132.	4.389	34.20	4.493
#1	-0.091	-0.139	-1.374	-0.365	-0.014	.0001	.0044	-0.014	-0.009
#2	-0.077	.0109	-2.231	-0.495	-0.006	.0001	.0044	-0.018	-0.010
#3	-0.104	.0218	-1.635	-0.394	-0.021	-0.002	.0047	-0.009	-0.009

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.021	0.009	-0.003	-0.070	0.010	0.056	0.083
Stddev	.0004	.0007	.0002	.0040	.0010	.0027	.0011
%RSD	20.13	80.70	58.15	57.45	100.6	47.93	13.13
#1	-0.019	.0003	-0.001	-0.111	.0022	.0073	.0095
#2	-0.025	.0006	-0.005	-0.032	.0004	.0070	.0075
#3	-0.018	.0016	-0.004	-0.065	.0005	.0025	.0079

Sample Name:caconf Acquired: 4/11/2019 19:00:31 Type: Unk
 Method: SGS 3 NO Valve(v263) 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	144340.	18243.	6425.2	9400.7
Stddev	273.	114.	18.1	22.4
%RSD	.18892	.62498	.28217	.23786
#1	144170.	18165.	6442.1	9423.9
#2	144650.	18190.	6406.0	9379.3
#3	144190.	18374.	6427.5	9398.8

Sample Name:mgconf Acquired: 4/11/2019 19:05:47 Type: Unk
 Method: SGS 3 NO Valve(v263) 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	-0.002	-0.001	-0.002	-0.003	-0.005	0.002	0.014	-0.004	-0.008
Stddev	.0005	.0001	.0002	.0002	.0002	.0004	.0001	.0002	.0002
%RSD	224.4	142.3	131.0	82.43	33.05	178.3	4.427	44.63	22.30
#1	.0002	-0.001	.0001	-0.003	-0.006	.0005	.0014	-0.006	-0.008
#2	-0.002	-0.001	-0.002	-0.005	-0.006	.0004	.0013	-0.003	-0.006
#3	-0.007	.0000	-0.004	-0.000	-0.003	-0.002	.0013	-0.002	-0.009

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	0.004	0.007	0.002	-0.015	-0.008	0.004	0.015	0.014	0.046
Stddev	.0003	.0001	.0006	.0015	.0020	.0024	.0012	.0021	.0014
%RSD	64.20	18.37	267.8	96.53	236.8	550.7	77.35	148.9	4.156
#1	.0002	.0008	.0005	-0.032	-0.021	-0.023	.0023	.0015	.0358
#2	.0007	.0008	-0.005	-0.006	-0.018	.0021	.0021	.0035	.0350
#3	.0003	.0006	.0007	-0.008	.0014	.0015	.0002	-0.007	.0330

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.022	F 550.7	-1.866	0.565	-0.014	0.001	0.028	-0.002	-0.002
Stddev	.0032	.4	.0428	.0147	.0004	.0002	.0010	.0006	.0001
%RSD	142.9	.0772	22.91	26.01	32.26	215.0	35.02	304.3	86.00
#1	-0.056	551.1	-1.388	0.396	-0.012	-0.001	.0039	.0005	-0.003
#2	.0008	550.5	-2.211	0.639	-0.010	.0000	.0023	-0.004	-0.002
#3	-0.019	550.3	-2.000	0.661	-0.019	.0002	.0021	-0.007	-0.000

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.005	0.012	-0.001	0.023	0.004	-0.023	0.046
Stddev	.0005	.0005	.0001	.0003	.0020	.0007	.0012
%RSD	92.50	39.36	86.14	12.53	530.9	32.21	26.87
#1	-0.010	.0007	-0.002	.0021	-0.016	-0.031	.0053
#2	-0.005	.0013	-0.000	.0022	.0004	-0.020	.0052
#3	-0.000	.0016	-0.002	.0026	.0023	-0.017	.0032

Zoom In
Zoom Out

Sample Name: mgconf Acquired: 4/11/2019 19:05:47 Type: Unk
Method: SGS 3 NO Valve(v263) 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	144650.	18240.	6430.8	9409.2
Stddev	498.	101.	14.5	13.1
%RSD	.34448	.55617	.22591	.13921
#1	144150.	18123.	6414.7	9394.1
#2	144640.	18292.	6442.8	9417.6
#3	145150.	18305.	6435.0	9415.9

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Zoom In
Zoom Out

Sample Name: niconf Acquired: 4/11/2019 19:10:54 Type: Unk
Method: SGS 3 NO Valve(v263) 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	0.003	0.003	-0.001	-0.005	-0.003	F 10.47	-0.005
Stddev	.0001	.0001	.0001	.0003	.0001	.0004	.0000	.01	.0002
%RSD	31.53	167.1	43.88	96.27	36.18	79.95	5.890	.0529	43.17
#1	-0.003	-0.000	.002	-0.000	-0.001	-0.003	-0.003	10.47	-0.003
#2	-0.005	.0000	.002	.005	-0.002	-0.009	-0.004	10.48	-0.007
#3	-0.006	-0.001	.004	.003	-0.001	-0.002	-0.003	10.47	-0.004
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.003	0.003	0.002	0.005	0.011	0.015	0.026	-0.083	-0.070
Stddev	.0003	.0000	.0007	.0011	.0010	.0026	.0018	.0049	.0034
%RSD	86.23	12.66	400.0	207.8	87.31	170.2	68.06	58.79	47.95
#1	-0.006	.0003	-0.001	-0.001	.0018	.0038	.0042	-0.062	-0.109
#2	-0.004	.0003	-0.004	.0017	-0.000	.0022	.0028	-0.048	-0.049
#3	-0.000	.0003	.0010	-0.001	.0016	-0.013	.0007	-0.138	-0.052
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	-0.061	-1.426	-0.122	-0.019	-0.001	-0.216	-0.004	-0.001
Stddev	.0034	.0096	.0292	.0075	.0003	.0001	.0011	.0001	.0001
%RSD	389.5	157.8	20.47	61.08	14.85	98.00	5.213	28.30	89.58
#1	-0.033	-0.171	-1.089	-0.205	-0.016	-0.001	-0.208	-0.004	-0.003
#2	.0030	-0.019	-1.578	-0.103	-0.021	-0.002	-0.229	-0.003	-0.001
#3	-0.023	.0007	-1.611	-0.059	-0.021	-0.000	-0.212	-0.005	-0.001
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	-0.004	0.0315	-0.002	-0.014	-0.019	-0.023	-0.004		
Stddev	.0003	.0002	.0001	.0014	.0003	.0017	.0028		
%RSD	70.47	.7760	55.05	99.46	15.70	75.19	715.5		
#1	-0.007	.0315	-0.001	-0.030	-0.016	-0.033	-0.036		
#2	-0.003	.0313	-0.002	-0.010	-0.022	-0.003	.0010		
#3	-0.002	.0318	-0.003	-0.002	-0.019	-0.033	.0014		

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11.2
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Zoom In
Zoom Out

Sample Name: niconf Acquired: 4/11/2019 19:10:54 Type: Unk
Method: SGS 3 NO Valve(v263) 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	158240.	18874.	6983.1	10864.
Stddev	531.	49.	7.0	12.
%RSD	.33537	.25843	.10019	.11002
#1	157660.	18845.	6984.9	10866.
#2	158360.	18846.	6975.4	10851.
#3	158700.	18930.	6989.1	10875.

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Zoom In
Zoom Out

Sample Name: mp14058-mb1conf Acquired: 4/11/2019 19:16:02 Type: Unk
Method: SGS 3 NO Valve(v263) 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	0.010	-0.004	-0.006	-0.010	-0.008	0.054	0.006	0.097	-0.009
Stddev	.0009	.0002	.0006	.0013	.0002	.0034	.0001	.0002	.0028
%RSD	88.10	36.59	98.23	140.0	31.52	62.72	26.30	2.465	292.0
#1	.0004	-0.005	-0.013	-0.004	-0.011	.0094	.0005	.0096	-0.036
#2	.0006	-0.006	-0.001	-0.025	-0.006	.0037	.0007	.0100	-0.019
#3	.0021	-0.003	-0.005	-0.000	-0.007	.0033	.0005	.0096	-0.011
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.007	0.196	-0.008	-0.062	-0.019	0.000	0.077	0.020	-0.388
Stddev	.0024	.0001	.0056	.0065	.0110	.0068	.0049	.0793	.0102
%RSD	321.6	.7540	718.1	104.1	570.4	2084.0	64.14	396.8	2.626
#1	-0.010	.0195	.0057	-0.109	-0.144	.0079	.0066	-0.684	.3976
#2	.0018	.0195	-0.042	.0012	.0059	-0.035	.0034	.0434	.3911
#3	-0.030	.0198	-0.038	-0.089	.0028	-0.043	.0131	.0850	.3776
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	0.025	0.025	3.933	F 1758.	0.1212	0.001	1.460	-0.006	0.093
Stddev	.0046	.0705	.270	.42	.0016	.0004	.010	.0014	.0003
%RSD	20.42	134.3	6.852	2.399	1.339	335.6	.7157	239.6	3.727
#1	.0197	-0.283	3.760	1787.	.1200	-0.002	1.457	-0.018	.0097
#2	.0200	.1020	3.795	1776.	.1206	.0005	1.471	-0.008	.0090
#3	.0278	.0839	4.243	1709.	.1231	-0.000	1.451	.0009	.0092
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	-0.009	0.052	-0.019	0.3461	-0.021	0.712	0.008		
Stddev	.0026	.0020	.0007	.0095	.0084	.0131	.0028		
%RSD	290.9	39.22	35.37	2.745	394.3	18.45	372.6		
#1	.0021	.0074	-0.024	.3532	-0.036	.0561	.0033		
#2	-0.027	.0034	-0.011	.3353	-0.096	.0805	-0.023		
#3	-0.020	.0048	-0.020	.3497	.0069	.0769	.0013		

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Zoom In
Zoom Out

Sample Name: mp14058-mb1conf Acquired: 4/11/2019 19:16:02 Type: Unk
Method: SGS 3 NO Valve(v263) 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	141070.	18636.	6551.2	9443.3
Stddev	8478.	152.	7.6	9.4
%RSD	6.0095	.81523	.11640	.09919
#1	131300.	18560.	6560.0	9454.1
#2	145550.	18537.	6547.9	9437.4
#3	146370.	18811.	6545.9	9438.5

Zoom In
Zoom Out

Sample Name: CCV Acquired: 4/11/2019 19:21:19 Type: QC
Method: SGS 3 NO Valve(v263) 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	2.057	2.067	2.047	2.057	2.034	2.021	2.079	2.052	2.503
Stddev	.004	.004	.002	.002	.004	.003	.014	.002	.0003
%RSD	.2151	.1732	.0961	.0831	.1840	.1686	.6688	.1121	.1112
#1	2.059	2.069	2.048	2.058	2.037	2.024	2.068	2.053	2.501
#2	2.060	2.070	2.048	2.058	2.030	2.017	2.095	2.053	2.501
#3	2.052	2.063	2.044	2.055	2.036	2.022	2.075	2.049	2.506

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	2.037	2.052	1.996	2.088	2.044	2.019	2.016	40.61	40.76
Stddev	.001	.002	.006	.003	.003	.003	.003	.11	.09
%RSD	.0481	.0783	.3253	.1253	.1487	.1262	.1466	.2822	.2097
#1	2.038	2.053	2.000	2.089	2.048	2.020	2.014	40.70	40.84
#2	2.036	2.053	2.000	2.090	2.044	2.021	2.019	40.65	40.78
#3	2.037	2.050	1.989	2.085	2.042	2.016	2.015	40.48	40.67

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	41.38	41.11	41.92	41.38	2.061	2.023	5.258	2.038	2.052
Stddev	.04	.04	.11	.03	.001	.004	.005	.001	.002
%RSD	.0856	.0879	.2516	.0835	.0429	.2225	.0940	.0527	.0782
#1	41.40	41.13	41.99	41.42	2.061	2.027	5.260	2.039	2.053
#2	41.39	41.13	41.97	41.35	2.062	2.025	5.262	2.037	2.053
#3	41.34	41.07	41.80	41.37	2.061	2.018	5.252	2.037	2.050

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
Value Range

11.2
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Zoom In
Zoom Out

Sample Name: CCV Acquired: 4/11/2019 19:21:19 Type: QC
Method: SGS 3 NO Valve(v263) 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
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.015	1.974	2.018	2.011	2.033	2.114	2.019
Stddev	.003	.005	.001	.004	.005	.002	.011
%RSD	.1266	.2537	.0701	.1918	.2430	.0737	.5429
#1	2.018	1.971	2.019	2.014	2.034	2.115	2.008
#2	2.013	1.980	2.018	2.011	2.038	2.115	2.030
#3	2.014	1.972	2.017	2.006	2.028	2.113	2.018

Check ? 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	150230.	18663.	6772.4	9912.9
Stddev	600.	137.	12.5	18.6
%RSD	.39916	.73670	.18524	.18770
#1	149790.	18509.	6762.3	9893.3
#2	150910.	18705.	6786.5	9930.4
#3	149970.	18774.	6768.5	9915.1

Zoom In
Zoom Out

Sample Name: CCB Acquired: 4/11/2019 19:26:20 Type: QC
Method: SGS 3 NO Valve(v263) 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	-0.002	0.002	0.001	-0.001	-0.001	-0.002	0.000	0.003	-0.002
Stddev	0.004	0.000	0.001	0.004	0.002	0.002	0.001	0.003	0.004
%RSD	198.7	18.83	76.38	515.6	182.6	160.8	152.0	82.42	168.0
#1	-0.006	0.002	0.000	-0.006	0.001	-0.001	-0.000	0.000	-0.006
#2	0.000	0.001	0.001	-0.002	-0.002	-0.004	0.001	0.005	-0.003
#3	0.000	0.002	0.002	0.001	-0.002	0.001	0.001	0.004	0.002

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	-0.001	0.002	0.000	0.000	0.000	0.001	0.005	0.011	0.023
Stddev	0.004	0.001	0.009	0.003	0.005	0.007	0.012	0.136	0.017
%RSD	521.4	44.53	3335.	3138.	8825.	559.1	266.0	134.2	74.30
#1	0.001	0.002	-0.005	0.002	-0.005	0.009	-0.000	0.176	0.008
#2	0.002	0.003	0.011	0.001	-0.002	-0.001	0.019	-0.056	0.042
#3	-0.005	0.001	-0.005	-0.003	0.004	-0.004	-0.004	0.184	0.020

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	-0.006	0.064	-1.116	0.953	0.000	0.002	0.016	-0.002	0.000
Stddev	0.019	0.098	0.241	0.185	0.004	0.004	0.008	0.004	0.001
%RSD	332.5	153.3	21.63	19.37	992.2	172.2	52.83	196.1	271.7
#1	0.016	0.168	-1.118	1.160	0.004	0.006	0.017	-0.007	0.001
#2	-0.019	-0.026	-1.356	0.805	-0.003	0.002	0.007	-0.001	0.001
#3	-0.013	0.049	-0.873	0.896	-0.000	-0.002	0.024	0.002	-0.001

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: 4/11/2019 19:26:20 Type: QC
 Method: SGS 3 NO Valve(v263) 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
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000	-0.0006	.0001	-0.0023	.0006	.0030	-0.0086
Stddev	.0005	.0014	.0001	.0015	.0001	.0012	.0011
%RSD	3312.	216.7	54.90	65.04	23.77	40.94	12.86

#1	.0003	.0009	.0000	-0.0022	.0004	.0019	-0.0089
#2	-0.0005	-0.0017	.0002	-0.0039	.0005	.0043	-0.0095
#3	.0002	-0.0011	.0001	-0.0009	.0007	.0029	-0.0074

Check ? 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	157710.	18662.	6962.5	10797.
Stddev	529.	44.	16.3	24.
%RSD	.33542	.23500	.23459	.22186

#1	157940.	18637.	6966.7	10805.
#2	157100.	18712.	6976.4	10816.
#3	158090.	18636.	6944.5	10770.

Sample Name: mp13928-mb1conf Acquired: 4/11/2019 19:31:29 Type: Unk
 Method: SGS 3 NO Valve(v263) 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	-0.0000	.0000	.0037	.0015	.0009	.0016	-0.0004
Stddev	.0003	.0000	.0001	.0001	.0002	.0005	.0000	.0004	.0003
%RSD	116.2	19.57	1077.	258.9	6.128	29.75	.8839	27.38	84.65

#1	.0006	.0002	-0.0000	.0000	.0037	.0019	.0009	.0021	-0.0008
#2	.0002	.0001	-0.0001	.0002	.0035	.0017	.0009	.0015	-0.0003
#3	-0.0000	.0001	.0000	-0.0001	.0040	.0010	.0009	.0012	-0.0001

Elem V_2924 Zn2062 As1890 Tl1908 Pb2203 Se1960 Sb2068 Al3961 Ca3179
 Units ppm ppm ppm ppm ppm ppm ppm ppm ppm
 Avg **.0000** **.0197** **.0013** **-0.0005** **.0002** **-0.0010** **-0.0000** **.0201** **.1728**
 Stddev .0002 .0001 .0005 .0016 .0017 .0008 .0002 .0069 .0023
 %RSD 1098. .6640 39.37 323.2 1027. 75.24 522.5 34.33 1.341

#1	.0002	.0199	.0015	-0.0022	.0015	-0.0015	.0001	.0277	.1707
#2	-0.0002	.0196	.0008	-0.0008	-0.0017	-0.0014	-0.0003	.0141	.1725
#3	-0.0000	.0197	.0018	-0.0000	.0008	-0.0001	.0000	.0185	.1753

Elem Fe2599 Mg2790 K_7664 Na5895 B_2089 Mo2020 Si2124 Sn1899 Sr4077
 Units ppm ppm ppm ppm ppm ppm ppm ppm ppm
 Avg **.0629** **.0598** **-2.042** **-1.009** **-0.002** **.0001** **.0139** **.0202** **.0008**
 Stddev .0021 .0188 .0482 .0163 .0002 .0001 .0009 .0004 .0001
 %RSD 3.302 31.36 23.60 16.19 91.14 151.0 6.639 2.135 14.10

#1	.0641	.0711	-1.693	.0915	-0.0003	.0001	.0128	.0198	.0007
#2	.0642	.0702	-2.591	.1198	-0.0003	-0.0000	.0142	.0206	.0009
#3	.0605	.0382	-1.840	.0915	.0000	.0001	.0145	.0202	.0008

Elem Ti3349 W_2079 Zr3391 S_1820 Bi2230 Li6707 P_1774
 Units ppm ppm ppm ppm ppm ppm ppm
 Avg **.0013** **-0.0012** **.0002** **.0325** **.0006** **-0.0000** **.0137**
 Stddev .0004 .0003 .0001 .0021 .0005 .0015 .0011
 %RSD 28.30 28.04 36.46 6.539 87.69 3110. 8.294

#1	.0010	-0.0010	.0001	.0309	.0000	-0.0003	.0136		
#2	.0011	-0.0016	.0003	.0318	.0011	-0.0014	.0149		
#3	.0017	-0.0010	.0003	.0349	.0007	.0015	.0126		

Sample Name: mp13928-mb1conf Acquired: 4/11/2019 19:31:29 Type: Unk
 Method: SGS 3 NO Valve(v263) 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	160570.	19189.	7095.8	10992.
Stddev	1386.	98.	31.2	31.
%RSD	.86343	.50812	.43945	.27984

#1	159150.	19080.	7063.0	10957.
#2	160630.	19268.	7099.4	11004.
#3	161920.	19219.	7125.0	11014.

Sample Name: jc85681-1 Acquired: 4/11/2019 19:36:33 Type: Unk
 Method: SGS 3 NO Valve(v263) 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	.1378	.0000	.0059	.0259	1.438	.1384	.8310	.6815	.0055
Stddev	.0004	.0002	.0004	.0002	.003	.0004	.0006	.0020	.0002
%RSD	.2732	890.4	6.722	.7559	.2386	.2879	.0732	.2888	3.221

#1	.1375	.0001	.0063	.0261	1.440	.1387	.8317	.6837	.0055
#2	.1377	-0.0002	.0055	.0259	1.440	.1384	.8309	.6809	.0057
#3	.1383	.0001	.0057	.0257	1.434	.1379	.8305	.6799	.0053

Elem V_2924 Zn2062 As1890 Tl1908 Pb2203 Se1960 Sb2068 Al3961 Ca3179
 Units ppm ppm ppm ppm ppm ppm ppm ppm ppm
 Avg **.0126** **F 155.0** **.0226** **.0037** **.1407** **-0.0061** **.0200** **5.122** **30.07**
 Stddev .0003 .3 .0023 .0015 .0023 .0028 .0023 .015 .06
 %RSD 2.245 .2033 10.15 40.87 1.644 45.81 11.68 .2933 .2156

#1	.0124	154.7	.0244	.0053	.1380	-0.0090	.0173	5.132	30.13
#2	.0129	155.3	.0200	.0024	.1421	-0.0057	.0210	5.130	30.00
#3	.0125	154.9	.0233	.0033	.1419	-0.0035	.0216	5.105	30.07

Elem Fe2599 Mg2790 K_7664 Na5895 B_2089 Mo2020 Si2124 Sn1899 Sr4077
 Units ppm ppm ppm ppm ppm ppm ppm ppm ppm
 Avg **225.0** **7.949** **1.718** **9.956** **.0383** **.1411** **1.561** **.0448** **.1317**
 Stddev .4 .027 .014 .008 .0006 .0011 .006 .0010 .0003
 %RSD .1565 .3452 .8173 .0798 1.658 .7661 .3648 2.226 .2360

#1	225.1	7.963	1.732	9.953	.0384	.1417	1.560	.0444	.1318
#2	224.5	7.967	1.704	9.950	.0376	.1398	1.566	.0459	.1320
#3	225.2	7.917	1.719	9.965	.0389	.1417	1.555	.0441	.1314

Elem Ti3349 W_2079 Zr3391 S_1820 Bi2230 Li6707 P_1774
 Units ppm ppm ppm ppm ppm ppm ppm
 Avg **.1903** **.2981** **.0276** **7.872** **.0105** **-0.132** **.7840**
 Stddev .0018 .0103 .0003 .056 .0028 .0045 .0061
 %RSD .9601 3.464 1.065 .7054 26.80 34.02 .7805

#1	.1889	.3089	.0279	7.905	.0136	-0.184	.7878		
#2	.1896	.2883	.0277	7.808	.0098	-0.107	.7769		
#3	.1924	.2972	.0273	7.903	.0081	-0.105	.7872		

Sample Name: jc85681-1 Acquired: 4/11/2019 19:36:33 Type: Unk
 Method: SGS 3 NO Valve(v263) 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	158170.	19180.	7017.4	10727.
Stddev	644.	101.	6.1	10.
%RSD	.40719	.52629	.08720	.09306
#1	157470.	19243.	7020.5	10736.
#2	158300.	19233.	7010.4	10717.
#3	158740.	19063.	7021.4	10729.

Sample Name: mp13928-sd1 Acquired: 4/11/2019 19:41:40 Type: Unk
 Method: SGS 3 NO Valve(v263) Mode: CONC Corr. Factor: 10.000000
 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	.1374	-0.011	.0040	.0246	1.441	1.420	8.348	6.930	.0014
Stddev	.0040	.0004	.0014	.0008	.004	.0031	.0010	.0040	.0045
%RSD	2.886	41.89	34.76	3.421	.2768	2.208	.1182	.5828	317.7
#1	.1389	-0.006	.0034	.0249	1.442	1.436	8.354	6.959	.0041
#2	.1404	-0.012	.0056	.0252	1.444	1.384	8.353	6.948	-.0038
#3	.1329	-0.014	.0030	.0236	1.436	1.441	8.337	6.884	.0039
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0101	F 200.5	.0386	-0.0074	.1497	-0.0019	.0103	5.167	30.29
Stddev	.0022	.2	.0064	.0076	.0089	.0223	.0132	.080	.13
%RSD	21.87	1.159	16.67	102.9	5.973	114.7	128.4	1.556	.4367
#1	.0076	200.8	.0444	-.0034	.1486	.0124	.0063	5.218	30.44
#2	.0117	200.4	.0317	-.0026	.1413	-.0276	-.0005	5.074	30.18
#3	.0111	200.3	.0398	-.0161	.1591	.0093	.0251	5.209	30.24
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	226.3	7.893	1.599	10.13	.0227	1.391	1.558	0.398	1.302
Stddev	.5	.101	.5448	.11	.0059	.0033	.011	.0032	.0016
%RSD	.2098	1.274	340.8	1.037	26.13	2.391	.7119	8.018	1.248
#1	226.7	7.918	.0790	10.19	.0262	.1373	1.557	.0389	.1321
#2	226.3	7.782	.7406	10.00	.0261	.1371	1.548	.0434	.1294
#3	225.8	7.978	-3400	10.19	.0159	.1430	1.570	.0372	.1291
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	1.840	-3.211	.0261	7.740	-0.0258	-0.0295	6.858		
Stddev	.0031	.0157	.0006	.041	.0043	.0197	.0084		
%RSD	1.670	4.878	2.185	5.321	16.84	66.73	1.225		
#1	.1875	-.3176	.0263	7.786	-.0304	-.0132	6.944		
#2	.1816	-.3075	.0265	7.730	-.0218	-.0239	6.776		
#3	.1829	-.3382	.0254	7.705	-.0251	-.0514	6.855		

Sample Name: mp13928-sd1 Acquired: 4/11/2019 19:41:40 Type: Unk
 Method: SGS 3 NO Valve(v263) Mode: CONC Corr. Factor: 10.000000
 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	157880.	18976.	6985.0	10731.
Stddev	29.	25.	7.9	9.
%RSD	.01820	.13353	.11274	.08026
#1	157880.	18975.	6980.2	10735.
#2	157910.	19001.	6980.7	10722.
#3	157860.	18951.	6994.1	10738.

Sample Name: jc85681-4 Acquired: 4/11/2019 19:46:39 Type: Unk
 Method: SGS 3 NO Valve(v263) 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	5.798	.0006	.0293	.2200	F 52.20	4.503	2.464	F 9.744
Stddev	.0013	.0000	.0004	.0005	.52	.0015	.037	.008
%RSD	.2172	8.096	1.350	.2362	.9913	.3223	1.492	.0827
#1	5.786	.0006	.0296	.2198	52.70	4.491	2.468	9.740
#2	5.811	.0006	.0294	.2206	52.23	4.499	2.499	9.753
#3	5.797	.0006	.0289	.2197	51.67	4.520	2.425	9.738
Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F -.0466	****	3.293	F -.1802	F -.0031	1.264	F -.0332	1.428
Stddev	.0002	----	.003	.0024	.0002	.001	.0006	.002
%RSD	4.043	----	.0799	1.327	6.215	.0777	1.729	.1708
#1	-.0467	----	3.294	-.1802	-.0033	1.263	-.0332	1.431
#2	-.0464	----	3.295	-.1777	-.0029	1.265	-.0337	1.429
#3	-.0468	----	3.290	-.1825	-.0030	1.264	-.0326	1.426
Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	36.30	182.4	F 248.4	45.71	12.55	36.44	1.509	1.735
Stddev	.11	1.5	.4	.03	.05	.03	.0008	.0004
%RSD	.3130	.8449	1.758	.0655	.4036	.0787	.5447	.2283
#1	36.20	184.0	248.0	45.68	12.51	36.44	.1508	1.731
#2	36.42	182.3	248.8	45.74	12.61	36.42	.1517	1.739
#3	36.27	180.9	248.5	45.70	12.53	36.47	.1501	1.735
Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.841	.1039	8.922	2.115	.0470	8.127	F 3.85.3	0.357
Stddev	.006	.0009	.0009	.004	.0013	.0014	1.3	.0008
%RSD	.1515	.8633	1.064	.1661	2.841	.1747	.3450	2.369
#1	3.838	.1043	8911	2.111	.0485	.8111	386.6	.0367
#2	3.848	.1029	8923	2.115	.0460	.8131	385.1	.0352
#3	3.837	.1046	8930	2.118	.0465	.8139	384.0	.0353

Zoom In
Zoom Out

Sample Name: jc85681-4 Acquired: 4/11/2019 19:46:39 Type: Unk
Method: SGS 3 NO Valve(v263) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Li6707	P_1774		
Units	ppm	ppm		
Avg	.0470	4.097		
Stddev	.0009	.022		
%RSD	1.991	.5375		
#1	.0473	4.121		
#2	.0459	4.093		
#3	.0477	4.077		
Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	149560.	18983.	5688.0	9951.5
Stddev	189.	77.	11.1	23.8
%RSD	.12607	.40423	.19568	.23929
#1	149720.	19072.	5698.2	9974.2
#2	149600.	18941.	5689.6	9953.5
#3	149350.	18937.	5676.1	9926.7

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Zoom In
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Sample Name: jc85681-4 Acquired: 4/11/2019 19:51:58 Type: Unk
Method: SGS 3 NO Valve(v263) Mode: CONC Corr. Factor: 10.000000
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	.5715	-0.0000	.0247	.2141	56.02	4.974	2.578	9.879	.0044
Stddev	.0064	.0004	.0018	.0021	.47	.0035	.021	.044	.0016
%RSD	1.116	1783.	7.425	.9893	.8462	.6962	.8183	.4462	35.45
#1	.5729	.0000	.0230	.2156	55.86	4.967	2.566	9.927	.0042
#2	.5770	-.0005	.0246	.2117	55.65	4.944	2.565	9.841	.0030
#3	.5645	-.0004	.0266	.2150	56.56	.5012	2.602	9.869	.0061
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1801	2.968	.0696	-0.0034	1.302	.0171	-0.0213	36.36	187.1
Stddev	.0028	.014	.0146	.0086	.015	.0110	.0162	.28	.6
%RSD	1.529	.4803	20.99	251.8	1.179	64.72	76.12	.7760	.3418
#1	.1812	2.981	.0589	-.0122	1.309	.0277	-.0043	36.56	187.4
#2	.1770	2.953	.0637	-.0049	1.285	.0056	-.0230	36.48	187.4
#3	.1821	2.970	.0863	-.0029	1.313	.0179	-.0367	36.04	186.3
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	256.6	47.44	10.60	36.44	.1076	.1483	3.266	.0854	.8848
Stddev	.9	.38	.30	.07	.0070	.0047	.008	.0006	.0016
%RSD	.3625	.7948	2.855	.1866	6.542	3.197	.2366	.6454	.1864
#1	256.9	47.41	10.81	36.49	.1107	.1448	3.258	.0859	.8866
#2	257.5	47.83	10.25	36.36	.1126	.1464	3.267	.0856	.8844
#3	255.6	47.08	10.74	36.45	.0996	.1537	3.273	.0848	.8834
Elem	Tl3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	2.080	.0367	.8604	343.0	.0380	.0050	3.446		
Stddev	.017	.0100	.0061	1.3	.0037	.0107	.018		
%RSD	.8071	27.20	.7082	.3797	9.774	214.7	.5265		
#1	2.068	.0410	.8588	343.3	.0394	.0099	3.466		
#2	2.073	.0253	.8553	344.0	.0409	.0123	3.442		
#3	2.099	.0438	.8671	341.5	.0338	-.0073	3.430		

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Zoom In
Zoom Out

Sample Name: jc85681-4 Acquired: 4/11/2019 19:51:58 Type: Unk
Method: SGS 3 NO Valve(v263) Mode: CONC Corr. Factor: 10.000000
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	155760.	18817.	6837.6	10549.
Stddev	1222.	67.	24.3	33.
%RSD	.78446	.35723	.35541	.31694
#1	156100.	18799.	6817.0	10520.
#2	156770.	18760.	6864.4	10586.
#3	154400.	18891.	6831.5	10541.

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Zoom In
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Sample Name: jc85681-5 Acquired: 4/11/2019 19:56:57 Type: Unk
Method: SGS 3 NO Valve(v263) 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	.2593	.0001	.0112	.0821	10.88	.2193	1.011	3.765	.0026
Stddev	.0020	.0001	.0001	.0002	.08	.0003	.002	.004	.0001
%RSD	.7897	44.05	.9642	.2315	.7527	.1370	.1547	.0955	4.287
#1	.2578	.0001	.0112	.0819	10.98	.2195	1.010	3.765	.0025
#2	.2616	.0001	.0113	.0823	10.82	.2195	1.010	3.769	.0025
#3	.2584	.0002	.0111	.0821	10.85	.2190	1.013	3.762	.0027
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0523	1.351	.0145	-0.0010	.4566	.0082	.0106	20.25	86.60
Stddev	.0004	.001	.0016	.0009	.0004	.0008	.0020	.12	.49
%RSD	.8291	.0688	11.37	89.81	.0953	10.37	19.16	.5761	.5609
#1	.0528	1.350	.0164	-.0009	.4568	.0088	.0096	20.16	86.24
#2	.0523	1.352	.0133	-.0002	.4569	.0072	.0129	20.38	87.15
#3	.0519	1.351	.0137	-.0020	.4561	.0085	.0093	20.20	86.40
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	61.20	22.18	4.987	15.97	.0552	.0334	2.019	.0718	.4263
Stddev	.33	.13	.015	.11	.0002	.0005	.004	.0005	.0028
%RSD	.5397	.5942	.2974	.6793	.3707	1.489	.1978	.6282	.6601
#1	60.95	22.09	4.970	15.88	.0550	.0330	2.015	.0720	.4241
#2	61.58	22.33	4.998	16.09	.0554	.0331	2.017	.0721	.4295
#3	61.09	22.12	4.993	15.94	.0552	.0339	2.023	.0713	.4255
Elem	Tl3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	2.256	.0131	1.268	38.70	.0595	.0131	1.970		
Stddev	.004	.0022	.002	.24	.0025	.0014	.017		
%RSD	.1758	16.49	.1828	.6137	4.145	10.68	.8851		
#1	2.253	.0155	1.266	38.46	.0571	.0133	1.956		
#2	2.256	.0112	1.268	38.71	.0593	.0116	1.964		
#3	2.261	.0127	1.270	38.93	.0621	.0144	1.989		

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11.2
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Zoom In
Zoom Out

Sample Name: jc85681-5 Acquired: 4/11/2019 19:56:57 Type: Unk
 Method: SGS 3 NO Valve(v263) 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	153700.	19201.	6630.3	10131.
Stddev	883.	85.	18.7	26.
%RSD	.57443	.44466	.28149	.25263
#1	152810.	19265.	6645.5	10154.
#2	154570.	19104.	6635.9	10136.
#3	153720.	19234.	6609.4	10103.

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Zoom In
Zoom Out

Sample Name: jc85681-6 Acquired: 4/11/2019 20:02:03 Type: Unk
 Method: SGS 3 NO Valve(v263) Mode: CONC Corr. Factor: 2.000000
 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	.9338	.0011	.0292	.0796	11.70	.7842	.9228	3.727
Stddev	.0057	.0001	.0005	.0001	.02	.0016	.0026	.009
%RSD	.6121	6.651	1.624	.1353	.2106	.2042	.2794	.2483
#1	.9285	.0010	.0298	.0797	11.67	.7835	.9198	3.718
#2	.9329	.0011	.0290	.0797	11.71	.7860	.9245	3.728
#3	.9399	.0012	.0290	.0795	11.71	.7830	.9240	3.736
Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0082	.0922	3.446	.0363	F -.0060	2.297	.0208	.0279
Stddev	.0003	.0008	.009	.0007	.0010	.007	.0032	.0025
%RSD	3.346	.9178	.2471	1.871	16.67	.3111	15.49	8.859
#1	.0082	.0913	3.436	.0369	-.0070	2.290	.0172	.0269
#2	.0079	.0923	3.449	.0356	-.0059	2.296	.0233	.0261
#3	.0084	.0929	3.453	.0364	-.0050	2.304	.0221	.0307
Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	39.99	227.8	78.79	58.00	10.46	16.58	.0816	.1082
Stddev	.16	1.4	.42	.37	.11	.21	.0017	.0006
%RSD	.4045	.6001	.5359	.6455	1.083	1.254	2.096	.5330
#1	39.90	226.9	78.52	57.73	10.39	16.39	.0832	.1076
#2	39.89	227.1	78.58	57.83	10.40	16.55	.0816	.1087
#3	40.17	229.4	79.28	58.42	10.59	16.80	.0798	.1083
Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.039	.3373	1.029	1.659	.0119	4.266	F 439.1	.0435
Stddev	.009	.0028	.009	.001	.0006	.0005	2.9	.0028
%RSD	.4674	.8430	.8225	.0623	5.236	.1055	.6708	6.467
#1	2.028	.3341	1.021	1.659	.0113	4.266	436.2	.0439
#2	2.043	.3386	1.028	1.657	.0119	4.262	438.9	.0461
#3	2.046	.3393	1.038	1.659	.0125	4.271	442.1	.0405

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11.2
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Zoom In
Zoom Out

Sample Name: jc85681-6 Acquired: 4/11/2019 20:02:03 Type: Unk
 Method: SGS 3 NO Valve(v263) Mode: CONC Corr. Factor: 2.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Li6707	P_1774		
Units	ppm	ppm		
Avg	.0473	5.046		
Stddev	.0022	.037		
%RSD	4.595	.7312		
#1	.0493	5.013		
#2	.0475	5.038		
#3	.0450	5.086		
Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	151940.	18771.	6611.0	9969.4
Stddev	772.	142.	9.9	15.2
%RSD	.50813	.75661	.14906	.15241
#1	152150.	18640.	6602.3	9951.8
#2	151090.	18922.	6609.0	9977.2
#3	152590.	18752.	6621.7	9979.0

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Zoom In
Zoom Out

Sample Name: jc85681-9 Acquired: 4/11/2019 20:06:59 Type: Unk
 Method: SGS 3 NO Valve(v263) Mode: CONC Corr. Factor: 10.000000
 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	.1275	-.0008	.0004	.3676	62.65	.2761	4.719	17.99	.0020
Stddev	.0007	.0009	.0006	.0014	.24	.0051	.014	.11	.0070
%RSD	.5132	113.5	170.6	.3681	.3781	1.863	.2937	.5906	349.3
#1	.1273	-.0015	.0006	.3663	62.38	.2725	4.703	17.89	.0100
#2	.1271	-.0010	.0009	.3690	62.81	.2820	4.726	18.10	-.0008
#3	.1283	.0002	-.0003	.3675	62.76	.2739	4.727	17.99	-.0032
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.430	1.938	.0636	-.0102	.0457	.0103	-.0131	4.805	19.47
Stddev	.0033	.009	.0027	.0135	.0060	.0125	.0161	.130	.09
%RSD	2.283	.4726	4.213	133.4	13.10	122.1	122.8	2.698	.4568
#1	.1418	1.931	.0605	.0052	.0524	.0038	-.0073	4.952	19.58
#2	.1405	1.948	.0651	-.0154	.0409	.0023	-.0008	4.757	19.42
#3	.1467	1.934	.0651	-.0202	.0438	.0247	-.0314	4.706	19.42
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	228.9	5.647	2538	4.786	.0537	1895	3.062	.2072	.0831
Stddev	.7	.186	.1599	.039	.0055	.0034	.014	.0082	.0005
%RSD	.2840	3.301	62.99	.8081	10.29	1.804	.4684	3.942	.6312
#1	229.6	5.445	.0957	4.829	.0491	1855	3.061	.2047	.0826
#2	228.7	5.685	.4154	4.753	.0522	1911	3.077	.2163	.0836
#3	228.3	5.812	.2504	4.775	.0598	1918	3.048	.2005	.0831
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	.1670	.0867	.0380	10.03	.0053	-.0357	.5075		
Stddev	.0025	.0071	.0011	.08	.0128	.0223	.0034		
%RSD	1.471	8.174	3.000	.8000	240.1	62.40	.6724		
#1	.1662	.0842	.0393	9.939	.0064	-.0597	.5068		
#2	.1698	.0947	.0373	10.09	-.0080	-.0318	.5112		
#3	.1651	.0812	.0373	10.05	.0175	-.0156	.5045		

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Sample Name: jc85681-9 Acquired: 4/11/2019 20:06:59 Type: Unk
 Method: SGS 3 NO Valve(v263) Mode: CONC Corr. Factor: 10.000000
 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	157090.	18881.	6830.8	10706.
Stddev	346.	96	45.1	65.
%RSD	.22050	.50828	.66013	.61061
#1	156700.	18795.	6863.9	10759.
#2	157170.	18864.	6779.4	10633.
#3	157380.	18985.	6849.0	10728.

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Sample Name: jc85681-11 Acquired: 4/11/2019 20:12:00 Type: Unk
 Method: SGS 3 NO Valve(v263) 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	6785	.0009	.0595	0907	10.07	6999	1.159	4.340	0.100
Stddev	.0008	.0001	.0001	.0003	.02	.0026	.002	.002	.0009
%RSD	.1198	7.226	.1699	.3499	.1797	.3719	.2010	.0528	9.186
#1	.6777	.0008	.0596	.0911	10.05	6978	1.157	4.343	.0111
#2	.6793	.0009	.0595	.0905	10.08	.7028	1.161	4.338	.0095
#3	.6784	.0008	.0594	.0906	10.08	.6990	1.158	4.340	.0096
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0636	3.085	.0878	-0.014	.7601	.0051	.0226	20.88	164.2
Stddev	.0006	.007	.0014	.0029	.0017	.0006	.0023	.03	.3
%RSD	.9516	.2227	1.629	203.2	2.264	12.13	10.37	.1431	.1741
#1	.0639	3.093	.0890	-.0044	.7589	.0044	.0228	20.88	164.4
#2	.0629	3.081	.0881	-.0012	.7621	.0053	.0248	20.92	164.4
#3	.0640	3.081	.0862	.0013	.7592	.0056	.0201	20.86	163.9
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	62.40	37.24	8.121	23.19	1.045	.0459	1.636	.0803	.7858
Stddev	.08	.12	.049	.03	.0007	.0002	.003	.0011	.0010
%RSD	.1350	.3263	.6049	.1284	.6880	.5031	.1920	1.340	.1264
#1	62.48	37.30	8.109	23.20	.1047	.0458	1.639	.0815	.7858
#2	62.42	37.33	8.078	23.22	.1037	.0458	1.633	.0796	.7868
#3	62.31	37.10	8.174	23.16	.1051	.0462	1.635	.0797	.7849
Elem	Tl3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	.8164	.0144	.0725	32.11	.0684	.0279	2.476		
Stddev	.0026	.0010	.0002	.19	.0025	.0026	.011		
%RSD	.3176	6.938	.2633	.5894	3.589	9.381	.4457		
#1	.8166	.0136	.0726	32.07	.0663	.0303	2.480		
#2	.8189	.0155	.0726	31.94	.0678	.0283	2.463		
#3	.8137	.0140	.0723	32.31	.0711	.0251	2.484		

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11.2
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Sample Name: jc85681-11 Acquired: 4/11/2019 20:12:00 Type: Unk
 Method: SGS 3 NO Valve(v263) 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	153180.	18678.	6732.3	10102.
Stddev	813.	137.	33.2	35.
%RSD	.53096	.73458	.49250	.34319
#1	153750.	18527.	6694.3	10062.
#2	152250.	18712.	6747.1	10120.
#3	153540.	18795.	6755.5	10123.

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Sample Name: CCV Acquired: 4/11/2019 20:16:59 Type: QC
 Method: SGS 3 NO Valve(v263) 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	2.091	2.102	2.018	2.026	2.077	2.059	2.103	2.018	.2544
Stddev	.007	.002	.037	.031	.004	.005	.012	.031	.0008
%RSD	.3235	.1109	1.846	1.529	.2134	.2341	.5755	1.547	.3193
#1	2.088	2.100	1.975	1.990	2.081	2.065	2.097	1.982	.2552
#2	2.087	2.101	2.040	2.044	2.072	2.056	2.117	2.037	.2544
#3	2.099	2.105	2.040	2.042	2.078	2.057	2.095	2.036	.2536
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	2.075	2.021	1.969	2.073	2.014	1.992	1.983	41.25	41.39
Stddev	.001	.035	.035	.040	.029	.035	.039	.05	.06
%RSD	.0326	1.746	1.760	1.908	1.423	1.784	1.947	.1226	.1546
#1	2.074	1.980	1.929	2.028	1.981	1.951	1.938	41.25	41.35
#2	2.074	2.043	1.990	2.099	2.033	2.013	2.007	41.20	41.35
#3	2.075	2.040	1.989	2.093	2.028	2.013	2.004	41.30	41.46
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	42.03	41.74	42.55	42.36	2.028	1.990	5.166	2.007	2.081
Stddev	.02	.11	.09	.02	.037	.035	.098	.040	.003
%RSD	.0375	.2524	.2205	.0530	1.820	1.735	1.906	2.007	.1243
#1	42.02	41.81	42.58	42.38	1.985	1.950	5.053	1.961	2.079
#2	42.02	41.62	42.45	42.36	2.048	2.011	5.223	2.031	2.080
#3	42.05	41.79	42.63	42.34	2.049	2.009	5.223	2.031	2.083
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: 4/11/2019 20:16:59 Type: QC
 Method: SGS 3 NO Valve(v263) 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
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.044	1.944	2.055	2.006	2.005	2.132	2.059
Stddev	.001	.034	.002	.044	.034	.007	.043
%RSD	.0530	1.739	.0720	2.178	1.701	.3094	2.086
#1	2.043	1.905	2.057	1.956	1.966	2.131	2.010
#2	2.043	1.964	2.054	2.035	2.021	2.127	2.085
#3	2.045	1.963	2.054	2.027	2.029	2.140	2.083

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
 Value High Limit Low Limit

Int. Std. Units	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	148080.	18331.	6840.9	10022.
Stddev	642.	67.	108.6	137.
%RSD	.43368	.36456	1.5869	1.3697
#1	148230.	18286.	6965.9	10179.
#2	148640.	18408.	6770.2	9928.4
#3	147380.	18299.	6786.5	9957.0

Sample Name: CCB Acquired: 4/11/2019 20:22:01 Type: QC
 Method: SGS 3 NO Valve(v263) 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	.0004	.0001	.0002	.0004	.0002	.0004	.0002	.0003
Stddev	.0006	.0001	.0001	.0003	.0001	.0003	.0000	.0002	.0004
%RSD	144.5	25.16	204.5	147.0	17.42	138.4	4.691	84.86	124.8
#1	-.0003	.0004	.0002	.0005	.0004	-.0001	.0004	.0004	.0006
#2	.0008	.0005	-.0000	.0001	.0004	.0006	.0004	.0002	.0004
#3	.0007	.0003	-.0000	-.0001	.0003	.0002	.0004	.0000	-.0001

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
 Value 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	.0005	.0006	.0006	.0008	.0023	.0017	.0093	.0050
Stddev	.0001	.0002	.0005	.0008	.0007	.0009	.0012	.0062	.0019
%RSD	10.62	29.43	74.91	126.0	81.36	38.24	69.48	66.82	37.18
#1	.0006	.0007	.0001	-.0003	.0014	.0018	.0007	.0111	.0035
#2	.0007	.0005	.0010	.0012	.0010	.0017	.0030	.0143	.0071
#3	.0006	.0004	.0007	.0011	.0001	.0033	.0014	.0024	.0044

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
 Value 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	.0045	.0171	-.1439	.0286	.0002	.0002	.0004	.0003	.0004
Stddev	.0021	.0054	.0054	.0041	.0005	.0001	.0011	.0005	.0001
%RSD	46.79	31.69	3.780	14.40	322.2	46.97	272.9	168.5	25.67
#1	.0054	.0210	-.1426	.0329	.0005	.0004	-.0008	.0001	.0004
#2	.0060	.0109	-.1393	.0247	-.0004	.0002	.0015	-.0001	.0004
#3	.0021	.0192	-.1499	.0281	.0004	.0001	.0006	.0009	.0003

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
 Value High Limit Low Limit

Sample Name: CCB Acquired: 4/11/2019 20:22:01 Type: QC
 Method: SGS 3 NO Valve(v263) 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
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0002	-.0000	.0002	-.0014	.0002	.0009	-.0127
Stddev	.0003	.0011	.0001	.0011	.0020	.0026	.0018
%RSD	118.9	4009.	50.25	73.33	1146.	298.3	14.15
#1	-.0001	.0011	.0003	-.0024	-.0002	-.0021	-.0127
#2	.0005	-.0010	.0001	-.0003	.0023	.0018	-.0146
#3	.0003	-.0002	.0002	-.0016	-.0016	.0029	-.0110

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
 Value High Limit Low Limit

Int. Std. Units	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	158660.	18506.	7006.1	10884.
Stddev	1063.	346.	30.1	36.
%RSD	.67003	1.8702	.42983	.33072
#1	157820.	18851.	7031.9	10912.
#2	158290.	18159.	6973.0	10843.
#3	159850.	18507.	7013.3	10896.

Sample Name: mp14028-mb1conf Acquired: 4/11/2019 20:27:09 Type: Nck
 Method: SGS 3 NO Valve(v263) 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	-.0002	-.0002	.0008	.0008	.0007	.0005	-.0001
Stddev	.0002	.0000	.0000	.0001	.0002	.0005	.0000	.0000	.0001
%RSD	101.2	6.596	76.07	73.92	29.56	59.99	6.268	5.530	211.8
#1	-.0000	.0001	-.0000	-.0001	.0008	.0009	.0008	.0005	-.0000
#2	.0004	.0001	-.0003	-.0004	.0005	.0003	.0007	.0005	-.0002
#3	.0002	.0001	-.0002	-.0001	.0010	.0013	.0007	.0005	.0000

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
 Value 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	.0129	-.0003	-.0003	.0016	.0012	-.0001	.0205	.1352
Stddev	.0002	.0000	.0013	.0006	.0016	.0005	.0008	.0207	.0009
%RSD	297.7	.1443	447.7	184.3	96.62	42.33	853.0	101.0	.6921
#1	-.0002	.0129	.0006	.0004	.0018	.0016	-.0007	.0119	.1354
#2	.0001	.0129	-.0018	-.0008	.0031	.0014	-.0004	.0055	.1343
#3	-.0001	.0129	.0003	-.0006	-.0000	.0006	.0008	.0441	.1361

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
 Value High Limit Low Limit

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0006	.0009	.0002	.0077	.0012	-.0033	.0126
Stddev	.0003	.0010	.0000	.0009	.0009	.0018	.0008
%RSD	40.88	110.2	21.29	11.60	78.89	54.82	6.378
#1	.0009	.0020	.0002	.0069	.0013	-.0036	.0123
#2	.0005	.0006	.0001	.0087	.0020	-.0014	.0119
#3	.0005	.0001	.0002	.0074	.0002	-.0050	.0135

Sample Name: mp14028-mb1conf Acquired: 4/11/2019 20:27:09 Type: Unk
 Method: SGS 3 NO Valve(v263) 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	161140.	18956.	7077.1	10971.
Stddev	667.	100.	13.8	8.
%RSD	.41396	.52691	.19549	.07037
#1	160610.	19053.	7067.3	10975.
#2	161890.	18963.	7093.0	10975.
#3	160920.	18853.	7071.2	10962.

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Sample Name: jc85784-1 Acquired: 4/11/2019 20:32:14 Type: Unk
 Method: SGS 3 NO Valve(v263) 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	9752	.0126	-0.001	2327	3005	4748	5.305	.3737	.0030
Stddev	.0043	.0001	.0002	.0004	.0008	.0010	.0007	.0010	.0005
%RSD	.4384	.4570	216.9	.1873	.2616	.2047	1.403	.2710	18.14
#1	.9708	.0126	-.0002	2328	3014	4739	5.382	.3726	.0025
#2	.9755	.0127	-.0002	2330	2999	4758	5.234	.3739	.0036
#3	.9794	.0125	.0001	2322	3002	4745	5.299	.3747	.0029
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4327	.9424	.0148	.0117	.1091	-0.0009	.0198	272.6	54.09
Stddev	.0018	.0009	.0020	.0010	.0010	.0020	.0020	.7	.25
%RSD	.4207	.0935	13.56	8.948	9.489	230.0	10.17	.2557	.4572
#1	.4344	.9415	.0128	.0105	.1101	-.0030	.0186	271.9	53.85
#2	.4308	.9433	.0148	.0125	.1080	-.0005	.0187	272.8	54.08
#3	.4330	.9424	.0168	.0121	.1092	.0009	.0221	273.3	54.34
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	319.0	137.4	84.56	13.15	.0124	.0020	2.013	.0559	.2899
Stddev	.7	.5	.85	.11	.0027	.0002	.006	.0013	.0008
%RSD	.2309	.3989	.9997	.8113	21.41	12.18	.3161	2.381	.2910
#1	318.2	136.9	83.68	13.06	.0094	.0018	2.007	.0544	.2889
#2	319.0	137.4	84.63	13.13	.0141	.0022	2.014	.0561	.2902
#3	319.7	138.0	85.36	13.27	.0139	.0019	2.019	.0571	.2906
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	15.73	-.0043	.0288	1.135	4.291	.2325	3.663		
Stddev	.05	.0018	.0005	.003	.0035	.0038	.017		
%RSD	.2950	42.29	1.640	2.236	8.092	1.629	.4740		
#1	15.71	-.0057	.0284	1.133	4.289	.2298	3.650		
#2	15.78	-.0022	.0293	1.133	4.327	.2368	3.656		
#3	15.70	-.0049	.0286	1.138	4.258	.2308	3.683		

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11.2
1

Sample Name: jc85784-1 Acquired: 4/11/2019 20:32:14 Type: Unk
 Method: SGS 3 NO Valve(v263) 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	153060.	18931.	6880.1	9906.1
Stddev	941.	88.	4.3	1.7
%RSD	.61463	.46245	.06313	.01765
#1	152130.	19030.	6879.2	9904.8
#2	153050.	18901.	6884.8	9908.1
#3	154010.	18863.	6876.3	9905.4

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Sample Name: jc85784-2 Acquired: 4/11/2019 20:37:29 Type: Unk
 Method: SGS 3 NO Valve(v263) 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	.7773	.0118	-0.0005	.1028	.1864	.0792	9.499	.1592	-0.0028
Stddev	.0150	.0001	.0002	.0017	.0044	.0023	.217	.0025	.0010
%RSD	1.931	1.052	42.81	1.686	2.379	2.921	2.285	1.601	34.49
#1	.7616	.0117	-.0003	.1008	.1814	.0767	9.265	.1562	-.0031
#2	.7788	.0117	-.0004	.1037	.1881	.0799	9.537	.1604	-.0017
#3	.7915	.0119	-.0007	.1039	.1898	.0812	9.694	.1609	-.0036
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2829	.4678	.0502	.0019	.1280	-0.0071	.0089	118.6	105.0
Stddev	.0084	.0077	.0031	.0005	.0010	.0028	.0035	2.0	2.2
%RSD	2.962	1.639	6.156	40.84	.7945	39.01	39.47	1.719	2.049
#1	.2744	.4592	.0469	.0016	.1284	-.0050	.0126	116.4	102.8
#2	.2831	.4699	.0505	.0007	.1269	-.0061	.0084	118.8	105.2
#3	.2911	.4741	.0531	.0016	.1288	-.0103	.0057	120.5	107.1
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	250.1	75.60	5.327	.4223	.0153	.0033	1.967	.0253	.0872
Stddev	4.3	1.43	.053	.0057	.0009	.0003	.030	.0010	.0019
%RSD	1.732	1.896	1.003	1.361	5.717	8.926	1.527	3.925	2.150
#1	245.6	74.10	5.266	.4233	.0150	.0035	1.934	.0257	.0852
#2	250.6	75.75	5.351	.4161	.0146	.0030	1.972	.0241	.0874
#3	254.2	76.96	5.365	.4275	.0163	.0034	1.994	.0260	.0890
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	2.526	-.0034	.0314	.5458	.0609	.1279	5.789		
Stddev	.061	.0018	.0006	.0072	.0031	.0035	.078		
%RSD	2.425	53.15	1.934	1.328	5.087	2.706	1.350		
#1	2.463	-.0017	.0307	.5376	.0641	.1239	5.702		
#2	2.530	-.0053	.0319	.5512	.0580	.1292	5.814		
#3	2.585	-.0031	.0315	.5487	.0606	.1305	5.852		

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Sample Name: jc85784-2 Acquired: 4/11/2019 20:37:29 Type: Unk
 Method: SGS 3 NO Valve(v263) 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	161450.	19800.	7247.0	10132.
Stddev	97.	118.	9.5	17.
%RSD	.06030	.59486	.13111	.16614
#1	161560.	19714.	7244.1	10142.
#2	161420.	19751.	7239.3	10113.
#3	161380.	19934.	7257.6	10141.

Sample Name: jc85784-3 Acquired: 4/11/2019 20:42:37 Type: Unk
 Method: SGS 3 NO Valve(v263) 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	.8036	.0045	.0021	.0815	.1543	2.433	3.173	1.495	.0035
Stddev	.0031	.0003	.0001	.0002	.0006	.001	.002	.0006	.0006
%RSD	.3835	6.650	5.549	.2912	.4040	.0510	.0712	.4220	16.70
#1	.8020	.0042	.0021	.0814	.1541	2.433	3.171	1.488	.0036
#2	.8071	.0048	.0019	.0812	.1539	2.435	3.175	1.501	.0041
#3	.8015	.0047	.0022	.0817	.1550	2.432	3.171	1.497	.0029
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2457	1.837	.1519	.0004	31.34	.0091	3.553	64.33	62.38
Stddev	.0006	.001	.0011	.0036	.02	.0017	.001	.19	.14
%RSD	.2606	.0436	.7296	818.1	.0717	18.58	.0295	.2976	.2227
#1	.2451	1.836	.1523	-.0026	31.32	.0080	3.553	64.26	62.27
#2	.2456	1.837	.1527	.0044	31.35	.0111	3.554	64.55	62.54
#3	.2463	1.837	.1506	-.0004	31.36	.0084	3.552	64.18	62.34
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	315.6	20.47	9.577	3.228	.0663	.0152	2.182	3.941	.4235
Stddev	.7	.09	.061	.019	.0006	.0002	.006	.005	.0007
%RSD	.2121	.4372	.6392	.5759	.8900	1.291	.2633	.1313	.1543
#1	315.2	20.54	9.647	3.222	.0666	.0150	2.177	3.939	.4236
#2	316.4	20.37	9.550	3.248	.0666	.0153	2.188	3.938	.4240
#3	315.4	20.49	9.533	3.212	.0656	.0153	2.181	3.947	.4227
Elem	Tl3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	2.057	-.0070	.0559	4.381	.1590	.0518	4.227		
Stddev	.001	.0016	.0003	.018	.0039	.0038	.015		
%RSD	.0299	22.57	5.083	4.073	2.442	7.290	.3500		
#1	2.057	-.0058	.0560	4.374	.1614	.0488	4.224		
#2	2.058	-.0065	.0555	4.368	.1612	.0506	4.214		
#3	2.057	-.0088	.0560	4.402	.1545	.0560	4.243		

11.2
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Sample Name: jc85784-3 Acquired: 4/11/2019 20:42:37 Type: Unk
 Method: SGS 3 NO Valve(v263) 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	156310.	18987.	6953.8	10398.
Stddev	528.	42.	16.1	23.
%RSD	.33798	.22268	.23163	.21832
#1	156760.	18941.	6960.5	10416.
#2	155730.	19024.	6935.4	10372.
#3	156430.	18998.	6965.4	10404.

Sample Name: jc85784-4 Acquired: 4/11/2019 20:47:33 Type: Unk
 Method: SGS 3 NO Valve(v263) 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	1.663	.0096	-.0002	.1156	.2228	.0580	6.080	1.966	.0004
Stddev	.004	.0001	.0002	.0004	.0004	.0007	.008	.0003	.0011
%RSD	.2271	.6158	92.01	.3589	.1895	1.267	.1319	.1578	277.4
#1	1.663	.0097	-.0004	.1152	.2224	.0572	6.072	1.964	-.0009
#2	1.667	.0096	-.0000	.1157	.2227	.0580	6.088	1.970	.0013
#3	1.660	.0096	-.0002	.1160	.2232	.0587	6.079	1.965	.0008
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2763	.4851	.0348	.0018	.2044	-.0015	.0085	155.4	19.63
Stddev	.0004	.0007	.0011	.0004	.0006	.0012	.0008	.3	.02
%RSD	.1294	.1346	3.130	24.86	.3146	83.85	9.753	.2066	.1117
#1	.2761	.4856	.0340	.0018	.2049	-.0014	.0092	155.1	19.61
#2	.2767	.4844	.0360	.0022	.2047	-.0003	.0076	155.8	19.65
#3	.2762	.4854	.0342	.0013	.2037	-.0027	.0087	155.3	19.63
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	259.4	43.62	29.27	2.377	.0607	.0034	2.157	0.348	.1355
Stddev	3.6	.04	.09	.011	.0005	.0003	.004	.0009	.0003
%RSD	1.375	.1021	.3233	.4626	.9040	10.10	.1620	2.462	.2155
#1	255.7	43.58	29.19	2.366	.0612	.0031	2.161	0.358	.1355
#2	262.9	43.66	29.38	2.376	.0608	.0038	2.158	0.342	.1358
#3	259.6	43.63	29.24	2.388	.0602	.0034	2.154	0.343	.1352
Elem	Tl3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	3.701	-.0008	.0925	1.184	.0962	.1059	1.966		
Stddev	.004	.0004	.0001	.006	.0031	.0027	.010		
%RSD	.1012	51.23	.1473	5.360	3.188	2.515	.4940		
#1	3.699	-.0003	.0924	1.188	.0998	.1037	1.972		
#2	3.699	-.0010	.0926	1.188	.0948	.1089	1.971		
#3	3.706	-.0010	.0925	1.177	.0942	.1053	1.955		

Sample Name: jc85784-4 Acquired: 4/11/2019 20:47:33 Type: Unk
 Method: SGS 3 NO Valve(v263) 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	160130.	20080.	7271.3	10168.
Stddev	733.	120.	21.8	14.
%RSD	.45776	.59830	.29936	.13914
#1	160860.	20192.	7265.6	10165.
#2	160150.	20094.	7295.4	10184.
#3	159390.	19953.	7253.0	10156.

Sample Name: jc85784-4 Acquired: 4/11/2019 20:52:44 Type: Unk
 Method: SGS 3 NO Valve(v263) 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	1.732	.0099	-0.001	.1175	.2319	.0611	6.406	.1999	.0011
Stddev	.003	.0001	.0002	.0009	.0004	.0007	.016	.0006	.0007
%RSD	.1966	1.052	323.8	.8083	.1716	1.096	.2489	.3200	57.89
#1	1.736	.0100	-.0002	.1184	.2320	.0605	6.392	.2006	.0016
#2	1.731	.0098	-.0002	.1176	.2315	.0610	6.403	.1994	.0004
#3	1.730	.0099	.0002	.1165	.2323	.0619	6.423	.1996	.0015
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2891	.5073	.0367	.0033	.2098	.0014	.0072	162.1	20.61
Stddev	.0010	.0020	.0012	.0014	.0007	.0043	.0014	.1	.05
%RSD	.3421	.3892	3.283	41.41	.3119	303.8	19.43	.0608	.2277
#1	.2894	.5089	.0375	.0021	.2091	.0040	.0065	162.2	20.67
#2	.2900	.5079	.0353	.0048	.2103	-.0035	.0064	162.0	20.60
#3	.2880	.5051	.0372	.0030	.2101	.0037	.0089	162.1	20.58
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	276.7	46.01	30.19	2.468	.0623	.0031	2.354	.0356	.1413
Stddev	.3	.02	.11	.004	.0004	.0010	.015	.0006	.0002
%RSD	.1048	.0396	.3542	.1841	.6593	31.43	.6308	1.749	.1387
#1	277.0	46.03	30.31	2.465	.0618	.0032	2.367	.0349	.1415
#2	276.8	46.00	30.16	2.466	.0625	.0021	2.357	.0359	.1414
#3	276.4	45.99	30.11	2.474	.0626	.0041	2.338	.0360	.1411
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	3.835	-0.0009	.0963	1.220	.0963	.1076	2.011		
Stddev	.003	.0015	.0005	.009	.0019	.0031	.008		
%RSD	.0884	167.2	.4938	.7079	1.998	2.848	.3883		
#1	3.839	.0004	.0962	1.226	.0948	.1050	2.018		
#2	3.833	-.0026	.0968	1.224	.0955	.1110	2.010		
#3	3.834	-.0006	.0959	1.210	.0985	.1068	2.003		

Sample Name: jc85784-4 Acquired: 4/11/2019 20:52:44 Type: Unk
 Method: SGS 3 NO Valve(v263) 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	156620.	19312.	7078.9	10252.
Stddev	331.	30.	38.8	45.
%RSD	.21104	.15536	.54757	.44260
#1	156270.	19345.	7049.8	10216.
#2	156930.	19287.	7064.1	10236.
#3	156660.	19303.	7122.9	10303.

Sample Name: jc85951-1 Acquired: 4/11/2019 20:57:48 Type: Unk
 Method: SGS 3 NO Valve(v263) Mode: CONC Corr. Factor: 10.000000
 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	2.490	.0181	-0.001	.2208	1.613	2.061	4.491	1.219	.0131
Stddev	.006	.0003	.0013	.0007	.002	.009	.003	.001	.0024
%RSD	.2274	1.855	1192.	.3165	.1205	.4446	.0589	.0538	18.13
#1	2.486	.0179	.0010	.2201	1.612	2.071	4.493	1.219	.0112
#2	2.497	.0185	-.0015	.2214	1.615	2.054	4.488	1.219	.0123
#3	2.488	.0179	.0001	.2210	1.611	2.057	4.492	1.218	.0157
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.183	.8797	.1199	-0.0170	.9299	-0.0081	.0183	217.2	60.39
Stddev	.005	.0013	.0135	.0073	.0059	.0066	.0117	.4	.09
%RSD	.4246	.1438	11.22	43.05	.6365	81.78	64.04	.2038	.1532
#1	1.199	.8784	.1045	-.0181	.9315	-.0010	.0048	217.6	60.35
#2	1.189	.8796	.1259	-.0092	.9348	-.0092	.0244	217.4	60.49
#3	1.191	.8809	.1294	-.0237	.9233	-.0141	.0257	216.7	60.32
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1175.	12.56	20.27	5.848	.0949	.0928	2.558	.0833	2.127
Stddev	.2	.22	.32	.080	.0098	.0026	.014	.0048	.002
%RSD	.1773	1.723	1.590	1.363	10.32	2.788	.5325	5.764	.0914
#1	1176.	12.63	20.47	5.895	.1006	.0947	2.542	.0829	2.129
#2	1176.	12.32	20.43	5.755	.1005	.0940	2.567	.0788	2.125
#3	1173.	12.73	19.89	5.892	.0836	.0899	2.565	.0883	2.126
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	7.215	.0141	.2198	2.588	1.793	.0904	5.390		
Stddev	.003	.0080	.0028	.022	.0012	.0127	.009		
%RSD	.0373	56.29	1.267	.8590	.6755	14.00	.1728		
#1	7.216	.0066	.2169	2.584	.1780	.0985	5.381		
#2	7.217	.0224	.2200	2.568	.1803	.0758	5.399		
#3	7.212	.0134	.2225	2.612	.1797	.0969	5.389		

Sample Name: jc85951-1 Acquired: 4/11/2019 20:57:48 Type: Unk
 Method: SGS 3 NO Valve(v263) Mode: CONC Corr. Factor: 10.000000
 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	156990.	18942.	7018.6	10615.
Stddev	749.	87.	20.8	29.
%RSD	.47729	.46040	.29625	.27132
#1	156130.	18958.	7005.2	10599.
#2	157530.	18847.	7042.6	10648.
#3	157310.	19019.	7008.1	10598.

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Sample Name: jc85951-2 Acquired: 4/11/2019 21:02:48 Type: Unk
 Method: SGS 3 NO Valve(v263) 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	1.814	.0161	-0.001	0.944	3.034	7.662	1.900	.4623	.0054
Stddev	.001	.0003	.0002	.0002	.009	.0013	.003	.0011	.0003
%RSD	.0389	1.679	137.1	.2576	.2899	.1637	.1451	.2456	4.964
#1	1.814	.0164	-0.000	0.947	3.024	.7673	1.897	.4610	.0054
#2	1.813	.0158	-0.000	0.944	3.040	.7648	1.900	.4630	.0052
#3	1.814	.0160	-0.003	0.942	3.038	.7664	1.902	.4629	.0057

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6851	1.079	.0598	-0.014	2.082	.0043	.0097	158.8	63.48
Stddev	.0021	.002	.0035	.0043	.0044	.0110	.0050	.1	.07
%RSD	.3115	.1687	5.904	297.4	2.112	253.3	51.54	.0704	.1076
#1	.6847	1.080	.0612	-.0040	.2038	.0114	.0040	158.8	63.52
#2	.6831	1.077	.0558	-.0039	.2083	.0099	.0114	159.0	63.52
#3	.6873	1.080	.0623	-.0035	.2126	-.0083	.0135	158.8	63.40

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	668.2	17.21	13.91	5.675	0.789	1.356	2.245	.0434	1.508
Stddev	.5	.12	.30	.038	.0026	.0017	.004	.0025	.003
%RSD	.0730	.7049	2.122	.6666	3.267	1.248	.1692	5.725	.1798
#1	668.7	17.12	13.60	5.703	.0765	.1361	2.242	.0425	1.506
#2	668.3	17.17	14.18	5.632	.0787	.1338	2.243	.0416	1.511
#3	667.7	17.35	13.95	5.690	.0816	.1370	2.249	.0462	1.507

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.578	.0045	.1797	2.595	1.473	.0847	5.069
Stddev	.006	.0046	.0011	.015	.0043	.0099	.047
%RSD	.1163	102.7	.6084	.5812	2.943	11.65	.9174
#1	5.581	-.0006	.1785	2.595	.1489	.0960	5.105
#2	5.570	.0083	.1805	2.610	.1424	.0800	5.085
#3	5.581	.0058	.1803	2.580	.1506	.0780	5.016

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11.2
11

Sample Name: jc85951-2 Acquired: 4/11/2019 21:02:48 Type: Unk
 Method: SGS 3 NO Valve(v263) 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	156150.	18802.	6991.7	10516.
Stddev	576.	51.	35.3	35.
%RSD	.36894	.26898	.50482	.33480
#1	156730.	18769.	6955.3	10480.
#2	155580.	18776.	6994.1	10517.
#3	156130.	18860.	7025.8	10551.

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Sample Name: jc85951-3 Acquired: 4/11/2019 21:07:46 Type: Unk
 Method: SGS 3 NO Valve(v263) Mode: CONC Corr. Factor: 10.000000
 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	3.665	.0267	.0021	.1582	1.462	3.219	6.253	.8533	.0110
Stddev	.012	.0015	.0014	.0010	.006	.0052	.010	.0010	.0024
%RSD	.3223	5.485	66.76	.6044	.3968	1.605	.1614	.1213	21.51
#1	3.659	.0281	.0037	.1587	1.468	.3275	6.263	.8528	.0132
#2	3.658	.0269	.0011	.1571	1.463	.3206	6.254	.8526	.0112
#3	3.679	.0252	.0015	.1588	1.456	.3174	6.243	.8545	.0085

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.209	.9780	.0720	-0.0038	1.307	-0.0031	.0185	310.6	93.88
Stddev	.003	.0037	.0059	.0075	.0044	.0056	.0143	.7	.18
%RSD	.1235	.3811	8.144	196.2	3.374	178.9	77.30	.2377	.1937
#1	2.211	.9768	.0720	-.0045	1.257	.0008	.0311	310.0	93.75
#2	2.210	.9750	.0662	-.0040	1.324	-.0006	.0214	310.4	93.80
#3	2.206	.9822	.0779	-.0110	1.341	-.0095	.0030	311.5	94.09

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	952.2	18.43	29.75	8.592	1.006	0.644	2.643	.0521	2.669
Stddev	1.8	.37	.36	.047	.0108	.0043	.025	.0046	.004
%RSD	.1898	1.985	1.215	.5431	10.75	6.644	.9605	8.785	.1340
#1	950.9	18.81	29.88	8.544	.0936	.0659	2.637	.0531	2.668
#2	951.4	18.37	30.02	8.637	.0952	.0678	2.671	.0561	2.667
#3	954.3	18.09	29.34	8.595	.1131	.0596	2.621	.0471	2.673

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	9.761	-0.0086	.3044	1.463	2.520	1.824	5.296
Stddev	.009	.0052	.0016	.013	.0180	.0074	.029
%RSD	.0890	59.91	.5243	.8616	7.150	4.066	.5576
#1	9.769	-.0073	.3056	1.476	2.573	.1754	5.328
#2	9.762	-.0143	.3051	1.450	2.668	.1902	5.269
#3	9.751	-.0042	.3026	1.463	2.320	.1816	5.292

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Sample Name: jc85951-3 Acquired: 4/11/2019 21:07:46 Type: Unk
 Method: SGS 3 NO Valve(v263) Mode: CONC Corr. Factor: 10.000000
 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	156570.	18666.	6982.8	10509.
Stddev	520.	74.	13.6	17.
%RSD	.33208	.39398	.19540	.16126
#1	155980.	18631.	6980.3	10505.
#2	156950.	18751.	6997.5	10528.
#3	156780.	18617.	6970.6	10495.

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: 4/11/2019 21:12:49 Type: QC
 Method: SGS 3 NO Valve(v263) 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	2.095	2.105	2.096	2.097	2.078	2.063	2.131	2.090	2.551
Stddev	.001	.001	.000	.001	.004	.003	.028	.002	.0001
%RSD	.0235	.0460	.0124	.0410	.2013	.1280	1.325	.0950	.0228
#1	2.095	2.105	2.097	2.097	2.076	2.062	2.153	2.091	2.551
#2	2.095	2.105	2.096	2.098	2.083	2.065	2.141	2.092	2.552
#3	2.094	2.103	2.096	2.097	2.076	2.060	2.099	2.088	2.550

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	2.083	2.102	2.042	2.129	2.084	2.062	2.062	41.34	41.44
Stddev	.001	.001	.004	.010	.001	.006	.002	.01	.02
%RSD	.0580	.0433	.2219	.4594	.0541	.3147	.0734	.0364	.0398
#1	2.082	2.103	2.046	2.136	2.085	2.068	2.063	41.32	41.44
#2	2.084	2.103	2.043	2.134	2.083	2.063	2.064	41.34	41.42
#3	2.082	2.101	2.037	2.118	2.083	2.055	2.061	41.35	41.45

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	42.12	41.80	42.71	42.69	2.108	2.065	5.373	2.083	2.088
Stddev	.04	.09	.07	.04	.002	.004	.002	.005	.002
%RSD	.0990	.2196	.1649	.0982	.0700	.1699	.0360	.2243	.0753
#1	42.17	41.90	42.67	42.71	2.108	2.067	5.375	2.085	2.087
#2	42.10	41.76	42.67	42.71	2.109	2.068	5.372	2.085	2.090
#3	42.09	41.73	42.79	42.64	2.106	2.061	5.371	2.077	2.087

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: 4/11/2019 21:12:49 Type: QC
 Method: SGS 3 NO Valve(v263) 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
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.054	2.019	2.061	2.068	2.077	2.139	2.131
Stddev	.001	.004	.002	.011	.004	.003	.011
%RSD	.0468	.2099	.0799	.5442	.1704	.1551	.5164
#1	2.055	2.020	2.061	2.078	2.080	2.140	2.137
#2	2.054	2.023	2.063	2.071	2.077	2.135	2.137
#3	2.054	2.015	2.060	2.056	2.073	2.141	2.118

Check ? 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	147910.	18241.	6637.4	9770.2
Stddev	488.	42.	3.8	5.9
%RSD	.32991	.22949	.05682	.06079
#1	147350.	18198.	6641.7	9772.9
#2	148240.	18282.	6634.7	9763.4
#3	148140.	18242.	6635.8	9774.3

Sample Name: CCB Acquired: 4/11/2019 21:17:51 Type: QC
 Method: SGS 3 NO Valve(v263) 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	0.002	0.001	0.003	0.003	-0.001	0.002	0.003	-0.003
Stddev	.0001	.0001	.0002	.0002	.0002	.0003	.0000	.0002	.0003
%RSD	36.60	32.29	285.6	53.58	58.00	280.5	6.833	69.63	94.10
#1	-0.002	.0002	.0002	.0003	.0003	.0000	.0002	.0006	-0.006
#2	-0.005	.0002	.0001	.0005	.0004	-0.004	.0002	.0001	-0.001
#3	-0.004	.0003	-0.001	.0002	.0001	.0001	.0002	.0004	-0.001

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	0.002	0.004	0.004	-0.003	-0.001	0.021	0.022	0.114	0.010
Stddev	.0003	.0000	.0006	.0003	.0006	.0032	.0011	.0091	.0020
%RSD	208.5	5.427	128.1	99.76	565.9	157.0	49.70	79.82	194.0
#1	.0005	.0004	.0000	.0000	.0002	.0022	.0025	.0217	.0010
#2	-0.0000	.0004	.0002	-0.0003	.0002	-0.0012	.0010	.0047	.0011
#3	-0.0001	.0004	.0011	-0.0006	-0.0008	.0052	.0031	.0077	.0030

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	0.038	0.113	-1.668	0.108	0.003	0.001	0.013	0.002	0.002
Stddev	.0026	.0169	.0267	.0027	.0004	.0000	.0009	.0006	.0001
%RSD	67.86	150.4	16.00	25.34	135.0	31.72	68.17	256.4	72.87
#1	.0031	-0.0021	-1.909	.0087	-0.0002	.0001	.0011	-0.0003	.0003
#2	.0066	.0303	-1.713	.0100	.0005	.0000	.0006	.0002	.0002
#3	.0016	.0055	-1.381	.0139	.0006	.0001	.0024	.0009	.0000

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: 4/11/2019 21:17:51 Type: QC
Method: SGS 3 NO Valve(v263) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Table with 8 columns: Elem, Units, Ti3349, W_2079, Zr3391, S_1820, Bi2230, Li6707, P_1774. Rows include Avg, Stddev, %RSD.

Table with 8 columns: #1, #2, #3 and 8 data columns. Rows include #1, #2, #3.

Check ? High Limit Low Limit
Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass

Table with 5 columns: Int. Std. Units, Y_3600, Y_3710, Y_2243, In2306. Rows include Avg, Stddev, %RSD.

Table with 5 columns: #1, #2, #3 and 4 data columns. Rows include #1, #2, #3.

Sample Name: jc85951-4 Acquired: 4/11/2019 21:22:59 Type: Unk
Method: SGS 3 NO Valve(v263) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Table with 12 columns: Elem, Units, Ba4554, Be3130, Cd2288, Co2286, Cr2677, Cu3247, Mn2576, Ni2316, Ag3280. Rows include Avg, Stddev, %RSD.

Table with 12 columns: #1, #2, #3 and 10 data columns. Rows include #1, #2, #3.

Table with 12 columns: Elem, Units, V_2924, Zn2062, As1890, Tl1908, Pb2203, Se1960, Sb2068, Al3961, Ca3179. Rows include Avg, Stddev, %RSD.

Table with 12 columns: #1, #2, #3 and 10 data columns. Rows include #1, #2, #3.

Table with 12 columns: Elem, Units, Fe2599, Mg2790, K_7664, Na5895, B_2089, Mo2020, Si2124, Sn1899, Sr4077. Rows include Avg, Stddev, %RSD.

Table with 12 columns: #1, #2, #3 and 10 data columns. Rows include #1, #2, #3.

Table with 8 columns: Elem, Units, Ti3349, W_2079, Zr3391, S_1820, Bi2230, Li6707, P_1774. Rows include Avg, Stddev, %RSD.

Table with 8 columns: #1, #2, #3 and 7 data columns. Rows include #1, #2, #3.

Sample Name: jc85951-4 Acquired: 4/11/2019 21:22:59 Type: Unk
Method: SGS 3 NO Valve(v263) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Table with 5 columns: Int. Std. Units, Y_3600, Y_3710, Y_2243, In2306. Rows include Avg, Stddev, %RSD.

Table with 5 columns: #1, #2, #3 and 4 data columns. Rows include #1, #2, #3.

Sample Name: jc85951-5 Acquired: 4/11/2019 21:27:58 Type: Unk
Method: SGS 3 NO Valve(v263) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Table with 12 columns: Elem, Units, Ba4554, Be3130, Cd2288, Co2286, Cr2677, Cu3247, Mn2576, Ni2316, Ag3280. Rows include Avg, Stddev, %RSD.

Table with 12 columns: #1, #2, #3 and 10 data columns. Rows include #1, #2, #3.

Table with 12 columns: Elem, Units, V_2924, Zn2062, As1890, Tl1908, Pb2203, Se1960, Sb2068, Al3961, Ca3179. Rows include Avg, Stddev, %RSD.

Table with 12 columns: #1, #2, #3 and 10 data columns. Rows include #1, #2, #3.

Table with 12 columns: Elem, Units, Fe2599, Mg2790, K_7664, Na5895, B_2089, Mo2020, Si2124, Sn1899, Sr4077. Rows include Avg, Stddev, %RSD.

Table with 12 columns: #1, #2, #3 and 10 data columns. Rows include #1, #2, #3.

Table with 8 columns: Elem, Units, Ti3349, W_2079, Zr3391, S_1820, Bi2230, Li6707, P_1774. Rows include Avg, Stddev, %RSD.

Table with 8 columns: #1, #2, #3 and 7 data columns. Rows include #1, #2, #3.

Zoom In
Zoom Out

Sample Name: jc85951-5 Acquired: 4/11/2019 21:27:58 Type: Unk
Method: SGS 3 NO Valve(v263) 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	156970.	18671.	6936.4	10373.
Stddev	1492.	157.	27.4	26.
%RSD	.95068	.83824	.39476	.25517
#1	155380.	18803.	6927.7	10374.
#2	158340.	18712.	6967.0	10399.
#3	157190.	18498.	6914.4	10346.

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Zoom In
Zoom Out

Sample Name: jc85951-6 Acquired: 4/11/2019 21:32:56 Type: Unk
Method: SGS 3 NO Valve(v263) 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	2.697	.0271	.0030	.1676	1.134	1.435	4.773	.9263	.0081
Stddev	.018	.0004	.0002	.0005	.025	.030	.107	.0011	.0036
%RSD	.6757	1.442	6.179	.2872	2.198	2.064	2.241	.1179	44.98
#1	2.714	.0275	.0028	.1680	1.105	1.401	4.649	.9270	.0122
#2	2.699	.0268	.0032	.1678	1.149	1.451	4.833	.9250	.0052
#3	2.678	.0271	.0030	.1671	1.147	1.454	4.837	.9268	.0069
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.348	4.672	.1384	.0023	1.471	.0289	.0210	217.9	65.62
Stddev	.032	.009	.0005	.0018	.007	.0018	.0075	1.6	.47
%RSD	2.379	.2028	.3329	77.97	.4712	6.224	35.76	.7391	.7096
#1	1.311	4.668	.1383	.0035	1.463	.0301	.0264	219.4	66.09
#2	1.366	4.683	.1389	.0031	1.475	.0268	.0124	218.1	65.61
#3	1.367	4.666	.1380	.0022	1.474	.0297	.0242	216.2	65.16
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	480.4	20.49	18.62	8.321	.3286	.0501	2.728	.5043	2.000
Stddev	3.2	.11	.23	.056	.0015	.0002	.011	.0017	.014
%RSD	.6642	.5461	1.253	.6674	.4456	.3286	.3869	.3296	.6812
#1	482.9	20.59	18.85	8.343	.3291	.0501	2.733	.5046	2.010
#2	481.4	20.52	18.63	8.361	.3297	.0499	2.735	.5057	2.005
#3	476.8	20.37	18.38	8.257	.3269	.0503	2.716	.5025	1.984
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	7.119	-.0002	.2140	3.506	.1771	.1390	5.038		
Stddev	.163	.0021	.0044	.026	.0102	.0038	.026		
%RSD	2.283	1080.	2.046	.7381	5.739	2.727	.5219		
#1	6.931	.0021	.2090	3.492	.1654	.1347	5.048		
#2	7.207	-.0020	.2168	3.536	.1832	.1402	5.058		
#3	7.218	-.0006	.2163	3.490	.1827	.1420	5.008		

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Zoom In
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Sample Name: jc85951-6 Acquired: 4/11/2019 21:32:56 Type: Unk
Method: SGS 3 NO Valve(v263) 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	159740.	18866.	7011.3	10477.
Stddev	2682.	149.	7.8	5.
%RSD	1.6792	.78995	.11192	.04875
#1	162810.	18738.	7014.7	10478.
#2	157870.	18831.	7002.4	10471.
#3	158540.	19030.	7017.0	10481.

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Zoom In
Zoom Out

Sample Name: jc85951-9 Acquired: 4/11/2019 21:37:53 Type: Unk
Method: SGS 3 NO Valve(v263) 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	2.614	.0203	-.0002	.1101	1.291	1.402	2.325	.5056	.0040
Stddev	.061	.0006	.0009	.0034	.024	.022	.037	.0147	.0058
%RSD	2.323	2.947	446.2	3.130	1.849	.5070	1.601	2.905	144.3
#1	2.628	.0203	.0006	.1121	1.301	.4427	2.344	.5137	.0034
#2	2.548	.0197	-.0012	.1120	1.309	.4386	2.349	.5145	-.0014
#3	2.667	.0209	-.0000	.1061	1.264	.4392	2.282	.4887	.0100
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.828	.5649	.1156	.0072	.1920	.0122	.0157	224.4	64.49
Stddev	.030	.0196	.0075	.0078	.0039	.0105	.0066	5.1	1.40
%RSD	1.628	3.473	6.530	107.1	2.042	86.00	41.88	2.255	2.174
#1	1.840	.5761	.1242	.0005	.1914	.0008	.0172	225.4	64.77
#2	1.849	.5764	.1102	.0054	.1962	.0214	.0213	218.9	62.97
#3	1.794	.5423	.1124	.0157	.1884	.0144	.0085	228.8	65.73
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	533.1	13.99	20.77	6.295	1.432	.0319	1.933	.0461	1.934
Stddev	12.0	.24	.37	.154	.0078	.0009	.070	.0046	.045
%RSD	2.245	1.749	1.801	2.438	5.434	2.737	3.617	9.971	2.304
#1	535.3	14.17	20.90	6.327	.1496	.0318	1.967	.0491	1.940
#2	520.1	13.71	20.35	6.128	.1456	.0328	1.981	.0483	1.887
#3	543.8	14.08	21.07	6.430	.1345	.0311	1.853	.0408	1.975
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	7.955	-.0000	.2823	4.554	.2111	.1516	3.738		
Stddev	.131	.0053	.0039	.135	.0050	.0027	.094		
%RSD	1.650	13120.	1.371	2.966	2.349	1.777	2.518		
#1	8.026	-.0016	.2849	4.620	.2074	.1504	3.795		
#2	8.036	-.0044	.2841	4.642	.2167	.1497	3.789		
#3	7.804	.0058	.2779	4.398	.2091	.1547	3.629		

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Sample Name: jc85951-9 Acquired: 4/11/2019 21:37:53 Type: Unk
 Method: SGS 3 NO Valve(v263) 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	152560.	18939.	7061.5	10553.
Stddev	2759.	288.	204.4	252.
%RSD	1.8085	1.5186	2.8947	2.3915

#1	151470.	18744.	6953.1	10412.
#2	150520.	19270.	6934.0	10404.
#3	155700.	18805.	7297.2	10845.

Sample Name: mp13930-b1 Acquired: 4/11/2019 21:42:53 Type: Unk
 Method: SGS 3 NO Valve(v263) 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	1.935	1.952	1.949	1.935	1.910	1.905	1.951	1.926	2.561
Stddev	.003	.004	.002	.001	.005	.004	.022	.001	.0004
%RSD	.1435	.1926	.1032	.0668	.2519	.2110	1.113	.0381	.1415

#1	1.938	1.956	1.947	1.934	1.908	1.904	1.974	1.926	2.556
#2	1.935	1.951	1.948	1.936	1.906	1.902	1.946	1.925	2.562
#3	1.933	1.949	1.951	1.934	1.915	1.909	1.932	1.925	2.563

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.901	1.959	1.886	2.020	1.941	1.898	1.918	24.23	24.35
Stddev	.002	.003	.002	.008	.001	.005	.003	.05	.05
%RSD	.0763	.1482	.1293	.4089	.0415	.2514	.1296	.2007	.1985

#1	1.900	1.955	1.884	2.022	1.940	1.899	1.919	24.29	24.40
#2	1.900	1.961	1.886	2.011	1.941	1.894	1.915	24.19	24.32
#3	1.902	1.960	1.888	2.027	1.941	1.903	1.919	24.23	24.32

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	24.81	24.68	24.94	25.32	1.893	1.894	-0.0391	1.967	1.927
Stddev	.07	.09	.06	.04	.001	.004	.0015	.003	.003
%RSD	.2987	.3640	.2508	.1444	.0598	.1855	3.718	.1642	.1665

#1	24.89	24.78	24.98	25.34	1.894	1.891	-0.0399	1.970	1.930
#2	24.79	24.62	24.87	25.28	1.893	1.893	-0.0374	1.964	1.924
#3	24.75	24.64	24.97	25.34	1.892	1.898	-0.0399	1.968	1.928

Elem	Tl3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.894	1.194	1.900	0.152	0.729	-0.0026	1.942
Stddev	.000	.005	.002	.0005	.0014	.0019	.003
%RSD	.0219	.4085	.0935	3.151	1.909	72.54	.1446

#1	1.894	1.189	1.900	.0147	.0733	-.0014	1.941
#2	1.894	1.197	1.898	.0156	.0740	-.0016	1.941
#3	1.894	1.197	1.901	.0152	.0713	-.0047	1.946

Sample Name: mp13930-b1 Acquired: 4/11/2019 21:42:53 Type: Unk
 Method: SGS 3 NO Valve(v263) 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	152540.	18589.	6787.7	10091.
Stddev	546.	70.	10.6	14.
%RSD	.35789	.37869	.15629	.13576

#1	153050.	18525.	6799.8	10106.
#2	151960.	18664.	6782.8	10082.
#3	152600.	18578.	6780.3	10084.

Sample Name: mp13930-mb1 Acquired: 4/11/2019 21:47:52 Type: Unk
 Method: SGS 3 NO Valve(v263) 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	-0.001	-0.003	.0001	.0005	.0046	.0001	.0008	.0007
Stddev	.0002	.0002	.0002	.0001	.0002	.0005	.0000	.0003	.0005
%RSD	52.53	229.2	43.58	65.06	44.25	11.83	29.19	31.44	68.86

#1	-0.005	.0000	-0.003	.0000	.0007	.0045	.0001	.0007	.0002
#2	-0.002	-0.003	-0.001	.0002	.0003	.0042	.0001	.0007	.0011
#3	-0.002	.0000	-0.003	.0002	.0006	.0053	.0001	.0011	.0008

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000	.0284	.0005	.0003	.0006	-0.0011	.0007	.0049	.0736
Stddev	.0002	.0001	.0013	.0004	.0009	.0006	.0018	.0047	.0020
%RSD	533.7	.4253	247.9	162.1	136.7	56.19	261.9	96.60	2.733

#1	.0001	.0283	.0009	-0.001	.0001	-0.0006	-0.0012	.0032	.0759
#2	-0.001	.0285	-0.009	.0002	.0002	-0.0009	.0024	.0013	.0728
#3	.0002	.0283	.0016	.0007	.0017	-0.0018	.0008	.0103	.0722

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	0.145	0.250	-0.1997	0.0154	0.0005	0.0000	0.0092	0.0175	0.0001
Stddev	.0025	.0148	.0153	.0083	.0004	.0000	.0011	.0005	.0000
%RSD	17.04	58.97	7.665	53.62	77.73	2635.	12.04	2.884	33.54

#1	.0117	.0237	-0.1945	.0247	.0009	.0000	.0092	.0171	.0001
#2	.0158	.0110	-0.1877	.0128	.0002	.0000	.0104	.0180	.0001
#3	.0161	.0404	-0.2169	.0088	.0003	-0.0001	.0081	.0173	.0001

Elem	Tl3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0003	.0041	.0004	.0037	.0015	-0.0032	.0064
Stddev	.0001	.0006	.0000	.0009	.0008	.0021	.0014
%RSD	35.12	14.71	4.759	24.48	52.69	66.32	21.65

#1	.0002	.0044	.0004	.0047	.0015	-0.0040	.0077
#2	.0003	.0046	.0004	.0036	.0007	-0.0049	.0066
#3	.0005	.0034	.0004	.0029	.0022	-0.0008	.0050

Zoom In
Zoom Out

Sample Name: mp13930-mb1 Acquired: 4/11/2019 21:47:52 Type: Unk
Method: SGS 3 NO Valve(v263) 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	160930.	18977.	7086.1	11039.
Stddev	535.	229.	5.6	5.
%RSD	.33268	1.2078	.07896	.04597
#1	161480.	19231.	7087.3	11038.
#2	160420.	18785.	7090.9	11044.
#3	160880.	18914.	7079.9	11034.

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Zoom In
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Sample Name: mp13930-b2 Acquired: 4/11/2019 21:52:57 Type: Unk
Method: SGS 3 NO Valve(v263) 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	1.929	1.942	1.926	1.919	1.896	1.893	1.948	1.911	2.539
Stddev	.003	.003	.003	.001	.003	.002	.010	.002	.0005
%RSD	.1702	.1566	.1355	.0673	.1741	.0867	.5276	.1113	.2090
#1	1.931	1.944	1.929	1.921	1.895	1.892	1.953	1.913	2.538
#2	1.932	1.944	1.925	1.918	1.894	1.892	1.936	1.911	2.534
#3	1.926	1.939	1.925	1.919	1.900	1.895	1.954	1.909	2.545
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.884	1.941	1.873	1.998	1.922	1.880	1.903	24.23	24.37
Stddev	.002	.002	.003	.013	.003	.007	.001	.04	.05
%RSD	.0825	.1166	.1462	.6233	.1396	.3615	.0597	.1623	.1909
#1	1.884	1.944	1.876	2.007	1.925	1.887	1.903	24.23	24.39
#2	1.883	1.939	1.871	2.003	1.920	1.881	1.902	24.26	24.39
#3	1.886	1.941	1.871	1.984	1.921	1.873	1.904	24.19	24.31
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	24.76	24.61	25.07	25.24	1.875	1.876	-0.0432	1.951	1.915
Stddev	.04	.01	.09	.03	.002	.004	.0018	.005	.004
%RSD	.1659	.0570	.3615	.1153	.1300	.1978	4.103	.2701	.2023
#1	24.78	24.61	25.13	25.23	1.878	1.880	-.0451	1.957	1.917
#2	24.78	24.60	25.11	25.27	1.873	1.876	-.0416	1.949	1.918
#3	24.71	24.62	24.96	25.21	1.874	1.873	-.0430	1.948	1.911
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	1.884	1.162	1.889	.0138	.0712	-0.0043	1.918		
Stddev	.001	.003	.002	.0033	.0016	.0008	.011		
%RSD	.0382	.2215	.1153	24.08	2.209	18.31	.5921		
#1	1.883	1.159	1.890	.0103	.0718	-.0041	1.919		
#2	1.884	1.164	1.887	.0169	.0723	-.0037	1.929		
#3	1.885	1.163	1.891	.0141	.0694	-.0052	1.906		

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Zoom In
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Sample Name: mp13930-b2 Acquired: 4/11/2019 21:52:57 Type: Unk
Method: SGS 3 NO Valve(v263) 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	153690.	18657.	6871.7	10188.
Stddev	267.	30.	17.3	22.
%RSD	.18687	.15973	.25135	.21410
#1	153560.	18669.	6875.1	10195.
#2	154010.	18680.	6886.9	10205.
#3	153490.	18623.	6852.9	10163.

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Zoom In
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Sample Name: jc85755-14 Acquired: 4/11/2019 21:57:56 Type: Unk
Method: SGS 3 NO Valve(v263) 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	.3012	.0003	.0113	.0071	.0449	6.437	.2871	.0349	.0142
Stddev	.0007	.0001	.0001	.0003	.0000	.007	.0004	.0002	.0003
%RSD	.2454	22.62	1.219	3.957	.0805	.1099	.1369	.4824	1.884
#1	.3015	.0002	.0114	.0072	.0449	6.429	.2874	.0349	.0139
#2	.3017	.0003	.0112	.0068	.0449	6.441	.2872	.0348	.0142
#3	.3003	.0004	.0115	.0073	.0449	6.441	.2866	.0351	.0145
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0163	3.874	.0133	-0.0010	1.464	.0020	.0207	6.806	66.06
Stddev	.0001	.004	.0009	.0010	.0001	.0010	.0005	.027	.15
%RSD	.3681	.0897	6.871	102.0	.0508	49.42	2.204	.3964	.2269
#1	.0163	3.877	.0141	-.0022	1.463	.0011	.0211	6.827	66.16
#2	.0163	3.870	.0123	-.0002	1.464	.0019	.0210	6.815	66.13
#3	.0164	3.875	.0136	-.0007	1.465	.0031	.0202	6.775	65.89
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	15.51	13.57	5.070	10.58	1.089	.0901	1.816	.3907	.2873
Stddev	.03	.04	.018	.03	.0004	.0005	.002	.0012	.0003
%RSD	.2133	.2935	.3466	.2678	.3380	.5755	.1064	.3066	.1109
#1	15.53	13.59	5.062	10.60	1.093	.0906	1.818	.3912	.2876
#2	15.52	13.59	5.058	10.58	1.085	.0899	1.815	.3894	.2873
#3	15.47	13.52	5.090	10.55	1.088	.0896	1.814	.3916	.2870
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	.2962	.0085	.0242	13.46	.0087	.0120	2.057		
Stddev	.0006	.0005	.0002	.11	.0014	.0012	.011		
%RSD	.2109	6.122	.7849	79.18	15.97	9.911	.5417		
#1	.2964	.0090	.0244	13.59	.0071	.0133	2.070		
#2	.2967	.0080	.0241	13.40	.0097	.0116	2.049		
#3	.2955	.0086	.0240	13.40	.0093	.0110	2.052		

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Sample Name: jc85755-14 Acquired: 4/11/2019 21:57:56 Type: Unk
Method: SGS 3 NO Valve(v263) 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	154060.	18830.	6838.7	10205.
Stddev	453.	46.	8	10.
%RSD	.29381	.24195	.01108	.10261
#1	153540.	18802.	6839.2	10193.
#2	154400.	18806.	6837.9	10210.
#3	154220.	18883.	6839.1	10212.

Sample Name: mp13930-sd1 Acquired: 4/11/2019 22:02:52 Type: Unk
Method: SGS 3 NO Valve(v263) 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	.3011	-.0002	.0103	.0070	.0448	6.418	.2920	.0379	.0133
Stddev	.0016	.0001	.0006	.0006	.0011	.009	.0003	.0012	.0014
%RSD	.5442	42.66	5.923	8.517	2.381	.1392	.0885	3.072	10.47
#1	.3025	-.0001	.0098	.0066	.0438	6.428	.2919	.0369	.0140
#2	.3015	-.0003	.0103	.0077	.0459	6.415	.2923	.0392	.0143
#3	.2993	-.0003	.0110	.0067	.0446	6.411	.2918	.0376	.0117
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0159	3.970	.0135	-.0007	.1478	.0078	.0233	6.949	66.84
Stddev	.0010	.007	.0040	.0089	.0062	.0077	.0027	.056	.33
%RSD	6.496	.1694	29.71	1328.	4.193	97.72	11.63	.7995	.4917
#1	.0169	3.978	.0148	.0022	.1549	.0132	.0262	6.892	67.20
#2	.0159	3.965	.0090	.0065	.1434	.0112	.0210	6.952	66.77
#3	.0149	3.969	.0168	-.0107	.1451	-.0009	.0226	7.003	66.55
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	15.81	14.03	4.323	10.67	1.030	.0900	1.824	.3940	.2905
Stddev	.09	.05	.116	.10	.0026	.0014	.004	.0030	.0025
%RSD	.5923	.3737	2.686	.9216	2.497	1.510	.2365	.7523	.8494
#1	15.91	14.08	4.241	10.76	.1014	.0907	1.819	.3906	.2917
#2	15.81	14.04	4.456	10.56	.1060	.0909	1.827	.3955	.2922
#3	15.73	13.97	4.273	10.68	.1017	.0884	1.825	.3960	.2877
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	.2959	.0219	.0244	13.47	.0053	-.0108	2.005		
Stddev	.0026	.0064	.0005	.11	.0110	.0105	.008		
%RSD	.8627	29.21	2.192	.7964	206.1	96.80	.4173		
#1	.2983	.0145	.0241	13.39	-.0053	-.0220	1.996		
#2	.2932	.0250	.0250	13.59	.0046	-.0012	2.013		
#3	.2963	.0261	.0241	13.43	.0167	-.0092	2.006		

Sample Name: mp13930-sd1 Acquired: 4/11/2019 22:02:52 Type: Unk
Method: SGS 3 NO Valve(v263) 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	156970.	18661.	6951.0	10623.
Stddev	552.	116.	13.4	14.
%RSD	.35188	.62382	.19258	.13299
#1	156540.	18557.	6949.4	10626.
#2	156770.	18787.	6938.5	10608.
#3	157590.	18639.	6965.2	10635.

Sample Name: cvv Acquired: 4/11/2019 22:07:55 Type: QC
Method: SGS 3 NO Valve(v263) 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	2.064	2.069	2.066	2.065	2.049	2.032	2.077	2.059	.2519
Stddev	.003	.004	.004	.001	.004	.005	.010	.001	.0003
%RSD	.1441	.1885	.1767	.0254	.2014	.2546	.4819	.0648	.1140
#1	2.067	2.073	2.070	2.066	2.044	2.026	2.082	2.058	.2516
#2	2.065	2.069	2.064	2.066	2.049	2.033	2.066	2.059	.2520
#3	2.061	2.065	2.064	2.065	2.053	2.036	2.084	2.061	.2521
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	2.051	2.072	2.015	2.104	2.054	2.035	2.031	40.70	40.78
Stddev	.003	.005	.004	.009	.001	.001	.005	.05	.05
%RSD	.1496	.2539	.1888	.4261	.0262	.0605	.2447	.1157	.1322
#1	2.048	2.078	2.019	2.094	2.055	2.035	2.037	40.75	40.84
#2	2.051	2.071	2.013	2.107	2.054	2.034	2.029	40.67	40.75
#3	2.054	2.068	2.012	2.111	2.054	2.036	2.028	40.67	40.75
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	41.45	41.26	42.26	42.05	2.079	2.038	5.297	2.056	2.056
Stddev	.04	.04	.09	.01	.002	.001	.009	.002	.002
%RSD	.1081	.0932	.2045	.0357	.0765	.0625	.1624	.1172	.1009
#1	41.48	41.29	42.33	42.05	2.080	2.039	5.307	2.056	2.056
#2	41.46	41.26	42.30	42.06	2.077	2.038	5.293	2.053	2.058
#3	41.39	41.22	42.17	42.04	2.079	2.037	5.291	2.058	2.054
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: 4/11/2019 22:07:55 Type: QC
 Method: SGS 3 NO Valve(v263) 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
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.023	1.997	2.030	2.039	2.047	2.109	2.082
Stddev	.002	.004	.003	.004	.006	.002	.006
%RSD	.0780	.1924	.1313	.1791	.2886	.0995	.2820

#1	2.022	1.999	2.028	2.037	2.052	2.107	2.076
#2	2.022	1.993	2.030	2.038	2.041	2.110	2.084
#3	2.025	2.000	2.033	2.044	2.048	2.110	2.087

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
 Value High Limit Low Limit

Int. Std. Units	Y_3600	Y_3710	Y_2243	In2306
Cts/S				
Avg	148060.	18243.	6655.0	9796.3
Stddev	340.	36.	35.9	32.0
%RSD	.22933	.19767	.53899	.32713

#1	147850.	18224.	6616.1	9761.7
#2	148460.	18285.	6662.1	9802.3
#3	147880.	18221.	6686.8	9824.9

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Zoom In

Zoom Out

Sample Name: ccb Acquired: 4/11/2019 22:12:56 Type: QC
 Method: SGS 3 NO Valve(v263) 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	.0001	-0.000	-0.003	-0.002	-0.001	.0000	-0.001	-0.001
Stddev	.002	.001	.000	.001	.002	.001	.000	.003	.002
%RSD	77.76	89.43	109.1	23.68	143.2	177.8	130.9	305.1	218.3

#1	-0.004	.0000	-0.000	-0.003	-0.002	-0.002	.0000	.0003	.0001
#2	-0.004	.0001	-0.001	-0.002	.001	-0.000	-0.000	-0.003	-0.002
#3	-0.000	.0002	-0.000	-0.004	-0.004	.0000	.0000	-0.002	-0.002

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
 Value 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	.0001	.0008	.0003	-0.0007	.0002	-0.0001	.0157	.0014
Stddev	.0003	.0000	.0003	.0001	.0006	.0017	.0017	.0017	.0033
%RSD	209.9	15.64	31.14	31.99	88.94	914.1	1717.	11.64	243.5

#1	.0006	.0001	.0010	.0004	-0.007	-0.017	-0.013	.0142	.0042
#2	-0.000	.0001	.0009	.0002	-0.014	.0006	.0018	.0177	.0022
#3	-0.000	.0001	.0005	.0003	-0.001	.0017	-0.007	.0153	-0.0023

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
 Value 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	.0011	.0230	-2548	.0159	.0006	.0000	.0008	-0.001	-0.001
Stddev	.0023	.0032	.0352	.0112	.0003	.0001	.0002	.0007	.0002
%RSD	202.9	14.03	13.80	70.38	44.64	674.9	22.93	618.2	316.8

#1	.0005	.0201	-2657	.0248	.0006	-0.000	.0008	.0003	-0.000
#2	-0.008	.0224	-2832	.0033	.0009	.0001	.0006	-0.010	-0.003
#3	.0037	.0265	-2155	.0197	.0004	-0.000	.0010	.0003	.0001

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
 Value High Limit Low Limit

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11.2
1

Zoom In

Zoom Out

Sample Name: ccb Acquired: 4/11/2019 22:12:56 Type: QC
 Method: SGS 3 NO Valve(v263) 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
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.003	.0029	-0.000	-0.004	.0005	.0005	-0.011
Stddev	.002	.0008	.001	.0017	.0018	.0020	.0020
%RSD	59.05	27.79	166.9	71.02	352.0	375.8	17.93

#1	-0.003	.0020	-0.000	-0.004	.0023	-0.007	-0.011
#2	-0.001	.0036	-0.001	-0.027	.0007	-0.005	-0.033
#3	-0.004	.0030	.0000	-0.006	-0.014	.0029	-0.093

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
 Value High Limit Low Limit

Int. Std. Units	Y_3600	Y_3710	Y_2243	In2306
Cts/S				
Avg	156840.	18584.	6941.7	10805.
Stddev	318.	114.	10.7	12.
%RSD	.20301	.61305	.15473	.10675

#1	157050.	18642.	6954.1	10817.
#2	156470.	18658.	6936.3	10794.
#3	156990.	18453.	6934.8	10806.

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Zoom In

Zoom Out

Sample Name: jc85755-15 Acquired: 4/11/2019 22:18:04 Type: Unk
 Method: SGS 3 NO Valve(v263) 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	.0587	-0.001	.0085	.0005	.0082	.1879	.0501	.0064	.0008
Stddev	.0001	.0000	.0001	.0002	.0001	.0006	.0001	.0001	.0009
%RSD	.1624	36.63	1.113	46.38	1.727	.2942	.2148	1.845	105.6

#1	.0586	-0.001	.0085	.0003	.0082	.1873	.0502	.0063	.0006
#2	.0587	-0.001	.0084	.0008	.0081	.1880	.0500	.0065	.0018
#3	.0588	-0.001	.0085	.0005	.0083	.1884	.0501	.0065	.0001

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
 Value 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	.0026	.6347	.0016	-0.001	.0224	.0005	.0042	1.162	11.59
Stddev	.0003	.0013	.0010	.0007	.0013	.0022	.0012	.005	.01
%RSD	12.01	.2077	59.49	553.7	5.638	470.5	27.37	.4489	.1192

#1	.0028	.6345	.0012	-0.009	.0209	-0.020	.0049	1.167	11.61
#2	.0028	.6335	.0010	-0.004	.0232	.0022	.0029	1.157	11.59
#3	.0023	.6361	.0027	.0001	.0229	.0012	.0050	1.163	11.58

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.378	3.002	.9870	2.605	.0159	.0162	1.224	.0354	.0502
Stddev	.013	.022	.0331	.005	.0005	.0002	.002	.0002	.0002
%RSD	.3914	.7190	3.353	.1958	3.126	1.114	.1576	.5986	.4482

#1	3.385	3.000	1.007	2.602	.0158	.0160	1.222	.0356	.0504
#2	3.387	3.025	1.005	2.611	.0155	.0163	1.224	.0352	.0500
#3	3.363	2.982	.9488	2.602	.0165	.0164	1.226	.0355	.0502

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0625	.0004	.0034	1.493	.0010	-0.0009	.3574
Stddev	.0002	.0005	.0001	.014	.0020	.0009	.0013
%RSD	.3701	119.3	2.347	.9032	210.4	96.84	.3569

#1	.0623	.0009	.0035	1.477	-0.012	-0.015	.3559
#2	.0627	-0.001	.0034	1.502	.0028	.0001	.3583
#3	.0627	.0006	.0033	1.499	.0012	-0.013	.3579

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Sample Name: jc85755-15 Acquired: 4/11/2019 22:18:04 Type: Unk
Method: SGS 3 NO Valve(v263) 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	160740.	19122.	7097.9	10877.
Stddev	513.	81.	13.1	9.
%RSD	.31941	.42456	.18518	.08299
#1	161320.	19056.	7091.8	10881.
#2	160370.	19096.	7113.0	10884.
#3	160510.	19213.	7088.9	10867.

Sample Name: jc85755-16 Acquired: 4/11/2019 22:23:04 Type: Unk
Method: SGS 3 NO Valve(v263) 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	.0186	-0.0001	.0002	.0000	.0039	.0098	.0084	.0039	-0.0003
Stddev	.0001	.0000	.0002	.0003	.0001	.0003	.0000	.0002	.0004
%RSD	.6523	34.27	80.03	2258.	3.364	2.807	.4852	4.496	155.2
#1	.0187	-0.0001	.0000	.0002	.0039	.0101	.0084	.0041	-0.0002
#2	.0185	-0.0001	.0002	.0001	.0040	.0099	.0084	.0040	.0001
#3	.0185	-0.0001	.0003	-0.0003	.0038	.0095	.0085	.0037	-0.0008
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0001	.0702	-0.0001	-0.0004	.0145	.0009	-0.0012	.1294	4.031
Stddev	.0002	.0000	.0011	.0002	.0002	.0015	.0015	.0133	.018
%RSD	218.4	.0312	1088.	50.35	1.679	158.3	124.3	10.26	.4475
#1	.0002	.0701	-0.0006	-0.0007	.0146	-0.0006	-0.0000	.1418	4.018
#2	-0.0001	.0702	.0012	-0.0002	.0146	.0010	-0.0029	.1310	4.023
#3	.0002	.0702	-0.0009	-0.0004	.0142	.0023	-0.0007	.1154	4.052
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2675	.9149	.7792	2.622	.0095	.0005	1.140	.0224	.0129
Stddev	.0019	.0120	.0446	.005	.0000	.0000	.004	.0004	.0003
%RSD	.7213	1.315	5.723	.2111	.2571	10.11	.3789	1.713	1.949
#1	.2653	.9219	.7286	2.622	.0095	.0004	1.144	.0225	.0127
#2	.2685	.9010	.8126	2.616	.0095	.0005	1.140	.0228	.0130
#3	.2687	.9218	.7965	2.627	.0095	.0005	1.135	.0220	.0132
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	.0048	.0019	.0009	1.689	-0.0001	-0.0043	.2160		
Stddev	.0002	.0005	.0003	.002	.0007	.0028	.0012		
%RSD	3.624	28.39	32.51	.1157	.491.4	66.90	.5746		
#1	.0047	.0025	.0007	1.691	-0.0004	-0.0010	.2170		
#2	.0048	.0018	.0007	1.689	.0007	-0.0063	.2165		
#3	.0050	.0015	.0012	1.687	-0.0007	-0.0054	.2146		

Sample Name: jc85755-16 Acquired: 4/11/2019 22:23:04 Type: Unk
Method: SGS 3 NO Valve(v263) 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	160440.	19093.	7082.6	10911.
Stddev	1216.	131.	31.8	41.
%RSD	.75810	.68449	.44942	.37861
#1	159080.	19025.	7046.0	10863.
#2	161420.	19244.	7097.9	10938.
#3	160830.	19011.	7103.9	10931.

Sample Name: jc85755-17 Acquired: 4/11/2019 22:28:09 Type: Unk
Method: SGS 3 NO Valve(v263) 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	.0237	-0.0001	.0023	.0000	.0076	.0076	.0094	.0038	-0.0001
Stddev	.0004	.0000	.0000	.0001	.0001	.0001	.0000	.0000	.0007
%RSD	1.613	10.68	1.589	775.8	1.856	1.779	.2429	1.183	707.3
#1	.0237	-0.0001	.0023	.0001	.0074	.0075	.0094	.0038	-0.0002
#2	.0241	-0.0001	.0023	-0.0000	.0077	.0077	.0093	.0037	.0006
#3	.0233	-0.0001	.0023	-0.0001	.0076	.0075	.0093	.0038	-0.0007
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0004	.0848	.0006	-0.0017	.0056	.0013	-0.0006	.1665	3.670
Stddev	.0001	.0008	.0006	.0008	.0009	.0017	.0020	.0047	.013
%RSD	33.63	.8926	109.4	48.63	16.28	129.4	343.9	2.826	.3655
#1	.0003	.0841	.0008	-0.0012	.0046	.0001	-0.0004	.1660	3.658
#2	.0006	.0846	-0.0001	-0.0026	.0064	.0032	.0013	.1715	3.684
#3	.0004	.0856	.0010	-0.0012	.0057	.0005	-0.0027	.1621	3.667
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5681	.9942	1.090	2.685	.0090	.0003	.9603	.0218	.0110
Stddev	.0033	.0117	.015	.003	.0002	.0002	.0079	.0002	.0001
%RSD	.5887	1.172	1.399	.0977	1.970	63.95	.8198	.6995	1.153
#1	.5680	.9977	1.094	2.684	.0090	.0006	.9549	.0217	.0109
#2	.5715	.9812	1.103	2.683	.0089	.0002	.9567	.0218	.0110
#3	.5648	1.004	1.073	2.688	.0092	.0002	.9693	.0220	.0112
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	.0047	.0000	.0006	1.031	.0009	-0.0025	.2390		
Stddev	.0003	.0003	.0002	.003	.0002	.0017	.0025		
%RSD	5.683	1551.	25.49	.2810	28.23	69.58	1.061		
#1	.0050	-0.0002	.0005	1.028	.0007	-0.0045	.2396		
#2	.0047	.0004	.0008	1.032	.0012	-0.0013	.2362		
#3	.0045	-0.0001	.0005	1.034	.0007	-0.0017	.2412		

Sample Name: jc85755-17 Acquired: 4/11/2019 22:28:09 Type: Unk
Method: SGS 3 NO Valve(v263) 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	162440.	19323.	7114.2	10968.
Stddev	288.	121.	49.7	51.
%RSD	.17705	.62827	.69802	.46445
#1	162200.	19389.	7167.0	11022.
#2	162350.	19183.	7106.9	10960.
#3	162760.	19398.	7068.5	10921.

Sample Name: jc85755-18 Acquired: 4/11/2019 22:33:14 Type: Unk
Method: SGS 3 NO Valve(v263) 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	.0192	-0.001	.0000	.0001	.0051	.0101	.0080	.0054	-0.001
Stddev	.0001	.0001	.0001	.0002	.0002	.0000	.0000	.0001	.0004
%RSD	.5328	86.32	400.9	350.2	3.876	.1280	.2252	2.187	255.7
#1	.0191	-0.001	-0.001	-0.001	.0053	.0100	.0080	.0053	-0.000
#2	.0193	-0.000	.0001	.0003	.0052	.0101	.0080	.0055	.0001
#3	.0192	-0.000	.0002	.0001	.0049	.0101	.0081	.0055	-0.006
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0002	.0864	.0016	-0.003	.0043	-0.0006	.0031	.1432	3.283
Stddev	.0002	.0007	.0004	.0003	.0010	.0002	.0012	.0049	.002
%RSD	107.2	.7846	25.76	98.86	24.00	31.23	39.78	3.442	.0665
#1	.0000	.0859	.0021	.0000	.0054	-.0007	.0032	.1472	3.284
#2	.0001	.0871	.0014	-0.006	.0033	-.0007	.0018	.1446	3.284
#3	.0004	.0861	.0013	-0.004	.0043	-.0004	.0043	.1377	3.280
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3291	1.085	1.077	5.279	.0091	.0004	1.049	.0234	.0096
Stddev	.0021	.017	.040	.020	.0005	.0002	.010	.0007	.0001
%RSD	.6338	1.578	3.680	.3794	5.300	50.11	.9925	2.897	.6172
#1	.3307	1.070	1.064	5.296	.0094	.0004	1.044	.0237	.0095
#2	.3267	1.081	1.046	5.257	.0093	.0002	1.061	.0238	.0096
#3	.3297	1.103	1.122	5.285	.0085	.0005	1.041	.0226	.0095
Elem	Tl3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	.0044	-0.001	.0017	3.103	.0001	-0.0025	.2207		
Stddev	.0005	.0003	.0002	.029	.0015	.0007	.0021		
%RSD	12.42	274.2	8.671	.9256	1496.	29.49	.9529		
#1	.0039	-0.005	.0017	3.099	-.0015	-.0033	.2195		
#2	.0043	-0.002	.0019	3.134	.0004	-.0018	.2232		
#3	.0050	-0.001	.0016	3.077	.0014	-.0024	.2196		

Sample Name: jc85755-18 Acquired: 4/11/2019 22:33:14 Type: Unk
Method: SGS 3 NO Valve(v263) 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	160060.	19019.	7024.6	10825.
Stddev	517.	91.	58.3	82.
%RSD	.32312	.47692	.82924	.75417
#1	160650.	18939.	7071.0	10888.
#2	159700.	19118.	6959.2	10733.
#3	159820.	19000.	7043.7	10855.

Sample Name: jc85755-19 Acquired: 4/11/2019 22:38:18 Type: Unk
Method: SGS 3 NO Valve(v263) 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	.0148	-0.001	.0009	-0.001	.0020	.0025	.0055	.0013	-0.0005
Stddev	.0003	.0000	.0001	.0002	.0001	.0004	.0002	.0001	.0001
%RSD	1.922	43.62	5.812	247.9	3.781	17.15	3.330	9.389	23.28
#1	.0145	-0.001	.0010	-0.001	.0020	.0020	.0054	.0013	-0.0004
#2	.0151	-0.001	.0009	-0.001	.0021	.0026	.0054	.0012	-0.0005
#3	.0148	-0.001	.0009	-0.003	.0021	.0029	.0057	.0015	-0.0007
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0003	.0336	-0.002	-0.013	.0023	.0011	.0002	.0589	1.347
Stddev	.0002	.0006	.0002	.0007	.0010	.0012	.0007	.0047	.007
%RSD	57.67	1.886	91.72	57.18	43.83	108.7	454.7	7.931	.4929
#1	-0.001	.0334	-0.002	-0.013	.0031	-0.003	-0.007	.0548	1.340
#2	-0.003	.0343	-0.005	-0.006	.0012	.0019	.0006	.0640	1.348
#3	-0.005	.0332	-0.000	-0.020	.0028	.0016	.0006	.0578	1.353
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0904	.7106	-0.375	2.192	.0073	.0004	.9359	.0206	.0073
Stddev	.0017	.0008	.0324	.012	.0007	.0001	.0182	.0008	.0000
%RSD	1.869	.1189	86.31	.5679	9.931	26.32	1.943	3.956	.5959
#1	.0892	.7112	-0.032	2.178	.0072	.0004	.9278	.0199	.0073
#2	.0924	.7096	-0.675	2.195	.0081	.0003	.9568	.0215	.0072
#3	.0897	.7108	-0.418	2.202	.0066	.0006	.9232	.0204	.0073
Elem	Tl3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	.0021	.0004	.0003	.2454	.0003	-0.0040	.1890		
Stddev	.0003	.0010	.0000	.0058	.0004	.0014	.0017		
%RSD	15.99	259.1	8.022	2.378	131.2	35.15	.9193		
#1	.0022	.0008	.0003	.2456	.0003	-0.0042	.1890		
#2	.0018	-0.007	.0003	.2511	-0.001	-0.0025	.1908		
#3	.0024	.0011	.0003	.2394	.0006	-0.0053	.1873		

Sample Name: jc85755-19 Acquired: 4/11/2019 22:38:18 Type: Unk
Method: SGS 3 NO Valve(v263) 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	158250.	19180.	6949.1	10805.
Stddev	4593.	33	107.9	135.
%RSD	2.9021	.17385	1.5527	1.2453

#1	160640.	19191.	6998.5	10867.
#2	161150.	19207.	6825.3	10650.
#3	152950.	19143.	7023.5	10897.

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Sample Name: jc85755-20 Acquired: 4/11/2019 22:43:23 Type: Unk
Method: SGS 3 NO Valve(v263) 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	.0150	-0.0000	.0001	-0.0001	.0026	.0026	.0054	.0013	-0.0005
Stddev	.0006	.0000	.0001	.0003	.0002	.0004	.0000	.0002	.0002
%RSD	3.929	128.8	228.3	244.7	9.485	13.91	.7187	19.36	32.04

#1	.0143	.0000	.0002	-0.001	.0027	.0029	.0054	.0014	-0.0005
#2	.0155	-0.0001	.0000	-0.002	.0023	.0028	.0055	.0010	-0.0004
#3	.0152	-0.0000	-0.0001	-0.004	.0027	.0022	.0054	.0014	-0.0007

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0002	.0170	.0003	-0.0008	.0005	.0001	.0009	.0606	1.305
Stddev	.0002	.0000	.0005	.0003	.0006	.0011	.0016	.0079	.001
%RSD	99.95	.2219	157.1	41.19	104.6	904.0	178.3	12.96	1.091

#1	-0.0002	.0171	.0004	-0.009	.0010	-0.011	.0006	.0562	1.304
#2	-0.0001	.0171	.0009	-0.010	-0.0001	.0011	-0.0005	.0696	1.307
#3	-0.0005	.0170	-0.0002	-0.004	.0007	.0004	.0027	.0559	1.304

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0975	.6929	-1.260	2.341	.0065	.0002	1.021	.0202	.0071
Stddev	.0021	.0154	.0323	.006	.0002	.0000	.002	.0005	.0001
%RSD	2.187	2.224	25.61	.2707	3.387	24.60	.2117	2.516	.8566

#1	.0953	.6751	-0.939	2.337	.0063	.0002	1.023	.0201	.0071
#2	.0977	.7011	-1.585	2.348	.0065	.0001	1.022	.0208	.0071
#3	.0996	.7024	-1.257	2.338	.0068	.0002	1.019	.0198	.0070

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0018	-0.0000	.0001	.1965	-0.0012	-0.0033	.1936
Stddev	.0007	.0001	.0002	.0002	.0011	.0008	.0019
%RSD	39.40	466.8	123.7	.1058	92.65	25.53	.9574

#1	.0026	.0001	.0003	.1963	-0.0023	-0.0039	.1925
#2	.0014	-0.0001	.0000	.1966	-0.0002	-0.0023	.1925
#3	.0013	-0.0001	.0000	.1966	-0.0009	-0.0036	.1957

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11.2

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Sample Name: jc85755-20 Acquired: 4/11/2019 22:43:23 Type: Unk
Method: SGS 3 NO Valve(v263) 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	159860.	19046.	7036.7	10921.
Stddev	630.	133.	16.2	8.
%RSD	.39434	.69942	.23014	.07205

#1	159490.	18981.	7019.0	10913.
#2	159490.	19199.	7040.4	10920.
#3	160580.	18957.	7050.7	10929.

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Sample Name: jc85755-21 Acquired: 4/11/2019 22:48:27 Type: Unk
Method: SGS 3 NO Valve(v263) 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	.0149	-0.0001	.0001	-0.0002	.0024	.0059	.0056	.0018	.0003
Stddev	.0004	.0000	.0001	.0000	.0005	.0006	.0001	.0000	.0003
%RSD	2.496	61.94	181.7	21.18	19.26	10.69	1.921	1.519	81.21

#1	.0152	-0.0001	.0002	-0.0002	.0020	.0065	.0056	.0018	.0005
#2	.0145	-0.0000	.0001	-0.0001	.0029	.0053	.0056	.0018	.0004
#3	.0151	-0.0001	-0.0001	-0.0002	.0023	.0060	.0057	.0018	.0000

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0000	.0320	.0001	-0.0015	.0013	.0017	.0011	.0628	1.328
Stddev	.0003	.0000	.0012	.0007	.0010	.0015	.0011	.0089	.004
%RSD	852.0	.0851	1279.	44.76	76.90	89.92	99.43	14.20	.3114

#1	.0004	.0320	-0.0012	-0.0017	.0023	.0010	.0024	.0570	1.326
#2	-0.0003	.0320	.0012	-0.0020	.0012	.0034	.0008	.0583	1.333
#3	-0.0002	.0320	.0003	-0.0007	.0003	.0006	.0002	.0730	1.326

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1399	.7031	-1.158	2.223	.0076	.0001	.9752	.0199	.0072
Stddev	.0025	.0099	.0566	.008	.0008	.0002	.0042	.0006	.0001
%RSD	1.817	1.405	48.90	.3679	10.33	147.8	.4351	2.870	1.411

#1	.1396	.7033	-1.1490	2.214	.0081	.0002	.9789	.0198	.0071
#2	.1375	.7128	-0.504	2.225	.0080	-0.0001	.9706	.0194	.0072
#3	.1426	.6931	-1.1479	2.229	.0067	.0003	.9761	.0205	.0073

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0023	.0016	.0001	.2036	-0.0001	-0.0039	.1940
Stddev	.0001	.0014	.0000	.0017	.0015	.0010	.0027
%RSD	2.777	88.70	31.26	.8334	1419.	25.97	1.396

#1	.0024	.0031	.0001	.2028	.0010	-0.0028	.1942
#2	.0023	.0012	.0002	.2024	-0.0018	-0.0049	.1912
#3	.0023	.0004	.0001	.2055	.0005	-0.0040	.1966

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Sample Name: jc85755-21 Acquired: 4/11/2019 22:48:27 Type: Unk
 Method: SGS 3 NO Valve(v263) 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	160440.	18965.	7013.8	10893.
Stddev	600.	76.	15.4	23.
%RSD	.37373	.40220	.21968	.21120
#1	160510.	19038.	7001.8	10880.
#2	161000.	18886.	7031.2	10919.
#3	159810.	18970.	7008.4	10879.

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Sample Name: jc85755-22 Acquired: 4/11/2019 22:53:32 Type: Unk
 Method: SGS 3 NO Valve(v263) 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	.0164	-.0001	.0005	-.0002	.0023	.0336	.0069	.0028	.0000
Stddev	.0003	.0001	.0002	.0003	.0001	.0003	.0000	.0001	.0002
%RSD	2.138	55.52	32.09	143.5	6.410	.7564	.1111	4.114	1095.
#1	.0163	-.0001	.0005	-.0005	.0022	.0333	.0070	.0028	.0001
#2	.0160	-.0001	.0007	-.0001	.0025	.0337	.0069	.0029	-.0002
#3	.0167	-.0002	.0004	-.0001	.0024	.0338	.0069	.0027	.0002
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0001	.0547	.0006	-.0011	.0043	.0006	.0010	.0784	1.593
Stddev	.0002	.0000	.0011	.0012	.0005	.0010	.0014	.0078	.005
%RSD	178.3	.0670	186.9	102.7	12.02	171.0	150.9	9.896	2873
#1	-.0002	.0547	.0010	-.0025	.0037	.0016	-.0001	.0737	1.598
#2	.0001	.0547	.0013	-.0005	.0046	.0007	.0004	.0874	1.589
#3	-.0003	.0547	-.0006	-.0004	.0045	-.0005	.0026	.0742	1.593
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2374	.7588	-.0819	2.379	.0073	.0004	.9827	.0224	.0090
Stddev	.0018	.0048	.0098	.009	.0014	.0001	.0013	.0005	.0001
%RSD	.7494	.6286	12.01	.3980	19.21	19.50	.1324	2.250	1.316
#1	.2377	.7597	-.0919	2.389	.0086	.0005	.9814	.0218	.0091
#2	.2355	.7631	-.0815	2.370	.0058	.0004	.9840	.0226	.0091
#3	.2390	.7537	-.0722	2.379	.0075	.0004	.9826	.0228	.0089
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	.0039	.0016	.0005	.3065	.0011	-.0033	.1979		
Stddev	.0001	.0010	.0003	.0033	.0012	.0021	.0006		
%RSD	3.037	60.10	67.19	1.076	106.8	62.08	2953		
#1	.0038	.0022	.0007	.3035	.0023	-.0028	.1984		
#2	.0040	.0005	.0007	.3058	-.0001	-.0056	.1973		
#3	.0038	.0022	.0001	.3100	.0012	-.0016	.1980		

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Sample Name: jc85755-22 Acquired: 4/11/2019 22:53:32 Type: Unk
 Method: SGS 3 NO Valve(v263) 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	161090.	19108.	7066.5	10933.
Stddev	245.	250.	10.3	12.
%RSD	.15186	1.3086	.14521	.11002
#1	160810.	18843.	7060.9	10938.
#2	161200.	19340.	7060.3	10920.
#3	161250.	19141.	7078.3	10942.

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Sample Name: jc85755-23 Acquired: 4/11/2019 22:58:35 Type: Unk
 Method: SGS 3 NO Valve(v263) 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	.0044	-.0002	-.0001	-.0000	.0039	.0110	.0074	.0031	.0001
Stddev	.0003	.0001	.0002	.0001	.0005	.0001	.0000	.0002	.0002
%RSD	6.105	29.36	174.5	398.4	13.59	.6682	.2185	5.366	204.9
#1	.0043	-.0002	-.0004	-.0000	.0033	.0109	.0074	.0030	.0003
#2	.0043	-.0002	-.0000	-.0001	.0043	.0110	.0074	.0031	.0002
#3	.0047	-.0001	-.0000	-.0000	.0040	.0111	.0074	.0033	-.0001
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0000	.1090	.0003	-.0006	.0037	.0015	.0003	.1367	1.337
Stddev	.0002	.0002	.0011	.0009	.0014	.0020	.0007	.0144	.005
%RSD	648.6	.2129	368.2	136.6	38.21	128.9	280.9	10.56	.3727
#1	.0000	.1088	-.0009	-.0006	.0039	-.0004	.0000	.1278	1.333
#2	.0002	.1089	.0014	-.0016	.0022	.0014	.0011	.1290	1.336
#3	-.0003	.1093	.0005	.0002	.0051	.0035	-.0003	.1534	1.343
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6978	.5016	-.0638	3.334	.0011	.0007	.4571	.0232	.0064
Stddev	.0050	.0040	.0327	.012	.0001	.0002	.0008	.0006	.0001
%RSD	.7099	.7962	51.24	.3672	7.119	36.45	.1825	2.374	1.520
#1	.7022	.5019	-.0304	3.335	.0011	.0008	.4562	.0237	.0063
#2	.6986	.5054	-.0957	3.321	.0010	.0004	.4579	.0234	.0065
#3	.6924	.4974	-.0654	3.346	.0012	.0008	.4573	.0226	.0063
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	.0063	-.0004	.0004	.6019	.0003	-.0038	.1320		
Stddev	.0002	.0011	.0002	.0008	.0011	.0025	.0015		
%RSD	3.009	244.5	48.24	1.286	342.2	65.79	1.108		
#1	.0065	-.0017	.0006	.6024	-.0005	-.0027	.1319		
#2	.0061	-.0001	.0005	.6024	-.0001	-.0021	.1306		
#3	.0063	.0002	.0002	.6010	.0015	-.0067	.1335		

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◀ Zoom In
Zoom Out ▶

Sample Name: jc85755-23 Acquired: 4/11/2019 22:58:35 Type: Unk
 Method: SGS 3 NO Valve(v263) 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	158650.	18960.	6971.1	10830.
Stddev	472.	97.	25.4	31.
%RSD	.29776	.51021	.36406	.28700

#1	158740.	19024.	6986.4	10851.
#2	159070.	19007.	6985.2	10845.
#3	158140.	18849.	6941.8	10794.

◀ Zoom In
Zoom Out ▶

Sample Name: jc85755-24 Acquired: 4/11/2019 23:03:40 Type: Unk
 Method: SGS 3 NO Valve(v263) 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	.0145	-0.0001	-0.0002	-0.0001	.0031	.0055	.0078	.0028	.0022
Stddev	.0003	.0001	.0000	.0001	.0001	.0004	.0001	.0003	.0005
%RSD	2.079	82.86	25.10	65.11	4.149	7.320	.8447	11.17	23.53

#1	.0142	-0.0000	-0.0002	-0.0001	.0030	.0060	.0077	.0024	.0023
#2	.0147	-0.0001	-0.0002	-0.0002	.0031	.0055	.0078	.0030	.0026
#3	.0148	-0.0001	-0.0001	-0.0000	.0032	.0051	.0078	.0028	.0016

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000	.0551	.0008	-0.0009	.0029	.0001	.0001	.1002	.1041
Stddev	.0003	.0001	.0009	.0010	.0006	.0020	.0012	.0097	.001
%RSD	676.0	.2717	121.3	107.2	19.59	1516.	1945.	9.679	.0472

#1	-0.0002	.0551	.0017	-0.0021	.0035	-0.0019	-0.0013	.1094	1.040
#2	.0000	.0551	.0007	-0.0007	.0028	.0021	.0005	.1011	1.041
#3	.0004	.0549	-0.0001	-0.0001	.0024	.0002	.0010	.0900	1.041

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6738	.4773	-0.0312	6.256	.0018	.0005	.5277	.0218	.0073
Stddev	.0003	.0079	.0526	.011	.0009	.0003	.0018	.0007	.0001
%RSD	.0501	1.665	168.8	.1787	48.62	58.00	.3502	3.037	1.524

#1	.6736	.4799	-0.0606	6.246	.0013	.0002	.5295	.0215	.0061
#2	.6736	.4684	.0296	6.268	.0013	.0006	.5259	.0225	.0062
#3	.6741	.4837	-0.0625	6.254	.0028	.0007	.5277	.0213	.0062

Elem	Tl3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0037	-0.0013	.0009	.5792	-0.0002	-0.0036	.1270
Stddev	.0006	.0010	.0002	.0013	.0006	.0041	.0014
%RSD	15.10	80.98	26.87	.2160	354.6	112.2	1.098

#1	.0042	-0.0020	.0007	.5798	-0.0009	-0.0074	.1284
#2	.0037	-0.0001	.0009	.5778	.0002	-0.0042	.1256
#3	.0031	-0.0017	.0012	.5801	.0002	.0007	.1271

◀ Zoom In
Zoom Out ▶

Sample Name: jc85755-24 Acquired: 4/11/2019 23:03:40 Type: Unk
 Method: SGS 3 NO Valve(v263) 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	159090.	19020.	6996.9	10821.
Siddev	295.	171.	30.7	30.
%RSD	.18568	.89826	.43928	.27375

#1	159030.	19059.	6972.8	10798.
#2	159410.	18834.	6986.3	10810.
#3	158830.	19169.	7031.5	10854.

◀ Zoom In
Zoom Out ▶

Sample Name: ccv Acquired: 4/11/2019 23:08:46 Type: QC
 Method: SGS 3 NO Valve(v263) 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	2.054	2.061	2.048	2.052	2.034	2.021	2.064	2.045	.2511
Stddev	.005	.002	.004	.002	.003	.002	.011	.002	.0003
%RSD	.2272	.1086	.2012	.1178	.1234	.0751	.5069	.0934	.1216

#1	2.049	2.059	2.053	2.055	2.033	2.019	2.074	2.046	.2514
#2	2.058	2.063	2.047	2.051	2.037	2.022	2.053	2.043	.2508
#3	2.054	2.060	2.045	2.052	2.032	2.022	2.064	2.046	.2511

Check ?	Value	Range	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	2.039	2.053	1.996	2.082	2.040	2.019	2.018	40.52	40.57	
Stddev	.002	.005	.007	.002	.003	.005	.003	.08	.07	
%RSD	.1174	.2683	.3359	.0903	.1368	.2622	.1704	.2020	.1736	

#1	2.042	2.059	2.004	2.084	2.042	2.025	2.022	40.43	40.49
#2	2.038	2.049	1.991	2.082	2.037	2.015	2.017	40.59	40.61
#3	2.037	2.050	1.993	2.080	2.041	2.017	2.015	40.53	40.62

Check ?	Value	Range	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	41.35	41.00	41.91	42.08	2.058	2.019	5.254	2.035	2.051	
Stddev	.05	.07	.04	.08	.006	.006	.009	.004	.003	
%RSD	.1261	.1669	.1054	.1817	.2905	.2844	.1807	.2053	.1215	

#1	41.29	41.00	41.86	42.09	2.065	2.025	5.265	2.039	2.049
#2	41.40	40.93	41.94	42.15	2.054	2.015	5.247	2.032	2.054
#3	41.36	41.07	41.94	41.99	2.057	2.015	5.250	2.033	2.051

Check ?	Value	Range	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	

11.2
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Zoom In Zoom Out

Sample Name: ccv Acquired: 4/11/2019 23:08:46 Type: QC
Method: SGS 3 NO Valve(v263) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Table with 8 columns: Elem, Units, Avg, Stddev, %RSD. Rows include Ti3349, W_2079, Zr3391, S_1820, Bi2230, Li6707, P_1774.

Table with 8 columns: #1, #2, #3. Values for various elements.

Check ? High Limit Low Limit

Table with 4 columns: Int. Std. Units, Y_3600, Y_3710, Y_2243, ln2306. Rows include Avg, Stddev, %RSD.

Table with 4 columns: #1, #2, #3. Values for various elements.

Zoom In Zoom Out

Sample Name: ccb Acquired: 4/11/2019 23:13:47 Type: QC
Method: SGS 3 NO Valve(v263) 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.

Table with 11 columns: #1, #2, #3. Values for various elements.

Check ? High Limit Low Limit

Table with 11 columns: Elem, Units, Avg, Stddev, %RSD. Rows include V_2924, Zn2062, As1890, Ti1908, Pb2203, Se1960, Sb2068, Al3961, Ca3179.

Table with 11 columns: #1, #2, #3. Values for various elements.

Check ? High Limit Low Limit

Table with 11 columns: Elem, Units, Avg, Stddev, %RSD. Rows include Fe2599, Mg2790, K_7664, Na5895, B_2089, Mo2020, Si2124, Sn1899, Sr4077.

Table with 11 columns: #1, #2, #3. Values for various elements.

Check ? High Limit Low Limit

11.2 11

Zoom In Zoom Out

Sample Name: ccb Acquired: 4/11/2019 23:13:47 Type: QC
Method: SGS 3 NO Valve(v263) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Table with 8 columns: Elem, Units, Avg, Stddev, %RSD. Rows include Ti3349, W_2079, Zr3391, S_1820, Bi2230, Li6707, P_1774.

Table with 8 columns: #1, #2, #3. Values for various elements.

Check ? High Limit Low Limit

Table with 4 columns: Int. Std. Units, Y_3600, Y_3710, Y_2243, ln2306. Rows include Avg, Stddev, %RSD.

Table with 4 columns: #1, #2, #3. Values for various elements.

Zoom In Zoom Out

Sample Name: jc85755-25 Acquired: 4/11/2019 23:18:54 Type: Unk
Method: SGS 3 NO Valve(v263) 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.

Table with 11 columns: #1, #2, #3. Values for various elements.

Check ? High Limit Low Limit

Table with 11 columns: Elem, Units, Avg, Stddev, %RSD. Rows include V_2924, Zn2062, As1890, Ti1908, Pb2203, Se1960, Sb2068, Al3961, Ca3179.

Table with 11 columns: #1, #2, #3. Values for various elements.

Table with 11 columns: Elem, Units, Avg, Stddev, %RSD. Rows include Fe2599, Mg2790, K_7664, Na5895, B_2089, Mo2020, Si2124, Sn1899, Sr4077.

Table with 11 columns: #1, #2, #3. Values for various elements.

Table with 8 columns: Elem, Units, Avg, Stddev, %RSD. Rows include Ti3349, W_2079, Zr3391, S_1820, Bi2230, Li6707, P_1774.

Table with 8 columns: #1, #2, #3. Values for various elements.

Zoom In
Zoom Out

Sample Name: jc85755-25 Acquired: 4/11/2019 23:18:54 Type: Unk
Method: SGS 3 NO Valve(v263) 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	158280.	18886.	7024.9	10753.
Stddev	886.	87.	3.3	17.
%RSD	.55948	.46306	.04767	.15538
#1	158750.	18986.	7028.0	10773.
#2	158830.	18844.	7025.5	10744.
#3	157260.	18827.	7021.3	10743.

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Zoom In
Zoom Out

Sample Name: jc85755-27 Acquired: 4/11/2019 23:23:57 Type: Unk
Method: SGS 3 NO Valve(v263) 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	.0016	-0.001	-0.001	-0.001	.0020	.0019	.0033	.0012	-0.002
Stddev	.0002	.0001	.0001	.0001	.0003	.0003	.0000	.0002	.0003
%RSD	13.27	41.56	84.50	56.29	16.54	15.96	1.107	20.05	138.0
#1	.0014	-0.001	-0.000	-0.001	.0022	.0022	.0033	.0015	.0001
#2	.0015	-0.001	-0.001	-0.002	.0022	.0016	.0033	.0010	-0.006
#3	.0018	-0.002	-0.002	-0.001	.0016	.0018	.0034	.0013	-0.002

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.000	.0134	.0008	-0.0018	.0028	-0.0001	.0002	.0721	.8984
Stddev	.0004	.0001	.0006	.0013	.0007	.0001	.0012	.0050	.0027
%RSD	794.4	.4591	75.45	72.85	24.87	65.27	724.9	6.988	2.992
#1	-0.004	.0134	.0014	-0.032	.0021	-0.000	-0.007	.0669	.9008
#2	.0001	.0133	.0009	-0.005	.0027	-0.001	-0.003	.0769	.8990
#3	.0002	.0134	.0002	-0.017	.0035	-0.002	.0015	.0723	.8955

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1206	.4505	-0.0250	3.255	.0005	.0007	.3284	.0207	.0061
Stddev	.0020	.0097	.0215	.003	.0003	.0001	.0011	.0007	.0002
%RSD	1.669	2.159	85.86	.0797	66.53	9.868	.3370	3.450	2.643
#1	.1212	.4393	-0.202	3.254	.0009	.0006	.3278	.0212	.0062
#2	.1222	.4554	-0.064	3.254	.0004	.0006	.3297	.0199	.0062
#3	.1183	.4568	-0.485	3.258	.0003	.0007	.3278	.0210	.0059

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0027	.0011	.0003	.4266	.0004	-0.0030	.1164
Stddev	.0005	.0002	.0000	.0014	.0020	.0016	.0020
%RSD	16.74	15.84	12.31	.3277	504.4	51.33	1.719
#1	.0023	.0009	.0003	.4281	-.0017	-.0017	.1167
#2	.0032	.0012	.0003	.4263	.0023	-.0026	.1143
#3	.0028	.0011	.0003	.4253	.0006	-.0048	.1182

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Zoom In
Zoom Out

Sample Name: jc85755-27 Acquired: 4/11/2019 23:23:57 Type: Unk
Method: SGS 3 NO Valve(v263) 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	160100.	19153.	7085.1	10992.
Stddev	1132.	82.	11.6	11.
%RSD	.70696	.42910	.16338	.10230
#1	159470.	19192.	7072.3	10982.
#2	161400.	19208.	7088.4	10990.
#3	159410.	19058.	7094.7	11004.

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Zoom In
Zoom Out

Sample Name: MP14043-B1 Acquired: 4/11/2019 23:29:02 Type: Unk
Method: SGS 3 NO Valve(v263) 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	1.997	2.020	2.000	2.003	1.977	1.972	2.014	1.992	.2637
Stddev	.005	.004	.002	.002	.003	.004	.007	.002	.0002
%RSD	.2621	.1824	.0971	.1057	.1674	.1966	.3386	.0985	.0620
#1	1.993	2.019	2.002	2.005	1.977	1.969	2.006	1.994	.2639
#2	2.003	2.025	2.001	2.002	1.980	1.976	2.019	1.993	.2637
#3	1.995	2.018	1.998	2.001	1.974	1.971	2.015	1.990	.2636

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.972	2.029	1.945	2.080	1.994	1.951	1.981	25.23	25.41
Stddev	.002	.001	.005	.006	.002	.002	.004	.03	.04
%RSD	.1136	.0644	.2442	.2857	.0951	.1104	.2041	.1338	.1496
#1	1.974	2.029	1.943	2.083	1.996	1.949	1.984	25.21	25.39
#2	1.972	2.031	1.951	2.083	1.993	1.952	1.983	25.27	25.45
#3	1.969	2.028	1.942	2.073	1.993	1.953	1.976	25.21	25.38

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	25.88	25.71	25.99	26.36	1.949	1.970	-0.0348	2.031	1.995
Stddev	.02	.03	.06	.02	.003	.001	.0010	.002	.003
%RSD	.0723	.0990	.2364	.0705	.1482	.0640	2.752	.0882	.1298
#1	25.86	25.74	25.92	26.36	1.952	1.971	-.0338	2.032	1.992
#2	25.90	25.69	26.04	26.38	1.949	1.970	-.0358	2.032	1.997
#3	25.87	25.72	26.00	26.34	1.946	1.968	-.0349	2.029	1.996

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.965	1.426	1.969	0.182	0.772	-0.0045	1.975
Stddev	.000	.005	.001	.0013	.0021	.0015	.008
%RSD	.0170	.3318	.0670	7.303	2.742	32.32	.4250
#1	1.965	1.421	1.969	0.193	0.793	-.0033	1.968
#2	1.965	1.426	1.970	0.167	0.774	-.0041	1.972
#3	1.965	1.430	1.968	0.185	0.750	-.0061	1.984

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Sample Name: MP14043-B1 Acquired: 4/11/2019 23:29:02 Type: Unk
Method: SGS 3 NO Valve(v263) 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 three replicate rows (#1, #2, #3).

Sample Name: MP14043-MB1 7 Acquired: 4/11/2019 23:34:02 Type: Unk
Method: SGS 3 NO Valve(v263) 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, Tl1908, 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. Rows include Units, Avg, Stddev, %RSD and three replicate rows (#1, #2, #3).

Sample Name: MP14043-MB1 7 Acquired: 4/11/2019 23:34:02 Type: Unk
Method: SGS 3 NO Valve(v263) 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 three replicate rows (#1, #2, #3).

Sample Name: MP14043-S1 Acquired: 4/11/2019 23:39:07 Type: Unk
Method: SGS 3 NO Valve(v263) 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, Tl1908, 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. Rows include Units, Avg, Stddev, %RSD and three replicate rows (#1, #2, #3).

Sample Name: MP14043-S1 Acquired: 4/11/2019 23:39:07 Type: Unk
Method: SGS 3 NO Valve(v263) 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	156360.	19447.	7054.0	10018.
Stddev	1009.	209.	20.8	21.
%RSD	.64501	1.0733	.29483	.20921

#1	155950.	19556.	7064.9	10026.
#2	155620.	19206.	7030.0	9994.0
#3	157510.	19578.	7067.1	10033.

Sample Name: MP14043-S2 Acquired: 4/11/2019 23:44:06 Type: Unk
Method: SGS 3 NO Valve(v263) 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	2.514	1.875	1.901	1.959	2.436	2.607	3.760	2.071	.2614
Stddev	.003	.001	.002	.002	.004	.004	.025	.001	.001
%RSD	.1090	.0711	.1064	.0839	.1703	.1542	.6651	.0540	.0542

#1	2.511	1.876	1.903	1.960	2.431	2.603	3.771	2.072	.2616
#2	2.515	1.875	1.901	1.957	2.438	2.607	3.731	2.070	.2614
#3	2.515	1.874	1.899	1.959	2.438	2.611	3.777	2.070	.2613

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.073	4.205	1.887	1.925	2.944	1.831	1.183	118.0	51.12
Stddev	.004	.007	.003	.011	.004	.006	.002	.1	.08
%RSD	.2004	.1679	.1548	.5753	.1254	.3174	.2038	.1224	.1575

#1	2.069	4.211	1.889	1.938	2.948	1.837	1.186	118.0	51.13
#2	2.073	4.207	1.887	1.922	2.941	1.829	1.182	118.2	51.20
#3	2.078	4.197	1.884	1.916	2.944	1.826	1.181	117.9	51.04

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	169.8	58.16	44.95	51.49	1.888	1.809	2.612	2.105	2.105
Stddev	.2	.14	.04	.05	.001	.004	.010	.005	.002
%RSD	.1130	.2467	.0869	.0979	.0731	.2419	.3815	.2570	.1012

#1	169.8	58.06	44.91	51.44	1.889	1.814	2.623	2.110	2.103
#2	170.1	58.32	44.99	51.54	1.888	1.808	2.612	2.106	2.105
#3	169.7	58.09	44.95	51.49	1.886	1.805	2.603	2.099	2.107

Elem	Tl3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.494	1.100	1.910	63.27	1.472	.0933	F 8.743
Stddev	.011	.004	.003	.34	.0015	.0019	.049
%RSD	.2401	.4128	.1377	.5420	1.016	2.080	.5636

#1	4.484	1.105	1.908	63.62	.1456	.0941	8.797
#2	4.492	1.097	1.911	63.25	.1486	.0947	8.733
#3	4.506	1.097	1.913	62.93	.1473	.0911	8.700

Sample Name: MP14043-S2 Acquired: 4/11/2019 23:44:06 Type: Unk
Method: SGS 3 NO Valve(v263) 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	154990.	19587.	6990.0	9935.1
Stddev	429.	244.	15.4	14.6
%RSD	.27661	1.2473	.22054	.14657

#1	155280.	19619.	6977.6	9920.5
#2	155190.	19328.	6985.2	9935.0
#3	154500.	19813.	7007.3	9949.6

Sample Name: JC85781-58 Acquired: 4/11/2019 23:49:05 Type: Unk
Method: SGS 3 NO Valve(v263) 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	.5170	.0030	.0158	.0449	.5204	.6879	1.803	.1583	.0131
Stddev	.0010	.0001	.0004	.0002	.0001	.0017	.016	.0002	.0001
%RSD	.1924	2.489	2.526	.3555	.0144	.2427	.8798	.1496	.5526

#1	.5168	.0031	.0154	.0447	.5204	.6896	1.820	.1581	.0132
#2	.5180	.0031	.0162	.0451	.5203	.6863	1.802	.1582	.0131
#3	.5161	.0030	.0158	.0449	.5204	.6877	1.788	.1585	.0130

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.801	2.384	.0511	.0001	1.023	.0051	.0079	65.32	24.78
Stddev	.0007	.002	.0009	.0010	.001	.0021	.0019	.18	.08
%RSD	.3778	.0810	1.676	1929.	.0736	41.22	23.84	.2758	.3371

#1	.1809	2.384	.0516	.0006	1.023	.0027	.0071	65.26	24.75
#2	.1797	2.386	.0501	.0007	1.022	.0061	.0100	65.52	24.87
#3	.1797	2.383	.0515	-.0011	1.023	.0065	.0065	65.18	24.72

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	136.9	30.72	11.91	26.55	1.019	.0088	1.904	.2873	.2265
Stddev	.4	.16	.02	.04	.0003	.0004	.002	.0008	.0005
%RSD	.2833	.5366	.1651	.1646	.3057	4.417	.0991	.2821	.2029

#1	136.7	30.60	11.91	26.53	.1020	.0090	1.905	.2867	.2260
#2	137.4	30.91	11.93	26.60	.1015	.0091	1.902	.2870	.2270
#3	136.7	30.64	11.89	26.53	.1021	.0084	1.904	.2882	.2266

Elem	Tl3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.189	.0026	.0672	59.48	.0600	.0837	7.047
Stddev	.003	.0005	.0002	.23	.0018	.0006	.034
%RSD	.1199	19.58	.3278	.3940	3.054	.6860	.4763

#1	2.188	.0031	.0673	59.62	.0582	.0841	7.081
#2	2.192	.0021	.0672	59.21	.0619	.0840	7.014
#3	2.187	.0027	.0669	59.60	.0600	.0830	7.044

Zoom In
Zoom Out

Sample Name: JC85781-58 Acquired: 4/11/2019 23:49:05 Type: Unk
Method: SGS 3 NO Valve(v263) 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	159930.	19660.	7124.8	10259.
Stddev	420.	134.	15.9	17.
%RSD	.26239	.68051	.22308	.16180
#1	160410.	19755.	7131.2	10266.
#2	159630.	19507.	7106.7	10240.
#3	159740.	19717.	7136.4	10270.

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Zoom In
Zoom Out

Sample Name: MP14043-SD1 Acquired: 4/11/2019 23:54:09 Type: Unk
Method: SGS 3 NO Valve(v263) 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	5224	.0026	.0154	.0448	5363	6829	1.866	.1573	.0138
Stddev	.0009	.0001	.0007	.0006	.0027	.0021	.001	.0017	.0017
%RSD	.1789	5.300	4.597	1.268	.5003	.3002	.0516	1.056	12.26
#1	5226	.0025	.0151	.0454	5392	6823	1.865	.1588	.0129
#2	5232	.0025	.0162	.0442	5358	6811	1.867	.1555	.0157
#3	5214	.0027	.0148	.0449	5340	6851	1.865	.1576	.0127
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1815	2.461	.0487	-0.001	1.032	.0075	.0094	66.92	25.63
Stddev	.0022	.002	.0063	.0040	.004	.0026	.0015	.29	.12
%RSD	1.232	.0872	12.93	6905.	4.062	34.13	15.79	.4292	.4781
#1	.1841	2.462	.0540	.0013	1.035	.0084	.0093	67.24	25.77
#2	.1802	2.462	.0418	.0030	1.034	.0046	.0080	66.70	25.55
#3	.1802	2.458	.0505	-.0045	1.028	.0095	.0109	66.80	25.56
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	142.4	31.96	11.46	27.37	.1023	.0088	2.016	.2961	2327
Stddev	.5	.11	.19	.06	.0029	.0011	.043	.0015	.0009
%RSD	.3253	.3456	1.626	.2240	2.858	12.46	2.156	.4979	.3832
#1	142.9	31.84	11.25	27.43	.0990	.0087	1.988	.2977	2337
#2	142.0	31.99	11.62	27.36	.1046	.0077	1.995	.2959	2321
#3	142.2	32.05	11.51	27.31	.1032	.0099	2.067	.2948	2323
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	2.215	.0101	.0735	60.15	.0522	.0783	7.070		
Stddev	.004	.0039	.0005	.30	.0060	.0020	.041		
%RSD	.1752	38.24	.6579	.5021	11.52	2.531	.5838		
#1	2.212	.0061	.0729	60.19	.0584	.0806	7.087		
#2	2.213	.0104	.0739	60.44	.0464	.0768	7.100		
#3	2.219	.0138	.0736	59.84	.0519	.0777	7.023		

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11.2
1

Zoom In
Zoom Out

Sample Name: MP14043-SD1 Acquired: 4/11/2019 23:54:09 Type: Unk
Method: SGS 3 NO Valve(v263) 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	158150.	18865.	7021.8	10552.
Stddev	677.	199.	9.1	11.
%RSD	.42791	1.0535	.12950	.10782
#1	157720.	18636.	7012.0	10539.
#2	157810.	18991.	7029.9	10560.
#3	158930.	18968.	7023.6	10556.

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Zoom In
Zoom Out

Sample Name: JC85781-41 Acquired: 4/11/2019 23:59:09 Type: Unk
Method: SGS 3 NO Valve(v263) 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	.7933	.0042	.0247	.0556	1.086	1.114	2.303	.2204	.0335
Stddev	.0014	.0000	.0002	.0004	.002	.001	.019	.0003	.0002
%RSD	.1817	.4843	.9828	.6489	.1358	.0609	.8112	.1273	.4565
#1	.7917	.0042	.0248	.0554	1.087	1.115	2.309	.2204	.0335
#2	.7944	.0042	.0249	.0560	1.084	1.113	2.317	.2207	.0334
#3	.7939	.0042	.0244	.0553	1.086	1.115	2.282	.2202	.0337
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2185	2.127	.0863	.0005	1.268	.0078	.0067	87.46	32.11
Stddev	.0003	.003	.0009	.0004	.001	.0015	.0011	.17	.06
%RSD	.1537	.1329	1.089	79.43	.1074	19.83	16.74	.1946	.1983
#1	.2188	2.124	.0868	.0000	1.267	.0062	.0057	87.29	32.05
#2	.2187	2.129	.0852	.0008	1.269	.0079	.0065	87.63	32.17
#3	.2181	2.128	.0869	.0008	1.267	.0093	.0079	87.47	32.11
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	160.7	38.80	18.64	36.30	.1149	.0113	1.970	.2332	.3050
Stddev	.2	.09	.01	.04	.0001	.0004	.015	.0008	.0004
%RSD	.1534	.2329	.0555	.1074	.0857	3.850	.7428	.3218	.1254
#1	160.5	38.74	18.63	36.34	.1150	.0113	1.983	.2329	.3046
#2	161.0	38.90	18.65	36.31	.1149	.0117	1.973	.2341	.3052
#3	160.7	38.75	18.63	36.26	.1148	.0108	1.954	.2327	.3052
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	2.205	.0004	.0605	43.49	.0627	.1229	F 11.58		
Stddev	.001	.0010	.0001	.13	.0013	.0013	.02		
%RSD	.0602	287.4	2.093	.2927	2.131	1.052	.1349		
#1	2.206	-.0007	.0606	43.35	.0619	.1234	11.59		
#2	2.204	.0013	.0605	43.59	.0642	.1214	11.59		
#3	2.206	.0004	.0604	43.52	.0619	.1238	11.56		

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Zoom In
Zoom Out

Sample Name: JC85781-41 Acquired: 4/11/2019 23:59:09 Type: Unk
Method: SGS 3 NO Valve(v263) 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	158200.	19696.	7099.4	10114.
Stddev	332.	43.	22.2	24.
%RSD	.20993	.21735	.31245	.23909
#1	157890.	19739.	7124.8	10142.
#2	158550.	19653.	7089.6	10102.
#3	158170.	19697.	7083.9	10098.

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Zoom In
Zoom Out

Sample Name: JC85781-42 Acquired: 4/12/2019 0:04:11 Type: Unk
Method: SGS 3 NO Valve(v263) 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	.8712	.0044	.0312	.0612	1.097	1.294	2.578	2.418	.0446
Stddev	.0056	.0001	.0002	.0003	.028	.033	.084	.0006	.0007
%RSD	.6459	2.086	.5576	.5224	2.506	2.539	3.240	.2408	1.626
#1	.8681	.0043	.0310	.0609	1.068	1.261	2.499	2.412	.0438
#2	.8777	.0044	.0313	.0615	1.122	1.326	2.666	2.419	.0451
#3	.8678	.0044	.0313	.0610	1.100	1.294	2.570	2.423	.0451
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2537	2.667	.0856	.0011	1.552	.0052	.0055	97.49	30.69
Stddev	.0064	.005	.0004	.0008	.004	.0018	.0026	.59	.18
%RSD	2.532	.1770	.4806	71.77	.2861	34.98	46.69	.6057	.5856
#1	.2473	2.662	.0860	.0019	1.547	.0051	.0050	97.35	30.66
#2	.2601	2.668	.0852	.0013	1.552	.0070	.0032	98.14	30.88
#3	.2539	2.671	.0854	.0003	1.556	.0034	.0083	96.99	30.52
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	164.9	38.74	18.26	37.66	.1248	.0117	1.954	.2775	.3660
Stddev	.9	.19	.08	.20	.0012	.0002	.009	.0007	.0022
%RSD	.5718	.4879	.4568	.5365	.9880	1.596	.4383	.2627	.5997
#1	164.6	38.74	18.25	37.65	.1237	.0116	1.946	.2769	.3651
#2	165.9	38.92	18.34	37.87	.1261	.0115	1.963	.2783	.3686
#3	164.1	38.54	18.18	37.46	.1246	.0119	1.952	.2773	.3645
Elem	Tl3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	2.454	.0008	.0535	38.45	.0719	.1264	F 14.28		
Stddev	.064	.0009	.0011	.32	.0052	.0024	.18		
%RSD	2.588	115.7	1.997	.8379	7.298	1.936	1.267		
#1	2.389	-.0001	.0525	38.76	.0682	.1246	14.42		
#2	2.516	.0007	.0546	38.47	.0779	.1292	14.33		
#3	2.456	.0017	.0534	38.12	.0696	.1254	14.07		

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Zoom In
Zoom Out

Sample Name: JC85781-42 Acquired: 4/12/2019 0:04:11 Type: Unk
Method: SGS 3 NO Valve(v263) 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	158240.	20083.	7141.8	10123.
Stddev	4127.	206.	22.0	24.
%RSD	2.6078	1.0242	.30820	.24139
#1	162600.	19935.	7166.1	10151.
#2	154390.	19996.	7135.9	10113.
#3	157720.	20317.	7123.3	10105.

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Zoom In
Zoom Out

Sample Name: ccv Acquired: 4/12/2019 0:09:16 Type: QC
Method: SGS 3 NO Valve(v263) 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	2.056	2.062	2.066	2.066	2.041	2.028	2.094	2.058	.2510
Stddev	.003	.004	.003	.003	.003	.002	.022	.002	.0010
%RSD	.1337	.2167	.1413	.0638	.1511	.0801	1.066	.0708	.4033
#1	2.057	2.065	2.063	2.065	2.038	2.026	2.094	2.057	.2500
#2	2.057	2.063	2.068	2.067	2.043	2.028	2.117	2.060	.2511
#3	2.053	2.057	2.067	2.065	2.043	2.030	2.072	2.059	.2521
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	2.048	2.066	2.011	2.103	2.052	2.036	2.032	40.53	40.56
Stddev	.003	.004	.009	.014	.002	.005	.004	.07	.11
%RSD	.1653	.1807	.4271	.6428	.1038	.2428	.1968	.1652	.2590
#1	2.044	2.062	2.002	2.091	2.050	2.032	2.027	40.59	40.62
#2	2.048	2.069	2.019	2.117	2.051	2.041	2.035	40.54	40.62
#3	2.051	2.067	2.012	2.099	2.054	2.035	2.034	40.46	40.44
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	41.35	41.05	42.03	41.93	2.076	2.033	5.294	2.053	2.050
Stddev	.09	.06	.12	.08	.004	.006	.009	.007	.005
%RSD	.2174	.1452	.2765	.1870	.1694	.3027	.1739	.3365	.2263
#1	41.40	41.05	42.10	41.99	2.073	2.028	5.283	2.047	2.054
#2	41.40	41.10	42.09	41.96	2.080	2.040	5.299	2.060	2.052
#3	41.24	40.99	41.89	41.84	2.076	2.031	5.300	2.051	2.045
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: 4/12/2019 0:09:16 Type: QC
 Method: SGS 3 NO Valve(v263) 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
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.020	1.988	2.027	2.038	2.043	2.108	2.031
Stddev	.004	.004	.002	.017	.001	.004	.013
%RSD	.1804	.2041	.1180	.8079	.0675	.1927	.6218
#1	2.016	1.984	2.025	2.021	2.045	2.110	2.017
#2	2.020	1.992	2.028	2.054	2.044	2.111	2.040
#3	2.024	1.989	2.029	2.039	2.042	2.104	2.037

Check ? 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	149460.	18363.	6692.7	9849.5
Stddev	970.	66.	7.9	7.3
%RSD	.64927	.35744	.11865	.07444
#1	149530.	18329.	6697.3	9848.8
#2	148460.	18321.	6683.5	9842.5
#3	150400.	18439.	6697.3	9857.2

Sample Name: ccb Acquired: 4/12/2019 0:14:18 Type: QC
 Method: SGS 3 NO Valve(v263) 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	-0.002	-0.000	-0.002	-0.000	-0.001	-0.001	-0.000	-0.001	-0.001
Stddev	.002	.001	.001	.002	.001	.001	.000	.002	.003
%RSD	112.2	219.4	37.92	381.3	192.4	46.37	224.0	117.8	293.4
#1	-0.004	-0.000	-0.003	-0.001	-0.002	-0.001	.001	-0.002	-0.004
#2	-0.002	.000	-0.002	.002	-0.001	-0.002	-0.000	.001	-0.000
#3	.000	.001	-0.001	-0.002	.001	-0.001	.000	-0.003	.002

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	.0000	.0018	-0.001	-0.012	-0.005	-0.004	.0017	-0.007
Stddev	.0001	.0001	.0015	.0007	.0007	.0011	.0013	.0053	.0025
%RSD	176.7	259.1	82.83	673.4	61.10	221.9	321.2	310.3	351.4
#1	.0000	-0.000	.0033	-0.010	-0.016	-0.008	-0.004	.0067	-0.019
#2	-0.000	.0001	.0018	.002	-0.015	.0007	.0009	-0.0038	-0.024
#3	.0001	-0.000	.0003	.0004	-0.003	-0.015	-0.017	.0022	.0021

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	.0011	.0072	-1.375	.0181	-0.001	-0.003	.0008	-0.003	.0000
Stddev	.0032	.0055	.0647	.0090	.0004	.0001	.0005	.0005	.0002
%RSD	297.5	76.03	47.04	49.77	503.0	39.60	57.16	170.2	243.3
#1	-0.024	.0071	-0.752	.0115	.0000	-0.003	.0006	.0001	-0.001
#2	.0039	.0127	-2.043	.0283	-0.005	-0.002	.0014	-0.0008	-0.001
#3	.0017	.0018	-1.329	.0145	.0002	-0.004	.0005	-0.0001	.0002

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: 4/12/2019 0:14:18 Type: QC
 Method: SGS 3 NO Valve(v263) 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
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.003	-0.001	.0001	.0001	-0.001	.0022	-0.0059
Stddev	.0002	.0004	.0001	.0010	.0015	.0010	.0027
%RSD	72.50	391.0	98.64	103.3	150.1	44.23	45.03
#1	-0.004	-0.004	.0002	.0007	.0016	.0029	-0.0072
#2	-0.005	.0004	.0002	-0.0011	-0.0014	.0027	-0.0028
#3	-0.001	-0.003	-0.0000	.0006	-0.0006	.0011	-0.0076

Check ? 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	161990.	18240.	7033.8	10934.
Stddev	391.	400.	19.4	20.
%RSD	.24163	2.1922	.27637	.18669
#1	162400.	18660.	7033.5	10930.
#2	161620.	17864.	7014.5	10916.
#3	161940.	18197.	7053.4	10956.

Sample Name: JC85781-43 Acquired: 4/12/2019 0:19:26 Type: Unk
 Method: SGS 3 NO Valve(v263) 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	.9048	.0045	.0340	.0630	1.243	1.367	2.584	.2525	.0444
Stddev	.0009	.0001	.0003	.0003	.003	.001	.028	.0002	.0004
%RSD	.1001	2.144	8.077	5.348	.2503	.0857	1.083	.0866	.8870
#1	.9056	.0045	.0338	.0627	1.247	1.368	2.614	.2525	.0443
#2	.9050	.0046	.0344	.0630	1.242	1.366	2.579	.2523	.0448
#3	.9039	.0044	.0340	.0633	1.241	1.366	2.559	.2528	.0440

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	.2590	2.712	.0919	.0011	1.596	.0056	.0055	96.83	32.81
Stddev	.0002	.002	.0009	.0022	.000	.0027	.0011	.11	.05
%RSD	.0867	.0590	1.001	192.9	.0099	48.48	19.83	.1133	.1478
#1	.2588	2.710	.0930	.0027	1.596	.0072	.0064	96.96	32.86
#2	.2589	2.712	.0916	-0.014	1.596	.0025	.0056	96.80	32.82
#3	.2592	2.713	.0912	.0021	1.596	.0071	.0043	96.75	32.76

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	169.7	40.35	19.16	38.04	.1258	.0126	1.983	.2863	.3660
Stddev	.1	.02	.08	.01	.0006	.0002	.015	.0014	.0003
%RSD	.0567	.0424	.4360	.0371	.5036	1.906	.7418	.4858	.0952
#1	169.8	40.33	19.07	38.03	.1263	.0128	2.000	.2852	.3658
#2	169.6	40.36	19.24	38.06	.1251	.0124	1.974	.2859	.3664
#3	169.6	40.36	19.18	38.04	.1261	.0128	1.974	.2879	.3659

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.402	.0013	.0551	41.49	.0711	.1297	F 14.12
Stddev	.005	.0019	.0000	.14	.0008	.0009	.05
%RSD	.2034	145.9	.0537	.3380	1.171	.6594	.3613
#1	2.398	.0033	.0551	41.58	.0702	.1303	14.10
#2	2.400	.0009	.0551	41.33	.0714	.1300	14.08
#3	2.407	-0.004	.0551	41.56	.0718	.1287	14.18

Sample Name: JC85781-43 Acquired: 4/12/2019 0:19:26 Type: Unk
 Method: SGS 3 NO Valve(v263) 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	157650.	19709.	7080.6	10063.
Stddev	965.	26.	34.6	35.
%RSD	.61212	.13315	.48867	.35145
#1	156540.	19679.	7119.1	10103.
#2	158170.	19719.	7070.5	10054.
#3	158250.	19729.	7052.1	10034.

Sample Name: JC85781-44 Acquired: 4/12/2019 0:24:30 Type: Unk
 Method: SGS 3 NO Valve(v263) 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	4098	.0030	.0102	0.433	4.864	5.619	1.397	.1555	.0111
Stddev	.0067	.0000	.0002	.0007	.0139	.0151	.039	.0016	.0012
%RSD	1.628	.9298	2.221	1.654	2.866	2.685	2.810	1.042	10.65
#1	.4084	.0029	.0104	.0440	4.777	5.533	1.374	.1573	.0112
#2	.4039	.0030	.0101	.0426	5.025	5.793	1.442	.1545	.0098
#3	.4171	.0030	.0100	.0433	4.791	5.531	1.374	.1546	.0122
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1692	1.580	.0493	.0005	.7290	.0041	.0050	65.07	21.39
Stddev	.0047	.022	.0002	.0018	.0060	.0014	.0010	1.07	.35
%RSD	2.780	1.422	.4481	335.2	8.284	33.58	20.54	1.643	1.631
#1	.1668	1.606	.0491	.0003	.7358	.0048	.0062	64.78	21.30
#2	.1746	1.570	.0493	-.0011	.7268	.0025	.0047	64.18	21.09
#3	.1662	1.564	.0495	.0025	.7244	.0050	.0042	66.25	21.77
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	126.6	31.97	13.91	29.17	.1200	.0086	2.058	.2271	1.743
Stddev	2.1	.52	.23	.46	.0022	.0005	.030	.0038	.0028
%RSD	1.668	1.630	1.689	1.578	1.809	5.500	1.469	1.655	1.606
#1	126.1	31.86	13.89	29.10	.1225	.0091	2.091	.2314	.1734
#2	124.8	31.52	13.68	28.75	.1187	.0083	2.048	.2247	.1720
#3	128.9	32.54	14.15	29.66	.1187	.0083	2.033	.2251	.1774
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	2.051	-.0010	.0638	55.00	.0557	.0920	3.198		
Stddev	.061	.0006	.0016	.46	.0044	.0016	.037		
%RSD	2.983	60.45	2.469	.8286	7.813	1.699	1.150		
#1	2.016	-.0014	.0628	55.50	.0524	.0910	3.239		
#2	2.122	-.0003	.0656	54.61	.0607	.0938	3.167		
#3	2.016	-.0014	.0629	54.89	.0542	.0911	3.187		

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Sample Name: JC85781-44 Acquired: 4/12/2019 0:24:30 Type: Unk
 Method: SGS 3 NO Valve(v263) 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	159370.	19617.	7056.5	10154.
Stddev	3543.	443.	97.5	107.
%RSD	2.2230	2.2584	1.3817	1.0564
#1	161220.	19700.	6946.0	10033.
#2	155290.	20013.	7093.0	10194.
#3	161610.	19139.	7130.4	10236.

Sample Name: JC85781-45 Acquired: 4/12/2019 0:29:25 Type: Unk
 Method: SGS 3 NO Valve(v263) 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	.6988	.0035	.0285	.0519	1.026	1.084	1.707	.2146	.0231
Stddev	.0009	.0001	.0004	.0004	.002	.001	.004	.0003	.0001
%RSD	.1258	1.805	1.288	.8150	.2305	.0550	.2513	.1619	.3899
#1	.6985	.0035	.0289	.0515	1.026	1.085	1.707	.2142	.0232
#2	.6982	.0036	.0284	.0518	1.023	1.084	1.703	.2149	.0231
#3	.6998	.0035	.0281	.0523	1.028	1.085	1.711	.2146	.0231
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2029	2.631	.0759	.0002	1.422	.0055	.0046	74.65	22.52
Stddev	.0005	.004	.0004	.0002	.003	.0026	.0010	.14	.04
%RSD	2.451	1.405	.5663	88.45	.1941	47.90	22.07	.1901	.1890
#1	.2025	2.635	.0763	.0000	1.425	.0068	.0054	74.50	22.48
#2	.2027	2.630	.0754	.0002	1.422	.0071	.0050	74.66	22.52
#3	.2035	2.627	.0759	.0004	1.420	.0024	.0035	74.79	22.56
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	133.3	32.40	14.88	33.62	.0942	0.133	2.040	.2734	2.805
Stddev	.2	.07	.02	.04	.0001	.0003	.015	.0008	.0002
%RSD	.1875	.2262	.1235	.1297	.1585	1.887	.7233	.3080	.0875
#1	133.0	32.38	14.86	33.58	.0940	.0136	2.031	.2736	.2802
#2	133.2	32.33	14.89	33.66	.0943	.0134	2.032	.2725	.2806
#3	133.5	32.48	14.90	33.64	.0941	.0131	2.057	.2742	.2807
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	2.119	-.0011	.0471	71.11	.0597	.1003	6.044		
Stddev	.001	.0003	.0001	.31	.0010	.0007	.034		
%RSD	.0590	26.66	.2573	.4393	1.698	.6893	5.600		
#1	2.120	-.0013	.0471	71.38	.0587	.1011	6.081		
#2	2.118	-.0012	.0473	70.77	.0597	.0998	6.014		
#3	2.120	-.0008	.0470	71.17	.0607	.1001	6.038		

Sample Name: JC85781-45 Acquired: 4/12/2019 0:29:25 Type: Unk
 Method: SGS 3 NO Valve(v263) 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	159320.	19554.	7099.4	10202.
Stddev	1501.	70.	6.6	9.
%RSD	.94185	.35568	.09352	.08805
#1	159580.	19628.	7099.0	10205.
#2	160670.	19490.	7093.0	10192.
#3	157700.	19544.	7106.3	10209.

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Sample Name: JC85781-46 Acquired: 4/12/2019 0:34:22 Type: Unk
 Method: SGS 3 NO Valve(v263) 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	.8574	.0043	.0561	.0516	1.508	1.371	1.283	2.492	.0326
Stddev	.0033	.0001	.0008	.0007	.004	.003	.003	.0033	.0004
%RSD	.3890	2.120	1.417	1.390	.2521	.1810	.2070	1.312	1.361
#1	.8570	.0043	.0551	.0507	1.508	1.373	1.282	2.455	.0322
#2	.8543	.0044	.0565	.0519	1.505	1.369	1.281	2.506	.0327
#3	.8609	.0042	.0564	.0521	1.512	1.373	1.286	2.515	.0330
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2391	3.585	.0938	.0002	2.205	.0060	.0058	78.56	23.51
Stddev	.0008	.051	.0009	.0015	.026	.0014	.0018	.28	.10
%RSD	.3451	1.425	.9936	618.5	1.201	22.65	30.76	.3509	.4280
#1	.2386	3.526	.0927	-.0009	2.175	.0046	.0051	78.51	23.48
#2	.2386	3.615	.0944	.0020	2.219	.0062	.0078	78.31	23.42
#3	.2400	3.614	.0943	-.0004	2.221	.0073	.0045	78.85	23.62
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	125.6	30.87	14.17	35.84	.0840	.0173	1.986	.3040	.4086
Stddev	.5	.14	.05	.12	.0014	.0003	.027	.0047	.0012
%RSD	.3619	.4442	.3336	.3276	1.686	1.508	1.370	1.548	.2899
#1	125.5	30.87	14.17	35.78	.0824	.0176	1.954	.2986	.4084
#2	125.2	30.74	14.12	35.76	.0851	.0171	2.003	.3067	.4075
#3	126.1	31.01	14.21	35.97	.0845	.0173	1.999	.3067	.4098
Elem	Tl3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	2.105	.0020	.0849	61.58	.0629	.0955	F 10.00		
Stddev	.004	.0004	.0003	.76	.0033	.0016	.12		
%RSD	.1696	17.88	.3226	1.233	5.195	1.629	1.245		
#1	2.106	.0021	.0852	60.71	.0650	.0952	9.860		
#2	2.101	.0016	.0846	61.95	.0646	.0941	10.07		
#3	2.108	.0023	.0849	62.09	.0592	.0971	10.08		

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Sample Name: JC85781-46 Acquired: 4/12/2019 0:34:22 Type: Unk
 Method: SGS 3 NO Valve(v263) 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	159580.	19744.	7174.1	10293.
Stddev	330.	180.	100.8	130.
%RSD	.20693	.90935	1.4053	1.2626
#1	159830.	19816.	7290.2	10442.
#2	159710.	19877.	7109.2	10206.
#3	159210.	19540.	7122.8	10230.

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Sample Name: JC85781-47 Acquired: 4/12/2019 0:39:18 Type: Unk
 Method: SGS 3 NO Valve(v263) 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	.9233	.0047	.0593	.0601	2.009	1.380	1.645	2.694	.0355
Stddev	.0050	.0001	.0009	.0004	.028	.019	.020	.0022	.0001
%RSD	.5418	1.804	1.574	.5877	1.413	1.379	1.243	.8288	.3907
#1	.9189	.0046	.0602	.0605	2.002	1.376	1.641	.2718	.0353
#2	.9223	.0047	.0583	.0598	2.040	1.400	1.668	.2674	.0355
#3	.9288	.0047	.0594	.0601	1.985	1.363	1.627	.2690	.0356
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2727	3.571	.1001	-.0012	2.003	.0059	.0053	90.79	32.38
Stddev	.0033	.035	.0014	.0011	.016	.0021	.0028	.41	.14
%RSD	1.213	.9730	1.371	91.94	.8141	36.28	53.05	.4479	.4279
#1	.2719	3.607	.1008	-.0003	2.019	.0035	.0072	90.37	32.25
#2	.2763	3.537	.0985	-.0009	1.987	.0077	.0021	90.81	32.36
#3	.2699	3.570	.1010	-.0025	2.003	.0065	.0067	91.19	32.52
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	143.5	37.04	17.38	36.05	.0993	.0194	2.142	.3011	.4097
Stddev	.7	.12	.10	.12	.0013	.0003	.006	.0032	.0015
%RSD	.4618	.3162	.5693	.3462	1.321	1.575	.2843	1.067	.3605
#1	142.9	36.93	17.27	35.92	.1005	.0197	2.148	.3046	.4081
#2	143.5	37.05	17.43	36.06	.0979	.0191	2.135	.2983	.4102
#3	144.2	37.16	17.45	36.17	.0995	.0195	2.142	.3003	.4109
Elem	Tl3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	2.323	.0013	.0420	45.57	.0695	.1163	F 11.00		
Stddev	.026	.0004	.0004	.48	.0018	.0008	.08		
%RSD	1.136	27.95	.8605	1.061	2.632	.6852	.7485		
#1	2.316	.0009	.0423	46.00	.0700	.1167	11.07		
#2	2.353	.0015	.0421	45.05	.0711	.1154	10.91		
#3	2.302	.0015	.0416	45.66	.0675	.1169	11.03		

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Zoom In
Zoom Out

Sample Name: JC85781-47 Acquired: 4/12/2019 0:39:18 Type: Unk
Method: SGS 3 NO Valve(v263) 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	158990.	19628.	7093.6	10081.
Stddev	2111.	146.	67.4	78.
%RSD	1.3276	.74253	.94956	.77761
#1	158190.	19773.	7028.2	10005.
#2	157400.	19630.	7162.8	10162.
#3	161390.	19482.	7089.7	10077.

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Zoom In
Zoom Out

Sample Name: JC85781-48 Acquired: 4/12/2019 0:44:14 Type: Unk
Method: SGS 3 NO Valve(v263) 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	1.035	.0035	.0620	.0518	3.048	1.678	1.350	.2958	.0407
Stddev	.003	.0001	.0001	.0002	.005	.002	.002	.0006	.0002
%RSD	.2604	2.119	.0919	.3657	.1792	.1148	.1316	.2078	.4585
#1	1.032	.0035	.0619	.0520	3.053	1.678	1.352	.2955	.0409
#2	1.034	.0035	.0620	.0516	3.050	1.680	1.349	.2965	.0407
#3	1.037	.0036	.0620	.0518	3.042	1.676	1.349	.2954	.0406
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2956	4.582	.1703	-.0003	1.804	.0087	.0072	74.41	27.28
Stddev	.0004	.006	.0006	.0007	.003	.0010	.0006	.13	.04
%RSD	.1330	.1302	.3633	240.9	.1366	11.19	8.171	.1780	.1459
#1	.2959	4.575	.1706	-.0012	1.803	.0076	.0076	74.27	27.23
#2	.2952	4.586	.1696	.0002	1.807	.0088	.0065	74.42	27.30
#3	.2956	4.585	.1708	.0000	1.803	.0095	.0075	74.54	27.31
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	129.6	30.40	14.39	36.44	.0898	.0186	2.027	.2604	.4763
Stddev	.2	.10	.03	.03	.0008	.0002	.006	.0012	.0003
%RSD	.1491	.3261	.2420	.0848	.9429	1.124	.3147	.4641	.0734
#1	129.4	30.33	14.35	36.40	.0891	.0184	2.028	.2593	.4760
#2	129.7	30.51	14.41	36.44	.0907	.0187	2.033	.2617	.4762
#3	129.8	30.36	14.42	36.47	.0895	.0187	2.020	.2602	.4767
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	1.871	.0004	.0269	56.52	.0542	.0940	F 12.48		
Stddev	.003	.0007	.0002	.22	.0019	.0004	.06		
%RSD	.1745	151.4	8592	3852	3.457	4.020	.4711		
#1	1.874	.0012	.0267	56.38	.0563	.0937	12.41		
#2	1.870	.0003	.0271	56.77	.0527	.0944	12.52		
#3	1.868	-.0001	.0267	56.40	.0535	.0938	12.50		

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11.2

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Zoom In
Zoom Out

Sample Name: JC85781-48 Acquired: 4/12/2019 0:44:14 Type: Unk
Method: SGS 3 NO Valve(v263) 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	157670.	19364.	6997.5	10119.
Stddev	821.	103.	6.5	5.
%RSD	.52050	.53398	.09241	.04784
#1	156850.	19431.	7000.3	10124.
#2	158490.	19245.	7002.1	10119.
#3	157690.	19416.	6990.1	10115.

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Zoom In
Zoom Out

Sample Name: JC85781-49 Acquired: 4/12/2019 0:49:07 Type: Unk
Method: SGS 3 NO Valve(v263) 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	1.242	.0038	.0445	.0753	1.192	1.396	4.049	.3413
Stddev	.001	.0000	.0006	.0007	.002	.001	.015	.0029
%RSD	.0999	.3383	1.458	.9599	.1279	.0563	.3720	.8414
#1	1.241	.0038	.0450	.0754	1.191	1.395	4.032	.3423
#2	1.244	.0038	.0448	.0760	1.194	1.397	4.062	.3435
#3	1.242	.0038	.0438	.0746	1.191	1.397	4.053	.3381
Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0438	.2810	4.258	.0629	F -.0027	2.976	.0054	.0031
Stddev	.0005	.0004	.039	.0007	.0010	.023	.0003	.0031
%RSD	1.151	.1308	.9162	1.073	35.31	.7744	4.551	97.09
#1	.0433	.2811	4.283	.0637	-.0032	2.991	.0064	.0061
#2	.0437	.2813	4.277	.0624	-.0016	2.987	.0067	.0033
#3	.0443	.2806	4.213	.0627	-.0034	2.949	.0061	.0000
Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	96.65	32.68	153.7	28.88	9.895	20.30	.0588	.0180
Stddev	.08	.06	.2	.05	.012	.01	.0007	.0004
%RSD	.0806	.1941	.1143	.1821	.1217	.0395	1.163	1.945
#1	96.64	32.66	153.5	28.94	9.899	20.31	.0594	.0182
#2	96.73	32.75	153.9	28.86	9.881	20.30	.0591	.0182
#3	96.57	32.63	153.6	28.83	9.904	20.30	.0581	.0176
Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.931	.6669	.2620	2.704	.0096	.0219	19.13	.0763
Stddev	.017	.0063	.0001	.004	.0005	.0001	.16	.0008
%RSD	.8871	.9398	.0320	.1284	4.905	.4052	.8343	1.057
#1	1.947	.6699	.2620	2.701	.0091	.0219	19.16	.0754
#2	1.933	.6711	.2621	2.703	.0100	.0220	19.26	.0768
#3	1.913	.6597	.2621	2.707	.0099	.0218	18.95	.0767

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Zoom In
Zoom Out

Sample Name: JC85781-49 Acquired: 4/12/2019 0:49:07 Type: Unk
Method: SGS 3 NO Valve(v263) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Li6707	P_1774		
Units	ppm	ppm		
Avg	.0877	F 15.93		
Stddev	.0019	.14		
%RSD	2.205	.8749		
#1	.0877	15.96		
#2	.0858	16.06		
#3	.0897	15.78		
Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	160350.	19749.	7196.1	10235.
Stddev	385.	145.	64.3	74.
%RSD	.23985	.73269	.89398	.72180
#1	160020.	19588.	7148.1	10184.
#2	160250.	19793.	7170.9	10201.
#3	160770.	19868.	7269.2	10320.

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Zoom In
Zoom Out

Sample Name: JC85781-50 Acquired: 4/12/2019 0:54:12 Type: Unk
Method: SGS 3 NO Valve(v263) 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	1.050	.0019	.0361	.0621	.6646	.9941	2.184	.3183	.0244
Stddev	.002	.0001	.0001	.0001	.0031	.0042	.032	.0016	.0005
%RSD	.1394	3.834	.4109	.1358	.4733	.4249	1.455	.5124	1.849
#1	1.049	.0020	.0359	.0621	.6646	.9933	2.205	.3172	.0240
#2	1.049	.0020	.0360	.0622	.6615	.9903	2.147	.3176	.0249
#3	1.052	.0019	.0362	.0621	.6678	.9987	2.199	.3202	.0243
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2294	3.803	.0485	-0.016	3.380	.0070	.0033	45.68	29.75
Stddev	.0011	.013	.0014	.0012	.012	.0008	.0010	.08	.04
%RSD	.4995	.3497	2.830	74.12	.3534	11.00	28.85	1.730	.1512
#1	.2290	3.793	.0483	-.0028	3.371	.0075	.0022	45.60	29.71
#2	.2286	3.798	.0472	-.0018	3.375	.0061	.0039	45.67	29.74
#3	.2307	3.818	.0499	-.0003	3.394	.0073	.0039	45.76	29.80
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sr1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	103.4	19.07	5.350	20.39	.0564	.0128	1.928	.7464	.2354
Stddev	.2	.01	.046	.06	.0000	.0001	.013	.0047	.0001
%RSD	.1621	.0697	.8576	.2779	.0799	.9845	.6815	.6339	.0435
#1	103.2	19.06	5.306	20.34	.0563	.0129	1.920	.7422	.2353
#2	103.4	19.07	5.346	20.39	.0564	.0127	1.921	.7454	.2354
#3	103.5	19.08	5.398	20.45	.0564	.0129	1.943	.7515	.2355
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	1.768	.0112	.0262	25.84	.0499	.0368	F 11.34		
Stddev	.003	.0007	.0001	.16	.0005	.0010	.07		
%RSD	.1810	6.431	.3413	.6085	.9936	2.755	.6228		
#1	1.770	.0119	.0263	25.74	.0498	.0373	11.31		
#2	1.765	.0113	.0261	25.75	.0504	.0357	11.29		
#3	1.770	.0105	.0263	26.02	.0494	.0375	11.42		

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11.2
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Zoom In
Zoom Out

Sample Name: JC85781-50 Acquired: 4/12/2019 0:54:12 Type: Unk
Method: SGS 3 NO Valve(v263) 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	157840.	19250.	7029.2	10250.
Stddev	950.	87.	15.4	28.
%RSD	.60188	.45373	.21848	.27521
#1	157960.	19304.	7032.0	10253.
#2	158720.	19150.	7042.9	10277.
#3	156830.	19297.	7012.6	10221.

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Zoom In
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Sample Name: JC85781-51 Acquired: 4/12/2019 0:59:18 Type: Unk
Method: SGS 3 NO Valve(v263) 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	.5389	.0010	.0214	.0401	.4197	.5822	1.251	.2101
Stddev	.0034	.0001	.0020	.0033	.0094	.0059	.026	.0098
%RSD	.6273	8.649	9.134	8.338	2.237	1.021	2.051	4.664
#1	.5388	.0010	.0236	.0440	.4298	.5844	1.277	.2214
#2	.5423	.0009	.0201	.0380	.4182	.5867	1.251	.2045
#3	.5355	.0010	.0205	.0384	.4112	.5754	1.225	.2044
Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0065	.2115	2.906	.0361	F -.0055	2.100	-0.014	.0066
Stddev	.0121	.0023	.290	.0053	.0036	.094	.0099	.0054
%RSD	185.3	1.080	9.988	14.73	65.55	4.453	713.1	81.55
#1	-.0075	.2122	3.242	.0300	-.0096	2.208	-.0127	.0128
#2	.0136	.2133	2.738	.0395	-.0034	2.043	.0059	.0028
#3	.0135	.2089	2.740	.0390	-.0033	2.049	.0027	.0042
Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	24.11	25.45	72.04	11.99	2.915	27.41	.0581	.0118
Stddev	.11	.13	.29	.05	.017	.07	.0056	.0011
%RSD	.4470	.5142	.3966	.4176	.5843	.2528	9.603	9.600
#1	24.13	25.50	72.12	12.00	2.932	27.46	.0645	.0130
#2	24.21	25.56	72.28	12.04	2.898	27.45	.0551	.0109
#3	24.00	25.31	71.72	11.94	2.916	27.33	.0546	.0114
Elem	Si2124	Sr1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.665	.6797	.1998	.8185	.0468	.0223	33.55	.0059
Stddev	.173	.0669	.0008	.0193	.0266	.0026	3.45	.0295
%RSD	10.37	9.845	.4167	2.364	56.83	11.54	10.28	504.6
#1	1.865	.7569	.2002	.8378	.0774	.0193	37.53	-.0282
#2	1.568	.6399	.2004	.8185	.0305	.0240	31.53	.0235
#3	1.564	.6422	.1989	.7991	.0323	.0235	31.59	.0223

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Sample Name: JC85781-51 Acquired: 4/12/2019 0:59:18 Type: Unk
 Method: SGS 3 NO Valve(v263) Mode: CONC Corr. Factor: 1.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Li6707	P_1774		
Units	ppm	ppm		
Avg	.0117	7.012		
Stddev	.0045	.705		
%RSD	38.46	10.05		
#1	.0169	7.826		
#2	.0091	6.597		
#3	.0091	6.613		

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	161020.	19515.	*****	*****
Stddev	2784.	58.	----	----
%RSD	1.7286	.29658	----	----
#1	157890.	19554.	----	----
#2	161950.	19449.	7090.5	10360.
#3	163220.	19543.	7092.5	10337.

Sample Name: JC85781-52 Acquired: 4/12/2019 1:04:16 Type: Unk
 Method: SGS 3 NO Valve(v263) 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	.3781	.0025	.0084	.0418	.3804	.4562	2.322	1.255
Stddev	.0009	.0000	.0001	.0002	.0020	.0032	.029	.0008
%RSD	.2452	1.974	1.568	.4887	.5156	.6969	1.228	.6099
#1	.3786	.0025	.0082	.0417	.3818	.4576	2.349	1.249
#2	.3787	.0025	.0084	.0418	.3813	.4584	2.325	1.253
#3	.3771	.0024	.0085	.0421	.3782	.4525	2.293	1.264

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0131	.1576	1.659	.0584	F -.0025	.5935	.0046	-0.009
Stddev	.0002	.0014	.013	.0003	.0019	.0038	.0028	.0016
%RSD	1.571	.9017	.7769	.4710	75.26	6.380	61.09	178.8
#1	.0132	.1584	1.653	.0582	-.0043	.5915	.0078	-.0026
#2	.0129	.1584	1.650	.0584	-.0006	.5912	.0025	-.0006
#3	.0133	.1560	1.674	.0587	-.0025	.5979	.0036	-.0007

Sample Name: JC85781-52 Acquired: 4/12/2019 1:04:16 Type: Unk
 Method: SGS 3 NO Valve(v263) Mode: CONC Corr. Factor: 1.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Li6707	P_1774		
Units	ppm	ppm		
Avg	.0754	7.318		
Stddev	.0006	.081		
%RSD	.8220	1.105		
#1	.0746	7.320		
#2	.0757	7.236		
#3	.0757	7.398		

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	159740.	19471.	7117.4	10296.
Stddev	713.	160.	44.8	64.
%RSD	.44628	.81934	.62882	.62345
#1	159670.	19294.	7138.5	10325.
#2	159060.	19518.	7147.7	10340.
#3	160480.	19602.	7066.0	10222.

Sample Name: ccv Acquired: 4/12/2019 1:09:22 Type: QC
 Method: SGS 3 NO Valve(v263) 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	2.064	2.069	2.076	2.077	2.052	2.039	2.106	2.069	.2526
Stddev	.004	.008	.001	.001	.009	.005	.022	.001	.0001
%RSD	.2181	.3709	.0640	.0499	.4263	.2652	1.044	.0609	.0440
#1	2.063	2.066	2.075	2.077	2.043	2.033	2.081	2.070	.2524
#2	2.061	2.065	2.077	2.078	2.054	2.042	2.113	2.070	.2526
#3	2.069	2.078	2.075	2.076	2.060	2.042	2.123	2.068	.2526

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	2.060	2.075	2.021	2.108	2.061	2.042	2.044	40.68	40.75
Stddev	.004	.001	.004	.013	.001	.003	.003	.10	.15
%RSD	.1756	.0636	.2114	.6007	.0666	.1289	.1316	.2478	.3570
#1	2.056	2.076	2.016	2.097	2.061	2.041	2.043	40.65	40.71
#2	2.060	2.076	2.020	2.106	2.062	2.045	2.047	40.59	40.63
#3	2.063	2.074	2.025	2.122	2.059	2.040	2.042	40.79	40.91

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	41.57	41.28	42.25	42.29	2.086	2.045	5.315	2.063	2.062
Stddev	.09	.02	.12	.02	.004	.001	.008	.005	.003
%RSD	.2226	.0447	.2759	.0576	.1663	.0303	.1503	.2479	.1533
#1	41.50	41.27	42.14	42.27	2.090	2.045	5.316	2.059	2.060
#2	41.53	41.26	42.22	42.32	2.084	2.045	5.322	2.061	2.061
#3	41.67	41.30	42.37	42.29	2.084	2.046	5.307	2.069	2.066

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: 4/12/2019 1:09:22 Type: QC
 Method: SGS 3 NO Valve(v263) 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
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.033	1.999	2.038	2.039	2.059	2.116	2.006
Stddev	.003	.001	.004	.011	.004	.007	.009
%RSD	.1616	.0445	.1801	.5590	.1799	.3145	.4556

#1	2.029	1.999	2.035	2.026	2.061	2.116	2.007
#2	2.033	1.998	2.037	2.045	2.062	2.109	1.996
#3	2.036	1.999	2.042	2.046	2.055	2.123	2.014

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
 Value High Limit Low Limit

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	148190.	18070.	6652.6	9788.7
Stddev	744.	66.	12.7	18.6
%RSD	.50190	.36535	.19087	.19033

#1	149050.	18058.	6640.7	9770.1
#2	147740.	18142.	6666.0	9807.4
#3	147780.	18011.	6651.2	9788.7

Sample Name: ccb Acquired: 4/12/2019 1:14:23 Type: QC
 Method: SGS 3 NO Valve(v263) 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	-0.001	-0.001	-0.004	-0.000	-0.001	-0.001	-0.003
Stddev	.0005	.0000	.0001	.0003	.0001	.0003	.0000	.0000	.0005
%RSD	100.4	921.8	100.2	390.0	21.54	1052.	44.31	16.27	1256.

#1	.0000	-0.0000	-0.0001	-0.0002	-0.0004	-0.0002	-0.0001	.0003	.0002
#2	-0.0009	-0.0000	-0.0000	-0.0002	-0.0004	.0003	-0.0001	.0004	.0003
#3	-0.0005	.0000	-0.0003	-0.0002	-0.0003	-0.0002	-0.0000	.0003	-0.0006

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
 Value 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	-0.004	.0001	.0002	-0.005	-0.009	.0006	-0.004	.0033	-0.022
Stddev	.0002	.0001	.0011	.0003	.0005	.0015	.0007	.0081	.0035
%RSD	43.16	48.86	511.3	61.85	51.30	253.3	158.6	244.5	161.8

#1	-0.0005	.0002	.0014	-0.004	-0.004	.0018	-0.001	.0115	.0018
#2	-0.0003	.0001	-0.0007	-0.0009	-0.0010	-0.0011	-0.0012	-0.0047	-0.0035
#3	-0.0003	.0002	-0.0001	-0.0003	-0.0013	.0011	-0.0000	.0032	-0.0048

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
 Value 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	-0.005	.0080	-0.0897	.0082	-0.003	-0.000	-0.005	.0001	-0.001
Stddev	.0034	.0086	.0349	.0207	.0011	.0001	.0006	.0003	.0002
%RSD	653.6	107.4	38.92	252.3	374.4	318.6	122.2	539.5	346.3

#1	.0029	.0004	-.0951	.0319	.0004	.0001	-.0010	.0001	.0000
#2	-0.0006	.0173	-.0524	-.0066	.0002	-0.0001	.0002	-0.0003	-0.0003
#3	-0.0039	.0062	-.1215	-.0006	-0.0016	-0.0001	-0.0007	.0004	.0001

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
 Value High Limit Low Limit

Sample Name: ccb Acquired: 4/12/2019 1:14:23 Type: QC
 Method: SGS 3 NO Valve(v263) 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
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0004	.0010	.0000	.0005	.0007	-0.0011	-0.0023
Stddev	.0007	.0002	.0001	.0009	.0017	.0004	.0012
%RSD	174.6	24.46	169.7	183.2	256.4	31.54	53.07

#1	.0002	.0008	.0000	.0016	.0002	-0.0015	-0.0036
#2	-0.0002	.0013	.0001	-0.0001	.0026	-0.0008	-0.0022
#3	-0.0012	.0009	-0.0000	.0000	-0.0008	-0.0011	-0.0011

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
 Value High Limit Low Limit

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	159580.	18513.	7007.7	10904.
Stddev	239.	157.	8.3	3.
%RSD	.14992	.84776	.11785	.02652

#1	159320.	18332.	7000.1	10904.
#2	159790.	18602.	7016.5	10907.
#3	159620.	18605.	7006.5	10901.

Sample Name: JC85781-53 Acquired: 4/12/2019 1:19:31 Type: Unk
 Method: SGS 3 NO Valve(v263) 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	5948.	.0032	.0142	.0511	5692.	7243.	2.722	.1773
Stddev	.0027	.0001	.0002	.0031	.0484	.0422	.206	.0004
%RSD	4.514	2.941	1.485	5.975	8.501	5.832	7.555	.2529

#1	.5963	.0031	.0139	.0547	6251	7730	2.958	.1768
#2	.5963	.0033	.0142	.0494	5427	7025	2.629	.1777
#3	.5917	.0032	.0143	.0494	5399	6974	2.580	.1773

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
 Value High Limit Low Limit

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0107	.2021	2.090	.0483	F-.0047	.9202	-0.0048	.0050
Stddev	.0256	.0104	.017	.0129	.0054	.0105	.0122	.0083
%RSD	238.9	5.158	.8308	26.20	114.2	1.144	251.3	165.9

#1	-0.189	.2141	2.070	.0344	-0.108	.9081	-0.189	.0145
#2	.0257	.1972	2.100	.0570	-0.020	.9260	.0032	.0007
#3	.0253	.1951	2.100	.0564	-0.012	.9266	.0011	-0.0003

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	77.08	24.29	143.5	33.34	13.84	23.97	.1120	.0076
Stddev	.39	.14	.8	.22	.05	.12	.0011	.0010
%RSD	.5036	.5656	.5550	.6604	.3733	.4959	1.020	13.04

#1	77.22	24.35	143.9	33.47	13.81	24.04	.1107	.0064
#2	77.38	24.39	144.1	33.47	13.90	24.05	.1128	.0082
#3	76.64	24.14	142.6	33.09	13.81	23.84	.1126	.0081

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.139	.2375	.2005	2.336	.0085	.0673	37.86	.0171
Stddev	.010	.0042	.0010	.198	.0159	.0010	.35	.0791
%RSD	4.777	1.780	.5057	8.452	186.9	1.448	.9348	461.4

#1	2.128	.2327	.2015	2.564	.0268	.0662	37.46	-.0741
#2	2.140	.2397	.2006	2.230	-0.001	.0679	38.12	.0610
#3	2.148	.2402	.1995	2.214	-0.012	.0677	38.00	.0645

Zoom In
Zoom Out

Sample Name: JC85781-53 Acquired: 4/12/2019 1:19:31 Type: Unk
Method: SGS 3 NO Valve(v263) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Li6707	P_1774		
Units	ppm	ppm		
Avg	1020	F 9.275		
Stddev	.0072	.120		
%RSD	7.012	1.299		
#1	.1102	9.136		
#2	.0981	9.355		
#3	.0977	9.333		
Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	19735.	19735.	7124.4	10222.
Stddev	-----	108.	65.3	84.
%RSD	-----	.54874	.91636	.82102
#1	-----	19737.	7196.5	10316.
#2	158430.	19625.	7107.4	10195.
#3	159160.	19842.	7069.3	10154.

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Zoom In
Zoom Out

Sample Name: JC85781-54 Acquired: 4/12/2019 1:24:35 Type: Unk
Method: SGS 3 NO Valve(v263) 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	7783	.0034	.0206	.0533	.5875	.8405	2.430	1.907
Stddev	.0027	.0001	.0001	.0003	.0011	.0015	.020	.0002
%RSD	.3489	2.907	4.112	.6404	.1836	.1790	.8164	.1071
#1	.7797	.0033	.0205	.0532	.5871	.8409	2.407	1.905
#2	.7800	.0035	.0206	.0530	.5868	.8388	2.440	1.909
#3	.7752	.0033	.0206	.0536	.5888	.8418	2.442	1.907
Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0269	.2087	2.530	.0527	F -.0023	1.212	.0042	-.0004
Stddev	.0004	.0001	.004	.0007	.0009	.001	.0009	.0013
%RSD	1.489	.0508	.1679	1.261	40.13	.1102	21.12	343.3
#1	.0268	.2086	2.535	.0525	-.0026	1.211	.0051	.0003
#2	.0274	.2086	2.527	.0522	-.0013	1.211	.0033	.0005
#3	.0266	.2088	2.528	.0535	-.0031	1.213	.0042	-.0019
Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	84.12	25.05	147.6	32.18	12.42	22.68	.0926	.0093
Stddev	.23	.08	.3	.03	.06	.07	.0069	.0002
%RSD	.2711	.3092	.2150	.1040	.4733	.3218	.6069	2.094
#1	84.19	25.09	147.7	32.21	12.41	22.60	.0926	.0092
#2	84.31	25.09	147.9	32.18	12.48	22.75	.0932	.0095
#3	83.87	24.96	147.3	32.15	12.36	22.68	.0920	.0091
Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.937	.3055	.2187	2.425	-.0012	.0623	42.80	.0680
Stddev	.005	.0004	.0004	.001	.0006	.0001	.12	.0021
%RSD	.2712	.1305	.1736	.0460	49.91	.2018	.2763	3.070
#1	1.937	.3056	.2184	2.426	-.0009	.0624	42.67	.0679
#2	1.942	.3059	.2192	2.424	-.0018	.0624	42.89	.0659
#3	1.932	.3051	.2186	2.425	-.0007	.0622	42.83	.0701

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Zoom In
Zoom Out

Sample Name: JC85781-54 Acquired: 4/12/2019 1:24:35 Type: Unk
Method: SGS 3 NO Valve(v263) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Li6707	P_1774		
Units	ppm	ppm		
Avg	.0995	F 9.334		
Stddev	.0009	.023		
%RSD	.8617	.2491		
#1	.1000	9.353		
#2	.0985	9.341		
#3	.1001	9.308		
Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	159010.	19618.	7142.6	10226.
Stddev	695.	69.	31.7	30.
%RSD	.43688	.35064	.44355	.29554
#1	159240.	19662.	7106.8	10196.
#2	159560.	19539.	7154.4	10227.
#3	158230.	19654.	7166.8	10256.

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Zoom In
Zoom Out

Sample Name: JC85781-55 Acquired: 4/12/2019 1:29:40 Type: Unk
Method: SGS 3 NO Valve(v263) 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	8678	.0037	.0268	.0583	.7128	1.041	2.699	2.179
Stddev	.0006	.0000	.0001	.0002	.0013	.003	.013	.0006
%RSD	.0697	1.195	.2917	.3531	.1845	.2816	.4938	.2838
#1	8679	.0037	.0268	.0584	.7126	1.039	2.698	2.176
#2	8684	.0038	.0269	.0583	.7117	1.039	2.713	2.175
#3	8672	.0037	.0267	.0580	.7143	1.044	2.687	2.186
Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0347	.2315	2.986	.0600	F -.0030	1.457	.0057	-.0014
Stddev	.0004	.0006	.005	.0011	.0008	.002	.0003	.0007
%RSD	1.276	.2541	.1815	1.803	25.08	.1551	5.147	46.11
#1	.0347	.2319	2.986	.0587	-.0028	1.456	.0057	-.0009
#2	.0342	.2308	2.991	.0606	-.0024	1.460	.0055	-.0011
#3	.0350	.2318	2.980	.0606	-.0039	1.456	.0060	-.0022
Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	93.83	26.55	156.1	35.01	13.64	23.91	.0974	0.105
Stddev	.06	.02	.0	.08	.03	.04	.0001	.0002
%RSD	.0691	.0806	.0235	.2184	.2372	.1471	.1307	2.298
#1	93.89	26.57	156.1	35.10	13.61	23.95	.0974	.0104
#2	93.84	26.54	156.1	34.96	13.67	23.90	.0973	.0103
#3	93.76	26.54	156.2	34.98	13.63	23.89	.0975	.0108
Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.096	.3159	2.503	2.536	.0020	.0588	36.03	.0711
Stddev	.007	.0008	.0001	.006	.0005	.0001	.11	.0007
%RSD	.3353	.2532	.0344	.2352	24.95	.1193	.3092	1.008
#1	2.091	.3166	2.502	2.542	.0024	.0588	36.16	.0703
#2	2.104	.3150	2.503	2.530	.0014	.0589	35.99	.0716
#3	2.093	.3161	2.504	2.536	.0021	.0587	35.95	.0714

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Zoom In
Zoom Out

Sample Name: JC85781-55 Acquired: 4/12/2019 1:29:40 Type: Unk
Method: SGS 3 NO Valve(v263) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Li6707	P_1774		
Units	ppm	ppm		
Avg	.1109	F 12.44		
Stddev	.0015	.03		
%RSD	1.314	.2465		
#1	.1123	12.47		
#2	.1094	12.44		
#3	.1111	12.41		
Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	159940.	19701.	7154.6	10195.
Stddev	1281.	124.	23.5	24.
%RSD	.80062	.62932	.32910	.23064
#1	159320.	19559.	7155.8	10203.
#2	161410.	19785.	7130.4	10169.
#3	159080.	19760.	7177.5	10214.

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Zoom In
Zoom Out

Sample Name: JC85781-56 Acquired: 4/12/2019 1:34:43 Type: Unk
Method: SGS 3 NO Valve(v263) 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	.8004	.0033	.0265	.0555	.6681	.9848	2.609	2.242
Stddev	.0021	.0000	.0002	.0002	.0011	.0019	.011	.0003
%RSD	.2638	.9313	.5659	.3754	.1611	.1967	.4302	.1119
#1	.8020	.0033	.0267	.0557	.6689	.9835	2.615	2.241
#2	.8012	.0034	.0264	.0553	.6669	.9838	2.616	2.241
#3	.7980	.0033	.0265	.0556	.6686	.9870	2.596	2.245
Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0300	.2197	2.905	.0573	F -.0035	1.468	.0045	-.0015
Stddev	.0005	.0001	.003	.0004	.0025	.002	.0005	.0008
%RSD	1.585	.0379	.1085	.6457	72.02	.1594	10.14	53.24
#1	.0301	.2198	2.905	.0575	-.0018	1.468	.0049	-.0022
#2	.0304	.2198	2.903	.0569	-.0023	1.465	.0045	-.0017
#3	.0295	.2196	2.909	.0576	-.0064	1.470	.0040	-.0006
Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	82.00	26.28	139.3	32.57	12.28	22.57	.0916	-.0111
Stddev	.21	.08	.4	.11	.04	.02	.0009	.0002
%RSD	.2533	.3149	.3135	.3416	.2908	.1066	.9643	1.785
#1	82.13	26.32	139.5	32.69	12.32	22.58	.0926	.0113
#2	82.11	26.33	139.5	32.55	12.27	22.58	.0910	.0111
#3	81.76	26.19	138.7	32.47	12.25	22.54	.0913	.0109
Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.123	.2943	.2377	2.422	.0010	.0533	28.37	.0688
Stddev	.011	.0019	.0005	.001	.0015	.0001	.15	.0002
%RSD	.5369	.6622	.2163	.0536	159.8	.1689	.5211	2893
#1	2.114	.2939	.2381	2.421	.0018	.0533	28.23	.0688
#2	2.119	.2926	.2379	2.424	-.0008	.0533	28.36	.0690
#3	2.136	.2964	.2371	2.423	.0019	.0534	28.53	.0686

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Zoom In
Zoom Out

Sample Name: JC85781-56 Acquired: 4/12/2019 1:34:43 Type: Unk
Method: SGS 3 NO Valve(v263) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Li6707	P_1774		
Units	ppm	ppm		
Avg	.0948	F 12.89		
Stddev	.0019	.03		
%RSD	1.982	.2608		
#1	.0964	12.88		
#2	.0952	12.86		
#3	.0927	12.93		
Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	159480.	19564.	7147.3	10208.
Stddev	527.	103.	13.1	11.
%RSD	.33022	.52517	.18328	.11101
#1	160060.	19445.	7146.6	10208.
#2	159330.	19617.	7160.8	10220.
#3	159040.	19628.	7134.6	10197.

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Zoom In
Zoom Out

Sample Name: JC85781-57 Acquired: 4/12/2019 1:39:47 Type: Unk
Method: SGS 3 NO Valve(v263) 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	.4723	.0028	.0115	.0450	.4826	.6177	1.977	.1515
Stddev	.0009	.0001	.0003	.0033	.0447	.0380	.209	.0011
%RSD	.1814	4.811	2.308	7.378	9.266	6.157	10.59	.7333
#1	.4716	.0028	.0118	.0431	.4558	.5944	1.841	.1511
#2	.4733	.0029	.0114	.0430	.4578	.5971	1.872	.1506
#3	.4721	.0026	.0113	.0488	.5342	.6616	2.218	.1527
Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0017	.1799	2.046	.0450	F -.0044	.8111	-.0038	.0031
Stddev	.0250	.0124	.008	.0110	.0048	.0067	.0134	.0088
%RSD	1501.	6.892	.3762	24.50	110.0	.8252	354.4	282.1
#1	.0162	.1726	2.054	.0509	-.0008	.8157	.0045	-.0018
#2	.0161	.1730	2.045	.0519	-.0025	.8142	.0034	-.0022
#3	-.0272	.1943	2.038	.0323	-.0099	.8034	-.0193	.0133
Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	63.97	23.55	134.4	31.97	12.13	18.68	.1147	.0065
Stddev	.07	.03	.1	.06	.03	.03	.0005	.0007
%RSD	.1162	.1147	.0770	.1824	.2113	.1822	.4361	11.13
#1	63.88	23.52	134.3	31.92	12.13	18.65	.1145	.0069
#2	64.02	23.56	134.5	32.03	12.15	18.67	.1153	.0070
#3	64.00	23.57	134.5	31.97	12.10	18.71	.1144	.0057
Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.047	.2614	.2062	2.261	.0058	.0626	48.81	.0184
Stddev	.014	.0019	.0003	.202	.0164	.0005	.21	.0746
%RSD	.6912	.7289	.1501	8.947	281.8	.7531	.4261	406.0
#1	2.063	.2630	.2062	2.147	-.0032	.0627	49.01	.0608
#2	2.036	.2620	.2058	2.142	-.0041	.0631	48.60	.0620
#3	2.042	.2593	.2065	2.495	.0248	.0621	48.82	-.0677

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Zoom In
Zoom Out

Sample Name: JC85781-57 Acquired: 4/12/2019 1:39:47 Type: Unk
Method: SGS 3 NO Valve(v263) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Li6707	P_1774		
Units	ppm	ppm		
Avg	.0884	7.426		
Stddev	.0056	.050		
%RSD	6.308	.6765		
#1	.0868	7.479		
#2	.0838	7.422		
#3	.0946	7.379		
Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	*****	19483.	7113.8	10265.
Stddev	----	31.	23.9	32.
%RSD	----	.15723	.33617	.30839
#1	160920.	19502.	7095.7	10234.
#2	160160.	19499.	7104.7	10264.
#3	----	19447.	7140.9	10297.

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Zoom In
Zoom Out

Sample Name: JC85781-59 Acquired: 4/12/2019 1:45:21 Type: Unk
Method: SGS 3 NO Valve(v263) 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	.6130	.0031	.0231	.0495	.6165	.8203	2.091	1.780	.0246
Stddev	.0015	.0001	.0001	.0001	.0015	.0018	.035	.0004	.0004
%RSD	.2381	2.301	.3034	.1337	.2456	.2180	1.695	.2213	1.539
#1	.6137	.0032	.0231	.0495	.6166	.8189	2.071	1.785	.0245
#2	.6113	.0031	.0230	.0494	.6150	.8197	2.132	1.777	.0250
#3	.6140	.0031	.0231	.0495	.6180	.8223	2.070	1.779	.0242
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1937	2.639	.0583	-.0017	1.262	.0052	-.0006	73.07	25.08
Stddev	.0003	.005	.0004	.0006	.001	.0007	.0010	.08	.03
%RSD	.1633	.1885	.6108	36.19	.0789	12.94	157.1	1.158	.1034
#1	.1933	2.645	.0579	-.0016	1.263	.0048	-.0007	73.13	25.06
#2	.1939	2.635	.0586	-.0024	1.262	.0050	-.0016	72.98	25.07
#3	.1939	2.637	.0584	-.0012	1.261	.0060	.0004	73.11	25.11
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sr1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	141.4	32.63	12.70	29.04	.1042	.0094	1.817	.2820	.2528
Stddev	.1	.10	.07	.03	.0002	.0001	.006	.0010	.0002
%RSD	.0395	.3129	.5160	.0888	.2226	.5711	.3484	.3639	.0614
#1	141.5	32.55	12.72	29.03	.1044	.0095	1.821	.2831	.2530
#2	141.4	32.74	12.63	29.06	.1040	.0094	1.809	.2818	.2527
#3	141.5	32.60	12.76	29.01	.1044	.0094	1.820	.2811	.2527
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	2.260	-.0010	.0713	42.19	.0638	.0882	F 11.06		
Stddev	.004	.0008	.0002	.24	.0014	.0006	.05		
%RSD	.1680	76.81	.2298	5696	2.168	.7011	.4205		
#1	2.256	-.0014	.0714	42.45	.0647	.0877	11.10		
#2	2.263	-.0015	.0711	41.98	.0645	.0881	11.01		
#3	2.263	-.0001	.0714	42.14	.0622	.0889	11.07		

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11.2
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Zoom In
Zoom Out

Sample Name: JC85781-59 Acquired: 4/12/2019 1:45:21 Type: Unk
Method: SGS 3 NO Valve(v263) 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	161360.	19775.	7182.1	10282.
Stddev	637.	118.	14.0	15.
%RSD	.39458	.59559	.19465	.14962
#1	161270.	19909.	7172.4	10274.
#2	160770.	19687.	7198.1	10300.
#3	162040.	19729.	7175.7	10272.

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Zoom In
Zoom Out

Sample Name: JC85781-60 Acquired: 4/12/2019 1:50:25 Type: Unk
Method: SGS 3 NO Valve(v263) 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	.6882	.0039	.0237	.0538	.7773	.9669	2.127	.1999
Stddev	.0000	.0001	.0001	.0004	.0246	.0282	.115	.0006
%RSD	.0051	2.178	.5853	.7043	3.164	2.916	5.422	.3025
#1	.6882	.0038	.0237	.0534	.8057	.9994	2.260	.2005
#2	.6882	.0038	.0235	.0542	.7620	.9516	2.061	.1993
#3	.6882	.0040	.0238	.0537	.7643	.9497	2.060	.1997
Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0306	.2085	2.637	.0675	F -.0030	1.300	.0041	-.0016
Stddev	.0004	.0067	.001	.0012	.0014	.000	.0033	.0015
%RSD	1.168	3.236	.0299	1.750	47.27	.0300	80.42	94.77
#1	.0302	.2163	2.636	.0675	-.0014	1.300	.0077	-.0031
#2	.0309	.2051	2.637	.0663	-.0039	1.300	.0014	-.0014
#3	.0307	.2043	2.638	.0687	-.0037	1.299	.0031	-.0002
Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	81.24	29.12	154.9	36.23	15.01	27.06	.1029	.0102
Stddev	.07	.03	.1	.06	.03	.04	.0001	.0001
%RSD	.0841	.1128	.0715	.1518	.2257	.1426	.0549	.9793
#1	81.23	29.11	154.7	36.18	15.00	27.03	.1029	.0100
#2	81.17	29.09	154.9	36.29	15.05	27.04	.1029	.0102
#3	81.31	29.15	155.0	36.22	14.99	27.10	.1030	.0102
Elem	Si2124	Sr1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.902	.2881	.2825	2.336	.0024	.0691	45.85	.0680
Stddev	.004	.0008	.0003	.078	.0008	.0019	.14	.0065
%RSD	.2085	.2909	.1182	3.330	31.88	2.681	.3117	9.587
#1	1.902	.2879	.2828	2.425	.0025	.0713	45.90	.0744
#2	1.906	.2890	.2827	2.290	.0032	.0681	45.95	.0683
#3	1.898	.2873	.2822	2.291	.0016	.0680	45.68	.0614

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Zoom In
Zoom Out

Sample Name: JC85781-60 Acquired: 4/12/2019 1:50:25 Type: Unk
Method: SGS 3 NO Valve(v263) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Li6707	P_1774		
Units	ppm	ppm		
Avg	.1037	F 10.99		
Stddev	.0005	.03		
%RSD	.4815	.2452		
#1	.1034	10.99		
#2	.1043	11.01		
#3	.1034	10.96		
Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	156060.	19649.	7122.7	10176.
Stddev	4475.	121.	15.4	13.
%RSD	2.8677	.61368	.21553	.12561
#1	150950.	19679.	7129.3	10181.
#2	159280.	19753.	7133.5	10186.
#3	157940.	19517.	7105.1	10162.

Zoom In
Zoom Out

Sample Name: mp14029-mb1conf Acquired: 4/12/2019 1:55:29 Type: Unk
Method: SGS 3 NO Valve(v263) 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	-0.002	-0.002	-0.007	-0.006	-0.002	-0.002	-0.000
Stddev	.0003	.0001	.0002	.0003	.0002	.0003	.0000	.0003	.0001
%RSD	89.39	170.4	92.84	138.5	30.44	49.26	18.45	115.7	128.7
#1	-0.008	.0000	-0.004	.0001	.0007	.0009	.0002	-0.001	.0001
#2	-0.001	-0.001	-0.000	-0.004	.0006	.0007	.0003	.0004	.0001
#3	-0.002	-0.001	-0.002	-0.003	.0010	.0003	.0002	.0004	-0.000
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.004	.0064	.0008	-0.006	-0.002	.0015	.0000	.0136	.1042
Stddev	.0003	.0001	.0008	.0007	.0012	.0022	.0021	.0100	.0046
%RSD	70.88	1.551	101.3	115.5	737.6	146.7	10400.	73.47	4.450
#1	-0.005	.0063	.0015	-0.011	.0002	.0007	.0020	.0093	.1095
#2	-0.006	.0065	.0009	-0.002	.0013	-0.002	.0002	.0065	.1021
#3	-0.001	.0065	-0.001	-0.009	-0.011	.0040	-0.021	.0251	.1010
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0299	.0324	-1.463	.0434	-0.007	.0000	.0395	.0214	.0003
Stddev	.0039	.0037	.0575	.0114	.0006	.0002	.0011	.0003	.0001
%RSD	12.89	11.39	39.32	26.37	88.04	8638.	2.805	1.462	26.77
#1	.0339	.0367	-0.970	.0353	-0.012	-0.001	.0403	.0217	.0003
#2	.0295	.0304	-1.323	.0564	-0.000	.0002	.0399	.0211	.0004
#3	.0263	.0302	-2.095	.0384	-0.010	-0.002	.0382	.0213	.0002
Elem	Tl3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	.0005	.0001	-0.001	.0199	.0002	-0.020	.0222		
Stddev	.0002	.0011	.0000	.0015	.0014	.0019	.0033		
%RSD	31.80	798.0	26.79	7.611	776.9	98.86	15.03		
#1	.0005	.0012	-0.001	.0215	-0.009	-0.040	.0241		
#2	.0007	-0.009	-0.001	.0194	-0.004	-0.001	.0242		
#3	.0003	.0000	-0.001	.0186	.0018	-0.018	.0183		

Zoom In
Zoom Out

Sample Name: mp14029-mb1conf Acquired: 4/12/2019 1:55:29 Type: Unk
Method: SGS 3 NO Valve(v263) 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	160690.	18691.	7106.4	11015.
Stddev	305.	121.	5.7	7.
%RSD	.18959	.64734	.08063	.06098
#1	161010.	18813.	7103.4	11017.
#2	160650.	18691.	7102.8	11007.
#3	160400.	18571.	7113.0	11020.

Zoom In
Zoom Out

Sample Name: mp14029-b1conf Acquired: 4/12/2019 2:00:37 Type: Unk
Method: SGS 3 NO Valve(v263) 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	1.961	1.958	1.950	1.913	1.912	1.959	1.944	.2570
Stddev	.004	.005	.002	.002	.014	.017	.014	.002	.0018
%RSD	.2045	.2521	.1206	.1250	.7501	.8795	.7110	.0987	.7163
#1	1.960	1.964	1.961	1.952	1.926	1.928	1.958	1.945	.2590
#2	1.962	1.964	1.958	1.947	1.914	1.915	1.973	1.942	.2565
#3	1.954	1.955	1.956	1.951	1.898	1.894	1.945	1.946	.2554
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.901	1.968	1.910	2.036	1.953	1.908	1.941	24.40	24.55
Stddev	.014	.003	.005	.014	.002	.004	.000	.06	.08
%RSD	.7409	.1425	.2459	.6781	.1147	.1865	.0207	.2312	.3199
#1	1.913	1.971	1.907	2.024	1.955	1.906	1.942	24.45	24.60
#2	1.903	1.968	1.915	2.051	1.953	1.912	1.941	24.40	24.58
#3	1.886	1.966	1.907	2.032	1.951	1.906	1.941	24.34	24.46
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	25.03	24.84	25.27	25.57	1.901	1.922	.8788	1.997	1.946
Stddev	.07	.10	.07	.04	.003	.003	.0012	.005	.004
%RSD	.2602	.4115	.2791	.1626	.1576	.1451	.1368	.2605	.1868
#1	25.08	24.91	25.26	25.58	1.904	1.924	.8782	1.994	1.947
#2	25.06	24.88	25.35	25.60	1.902	1.923	.8780	2.003	1.949
#3	24.96	24.72	25.21	25.52	1.898	1.919	.8802	1.993	1.942
Elem	Tl3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	1.912	1.252	1.911	0.261	0.739	-0.013	1.883		
Stddev	.017	.002	.015	.0005	.0016	.0033	.015		
%RSD	.8728	.1180	.7952	2.082	2.128	260.7	.7730		
#1	1.926	1.250	1.925	0.264	0.757	-0.050	1.873		
#2	1.916	1.253	1.914	0.255	0.734	.0010	1.900		
#3	1.894	1.253	1.895	0.264	0.727	.0002	1.877		

Sample Name: mp14029-b1conf Acquired: 4/12/2019 2:00:37 Type: Unk
 Method: SGS 3 NO Valve(v263) 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	153580.	18512.	6786.1	10063.
Stddev	711.	102.	13.0	7.
%RSD	.46312	.54943	.19226	.07345
#1	152790.	18394.	6781.0	10059.
#2	153810.	18569.	6776.3	10058.
#3	154160.	18572.	6800.9	10071.

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: 4/12/2019 2:05:38 Type: QC
 Method: SGS 3 NO Valve(v263) 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	2.068	2.063	2.058	2.059	2.041	2.028	2.091	2.054	2.503
Stddev	.007	.006	.003	.001	.005	.005	.024	.001	.0005
%RSD	.3555	.2700	.1358	.0285	.2232	.2345	1.133	.0612	.1972
#1	2.073	2.068	2.059	2.058	2.043	2.028	2.067	2.054	2504
#2	2.071	2.065	2.055	2.059	2.044	2.032	2.114	2.052	2508
#3	2.059	2.057	2.061	2.059	2.036	2.023	2.091	2.055	2498

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	2.040	2.056	2.003	2.096	2.047	2.023	2.029	40.64	40.72
Stddev	.002	.001	.002	.009	.000	.004	.000	.11	.11
%RSD	.0723	.0250	.1194	.4126	.0189	.2142	.0177	.2718	.2619
#1	2.040	2.057	2.001	2.086	2.048	2.018	2.029	40.73	40.80
#2	2.042	2.056	2.005	2.103	2.048	2.027	2.029	40.68	40.75
#3	2.039	2.056	2.005	2.098	2.047	2.025	2.029	40.52	40.60

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	41.51	41.16	42.22	42.19	2.073	2.031	5.273	2.046	2.058
Stddev	.08	.03	.21	.03	.002	.001	.008	.001	.003
%RSD	.1956	.0674	.5090	.0633	.0813	.0569	.1542	.0558	.1437
#1	41.57	41.19	42.31	42.20	2.075	2.031	5.267	2.045	2.060
#2	41.54	41.16	42.36	42.21	2.071	2.033	5.269	2.047	2.059
#3	41.42	41.13	41.97	42.16	2.073	2.031	5.282	2.045	2.054

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: 4/12/2019 2:05:38 Type: QC
 Method: SGS 3 NO Valve(v263) 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
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.017	1.990	2.023	2.010	2.045	2.115	1.991
Stddev	.001	.004	.001	.007	.004	.007	.008
%RSD	.0528	.1775	.0520	.3581	.2091	.3234	.4132
#1	2.017	1.991	2.023	2.003	2.046	2.117	1.984
#2	2.018	1.986	2.024	2.017	2.040	2.121	1.988
#3	2.015	1.992	2.022	2.010	2.048	2.107	2.000

Check ? 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	149520.	18073.	6698.2	9833.8
Stddev	815.	48.	2.7	8.0
%RSD	.54524	.26565	.04061	.08129
#1	149330.	18079.	6701.2	9837.3
#2	148810.	18119.	6697.3	9824.6
#3	150410.	18023.	6695.9	9839.4

Sample Name: ccb Acquired: 4/12/2019 2:10:39 Type: QC
 Method: SGS 3 NO Valve(v263) 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	.0002	-0.0001	-0.0000	.0000	-0.0001	-0.0000	.0003	-0.0004
Stddev	.0002	.0000	.0001	.0002	.0001	.0004	.0000	.0002	.0002
%RSD	3317.	19.77	200.1	910.6	762.7	409.7	155.9	84.43	63.03
#1	.0002	.0002	.0001	.0000	.0000	.0005	.0000	.0003	.0007
#2	-0.0001	.0001	-0.0002	-0.0002	.0002	.0001	.0000	.0000	-0.0003
#3	-0.0001	.0002	-0.0001	.0001	-0.0001	.0002	.0000	.0005	-0.0002

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	.0001	.0001	-0.0001	-0.0017	-0.0004	-0.0009	.0009	-0.0001	-0.0005
Stddev	.0002	.0000	.0001	.0020	.0007	.0008	.0009	.0081	.0022
%RSD	134.8	67.55	60.20	116.0	157.3	84.72	94.15	6110.	422.9
#1	.0002	.0000	-0.0001	-0.0015	.0001	-0.0012	.0001	.0088	.0016
#2	.0003	.0000	-0.0002	.0002	-0.0011	-0.0000	.0015	-0.0020	-0.0028
#3	-0.0001	.0001	-0.0000	-0.0037	-0.0002	-0.0014	.0014	-0.0072	-0.0004

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	.0014	.0167	-0.1446	.0077	.0004	.0004	.0012	-0.0000	.0001
Stddev	.0028	.0146	.0252	.0120	.0004	.0002	.0011	.0006	.0000
%RSD	197.9	87.79	17.46	155.8	113.8	48.37	94.40	2322.	37.48
#1	.0030	.0191	-0.1189	.0037	.0008	.0004	.0025	-0.0001	.0001
#2	-0.0018	.0010	-0.1693	.0212	.0004	.0006	.0008	-0.0006	.0001
#3	.0032	.0299	-0.1455	-0.0018	-0.0001	.0002	.0003	.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: 4/12/2019 2:10:39 Type: QC
 Method: SGS 3 NO Valve(v263) 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
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.006	0.035	0.002	-0.028	-0.005	0.008	-0.027
Stddev	0.004	0.005	0.002	0.025	0.008	0.016	0.016
%RSD	68.02	15.27	102.6	89.12	143.2	202.0	59.76

#1	-0.002	0.041	-0.000	-0.009	0.003	0.011	-0.023
#2	-0.006	0.034	0.003	-0.056	-0.008	-0.009	-0.045
#3	-0.010	0.031	0.002	-0.019	-0.011	0.022	-0.014

Check ? 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	159020.	18341.	6988.0	10843.
Stddev	264.	152.	13.7	13.
%RSD	0.16603	0.83097	0.19674	0.11611

#1	159010.	18511.	6972.2	10832.
#2	158760.	18295.	6994.4	10842.
#3	159280.	18217.	6997.3	10857.

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Sample Name: mp14029-s1 Acquired: 4/12/2019 2:15:47 Type: Unk
 Method: SGS 3 NO Valve(v263) 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	2.399	1.877	1.912	1.945	2.366	2.403	3.391	2.034	2.566
Stddev	0.04	0.02	0.03	0.02	0.07	0.02	0.28	0.02	0.008
%RSD	1.617	1.102	1.490	0.868	2.955	0.986	8.270	0.843	0.2966

#1	2.401	1.876	1.913	1.944	2.372	2.404	3.410	2.032	2.565
#2	2.402	1.879	1.908	1.943	2.368	2.405	3.404	2.033	2.554
#3	2.395	1.876	1.913	1.947	2.359	2.401	3.359	2.036	2.550

Elem V_2924 Zn2062 As1890 Tl1908 Pb2203 Se1960 Sb2068 Al3961 Ca3179
 Units ppm ppm ppm ppm ppm ppm ppm ppm ppm
 Avg 2.013 3.786 1.891 1.948 2.691 1.844 1.505 110.2 60.08
 Stddev 0.02 0.07 0.04 0.12 0.01 0.04 0.04 1.05 0.05
 %RSD 1.195 1.901 2.118 5.902 0.487 2.203 2.313 0.950 0.083

#1	2.016	3.794	1.895	1.958	2.691	1.846	1.507	110.2	60.06
#2	2.011	3.779	1.890	1.950	2.690	1.846	1.501	110.4	60.13
#3	2.012	3.785	1.888	1.935	2.692	1.839	1.508	110.2	60.05

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	142.2	50.13	39.12	58.79	1.947	1.827	3.844	2.095	2.249
Stddev	0.1	0.15	0.12	0.08	0.04	0.02	0.05	0.06	0.01
%RSD	0.642	0.2998	0.3118	0.1382	2.266	0.914	1.343	0.3052	0.545

#1	142.1	49.95	38.98	58.70	1.950	1.828	3.845	2.103	2.248
#2	142.2	50.22	39.19	58.83	1.942	1.825	3.838	2.093	2.251
#3	142.3	50.21	39.20	58.85	1.949	1.826	3.848	2.091	2.250

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.814	1.040	1.912	72.23	1.290	0.542	7.019
Stddev	0.06	0.03	0.03	0.49	0.011	0.017	0.30
%RSD	1.693	0.2359	0.1333	0.6845	0.8205	3.202	4.252

#1	3.819	1.042	1.914	72.65	1.292	0.550	7.045
#2	3.807	1.040	1.909	72.36	1.299	0.555	7.027
#3	3.816	1.037	1.912	71.68	1.278	0.523	6.986

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Sample Name: mp14029-s1 Acquired: 4/12/2019 2:15:47 Type: Unk
 Method: SGS 3 NO Valve(v263) 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	153870.	19028.	6917.0	9892.5
Stddev	331.	91.	25.1	25.8
%RSD	0.21535	0.47934	0.36338	0.26053

#1	153520.	19104.	6888.0	9862.9
#2	153920.	19052.	6930.8	9904.4
#3	154170.	18927.	6932.2	9910.2

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Sample Name: mp14029-s2 Acquired: 4/12/2019 2:20:45 Type: Unk
 Method: SGS 3 NO Valve(v263) 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	2.329	1.938	1.944	1.967	2.278	2.353	3.352	2.039	2.610
Stddev	0.003	0.000	0.002	0.002	0.002	0.003	0.034	0.002	0.007
%RSD	0.1215	0.0076	0.1136	0.1054	0.0670	0.1090	1.015	0.0810	0.2559

#1	2.326	1.938	1.945	1.968	2.276	2.352	3.317	2.040	2.610
#2	2.330	1.938	1.944	1.968	2.278	2.356	3.356	2.037	2.616
#3	2.331	1.939	1.941	1.964	2.279	2.352	3.384	2.038	2.603

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.034	3.348	1.926	1.956	2.566	1.869	1.652	76.50	166.7
Stddev	0.003	0.004	0.004	0.004	0.002	0.005	0.003	0.07	1.2
%RSD	0.1575	0.1299	0.2289	0.1765	0.0707	0.2438	0.1754	0.0977	0.7416

#1	2.031	3.353	1.931	1.953	2.568	1.865	1.654	76.47	168.1
#2	2.036	3.347	1.922	1.957	2.564	1.868	1.654	76.45	165.8
#3	2.036	3.344	1.924	1.960	2.566	1.874	1.649	76.59	166.1

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	140.5	113.9	37.92	56.96	1.944	1.852	3.885	2.076	2.210
Stddev	0.1	0.2	0.05	0.08	0.02	0.02	0.05	0.02	0.01
%RSD	0.389	0.1883	0.1255	0.1393	0.1211	0.0801	0.1351	0.1001	0.357

#1	140.6	114.1	37.95	57.04	1.946	1.854	3.887	2.077	2.210
#2	140.5	113.7	37.87	56.88	1.945	1.851	3.889	2.073	2.210
#3	140.5	114.0	37.95	56.96	1.942	1.852	3.879	2.077	2.211

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.504	1.065	1.945	60.59	1.250	0.470	5.099
Stddev	0.01	0.02	0.01	0.07	0.016	0.007	0.11
%RSD	0.368	0.2183	0.0702	0.1151	1.272	1.421	2.202

#1	3.502	1.067	1.944	60.51	1.247	0.470	5.089
#2	3.504	1.063	1.946	60.63	1.268	0.477	5.099
#3	3.505	1.064	1.946	60.63	1.236	0.464	5.111

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Zoom In
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Sample Name: mp14029-s2 Acquired: 4/12/2019 2:20:45 Type: Unk
 Method: SGS 3 NO Valve(v263) 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	149400.	18679.	6764.2	9591.9
Stddev	208.	112.	7.0	12.1
%RSD	.13955	.60225	.10319	.12648
#1	149300.	18582.	6760.0	9587.0
#2	149640.	18802.	6772.2	9605.7
#3	149270.	18653.	6760.3	9583.0

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Zoom In
Zoom Out

Sample Name: jc85781-63 Acquired: 4/12/2019 2:25:51 Type: Unk
 Method: SGS 3 NO Valve(v263) 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	.3724	.0016	.0097	.0304	.3667	.4026	1.372	.1618	.0060
Stddev	.0007	.0000	.0001	.0002	.0013	.0006	.003	.0003	.0003
%RSD	.1929	2.318	1.013	.6335	.3488	.1454	.1902	.1925	4.747
#1	.3723	.0016	.0097	.0306	.3657	.4021	1.369	.1617	.0057
#2	.3717	.0016	.0096	.0303	.3662	.4032	1.372	.1616	.0063
#3	.3731	.0017	.0098	.0302	.3681	.4023	1.374	.1622	.0060
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1150	1.736	.0290	-0.006	.6789	.0040	.0039	36.60	96.16
Stddev	.0002	.003	.0003	.0011	.0027	.0008	.0014	.07	.22
%RSD	.2031	.1760	.9172	197.9	.3984	19.34	36.45	.2033	.2255
#1	.1152	1.736	.0292	-.0008	.6820	.0049	.0037	36.66	96.18
#2	.1148	1.733	.0287	-.0016	.6768	.0034	.0026	36.52	95.93
#3	.1150	1.739	.0291	-.0007	.6780	.0037	.0055	36.62	96.36
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	98.44	22.72	6.681	33.20	.1770	.0079	1.674	.2337	.7837
Stddev	.22	.03	.031	.09	.0008	.0002	.003	.0012	.0015
%RSD	.2227	.1115	.4629	.2593	.4704	2.366	.1867	.5047	.1930
#1	98.45	22.72	6.645	33.21	.1780	.0080	1.676	.2344	.7837
#2	98.22	22.69	6.698	33.11	.1765	.0077	1.671	.2324	.7821
#3	98.65	22.74	6.699	33.28	.1766	.0080	1.676	.2345	.7851
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	1.309	.0052	.0444	67.41	.0399	.0424	4.236		
Stddev	.001	.0011	.0000	.36	.0020	.0007	.031		
%RSD	.0902	22.05	.0778	.5270	4.955	1.733	.7300		
#1	1.308	.0065	.0443	67.29	.0385	.0425	4.220		
#2	1.308	.0046	.0444	67.12	.0391	.0430	4.216		
#3	1.310	.0045	.0444	67.81	.0422	.0416	4.272		

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Zoom In
Zoom Out

Sample Name: jc85781-63 Acquired: 4/12/2019 2:25:51 Type: Unk
 Method: SGS 3 NO Valve(v263) 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	157250.	19237.	7042.7	10106.
Stddev	635.	137.	18.5	21.
%RSD	.40365	.71300	.26284	.20463
#1	157710.	19201.	7046.2	10112.
#2	157510.	19389.	7059.3	10123.
#3	156520.	19122.	7022.7	10083.

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Zoom In
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Sample Name: mp14029-sd1 Acquired: 4/12/2019 2:30:46 Type: Unk
 Method: SGS 3 NO Valve(v263) 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	.3830	.0012	.0087	.0294	.3793	.4090	1.426	.1631	.0053
Stddev	.0034	.0003	.0002	.0011	.0003	.0021	.002	.0014	.0005
%RSD	.8849	23.68	1.921	3.670	.0758	.5071	.1417	.8587	9.295
#1	.3867	.0015	.0086	.0289	.3795	.4109	1.427	.1630	.0059
#2	.3823	.0009	.0087	.0306	.3795	.4095	1.428	.1618	.0049
#3	.3800	.0011	.0089	.0287	.3790	.4068	1.424	.1646	.0052
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1190	1.822	.0284	-0.027	.6826	.0134	.0047	38.09	100.8
Stddev	.0017	.003	.0053	.0031	.0065	.0068	.0038	.05	.2
%RSD	1.440	.1705	18.58	115.3	.9451	50.62	79.87	.1195	.2309
#1	.1196	1.823	.0266	-.0048	.6980	.0086	.0004	38.13	101.1
#2	.1203	1.819	.0242	-.0042	.6946	.0105	.0066	38.04	100.8
#3	.1170	1.826	.0343	-.0009	.6853	.0212	.0072	38.10	100.6
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	103.6	24.11	6.333	34.93	.1802	.0064	1.764	.2424	.8134
Stddev	.3	.07	.155	.10	.0020	.0001	.007	.0041	.0023
%RSD	.2439	.2730	2.443	.2969	1.103	1.213	.4181	1.682	.2872
#1	103.8	24.13	6.479	34.93	.1819	.0063	1.758	.2458	.8142
#2	103.8	24.04	6.349	35.03	.1780	.0064	1.762	.2379	.8152
#3	103.3	24.17	6.170	34.82	.1806	.0065	1.772	.2436	.8107
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	1.340	.0079	.0446	67.78	.0415	.0406	4.277		
Stddev	.006	.0018	.0012	.20	.0094	.0144	.034		
%RSD	.4305	22.29	2.652	.3012	22.60	35.45	.7899		
#1	1.345	.0061	.0445	67.89	.0370	.0555	4.288		
#2	1.342	.0079	.0459	67.55	.0523	.0268	4.240		
#3	1.334	.0096	.0436	67.91	.0353	.0395	4.305		

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Sample Name: mp14029-sd1 Acquired: 4/12/2019 2:30:46 Type: Unk
 Method: SGS 3 NO Valve(v263) 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	158420.	18534.	7029.9	10519.
Stddev	492.	11.	20.8	22.
%RSD	.31034	.06202	.29594	.21319
#1	158400.	18522.	7020.5	10511.
#2	157930.	18545.	7053.7	10545.
#3	158920.	18534.	7015.4	10502.

Sample Name: jc85781-64 Acquired: 4/12/2019 2:35:47 Type: Unk
 Method: SGS 3 NO Valve(v263) 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	.3777	.0017	.0117	.0291	1.504	4.477	1.365	.1403	.0086
Stddev	.0020	.0001	.0006	.0013	.012	.0033	.009	.0062	.0008
%RSD	.5398	3.366	4.961	4.630	.7777	.7330	.6794	4.406	9.021
#1	.3801	.0016	.0123	.0306	1.514	4.503	1.374	.1475	.0083
#2	.3766	.0016	.0113	.0284	1.506	4.488	1.364	.1371	.0095
#3	.3765	.0017	.0114	.0282	1.491	4.440	1.356	.1365	.0081
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1162	1.833	.0358	-0.002	.7134	.0041	.0032	33.68	41.78
Stddev	.0010	.090	.0013	.0001	.0310	.0017	.0038	.18	.22
%RSD	.8693	4.936	3.502	56.30	4.344	41.01	117.7	5.207	5.341
#1	.1173	1.938	.0371	-0.003	.7492	.0025	.0075	33.88	42.04
#2	.1162	1.781	.0346	-0.003	.6964	.0058	.0008	33.58	41.67
#3	.1153	1.781	.0356	-0.001	.6947	.0041	.0012	33.58	41.64
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	99.04	21.16	6.880	40.65	1.781	.0093	1.817	1.894	4.084
Stddev	.48	.07	.030	.19	.0094	.0003	.093	.0105	.0015
%RSD	.4844	.3110	.4347	.4781	5.273	3.284	5.116	5.566	.3672
#1	99.60	21.23	6.912	40.87	.1889	.0096	1.924	.2016	.4101
#2	98.78	21.16	6.874	40.58	.1730	.0090	1.768	.1834	.4074
#3	98.75	21.10	6.853	40.50	.1723	.0092	1.760	.1832	.4076
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	1.243	.0014	.0471	83.94	.0332	.0410	3.443		
Stddev	.007	.0009	.0002	4.71	.0014	.0026	.179		
%RSD	.5800	64.39	.4314	5.609	4.336	6.278	5.212		
#1	1.250	.0020	.0473	89.37	.0316	.0382	3.650		
#2	1.244	.0019	.0471	81.20	.0341	.0418	3.334		
#3	1.236	.0004	.0469	81.23	.0340	.0431	3.344		

11.2
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Sample Name: jc85781-64 Acquired: 4/12/2019 2:35:47 Type: Unk
 Method: SGS 3 NO Valve(v263) 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	161380.	19364.	6861.6	9936.4
Stddev	979.	228.	283.4	345.7
%RSD	.60653	1.1786	4.1297	3.4791
#1	160370.	19172.	6534.9	9538.2
#2	161440.	19303.	7039.8	10159.
#3	162330.	19616.	7010.2	10112.

Sample Name: jc85880-4 Acquired: 4/12/2019 2:40:42 Type: Unk
 Method: SGS 3 NO Valve(v263) 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	.3463	.0033	.0062	.0256	1.276	.0852	.9010	.0642	.0005
Stddev	.0008	.0001	.0001	.0002	.0006	.0004	.0029	.0007	.0003
%RSD	.2430	2.413	1.166	.7650	4.704	4.660	.3265	1.055	49.95
#1	.3473	.0033	.0062	.0256	.1279	.0852	.9037	.0637	.0003
#2	.3458	.0033	.0062	.0254	.1281	.0855	.9013	.0640	.0004
#3	.3459	.0034	.0063	.0258	.1269	.0847	.8979	.0650	.0008
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2084	.2084	.0746	.0008	.3277	.0016	.0040	113.8	5.312
Stddev	.0011	.0008	.0007	.0015	.0024	.0005	.0009	.2	.012
%RSD	.5326	.3711	.9948	196.2	.7414	32.73	21.24	.2087	.2213
#1	.2096	.2085	.0740	.0009	.3279	.0013	.0050	114.1	5.326
#2	.2084	.2076	.0754	-0.008	.3251	.0013	.0036	113.7	5.304
#3	.2073	.2091	.0743	.0022	.3300	.0022	.0035	113.7	5.306
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	115.6	13.91	4.216	36.86	0.177	0.038	1.779	0.291	0.378
Stddev	.2	.08	.065	.0049	.0001	.0004	.005	.0002	.0001
%RSD	.1702	.5445	1.537	1.325	.7046	11.69	.2820	.7602	.3338
#1	115.8	13.99	4.283	37.39	0.178	0.036	1.780	.0289	.0379
#2	115.5	13.84	4.211	36.43	0.176	0.035	1.774	.0293	.0377
#3	115.6	13.90	4.154	36.75	0.177	0.043	1.784	.0291	.0377
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	2.648	-0.002	.0038	84.41	.0733	.0727	7.623		
Stddev	.007	.0002	.0001	0.056	.0017	.0004	.061		
%RSD	.2726	85.29	2.409	.6626	2.278	.5236	.8054		
#1	2.654	-0.004	.0039	84.64	.0733	.0731	7.643		
#2	2.649	-0.001	.0038	83.77	.0750	.0723	7.554		
#3	2.640	-0.002	.0037	84.82	.0717	.0727	7.672		

Sample Name: jc85880-4 Acquired: 4/12/2019 2:40:42 Type: Unk
 Method: SGS 3 NO Valve(v263) 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	160670.	19376.	7334.9	10433.
Stddev	748.	101.	31.0	39.
%RSD	.46531	.52013	.42280	.37316
#1	159860.	19260.	7319.1	10427.
#2	160810.	19433.	7370.6	10475.
#3	161330.	19436.	7314.9	10398.

Sample Name: mp13945-mb1conf Acquired: 4/12/2019 2:45:39 Type: Unk
 Method: SGS 3 NO Valve(v263) 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	-0.001	-0.001	-0.005	0.014	0.039	0.002	0.014	-0.002
Stddev	.0003	.0001	.0002	.0002	.0004	.0003	.0000	.0001	.0001
%RSD	45.32	58.17	174.8	45.95	32.55	7.819	8.486	8.436	43.16
#1	-0.005	-0.001	-0.000	-0.003	0.018	0.038	0.002	0.015	-0.001
#2	-0.004	-0.000	-0.003	-0.008	0.015	0.037	0.002	0.013	-0.002
#3	-0.009	-0.002	0.000	-0.004	0.009	0.043	0.002	0.013	-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	0.156	-0.005	-0.015	-0.012	0.010	0.011	0.024	0.435
Stddev	.0003	.0000	.0011	.0007	.0002	.0005	.0003	.0118	.0015
%RSD	228.7	.2325	199.9	45.73	14.09	54.01	25.22	487.6	3.408
#1	.0001	.0156	-0.002	-0.007	-0.010	.0010	.0014	.0160	.0448
#2	-0.005	.0156	.0003	-0.018	-0.014	.0004	.0011	-0.0058	.0419
#3	.0000	.0155	-0.017	-0.021	-0.012	.0015	.0009	-0.0030	.0439
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	0.271	0.185	-1.580	0.604	-0.005	0.006	0.0073	0.199	-0.000
Stddev	.0012	.0149	.0156	.0034	.0012	.0003	.0007	.0003	.0001
%RSD	4.452	80.80	9.870	5.620	235.4	47.11	10.04	1.632	2653.
#1	.0258	.0345	-1.759	.0643	.0008	.0004	.0065	.0197	-0.002
#2	.0273	.0161	-1.506	.0589	-0.007	.0005	.0078	.0198	.0001
#3	.0282	.0049	-1.475	.0580	-0.017	.0009	.0077	.0203	.0001
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	0.008	0.032	-0.000	0.085	0.003	-0.027	0.197		
Stddev	.0005	.0009	.0001	.0021	.0004	.0022	.0002		
%RSD	70.40	28.95	302.4	24.22	130.1	82.01	1.262		
#1	.0014	.0024	-0.001	.0062	.0006	-0.003	.0198		
#2	.0005	.0031	.0001	.0093	.0005	-0.032	.0199		
#3	.0004	.0043	-0.001	.0101	-0.002	-0.046	.0194		

Sample Name: mp13945-mb1conf Acquired: 4/12/2019 2:45:39 Type: Unk
 Method: SGS 3 NO Valve(v263) 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	161150.	18815.	7086.8	10910.
Stddev	1088.	238.	14.3	15.
%RSD	.67527	1.2657	.20114	.13691
#1	160850.	18894.	7097.5	10924.
#2	162360.	18547.	7070.6	10894.
#3	160250.	19004.	7092.2	10911.

Sample Name: jc85722-10 Acquired: 4/12/2019 2:50:43 Type: Unk
 Method: SGS 3 NO Valve(v263) 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	9.239	0.063	-0.005	0.371	0.513	1.303	0.665	1.127	0.044
Stddev	.0037	.0002	.0011	.0014	.0019	.0009	.0025	.0017	.0016
%RSD	4.037	2.851	214.3	3.876	3.772	6.808	3.812	1.477	36.46
#1	.9243	.0065	.0008	.0371	.4991	1.308	.6643	1.146	.0060
#2	.9200	.0061	-0.012	.0356	.5021	1.293	.6631	1.114	.0044
#3	.9275	.0063	-0.012	.0385	.5026	1.308	.6680	1.122	.0028
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.572	4.774	0.954	-0.059	1.888	0.086	0.051	305.3	18.88
Stddev	.0018	.0015	.0059	.0070	.0118	.0106	.0030	.1	.06
%RSD	.3229	.3076	6.225	118.2	6.256	124.2	59.88	.0324	.3279
#1	.5552	.4787	.1010	-0.138	1.969	.0207	.0077	305.4	18.87
#2	.5575	.4777	.0892	-0.039	1.752	.0009	.0058	305.3	18.83
#3	.5588	.4758	.0961	-0.002	1.942	.0041	.0017	305.2	18.95
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	440.5	26.25	15.65	8.930	0.818	0.066	2.190	0.394	1.389
Stddev	.4	.10	.23	.0518	.0029	.0014	.008	.0023	.0010
%RSD	.0967	.3661	1.468	5.798	3.537	20.88	3.750	5.715	.7031
#1	441.0	26.30	15.39	8.671	.0851	.0053	2.199	.0369	1.401
#2	440.4	26.30	15.72	9.526	.0797	.0066	2.188	.0413	1.383
#3	440.2	26.14	15.83	8.592	.0806	.0081	2.183	.0400	1.385
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	4.342	0.016	1.431	4.187	1.187	1.186	1.383		
Stddev	.016	.0053	.0020	.0007	.0086	.0115	.001		
%RSD	.3637	324.6	1.407	.1746	7.208	9.668	.1017		
#1	4.337	.0038	.1430	.4193	.1088	.1054	1.384		
#2	4.330	-0.044	.1411	.4189	.1242	.1260	1.382		
#3	4.360	.0055	.1451	.4179	.1231	.1245	1.382		

Sample Name: jc85722-10 Acquired: 4/12/2019 2:50:43 Type: Unk
 Method: SGS 3 NO Valve(v263) 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	156210.	18498.	6974.4	10374.
Stddev	268.	95.	15.3	8.
%RSD	.17175	.51270	.21928	.08136
#1	156510.	18607.	6983.8	10376.
#2	156080.	18432.	6956.7	10364.
#3	156020.	18456.	6982.5	10381.

Sample Name: jc85722-11 Acquired: 4/12/2019 2:55:45 Type: Unk
 Method: SGS 3 NO Valve(v263) Mode: CONC Corr. Factor: 10.000000
 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	11.97	0.063	0.035	1.037	6.223	3.047	2.194	1.847	0.095
Stddev	.01	.0003	.0024	.0036	.017	.008	.001	.0021	.0034
%RSD	.1005	5.045	69.03	3.437	2.746	.2503	.0283	1.142	35.43
#1	11.98	.0067	.0043	1.072	6.215	3.044	2.195	1.871	0.068
#2	11.96	.0063	.0054	1.001	6.211	3.041	2.195	1.835	0.085
#3	11.98	.0060	.0008	1.038	6.243	3.056	2.194	1.834	0.133
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.499	2.551	8.059	-0.099	44.58	0.227	0.138	102.8	55.70
Stddev	.0036	.074	.0226	.0128	1.08	.0073	.0136	.2	.05
%RSD	1.427	2.912	2.805	129.2	2.421	32.11	98.96	.2171	.0849
#1	2.493	2.635	8.256	-.0035	45.79	.0144	.0265	103.0	55.75
#2	2.467	2.494	.7812	-.0221	43.71	.0257	.0154	102.6	55.65
#3	2.538	2.524	.8110	-.0111	44.25	.0281	-.0006	102.9	55.71
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	196.6	13.21	7.081	1.307	0.0356	0.159	3.053	4.748	6.705
Stddev	.3	.12	.278	.059	.0090	.0027	.086	.0210	.0034
%RSD	.1420	.8921	3.921	4.510	25.40	16.90	2.828	4.422	5.031
#1	196.5	13.32	6.848	1.353	.0460	.0139	3.152	.4989	.6713
#2	196.4	13.09	7.007	1.240	.0305	.0149	2.992	.4644	.6668
#3	196.9	13.23	7.388	1.326	.0302	.0190	3.016	.4609	.6735
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	3.081	0.045	0.0492	6.690	1.097	0.066	12.95		
Stddev	.005	.0080	.0006	.149	.0123	.0089	.25		
%RSD	.1784	179.9	1.209	2.222	11.23	13.33	1.948		
#1	3.084	.0137	.0496	6.841	.1055	.0741	13.23		
#2	3.075	.0006	.0485	6.544	.1001	.0689	12.73		
#3	3.085	-.0009	.0494	6.685	.1236	.0568	12.89		

11.2
11

Sample Name: jc85722-11 Acquired: 4/12/2019 2:55:45 Type: Unk
 Method: SGS 3 NO Valve(v263) Mode: CONC Corr. Factor: 10.000000
 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	158660.	18477.	6935.1	10523.
Stddev	842.	54.	196.6	251.
%RSD	.53061	.29451	2.8345	2.3829
#1	157760.	18469.	6709.4	10236.
#2	159420.	18535.	7068.7	10700.
#3	158810.	18427.	7027.3	10633.

Sample Name: jc85722-12 Acquired: 4/12/2019 3:00:46 Type: Unk
 Method: SGS 3 NO Valve(v263) 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	3.333	0.058	0.110	0.989	7.524	1.511	2.697	2.360	0.035
Stddev	.009	.0001	.0001	.0011	0.163	.033	.057	.0015	.0009
%RSD	.2585	2.250	1.109	1.160	2.171	2.178	2.095	.6226	24.35
#1	3.342	.0057	.0111	.0982	.7423	1.491	2.665	.2353	.0045
#2	3.332	.0059	.0109	.1002	.7712	1.548	2.763	.2377	.0030
#3	3.325	.0057	.0109	.0982	.7436	1.492	2.664	.2351	.0031
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.680	5.501	2.237	0.002	8.859	0.129	0.089	94.92	68.51
Stddev	.0053	.038	.0043	.0031	.046	.0004	.0069	.29	.24
%RSD	1.987	.6908	1.933	2020.	.5154	3.375	77.83	.3104	.3498
#1	2.644	5.486	2.225	-.0020	8.846	0.134	.0010	95.21	68.72
#2	2.741	5.544	2.285	-.0012	8.909	0.125	.0115	94.92	68.57
#3	2.655	5.473	2.201	.0037	8.820	0.129	.0141	94.62	68.25
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	156.4	14.08	9.251	2.132	0.487	0.115	2.553	3.276	7.337
Stddev	.6	.09	.131	.019	.0008	.0001	.019	.0040	.0029
%RSD	.3899	.6332	1.415	.9024	1.653	.7552	.7421	1.234	.3966
#1	156.9	14.16	9.264	2.154	.0482	0.114	2.546	.3283	.7370
#2	156.5	14.11	9.374	2.123	.0481	0.115	2.575	.3313	.7327
#3	155.7	13.99	9.113	2.118	.0496	0.115	2.538	.3233	.7314
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	2.677	-.0062	0.026	2.562	0.0719	0.106	8.468		
Stddev	.054	.0029	.0007	.014	.0079	.0030	.049		
%RSD	2.027	47.38	1.386	.5543	11.05	2.793	.5832		
#1	2.645	-.0031	.0521	2.546	-.0699	.1094	8.457		
#2	2.740	-.0066	.0535	2.574	-.0806	.1050	8.522		
#3	2.647	-.0089	.0524	2.565	-.0651	.1038	8.425		

Zoom In
Zoom Out

Sample Name: jc85722-12 Acquired: 4/12/2019 3:00:46 Type: Unk
 Method: SGS 3 NO Valve(v263) 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	155830.	18718.	7073.5	10327.
Stddev	3255.	140.	55.3	67.
%RSD	2.0889	.74851	.78143	.65069
#1	158240.	18810.	7095.8	10359.
#2	152130.	18557.	7010.5	10250.
#3	157120.	18787.	7114.0	10372.

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	2.044	2.062	2.014	2.111	2.060	2.037	2.034	40.84	41.01
Stddev	.001	.002	.005	.023	.000	.006	.002	.07	.07
%RSD	.0268	.0909	.2648	1.091	.0144	.2940	.0826	.1698	.1607
#1	2.044	2.060	2.010	2.102	2.059	2.033	2.035	40.82	40.99
#2	2.044	2.063	2.020	2.137	2.059	2.044	2.036	40.78	40.96
#3	2.043	2.064	2.011	2.094	2.060	2.034	2.032	40.91	41.09

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	41.77	41.45	42.48	42.46	2.078	2.044	5.288	2.062	2.068
Stddev	.04	.08	.10	.07	.003	.004	.001	.008	.002
%RSD	.1030	.1875	.2300	.1633	.1446	.2071	.0161	.3734	.0749
#1	41.77	41.50	42.47	42.53	2.076	2.041	5.289	2.063	2.070
#2	41.73	41.37	42.38	42.39	2.077	2.049	5.287	2.069	2.069
#3	41.82	41.50	42.57	42.46	2.082	2.042	5.288	2.054	2.067

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: 4/12/2019 3:05:45 Type: QC
 Method: SGS 3 NO Valve(v263) 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	2.081	2.074	2.062	2.069	2.046	2.038	2.063	2.066	2.516
Stddev	.003	.005	.001	.002	.005	.004	.011	.001	.0003
%RSD	.1491	.2521	.0294	.0928	.2281	.1815	.5272	.0319	.1189
#1	2.078	2.071	2.062	2.068	2.048	2.038	2.074	2.066	2.517
#2	2.080	2.071	2.063	2.068	2.050	2.042	2.062	2.067	2.519
#3	2.084	2.080	2.062	2.072	2.041	2.035	2.053	2.066	2.513

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	2.044	2.062	2.014	2.111	2.060	2.037	2.034	40.84	41.01
Stddev	.001	.002	.005	.023	.000	.006	.002	.07	.07
%RSD	.0268	.0909	.2648	1.091	.0144	.2940	.0826	.1698	.1607
#1	2.044	2.060	2.010	2.102	2.059	2.033	2.035	40.82	40.99
#2	2.044	2.063	2.020	2.137	2.059	2.044	2.036	40.78	40.96
#3	2.043	2.064	2.011	2.094	2.060	2.034	2.032	40.91	41.09

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	41.77	41.45	42.48	42.46	2.078	2.044	5.288	2.062	2.068
Stddev	.04	.08	.10	.07	.003	.004	.001	.008	.002
%RSD	.1030	.1875	.2300	.1633	.1446	.2071	.0161	.3734	.0749
#1	41.77	41.50	42.47	42.53	2.076	2.041	5.289	2.063	2.070
#2	41.73	41.37	42.38	42.39	2.077	2.049	5.287	2.069	2.069
#3	41.82	41.50	42.57	42.46	2.082	2.042	5.288	2.054	2.067

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: 4/12/2019 3:05:45 Type: QC
 Method: SGS 3 NO Valve(v263) 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
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.028	1.996	2.026	2.026	2.058	2.127	2.020
Stddev	.003	.001	.002	.017	.003	.005	.014
%RSD	.1266	.0404	.0723	.8196	.1367	.2213	.6718
#1	2.029	1.997	2.027	2.020	2.057	2.124	2.012
#2	2.025	1.996	2.027	2.044	2.056	2.123	2.036
#3	2.030	1.995	2.024	2.013	2.061	2.132	2.013

Check ? 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	149520.	18018.	6708.9	9821.6
Stddev	359.	92.	15.3	20.2
%RSD	.24027	.51265	.22848	.20608
#1	149590.	17994.	6699.5	9807.1
#2	149840.	18120.	6696.7	9813.0
#3	149130.	17940.	6724.5	9844.8

Sample Name: ccb Acquired: 4/12/2019 3:10:45 Type: QC
 Method: SGS 3 NO Valve(v263) 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	-0.001	-0.002	.0002	-0.004	-0.001	.0001	-0.001
Stddev	.0001	.0001	.0002	.0002	.0002	.0001	.0000	.0002	.0006
%RSD	111.3	84.72	354.0	84.11	87.36	27.72	86.62	159.7	416.2
#1	-0.002	.0002	-0.001	-0.000	.0004	-0.003	-0.001	.0001	.0002
#2	-0.002	.0001	-0.002	-0.003	.0002	-0.005	-0.000	-0.001	.0002
#3	.0000	.0000	.0001	-0.004	.0000	-0.004	-0.001	.0003	-0.008

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	.0001	.0003	-0.005	-0.002	-0.007	.0015	.0051	.0026
Stddev	.0002	.0001	.0005	.0002	.0005	.0008	.0011	.0054	.0030
%RSD	63.59	219.2	169.8	48.52	278.6	115.1	72.20	106.6	114.7
#1	.0002	-0.000	-0.001	-0.002	-0.002	-0.007	.0003	.0058	.0035
#2	.0004	.0002	.0002	-0.007	.0004	.0001	.0022	.0102	.0051
#3	.0002	-0.000	.0008	-0.006	-0.007	-0.014	.0020	-0.007	-0.007

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	.0023	-0.0105	-0.1159	-0.011	.0001	-0.001	.0016	.0003	.0002
Stddev	.0011	.0154	.0339	.0112	.0006	.0003	.0002	.0006	.0001
%RSD	49.46	147.3	29.21	100.2	545.6	300.9	12.29	228.3	38.82
#1	.0010	-0.005	-0.1550	-0.010	.0006	.0002	.0018	-0.001	.0001
#2	.0027	-0.282	-0.977	-0.005	-0.005	-0.001	.0014	-0.001	.0003
#3	.0031	-0.026	-0.951	-0.228	.0003	-0.004	.0015	.0010	.0002

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: 4/12/2019 3:10:45 Type: QC
 Method: SGS 3 NO Valve(v263) 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
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0001	.0006	.0001	-0.0008	.0004	.0001	-0.0014
Stddev	.0002	.0007	.0002	.0022	.0024	.0017	.0002
%RSD	209.0	121.1	249.3	280.0	572.7	3400.	15.68

#1	-0.001	-0.002	-0.003	-0.012	-0.031	-0.018	-0.015
#2	.0003	.0012	-0.001	-0.003	-0.004	.0001	-0.012
#3	.0001	.0008	-0.000	-0.032	-0.015	-0.017	-0.016

Check ? 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	158730.	18180.	6999.2	10843.
Stddev	196.	36.	30.1	38.
%RSD	.12374	.19845	.43000	.34637

#1	158790.	18150.	6979.6	10811.
#2	158890.	18169.	7033.9	10884.
#3	158510.	18220.	6984.2	10835.

Sample Name: jc85722-13 Acquired: 4/12/2019 3:15:53 Type: Unk
 Method: SGS 3 NO Valve(v263) 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	2.901	.0046	.0076	.1158	1.230	1.846	3.156	.1651	.0120
Stddev	.021	.0000	.0002	.0005	.001	.004	.002	.0011	.0003
%RSD	.7384	.5742	2.100	.4722	.0968	.2013	.0723	.6442	2.515

#1	2.924	.0046	.0077	.1157	1.232	1.849	3.158	.1641	.0123
#2	2.897	.0046	.0076	.1153	1.229	1.842	3.155	.1662	.0120
#3	2.882	.0046	.0074	.1164	1.230	1.846	3.154	.1652	.0117

Elem V_2924 Zn2062 As1890 Tl1908 Pb2203 Se1960 Sb2068 Al3961 Ca3179
 Units ppm ppm ppm ppm ppm ppm ppm ppm ppm
 Avg **.2011** **4.218** **.2067** **.0023** **9.456** **.0046** **.0081** **81.95** **29.17**
 Stddev .0010 .026 .0031 .0004 .044 .0017 .0019 .64 .18
 %RSD .5018 .6150 1.489 1.489 4.657 37.81 23.67 .7751 .6218

#1	.2009	4.189	.2047	.0022	9.405	.0049	.0061	82.66	29.37
#2	.2002	4.237	.2103	.0019	9.480	.0062	.0084	81.76	29.13
#3	.2022	4.229	.2052	.0027	9.483	.0028	.0099	81.43	29.02

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	121.3	15.20	7.822	.9814	.0264	.0107	2.080	.0032	.3411
Stddev	.9	.11	.071	.0060	.0009	.0004	.016	.0032	.0028
%RSD	.7561	.7138	.9121	.6086	3.384	3.445	.7555	1.181	8.125

#1	122.3	15.31	7.836	.9788	.0272	.0106	2.063	.2670	.3442
#2	120.9	15.21	7.885	.9772	.0266	.0104	2.093	.2727	.3402
#3	120.6	15.09	7.744	.9883	.0254	.0111	2.085	.2724	.3389

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.356	-0.0023	.0330	2.615	.0660	.1068	8.050
Stddev	.004	.0012	.0003	.016	.0014	.0002	.051
%RSD	.1723	53.58	1.051	.6287	2.182	.1635	.6391

#1	2.361	-0.009	.0334	2.608	.0667	.1068	8.033
#2	2.353	-0.026	.0328	2.634	.0670	.1069	8.108
#3	2.354	-0.033	.0328	2.603	.0644	.1066	8.009

Sample Name: jc85722-13 Acquired: 4/12/2019 3:15:53 Type: Unk
 Method: SGS 3 NO Valve(v263) 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	159450.	18866.	7199.1	10538.
Stddev	172.	57.	50.4	56.
%RSD	.10767	.29982	.70051	.53407

#1	159520.	18810.	7257.2	10601.
#2	159260.	18923.	7173.6	10518.
#3	159580.	18864.	7166.6	10494.

Sample Name: jc85722-14 Acquired: 4/12/2019 3:20:52 Type: Unk
 Method: SGS 3 NO Valve(v263) 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	3.201	.0052	.0103	.1029	.8697	2.851	2.719	.1797	.0095
Stddev	.007	.0001	.0002	.0004	.0016	.006	.006	.0016	.0004
%RSD	.2251	2.204	1.661	.4351	.1837	.2121	.2300	.8882	3.717

#1	3.193	.0051	.0101	.1025	.8681	2.845	2.713	.1800	.0092
#2	3.207	.0053	.0105	.1034	.8696	2.851	2.721	.1780	.0098
#3	3.204	.0051	.0102	.1028	.8713	2.857	2.725	.1811	.0093

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2311	4.197	.1773	.0017	11.70	.0080	.0050	79.27	41.35
Stddev	.0011	.002	.0014	.0004	.01	.0004	.0017	.19	.11
%RSD	.4780	.0560	.7855	24.42	.0426	5.536	33.76	.2445	.2555

#1	.2314	4.196	.1759	.0014	11.70	.0082	.0032	79.06	41.23
#2	.2299	4.199	.1774	.0022	11.69	.0083	.0065	79.32	41.42
#3	.2320	4.195	.1787	.0015	11.70	.0075	.0053	79.44	41.40

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	117.3	13.32	8.060	1.862	.0378	.0127	2.461	.4356	.7969
Stddev	.3	.08	.009	.013	.0015	.0007	.006	.0006	.0012
%RSD	.2558	.6119	.1053	.7031	4.058	5.653	.2344	.1291	.1509

#1	117.0	13.24	8.052	1.876	.0390	.0126	2.463	.4351	.7957
#2	117.4	13.33	8.059	1.850	.0385	.0120	2.465	.4362	.7981
#3	117.6	13.40	8.069	1.861	.0361	.0134	2.454	.4355	.7970

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.323	-0.0036	.0321	2.222	.0597	.0976	8.977
Stddev	.002	.0011	.0004	.012	.0013	.0013	.038
%RSD	.0806	31.10	1.122	.5466	2.189	1.311	.4186

#1	2.323	-0.037	.0319	2.214	.0609	.0964	8.948
#2	2.325	-0.024	.0318	2.216	.0598	.0976	8.964
#3	2.321	-0.046	.0325	2.236	.0583	.0989	9.019

Zoom In
Zoom Out

Sample Name: jc85722-14 Acquired: 4/12/2019 3:20:52 Type: Unk
Method: SGS 3 NO Valve(v263) 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	157380.	18642.	7054.7	10352.
Stddev	950.	98.	9.0	6.
%RSD	.60367	.52364	.12771	.05428
#1	157970.	18690.	7057.8	10354.
#2	157890.	18707.	7044.5	10346.
#3	156290.	18530.	7061.7	10356.

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Zoom In
Zoom Out

Sample Name: jc85722-20 Acquired: 4/12/2019 3:25:50 Type: Unk
Method: SGS 3 NO Valve(v263) 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	2.572	.0056	.1262	.3230	8.722	1.440	.2239	.0095	.0095
Stddev	.008	.0002	.0008	.0005	.0013	.024	.003	.0009	.0005
%RSD	.3160	2.881	19.60	.3681	.4047	.2727	.1704	.3920	4.774
#1	2.580	.0054	.0045	.1258	.3244	8.738	1.442	.2234	.0100
#2	2.572	.0056	.0046	.1267	.3219	8.732	1.441	.2250	.0094
#3	2.564	.0057	.0032	.1262	.3227	8.695	1.437	.2235	.0092
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3256	4.851	2.522	-.0003	9.207	.0094	.0179	90.76	212.2
Stddev	.0006	.014	.0024	.0018	.018	.0041	.0048	.24	.3
%RSD	.1907	.2909	.9633	530.5	.1991	43.23	27.03	.2597	.1449
#1	.3263	4.837	.2515	.0001	9.191	.0084	.0232	91.00	212.5
#2	.3251	4.865	.2503	-.0023	9.227	.0059	.0169	90.75	212.2
#3	.3254	4.849	.2550	.0012	9.205	.0139	.0137	90.53	211.9
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	190.5	16.98	9.884	3.458	.0726	.0245	2.583	1.643	1.333
Stddev	.3	.07	.052	.012	.0011	.0007	.011	.009	.000
%RSD	.1585	.4079	.5270	.3386	1.584	3.054	.4088	.5615	.0329
#1	190.8	16.99	9.878	3.465	.0735	.0243	2.573	1.634	1.334
#2	190.4	16.90	9.835	3.465	.0713	.0253	2.594	1.652	1.333
#3	190.2	17.04	9.939	3.445	.0730	.0238	2.581	1.641	1.333
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	2.320	-.0056	.0332	3.454	.0633	.1075	F 16.14		
Stddev	.003	.0006	.0007	.021	.0019	.0022	.05		
%RSD	.1357	10.80	2.222	6159	3.006	2.006	2888		
#1	2.322	-.0062	.0340	3.432	.0621	.1082	16.11		
#2	2.321	-.0057	.0330	3.475	.0624	.1092	16.19		
#3	2.316	-.0050	.0326	3.455	.0655	.1050	16.12		

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11.2
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Zoom In
Zoom Out

Sample Name: jc85722-20 Acquired: 4/12/2019 3:25:50 Type: Unk
Method: SGS 3 NO Valve(v263) 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	154550.	18537.	6925.3	10060.
Stddev	722.	35.	16.5	18.
%RSD	.46712	.18629	.23764	.17972
#1	154140.	18501.	6943.8	10080.
#2	154140.	18539.	6912.2	10044.
#3	155390.	18570.	6920.0	10056.

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Zoom In
Zoom Out

Sample Name: jc86043-1 Acquired: 4/12/2019 3:30:46 Type: Unk
Method: SGS 3 NO Valve(v263) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment: mp14093

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.8617	.0049	.0055	.0419	.1124	.5917	.8917	.1081	.0026
Stddev	.0246	.0001	.0001	.0002	.0003	.0016	.0007	.0004	.0013
%RSD	2.858	2.803	2.362	4.855	2.757	.2696	.0803	.3438	49.15
#1	.8893	.0050	.0057	.0417	.1124	.5933	.8925	.1077	.0041
#2	.8535	.0048	.0054	.0421	.1127	.5918	.8913	.1081	.0021
#3	.8422	.0047	.0056	.0420	.1121	.5901	.8913	.1085	.0017
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.601	2.362	.0579	.0009	1.462	.0072	.0067	58.92	62.68
Stddev	.0003	.002	.0008	.0007	.001	.0047	.0007	1.71	1.83
%RSD	.1625	.0993	1.373	77.68	.0776	65.10	10.63	2.896	2.923
#1	.1599	2.361	.0588	.0008	1.463	.0079	.0075	60.81	64.73
#2	.1604	2.364	.0573	.0003	1.462	.0115	.0062	58.44	62.08
#3	.1599	2.360	.0575	.0017	1.461	.0022	.0063	57.50	61.22
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	156.8	22.28	6.699	.8145	.0338	.0113	4.299	.0716	.3507
Stddev	4.5	.67	.206	.0258	.0009	.0002	.021	.0007	.0100
%RSD	2.875	2.995	3.074	3.166	2.589	2.146	.4984	.9379	2.852
#1	161.9	23.03	6.936	.8408	.0341	.0115	4.306	.0709	.3618
#2	155.5	22.09	6.592	.8135	.0328	.0115	4.316	.0717	.3478
#3	153.2	21.74	6.568	.7893	.0345	.0111	4.275	.0722	.3424
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	2.262	.0078	.0527	25.82	.0637	.0846	1.667		
Stddev	.003	.0010	.0005	.10	.0010	.0018	.008		
%RSD	.1152	12.34	.9439	.3789	1.585	2.117	.4627		
#1	2.261	.0079	.0533	25.76	.0632	.0866	1.662		
#2	2.259	.0069	.0526	25.93	.0648	.0842	1.676		
#3	2.264	.0088	.0523	25.77	.0629	.0831	1.663		

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Sample Name: jc86043-1 Acquired: 4/12/2019 3:30:46 Type: Unk
 Method: SGS 3 NO Valve(v263) Mode: CONC Corr. Factor: 1.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment: mp14093

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	155000.	18257.	6964.1	10156.
Stddev	106.	611.	5.4	11.
%RSD	.06869	3.3458	.07738	.11262
#1	155110.	17559.	6970.2	10169.
#2	154900.	18521.	6962.0	10149.
#3	154990.	18692.	6960.1	10149.

Sample Name: jc86043-2 Acquired: 4/12/2019 3:35:44 Type: Unk
 Method: SGS 3 NO Valve(v263) 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	4.151	.0039	.0499	.0495	.1781	.7009	1.538	.1092	.0037
Stddev	.005	.0001	.0002	.0001	.0002	.0028	.002	.0003	.0003
%RSD	.1175	2.390	.3833	.1517	.1110	.4000	.1086	.2547	8.431
#1	4.156	.0039	.0500	.0495	.1782	.7035	1.539	.1092	.0039
#2	4.146	.0040	.0497	.0496	.1781	.7014	1.539	.1095	.0038
#3	4.151	.0038	.0499	.0495	.1778	.6979	1.536	.1090	.0034
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1310	4.136	.0765	-0.001	F 22.03	.0076	.0139	55.11	82.40
Stddev	.0009	.007	.0006	.0012	.02	.0027	.0015	.07	.09
%RSD	.6734	.1667	.8292	794.3	.0977	35.94	11.15	.1307	.1105
#1	.1301	4.144	.0766	.0012	22.06	.0046	.0153	55.15	82.48
#2	.1310	4.130	.0758	-.0008	22.02	.0086	.0122	55.03	82.30
#3	.1319	4.135	.0771	-.0008	22.02	.0098	.0142	55.16	82.42
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	172.7	57.07	6.074	.5327	.0265	.0077	4.505	.7604	.1922
Stddev	.2	.02	.029	.0028	.0001	.0004	.028	.0041	.0002
%RSD	.1041	.0297	.4725	.5315	.3569	5.420	.6137	.5406	.1173
#1	172.9	57.05	6.082	.5353	.0266	.0080	4.484	.7639	.1925
#2	172.5	57.08	6.098	.5333	.0265	.0080	4.495	.7614	.1920
#3	172.7	57.08	6.042	.5297	.0265	.0072	4.536	.7559	.1922
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	1.043	-0.0032	.0461	5.879	.0304	.0968	2.562		
Stddev	.002	.0005	.0001	.062	.0012	.0012	.030		
%RSD	.1891	17.44	.1971	1.059	3.945	1.210	1.163		
#1	1.045	-.0036	.0460	5.916	.0316	.0968	2.580		
#2	1.044	-.0034	.0462	5.915	.0292	.0956	2.577		
#3	1.041	-.0025	.0460	5.807	.0303	.0980	2.527		

Sample Name: jc86043-2 Acquired: 4/12/2019 3:35:44 Type: Unk
 Method: SGS 3 NO Valve(v263) 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	153690.	18613.	6854.4	10018.
Stddev	299.	24.	18.2	11.
%RSD	.19422	.12793	.26543	.11475
#1	153480.	18605.	6834.9	10005.
#2	154030.	18595.	6871.0	10026.
#3	153560.	18640.	6857.3	10023.

Sample Name: jc86043-3 Acquired: 4/12/2019 3:40:41 Type: Unk
 Method: SGS 3 NO Valve(v263) 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	.8311	.0050	.0033	.0509	.1749	2.245	2.536	.1090	.0041
Stddev	.0003	.0001	.0001	.0003	.0003	.005	.005	.0005	.0001
%RSD	.0321	1.738	4.360	6.440	.1967	.2175	.1851	.4716	3.308
#1	.8308	.0050	.0031	.0512	.1750	2.248	2.537	.1086	.0042
#2	.8311	.0050	.0034	.0506	.1745	2.247	2.531	.1090	.0042
#3	.8313	.0051	.0032	.0510	.1752	2.239	2.540	.1096	.0040
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2294	2.071	.0633	.0002	3.049	.0039	.0188	93.17	F 298.8
Stddev	.0007	.001	.0006	.0009	.001	.0026	.0025	.09	5.9
%RSD	.2999	.0602	1.009	385.3	.0388	67.26	13.31	.0951	1.969
#1	.2301	2.072	.0638	-.0008	3.048	.0013	.0161	93.13	293.3
#2	.2293	2.070	.0634	.0004	3.049	.0038	.0191	93.11	298.0
#3	.2287	2.072	.0626	.0011	3.051	.0065	.0211	93.27	305.0
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	160.9	106.4	12.36	1.148	.0764	.0081	8.374	.3573	.9562
Stddev	.2	.2	.07	.009	.0010	.0002	.003	.0013	.0018
%RSD	.1165	.1497	.5590	.8017	1.297	2.054	.0295	.3632	.1874
#1	160.9	106.4	12.31	1.155	.0755	.0080	8.376	.3588	.9583
#2	160.7	106.3	12.33	1.138	.0762	.0083	8.375	.3566	.9549
#3	161.0	106.6	12.44	1.151	.0775	.0081	8.371	.3564	.9555
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	3.023	-0.0028	.0858	3.821	.0899	.0956	3.349		
Stddev	.004	.0009	.0007	.024	.0006	.0009	.032		
%RSD	.1155	31.95	.8023	.6395	.6218	.9911	.9406		
#1	3.024	-.0018	.0865	3.848	.0896	.0966	3.378		
#2	3.019	-.0030	.0857	3.800	.0897	.0957	3.315		
#3	3.025	-.0035	.0851	3.816	.0906	.0947	3.355		

Sample Name: jc86043-3 Acquired: 4/12/2019 3:40:41 Type: Unk
 Method: SGS 3 NO Valve(v263) 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	150920.	18594.	6762.1	9464.6
Stddev	59.	119.	16.4	16.1
%RSD	.03885	.64035	.24283	.16971
#1	150910.	18650.	6744.1	9446.4
#2	150870.	18674.	6776.3	9476.7
#3	150990.	18457.	6765.9	9470.6

Sample Name: jc86043-5 Acquired: 4/12/2019 3:45:54 Type: Unk
 Method: SGS 3 NO Valve(v263) 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	1.092	.0068	.0129	.1023	1.169	.7431	4.395	.1826	.0064
Stddev	.000	.0001	.0001	.0008	.003	.0016	.052	.0012	.0005
%RSD	.0409	1.508	1.132	.8001	.2306	.2202	1.180	.6682	7.165
#1	1.092	.0067	.0127	.1014	1.166	.7416	4.346	.1812	.0069
#2	1.092	.0068	.0129	.1025	1.172	.7449	4.389	.1831	.0061
#3	1.092	.0068	.0130	.1030	1.169	.7428	4.449	.1834	.0062
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2157	4.004	.2889	.0027	1.471	.0089	.0090	106.6	24.08
Stddev	.0004	.032	.0007	.0011	.011	.0009	.0012	.1	.03
%RSD	.2040	.7968	.2424	40.61	.7724	10.27	13.73	.0697	.1189
#1	.2155	3.967	.2880	.0023	1.458	.0098	.0089	106.6	24.11
#2	.2154	4.021	.2892	.0019	1.476	.0080	.0079	106.5	24.05
#3	.2162	4.024	.2893	.0040	1.479	.0089	.0103	106.5	24.07
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	185.1	27.09	12.45	1.184	.0443	.0044	5.242	.2067	1.266
Stddev	.2	.07	.04	.009	.0004	.0002	.045	.0022	.0001
%RSD	.0878	.2711	.3209	.7410	.9357	5.204	.8519	1.086	.0979
#1	185.2	27.05	12.41	1.185	.0441	.0045	5.191	.2047	.1266
#2	184.9	27.04	12.45	1.192	.0448	.0045	5.267	.2063	.1264
#3	185.1	27.17	12.49	1.175	.0440	.0041	5.269	.2091	.1266
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	2.956	-.0031	.0571	8.636	.0908	.1359	6.328		
Stddev	.004	.0021	.0001	.075	.0016	.0006	.065		
%RSD	.1407	65.94	.1707	.8740	1.801	4.182	1.029		
#1	2.954	-.0033	.0570	8.551	.0926	.1363	6.257		
#2	2.953	-.0051	.0572	8.660	.0901	.1353	6.343		
#3	2.961	-.0010	.0571	8.696	.0896	.1363	6.384		

Sample Name: jc86043-5 Acquired: 4/12/2019 3:45:54 Type: Unk
 Method: SGS 3 NO Valve(v263) 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	162660.	19608.	7239.3	10222.
Stddev	480.	29.	45.3	51.
%RSD	.29519	.14748	.62566	.50100
#1	162980.	19581.	7291.1	10281.
#2	162900.	19638.	7207.3	10191.
#3	162110.	19605.	7219.4	10195.

Sample Name: jc86046-1 Acquired: 4/12/2019 3:50:56 Type: Unk
 Method: SGS 3 NO Valve(v263) 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 8.955	.0039	.0002	.0677	.1012	.1202	3.694	.1312	.0017
Stddev	.501	.0001	.0001	.0001	.0003	.0000	.026	.0001	.0002
%RSD	5.596	2.198	59.44	.2123	.2762	.0413	.7077	.1052	13.32
#1	9.532	.0040	.0001	.0676	.1010	.1202	3.703	.1311	.0018
#2	8.634	.0038	.0003	.0678	.1010	.1202	3.664	.1314	.0015
#3	8.698	.0039	.0003	.0678	.1015	.1202	3.714	.1311	.0019
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1635	2.265	.0354	-.0005	.2373	.0017	.0049	82.40	12.48
Stddev	.0011	.004	.0009	.0004	.0007	.0013	.0008	.28	.03
%RSD	.6665	.1570	2.426	70.58	.2852	76.48	16.90	.3433	.2229
#1	.1628	2.267	.0348	-.0010	.2380	.0019	.0040	82.65	12.50
#2	.1629	2.268	.0351	-.0002	.2373	.0028	.0055	82.47	12.49
#3	.1647	2.261	.0364	-.0004	.2366	.0003	.0053	82.09	12.45
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	151.6	21.20	7.693	6079	.0450	.0215	6.203	.0533	.1825
Stddev	.5	.03	.012	.0026	.0006	.0004	.013	.0015	.0008
%RSD	.3175	.1224	.1518	.4289	1.256	1.707	.2135	2.759	.4255
#1	152.1	21.22	7.698	6107	.0457	.0212	6.197	.0548	.1833
#2	151.5	21.20	7.701	6073	.0448	.0214	6.218	.0532	.1824
#3	151.1	21.17	7.679	6056	.0446	.0219	6.193	.0519	.1818
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	1.138	.0023	.0947	5.221	.0246	.1224	2.186		
Stddev	.000	.0011	.0003	.013	.0011	.0015	.011		
%RSD	.0348	49.83	.3363	.2416	4.335	1.242	.4989		
#1	1.139	.0029	.0950	5.213	.0258	.1221	2.174		
#2	1.138	.0030	.0945	5.235	.0243	.1240	2.196		
#3	1.138	.0010	.0944	5.213	.0238	.1210	2.187		

Sample Name: jc86046-1 Acquired: 4/12/2019 3:50:56 Type: Unk
 Method: SGS 3 NO Valve(v263) 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	159140.	18920.	7172.6	10379.
Stddev	169.	64.	23.9	21.
%RSD	.10597	.33786	.33372	.19941
#1	159000.	18949.	7157.8	10367.
#2	159110.	18964.	7159.8	10368.
#3	159330.	18846.	7200.2	10403.

Sample Name: jc86064-1 Acquired: 4/12/2019 3:56:11 Type: Unk
 Method: SGS 3 NO Valve(v263) 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	.7279	.0052	.0004	.0730	.1628	.1398	3.453	.1602	.0007
Stddev	.0016	.0000	.0002	.0002	.0010	.0001	.028	.0004	.0000
%RSD	.2194	.4560	58.02	.2474	.5915	.0799	.7984	.2438	2.130
#1	.7296	.0052	.0002	.0729	.1637	.1399	3.449	.1606	.0007
#2	.7265	.0052	.0003	.0732	.1631	.1398	3.483	.1602	.0007
#3	.7275	.0052	.0006	.0729	.1618	.1397	3.428	.1598	.0007
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2195	.3950	.0407	.0004	.0992	-.0004	.0034	103.9	84.17
Stddev	.0004	.0013	.0009	.0010	.0008	.0009	.0014	.3	.15
%RSD	.1626	.3276	2.119	254.8	8069	242.3	40.64	.2610	.1833
#1	.2196	.3963	.0416	.0004	.0999	-.0001	.0037	104.2	84.35
#2	.2198	.3950	.0399	.0014	.0992	-.0014	.0047	103.7	84.08
#3	.2191	.3937	.0406	-.0006	.0983	.0004	.0019	103.9	84.09
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	181.2	47.84	20.29	7.395	.0917	.0038	5.136	.0318	.3233
Stddev	.3	.07	.07	.006	.0009	.0002	.028	.0006	.0001
%RSD	.1797	.1459	.3300	.0753	.9941	6.168	.5368	2.038	0.035
#1	181.6	47.92	20.37	7.402	.0921	.0036	5.167	.0318	.3234
#2	181.0	47.80	20.24	7.391	.0907	.0038	5.114	.0325	.3231
#3	181.1	47.80	20.28	7.393	.0924	.0041	5.128	.0312	.3233
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	2.675	.0003	.0962	6.627	.0750	.1434	2.667		
Stddev	.006	.0006	.0002	.053	.0017	.0014	.014		
%RSD	.2090	179.0	.1893	8.032	2.277	.9867	.5219		
#1	2.681	.0004	.0961	6.680	.0767	.1422	2.680		
#2	2.671	-.0003	.0961	6.627	.0749	.1450	2.668		
#3	2.671	.0008	.0964	6.574	.0733	.1430	2.652		

Sample Name: jc86064-1 Acquired: 4/12/2019 3:56:11 Type: Unk
 Method: SGS 3 NO Valve(v263) 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	158430.	19244.	7119.3	10006.
Stddev	714.	110.	36.8	30.
%RSD	.45041	.57342	.51666	.29538
#1	157610.	19119.	7076.9	9972.0
#2	158830.	19325.	7138.0	10023.
#3	158850.	19289.	7143.0	10023.

Sample Name: jc86118-1 Acquired: 4/12/2019 4:01:16 Type: Unk
 Method: SGS 3 NO Valve(v263) 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	1.607	.0025	.0076	.0455	.1658	.6035	2.239	.1476	.0167
Stddev	.003	.0001	.0001	.0002	.0003	.0012	.045	.0005	.0004
%RSD	.2095	2.201	1.248	.3939	.1593	.1980	2.025	.3249	2.402
#1	1.604	.0024	.0077	.0456	.1661	.6046	2.189	.1476	.0164
#2	1.609	.0024	.0075	.0456	.1657	.6037	2.278	.1481	.0172
#3	1.610	.0025	.0076	.0453	.1656	.6022	2.250	.1471	.0166
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4597	2.405	2.406	.0014	8.476	.0074	.0123	77.17	20.32
Stddev	.0010	.001	.0007	.0006	.013	.0025	.0013	.11	.04
%RSD	.2103	.0421	.3021	45.60	.1566	33.67	10.73	.1467	.1745
#1	.4587	2.406	2.398	.0006	8.485	.0098	.0133	77.05	20.30
#2	.4606	2.405	2.412	.0017	8.482	.0075	.0108	77.20	20.31
#3	.4600	2.404	2.409	.0018	8.461	.0048	.0128	77.27	20.36
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	158.0	16.18	5.092	2.466	.0240	.0113	3.117	.1865	.1029
Stddev	.1	.04	.065	.009	.0006	.0002	.016	.0004	.0002
%RSD	.0761	.2441	1.274	.3829	2.345	1.946	.5089	.2112	.1743
#1	157.9	16.16	5.065	2.472	.0233	.0116	3.130	.1866	.1028
#2	158.0	16.22	5.045	2.472	.0242	.0112	3.121	.1860	.1031
#3	158.1	16.15	5.166	2.455	.0244	.0113	3.099	.1868	.1029
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	3.412	.0005	.0116	2.747	.0984	.0515	5.791		
Stddev	.002	.0008	.0001	.026	.0008	.0004	.051		
%RSD	.0483	168.5	1.288	.9525	.7756	.7347	.8777		
#1	3.411	-.0004	.0114	2.777	.0982	.0515	5.849		
#2	3.411	.0005	.0116	2.730	.0993	.0511	5.755		
#3	3.414	.0012	.0117	2.733	.0978	.0518	5.769		

Sample Name: jc86118-1 Acquired: 4/12/2019 4:01:16 Type: Unk
 Method: SGS 3 NO Valve(v263) 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	159980.	18975.	7161.0	10398.
Stddev	1136.	19.	15.2	15.
%RSD	.71036	.09918	.21181	.14486

#1	160840.	18968.	7177.0	10415.
#2	158690.	18996.	7159.3	10392.
#3	160410.	18960.	7146.8	10387.

Check ? Value Range

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.039	2.083	2.035	2.130	2.074	2.057	2.054	40.66	40.81
Stddev	.000	.073	.070	.063	.063	.069	.076	.04	.03
%RSD	.0060	3.512	3.463	2.938	3.013	3.342	3.691	.0979	.0731

Check ? 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	41.65	41.34	42.46	42.48	2.101	2.064	5.347	2.081	2.063
Stddev	.04	.04	.02	.02	.073	.072	.186	.072	.002
%RSD	.1024	.0860	.0498	.0552	3.469	3.506	3.470	3.479	.1028

Check ? Value Range

Sample Name: ccv Acquired: 4/12/2019 4:06:22 Type: QC
 Method: SGS 3 NO Valve(v263) 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	2.075	2.063	2.084	2.086	2.041	2.031	2.066	2.084	2.515
Stddev	.004	.002	.075	.065	.003	.001	.017	.066	.0007
%RSD	.1691	.0848	3.579	3.118	.1395	.0456	.8158	3.147	.2754

#1	2.078	2.065	2.058	2.064	2.038	2.030	2.069	2.064	2.508
#2	2.071	2.061	2.026	2.034	2.044	2.032	2.082	2.032	2.521
#3	2.076	2.064	2.168	2.159	2.042	2.032	2.048	2.158	2.516

Check ? Value Range

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.039	2.083	2.035	2.130	2.074	2.057	2.054	40.66	40.81
Stddev	.000	.073	.070	.063	.063	.069	.076	.04	.03
%RSD	.0060	3.512	3.463	2.938	3.013	3.342	3.691	.0979	.0731

Check ? 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	41.65	41.34	42.46	42.48	2.101	2.064	5.347	2.081	2.063
Stddev	.04	.04	.02	.02	.073	.072	.186	.072	.002
%RSD	.1024	.0860	.0498	.0552	3.469	3.506	3.470	3.479	.1028

Check ? Value Range

Sample Name: ccv Acquired: 4/12/2019 4:06:22 Type: QC
 Method: SGS 3 NO Valve(v263) 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
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.022	2.012	2.022	2.048	2.070	2.124	2.015
Stddev	.002	.073	.002	.066	.067	.006	.070
%RSD	.0804	3.646	.0735	3.224	3.232	.2839	3.456

#1	2.021	1.987	2.024	2.014	2.049	2.131	1.982
#2	2.024	1.956	2.021	2.006	2.016	2.119	1.967
#3	2.022	2.095	2.022	2.124	2.145	2.122	2.095

Check ? Value Range

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	150350.	18136.	6652.1	9756.9
Stddev	506.	44.	204.7	257.6
%RSD	.33672	.24020	3.0776	2.6401

#1	150920.	18185.	6707.4	9823.0
#2	149980.	18120.	6823.5	9975.1
#3	150130.	18102.	6425.4	9472.7

Sample Name: ccb Acquired: 4/12/2019 4:11:23 Type: QC
 Method: SGS 3 NO Valve(v263) 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	-0.002	.0001	-0.000	-0.003	-0.002	-0.004	-0.001	.000	-0.008
Stddev	.0005	.0001	.0002	.0001	.0001	.0002	.0000	.0001	.0000
%RSD	258.4	90.66	666.7	28.26	49.40	48.01	29.10	2744.	2.461

#1	.0002	.0001	.0002	-0.003	-0.003	-0.004	-0.001	.0001	-0.008
#2	-0.000	.0001	-0.000	-0.004	-0.001	-0.005	-0.001	-0.001	-0.008
#3	-0.008	-0.000	-0.003	-0.002	-0.002	-0.002	-0.001	.0000	-0.008

Check ? 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	-0.000	.0001	-0.001	-0.002	-0.006	.0009	.0007	.0025	.0006
Stddev	.0001	.0001	.0010	.0015	.0005	.0026	.0004	.0086	.0014
%RSD	876.5	77.81	763.6	656.4	93.85	287.7	57.44	351.8	211.6

#1	.0000	.0002	-0.006	-0.005	-0.010	.0004	.0004	-0.041	-0.003
#2	-0.001	.0000	.0010	.0014	.0000	.0037	.0011	.0123	.0022
#3	.0000	.0002	-0.008	-0.016	-0.007	-0.014	.0006	-0.008	.0000

Check ? 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	.0026	.0242	-1.646	-0.072	-0.003	.0001	.0026	-0.001	.0000
Stddev	.0024	.0069	.0146	.0073	.0002	.0002	.0005	.0007	.0001
%RSD	88.91	28.67	8.874	100.6	67.13	144.3	20.04	1075.	1059.

#1	.0026	.0321	-1.764	-0.071	-0.002	.0000	.0020	.0007	.0001
#2	.0050	.0193	-1.693	-0.000	-0.002	.0003	.0031	-0.002	-0.000
#3	.0003	.0211	-1.483	-0.146	-0.006	.0000	.0026	-0.007	-0.001

Check ? High Limit Low Limit

Sample Name: ccb Acquired: 4/12/2019 4:11:23 Type: QC
 Method: SGS 3 NO Valve(v263) 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
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.004	-0.010	.0001	-0.015	.0002	.0004	.0019
Stddev	.0006	.0015	.0002	.0007	.0016	.0015	.0014
%RSD	171.5	150.2	452.4	48.10	894.5	350.6	73.36
#1	.0003	-0.0003	.0002	-0.014	-0.015	-0.004	.0015
#2	-0.004	-0.0000	.0002	-0.008	.0016	.0021	.0035
#3	-0.010	-0.0028	-0.002	-0.023	.0005	-0.004	.0007

Check ? 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	159440.	18414.	7015.9	10857.
Stddev	3585.	253.	63.2	80.
%RSD	2.2486	1.3739	.90088	.73452
#1	162500.	18600.	6943.1	10765.
#2	160330.	18126.	7047.9	10903.
#3	155500.	18515.	7056.7	10904.

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"/>	6	V	0.000856	0.000000	No
			Mo	-0.000047	0.000000	No
			Ti	-0.000191	0.000000	No
			Mn	0.000010	0.000000	No
			Cu	0.000014	0.000000	No
			Bi	0.000060	0.000000	No
Cd 228.802 {448}	<input checked="" type="checkbox"/>	11	As	0.013000	0.000000	No
			Ni	-0.000328	0.000000	No
			Fe	-0.000003	0.000000	No
			V	0.000091	0.000000	No
			Ba	0.000064	0.000000	No
			Co	-0.001530	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	0.000009	0.000000	No
			Mo	-0.000790	0.000000	No
			Ni	0.000091	0.000000	No
			Ti	0.002192	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	0.000348	0.000000	No
			V	0.000090	0.000000	No
			Mo	-0.000082	0.000000	No
			Fe	-0.000005	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"/>	13	Cr	-0.000004	0.000000	No
			V	-0.000397	0.000000	No
			Mo	0.000544	0.000000	No
			Ti	-0.000208	0.000000	No
			Fe	-0.000226	0.000000	No
			Zn	-0.000041	0.000000	No
			Co	-0.001373	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	0.000004	0.000000	No
Mn 257.610 {131}	<input checked="" type="checkbox"/>	4	Fe	-0.000107	0.000000	No
			Si	0.000010	0.000000	No
			Ba	0.000004	0.000000	No
Ni 231.604 {446}	<input checked="" type="checkbox"/>	8	Ni	0.000028	0.000000	No
			Fe	0.000008	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

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
			Cu	0.000050	0.000000	No
			Se	0.000100	0.000000	No
Ag 328.068 {103}	<input checked="" type="checkbox"/>	14	Mn	0.000252	0.000000	No
			Mo	0.000012	-0.000003	No
			Ti	-0.000090	0.000000	No
			Fe	-0.000238	0.000000	No
			Zn	-0.000020	0.000000	No
			Ca	-0.000001	0.000000	No
			Zr	0.007115	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	-0.004837	0.000000	No
			Al	-0.000006	0.000000	No
			W	0.000000	0.000000	No
V 292.402 {115}	<input checked="" type="checkbox"/>	6	Ti	0.000689	0.000000	No
			Mo	-0.000304	0.000000	No
			Fe	0.000029	0.000000	No
			Sr	-0.000100	0.000000	No
			Cr	-0.007936	0.000000	No
			Mn	-0.004777	0.000000	No
Zn 206.200 {464}	<input checked="" type="checkbox"/>	9	Cr	-0.000850	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"/>	18	Al	0.000016	0.000000	No
			Fe	-0.000120	0.000000	No
			Ca	0.000004	0.000000	No
			Mo	0.003100	0.000000	No
			Cr	-0.003606	0.000000	No
			Ba	0.000186	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	0.000000	0.000000	No
			Cu	-0.000058	0.000000	No
			Co	0.000047	0.000000	No
			Zr	0.000036	0.000000	No
			Mn	0.000022	0.000000	No
			S	0.000000	0.000000	No
			Ti	0.000100	0.000000	No
Tl 190.856 {477}	<input checked="" type="checkbox"/>	24	Cr	0.000315	0.000000	No
			Mo	-0.008000	0.000000	No
			Al	-0.000003	0.000000	No
			Fe	-0.000032	0.000000	No
			V	-0.030388	0.000000	No
			Mn	0.001790	0.000000	No
			Si	-0.000018	0.000000	No
			Ca	0.000000	0.000000	No

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Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
			Ti	-0.002390	0.000000	No
			Mg	0.000000	0.000000	No
			Co	0.003780	0.000000	No
			Sr	0.000010	0.000000	No
			B	-0.000003	0.000000	No
			Ba	0.000034	0.000000	No
			Zn	-0.000023	0.000000	No
			As	0.000068	0.000000	No
			W	-0.007000	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
Pb 220.353 (453)	<input checked="" type="checkbox"/>	20	Al	-0.000173	0.000000	No
			Fe	0.000034	0.000000	No
			Ca	0.000005	0.000000	No
			Mn	0.000154	0.000000	No
			Mo	-0.000700	0.000000	No
			Cu	0.000154	0.000000	No
			Co	0.000264	0.000000	No
			Ti	-0.000000	0.000000	No
			Si	-0.000067	0.000000	No
			Ba	-0.000022	0.000000	No
			Sb	-0.000084	0.000000	No
			Sr	-0.000033	0.000000	No
			W	0.000000	0.000000	No
			Mg	0.000004	0.000000	No
			Cd	0.000012	0.000000	No
			Cr	-0.000031	0.000000	No
			Zr	-0.000281	0.000000	No
			Ni	0.000171	0.000000	No
			S	0.000010	0.000000	No
Se 196.090 (472)	<input checked="" type="checkbox"/>	23	Zn	-0.000106	0.000000	No
			Al	-0.000002	0.000000	No
			Ca	-0.000007	0.000000	No
			Mn	0.000594	0.000000	No
			Mo	0.000400	0.000000	No
			Fe	-0.000172	0.000000	No
			Co	-0.000182	0.000000	No
			Sr	-0.000011	0.000000	No
			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

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Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
			S	-0.000014	0.000000	No
			V	0.000188	0.000000	No
Sb 206.833 {463}	<input checked="" type="checkbox"/>	17	Fe	0.000031	0.000000	No
			Al	0.000015	0.000000	No
			Ca	0.000001	0.000000	No
			Ni	-0.000716	0.000000	No
			Cr	0.023200	0.000000	No
			V	-0.002822	0.000000	No
			Zn	-0.000115	0.000000	No
			Mo	-0.005711	0.000000	No
			Ti	0.000030	0.000000	No
			Sn	-0.010325	0.000000	No
			Mg	-0.000003	0.000000	No
			Zr	-0.000463	0.000000	No
			Sr	0.000031	0.000000	No
			B	-0.000100	0.000000	No
			Co	-0.000251	0.000000	No
			W	0.000000	0.000000	No
Al 396.152 { 85}	<input checked="" type="checkbox"/>	5	Si	0.000130	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
			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

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
			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	0.038137	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	0.036950	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	-0.001964	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
			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

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Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
Zr 339.198 { 99}	<input checked="" type="checkbox"/>	6	Mo	0.001069	0.000000	No
			Ti	0.000203	0.000000	No
			Fe	-0.000070	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	-0.004201	0.000000	No
			Al	-0.000034	0.000000	No
			Fe	0.000002	0.000000	No
			Mn	0.004620	0.000000	No
			W	-0.032564	0.000000	No
			Ca	0.000032	0.000000	No
Bi 223.061 {451}	<input checked="" type="checkbox"/>	9	Mg	0.000005	0.000000	No
			Ti	-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
Li 670.784 { 50}	<input checked="" type="checkbox"/>	2	W	-0.020000	0.000000	No
			Ca	0.000023	0.000000	No
P 177.495 {490}	<input checked="" type="checkbox"/>	9	Fe	0.000081	0.000000	No
			Mn	-0.006184	0.000000	No
			Al	-0.000060	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

Element, Wavelength and Order	Date of Fit	Date of Cal.	Type of Fit	Weighting	A0	A1	A2	n (Exponent)
Ba 455.403 { 74}	4/12/2019 8:48:03	4/11/2019 10:29:33	Linear	None	0.013943	1.739877	0.000000	1.000000
Be 313.042 {108}	4/12/2019 8:48:03	4/11/2019 10:29:33	Linear	None	-0.000430	2.384089	0.000000	1.000000
Cd 228.802 {448}	4/12/2019 8:48:03	4/11/2019 10:29:33	Linear	None	0.000729	1.016102	0.000000	1.000000
Co 228.616 {448}	4/12/2019 8:48:03	4/11/2019 10:29:33	Linear	None	-0.000018	0.669192	0.000000	1.000000
Cr 267.716 {126}	4/12/2019 8:48:03	4/11/2019 10:29:33	Linear	None	-0.000073	0.143844	0.000000	1.000000
Cu 324.754 {104}2	4/12/2019 8:48:03	4/11/2019 10:29:33	Linear	None	0.002894	0.231249	0.000000	1.000000
Mn 257.610 {131}	4/12/2019 8:48:03	4/11/2019 10:29:33	Linear	None	0.000204	0.805394	0.000000	1.000000
Ni 231.604 {446}	4/12/2019 8:48:03	4/11/2019 10:29:33	Linear	None	-0.000185	0.535384	0.000000	1.000000
Ag 328.068 {103}	4/12/2019 8:48:03	4/11/2019 10:29:33	Linear	None	-0.000216	0.137138	0.000000	1.000000
V 292.402 {115}	4/12/2019 8:48:03	4/11/2019 10:29:33	Linear	None	0.000409	0.208995	0.000000	1.000000
Zn 206.200 {464}	4/12/2019 8:48:03	4/11/2019 10:29:33	Linear	None	-0.000114	1.564598	0.000000	1.000000
As 189.042 {478}	4/12/2019 8:48:03	4/11/2019 10:29:33	Linear	None	0.000094	0.104904	0.000000	1.000000
Tl 190.856 {477}	4/12/2019 8:48:03	4/11/2019 10:29:33	Linear	None	-0.000110	0.068967	0.000000	1.000000
Pb 220.353 {453}	4/12/2019 8:48:03	4/11/2019 10:29:33	Linear	None	0.000538	0.239108	0.000000	1.000000
Se 196.090 {472}	4/12/2019 8:48:03	4/11/2019 10:29:33	Linear	None	-0.000119	0.082046	0.000000	1.000000
Sb 206.833 {463}	4/12/2019 8:48:03	4/11/2019 10:29:33	Linear	None	0.000851	0.142327	0.000000	1.000000
Al 396.152 { 85}	4/12/2019 8:48:03	4/11/2019 10:29:33	Linear	None	0.000277	0.039012	0.000000	1.000000
Ca 317.933 {106}	4/12/2019 8:48:03	4/11/2019 10:29:33	Linear	None	0.007366	0.081519	0.000000	1.000000
Fe 259.940 {130}	4/12/2019 8:48:03	4/11/2019 10:29:33	Linear	None	0.000299	0.045860	0.000000	1.000000
Mg 279.079 {121}	4/12/2019 8:48:03	4/11/2019 10:29:33	Linear	None	-0.000151	0.008495	0.000000	1.000000
K 766.490 { 44}	4/12/2019 8:48:03	4/11/2019 10:29:33	Linear	None	0.001562	0.024015	0.000000	1.000000
Na 589.592 { 57}	4/12/2019 8:48:03	4/11/2019 10:29:33	Linear	None	-0.014473	0.084760	0.000000	1.000000
B 208.959 {462}	4/12/2019 8:48:03	4/11/2019 10:29:33	Linear	None	0.000868	0.207609	0.000000	1.000000
Mo 202.030 {467}	4/12/2019 8:48:03	4/11/2019 10:29:33	Linear	None	-0.000431	0.664294	0.000000	1.000000
Si 212.412 {459}	4/12/2019 8:48:03	4/11/2019 10:29:33	Linear	None	0.003020	0.182322	0.000000	1.000000
Sn 189.989 {478}	4/12/2019 8:48:03	4/11/2019 10:29:33	Linear	None	0.000735	0.199715	0.000000	1.000000
Sr 407.771 { 83}	4/12/2019 8:48:03	4/11/2019 10:29:33	Linear	None	-0.001554	3.072169	0.000000	1.000000
Ti 334.904 {101}	4/12/2019 8:48:03	4/11/2019 10:29:33	Linear	None	0.000126	0.161419	0.000000	1.000000
Y 360.073 { 94}*	4/12/2019 8:48:03	12/23/2009 10:44:16	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000
Y 371.030 { 91}*	4/12/2019 8:48:03	12/23/2009 10:44:16	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000
Y 224.306 {451}*	4/12/2019 8:48:03	12/23/2009 10:44:16	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000
In 230.606 {446}*	4/12/2019 8:48:03	12/23/2009 10:44:16	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000
W 207.911 {462}	4/12/2019 8:48:03	4/11/2019 10:29:33	Linear	None	0.001171	0.349070	0.000000	1.000000
Zr 339.198 { 99}	4/12/2019 8:48:03	4/11/2019 10:29:34	Linear	None	-0.000521	0.467523	0.000000	1.000000
S 182.034 {485}	4/12/2019 8:48:03	4/11/2019 10:29:34	Linear	None	-0.000077	0.050900	0.000000	1.000000
Bi 223.061 {451}	4/12/2019 8:48:03	4/11/2019 10:29:34	Linear	None	-0.000384	0.172823	0.000000	1.000000
Li 670.784 { 50}	4/12/2019 8:48:03	4/11/2019 10:29:34	Linear	None	0.000920	0.529732	0.000000	1.000000
P 177.495 {490}	4/12/2019 8:48:03	4/11/2019 10:29:34	Linear	1/Conc	-0.010171	0.062189	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	0.000344	0.001148	OK	1.000000	0.000000	1	0
Be 313.042 {108}	1.000000	0.000000	0.000088	0.000293	OK	1.000000	0.000000	1	0
Cd 228.802 {448}	1.000000	0.000000	0.000208	0.000694	OK	1.000000	0.000000	1	0
Co 228.616 {448}	1.000000	0.000000	0.000246	0.000821	OK	1.000000	0.000000	1	0
Cr 267.716 {126}	1.000000	0.000000	0.000342	0.001139	OK	1.000000	0.000000	1	0
Cu 324.754 {104}2	1.000000	0.000000	0.000483	0.001611	OK	1.000000	0.000000	1	0
Mn 257.610 {131}	1.000000	0.000000	0.000055	0.000183	OK	1.000000	0.000000	1	0
Ni 231.604 {446}	1.000000	0.000000	0.000353	0.001177	OK	1.000000	0.000000	1	0
Ag 328.068 {103}	1.000000	0.000000	0.000536	0.001785	OK	1.000000	0.000000	1	0
V 292.402 {115}	1.000000	0.000000	0.000398	0.001326	OK	1.000000	0.000000	1	0
Zn 206.200 {464}	1.000000	0.000000	0.000112	0.000375	OK	1.000000	0.000000	1	0
As 189.042 {478}	1.000000	0.000000	0.001221	0.004070	OK	1.000000	0.000000	1	0
Tl 190.856 {477}	1.000000	0.000000	0.001442	0.004807	OK	1.000000	0.000000	1	0
Pb 220.353 {453}	1.000000	0.000000	0.001119	0.003729	OK	1.000000	0.000000	1	0
Se 196.090 {472}	1.000000	0.000000	0.002198	0.007327	OK	1.000000	0.000000	1	0
Sb 206.833 {463}	1.000000	0.000000	0.001641	0.005470	OK	1.000000	0.000000	1	0
Al 396.152 { 85}	1.000000	0.000000	0.012402	0.041339	OK	1.000000	0.000000	1	0
Ca 317.933 {106}	1.000000	0.000000	0.003206	0.010687	OK	1.000000	0.000000	1	0
Fe 259.940 {130}	1.000000	0.000000	0.002774	0.009246	OK	1.000000	0.000000	1	0
Mg 279.079 {121}	1.000000	0.000000	0.019337	0.064457	OK	1.000000	0.000000	1	0
K 766.490 { 44}	1.000000	0.000000	0.040083	0.133610	OK	1.000000	0.000000	1	0
Na 589.592 { 57}	1.000000	0.000000	0.011649	0.038829	OK	1.000000	0.000000	1	0
B 208.959 {462}	1.000000	0.000000	0.000768	0.002561	OK	1.000000	0.000000	1	0
Mo 202.030 {467}	1.000000	0.000000	0.000303	0.001012	OK	1.000000	0.000000	1	0
Si 212.412 {459}	1.000000	0.000000	0.001273	0.004242	OK	1.000000	0.000000	1	0
Sn 189.989 {478}	1.000000	0.000000	0.000646	0.002152	OK	1.000000	0.000000	1	0
Sr 407.771 { 83}	1.000000	0.000000	0.000131	0.000438	OK	1.000000	0.000000	1	0
Tl 334.904 {101}	1.000000	0.000000	0.000406	0.001354	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	0.001150	0.003832	OK	1.000000	0.000000	1	0
Zr 339.198 { 99}	1.000000	0.000000	0.000199	0.000663	OK	1.000000	0.000000	1	0
S 182.034 {485}	1.000000	0.000000	0.002400	0.007998	OK	1.000000	0.000000	1	0
Bi 223.061 {451}	1.000000	0.000000	0.001813	0.006043	OK	1.000000	0.000000	1	0
Li 670.784 { 50}	1.000000	0.000000	0.001919	0.006398	OK	1.000000	0.000000	1	0
P 177.495 {490}	1.000000	0.000000	0.002069	0.006897	OK	1.000000	0.000000	1	0

11.22
11

Sample Name: STDA Acquired: 4/12/2019 11:02:47 Type: Cal
 Method: SGS 3 NO Valve(v268) 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	0157	-0005	0006	-0002	-0001	0030	0000	-0002	-0002
Stddev	.0007	.0001	.0002	.0001	.0000	.0000	.0001	.0001	.0001
%RSD	4.613	22.27	24.37	67.43	28.75	1.236	145.7	52.82	33.19
#1	.0150	-0.006	.0005	-0.003	-0.001	.0030	-0.000	-0.001	-0.002
#2	.0156	-0.006	.0007	-0.001	-0.001	.0030	.0001	-0.003	-0.003
#3	.0165	-0.004	.0008	-0.001	-0.001	.0030	.0001	-0.003	-0.002
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	0004	0006	0002	-0001	0008	-0000	0010	0007	0076
Stddev	.0001	.0003	.0002	.0000	.0001	.0001	.0002	.0005	.0001
%RSD	24.18	48.43	88.18	57.59	14.69	240.0	17.15	67.49	1.370
#1	.0003	.0004	.0002	-0.001	.0009	-0.001	.0009	.0004	.0077
#2	.0003	.0009	.0004	-0.000	.0007	.0001	.0012	.0005	.0076
#3	.0005	.0004	.0000	-0.001	.0009	-0.001	.0010	.0013	.0075
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	-0052	-0201	0003	-0007	0036	0007	-0021
Stddev	.0002	.0000	.0004	.0001	.0001	.0001	.0004	.0000	.0003
%RSD	120.4	87.14	8.368	.2594	26.26	20.40	11.12	3.642	16.82
#1	-0.000	-0.000	-0.053	-0.201	.0004	-0.009	.0040	.0007	-0.024
#2	.0004	-0.000	-0.047	-0.201	.0003	-0.008	.0032	.0007	-0.017
#3	.0002	-0.001	-0.056	-0.200	.0003	-0.006	.0036	.0007	-0.021
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S		
Avg	0001	0011	-0006	-0003	-0002	-0011	-0068		
Stddev	.0001	.0002	.0000	.0001	.0001	.0005	.0000		
%RSD	187.1	18.47	5.888	34.66	83.47	46.69	6347		
#1	-0.000	.0014	-0.006	-0.003	-0.003	-0.016	-0.068		
#2	-0.000	.0010	-0.006	-0.004	-0.002	-0.010	-0.068		
#3	.0002	.0010	-0.007	-0.002	-0.000	-0.006	-0.067		

Sample Name: STDA Acquired: 4/12/2019 11:02:47 Type: Cal
 Method: SGS 3 NO Valve(v268) 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	139580.	15575.	6176.0	9864.9
Stddev	667.	117.	14.5	17.2
%RSD	.47798	.75210	.23414	.17473
#1	139120.	15703.	6172.1	9856.1
#2	140340.	15474.	6163.9	9853.8
#3	139270.	15547.	6192.0	9884.7

Sample Name: STDb Acquired: 4/12/2019 11:07:50 Type: Cal
 Method: SGS 3 NO Valve(v268) 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	8384	11.17	4.859	3.040	6743	1.080	3.759	2.422	0.773
Stddev	.017	.01	.015	.002	.0019	.002	.036	.001	.0002
%RSD	.2010	.1040	.2979	.0699	.2873	.1905	.9616	.0403	.2890
#1	8.402	11.18	4.875	3.042	6743	1.081	3.719	2.423	0.774
#2	8.368	11.16	4.853	3.039	6763	1.082	3.769	2.423	0.774
#3	8.384	11.16	4.848	3.038	6724	1.078	3.789	2.421	0.770
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	9714	7.330	4854	3021	1.082	3.833	6774	3.760	7.725
Stddev	.0004	.019	.0011	.0010	.001	.0012	.0014	.004	.011
%RSD	.0423	.2590	.2209	.3333	.0759	.3090	.2005	.1023	.1457
#1	.9713	7.348	4866	3021	1.082	3.846	6789	3.764	7.737
#2	.9718	7.332	4846	3011	1.082	3.823	6773	3.757	7.715
#3	.9710	7.310	4851	3031	1.081	3.832	6762	3.760	7.722
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	4.429	8081	2.463	8.479	1.023	3.091	2.434	9257	14.54
Stddev	.006	.0010	.005	.011	.002	.005	.005	.0014	.02
%RSD	.1351	.1188	.1976	.1262	.1834	.1605	.2209	.1529	.1432
#1	4.436	8091	2.468	8.482	1.025	3.097	2.440	9273	14.56
#2	4.425	8080	2.458	8.488	1.023	3.089	2.432	9245	14.54
#3	4.425	8072	2.464	8.467	1.021	3.088	2.430	9253	14.52
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S		
Avg	7493	1.633	2.153	2181	6812	2.564	1688		
Stddev	.0004	.002	.018	.0005	.0007	.004	.0018		
%RSD	.0547	.1482	.8602	.2324	.1050	.1555	1.053		
#1	.7488	1.635	2.163	2185	6819	2.563	1.670		
#2	.7493	1.634	2.163	2175	6810	2.561	1.689		
#3	.7496	1.631	2.131	2184	6805	2.569	1.706		

Sample Name: STDb Acquired: 4/12/2019 11:07:50 Type: Cal
 Method: SGS 3 NO Valve(v268) 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	128240.	15285.	5721.0	8674.4
Stddev	521.	38.	8.4	1.6
%RSD	.40655	.25083	.14705	.01872
#1	128360.	15250.	5712.2	8674.7
#2	127660.	15326.	5722.0	8672.6
#3	128680.	15279.	5729.0	8675.8

Sample Name: CCVCONF Acquired: 4/12/2019 11:13:07 Type: QC
 Method: SGS 3 NO Valve(v268) 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	1.993	2.009	2.018	2.044	2.001	1.980	2.019	2.045	2.476
Stddev	.001	.002	.010	.009	.007	.005	.021	.010	.0012
%RSD	.0390	.0747	.5070	.4384	.3533	.2300	1.044	.4921	.4840
#1	1.993	2.007	2.006	2.034	1.995	1.978	2.010	2.034	2.474
#2	1.992	2.010	2.026	2.051	2.009	1.985	2.043	2.053	2.489
#3	1.992	2.009	2.021	2.047	2.000	1.977	2.004	2.048	2.465

Check ? Value Range

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.988	2.032	2.004	2.105	2.042	2.018	2.003	39.24	39.72
Stddev	.003	.012	.010	.010	.008	.011	.012	.02	.04
%RSD	.1556	.5741	.4808	.4648	.3904	.5237	.6177	.0450	.0981
#1	1.985	2.019	1.994	2.104	2.034	2.008	1.990	39.24	39.73
#2	1.991	2.042	2.014	2.116	2.049	2.029	2.014	39.26	39.75
#3	1.989	2.036	2.004	2.096	2.045	2.016	2.006	39.23	39.67

Check ? 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	39.77	39.96	39.48	39.83	2.035	2.015	4.968	2.042	2.002
Stddev	.02	.05	.14	.02	.011	.009	.036	.009	.001
%RSD	.0409	.1363	.3451	.0437	.5222	.4341	.7297	.4380	.0291
#1	39.75	39.96	39.46	39.84	2.024	2.005	4.932	2.033	2.003
#2	39.78	40.02	39.62	39.81	2.045	2.023	5.005	2.051	2.002
#3	39.78	39.91	39.35	39.82	2.037	2.016	4.966	2.042	2.002

Check ? Value Range

Sample Name: CCVCONF Acquired: 4/12/2019 11:13:07 Type: QC
 Method: SGS 3 NO Valve(v268) 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
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.985	1.967	2.002	2.033	2.078	2.072	2.087
Stddev	.001	.009	.002	.011	.010	.001	.008
%RSD	.0437	.4640	.1175	.5342	.4717	.0296	.3838
#1	1.984	1.957	1.999	2.034	2.067	2.072	2.078
#2	1.986	1.975	2.004	2.044	2.087	2.072	2.088
#3	1.986	1.968	2.003	2.022	2.079	2.071	2.094

Check ? Value Range

Int. Std. Units	Y_3600	Y_3710	Y_2243	In2306
Cts/S				
Avg	133630.	15510.	5907.6	8942.2
Stddev	1044.	118.	25.3	27.4
%RSD	.78144	.75898	.42809	.30694
#1	134700.	15533.	5936.8	8973.8
#2	132620.	15383.	5892.2	8925.1
#3	133570.	15615.	5893.9	8927.6

Sample Name: CCBCONF Acquired: 4/12/2019 11:18:10 Type: QC
 Method: SGS 3 NO Valve(v268) 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	.0006	.0008	.0002	.0004	.0004	.0003	.0005	.0005	-.0004
Stddev	.0002	.0001	.0001	.0003	.0002	.0001	.0001	.0000	.0006
%RSD	36.51	14.60	63.27	61.61	44.78	28.73	17.06	3.341	148.4
#1	.0006	.0008	.0003	.0007	.0006	.0003	.0006	.0005	.0001
#2	.0008	.0008	.0002	.0002	.0004	.0004	.0005	.0005	-.0002
#3	.0004	.0006	.0001	.0004	.0003	.0002	.0004	.0005	-.0010

Check ? 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	.0006	.0002	.0000	-.0012	.0006	.0017	.0058	.0115
Stddev	.0003	.0011	.0005	.0007	.0011	.0005	.0009	.0044	.0040
%RSD	114.8	195.3	245.5	4687.	94.42	84.15	52.24	75.81	34.48
#1	.0006	.0018	.0007	-.0001	.0001	.0000	.0014	.0091	.0108
#2	.0001	-.0000	-.0001	-.0006	-.0016	.0008	.0026	.0008	.0157
#3	.0001	-.0001	-.0001	.0008	-.0020	.0011	.0010	.0076	.0079

Check ? 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	.0128	.0020	.2285	.0482	.0035	.0005	.0015	.0002	.0008
Stddev	.0014	.0132	.0193	.0127	.0007	.0001	.0008	.0003	.0001
%RSD	11.25	649.2	8.448	26.43	21.06	10.77	50.71	178.9	11.24
#1	.0119	-.0038	.2478	.0629	.0039	.0005	.0008	.0005	.0007
#2	.0120	.0172	.2283	.0400	.0041	.0006	.0023	.0002	.0009
#3	.0144	-.0072	.2092	.0417	.0027	.0005	.0015	-.0001	.0007

Check ? High Limit Low Limit

Sample Name: CCBCONF Acquired: 4/12/2019 11:18:10 Type: QC
 Method: SGS 3 NO Valve(v268) 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
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0008	-.0006	.0003	.0019	-.0020	.0016	.0041
Stddev	.0005	.0014	.0002	.0017	.0010	.0004	.0007
%RSD	59.92	242.5	67.45	87.80	51.38	26.67	15.95
#1	.0012	-.0009	.0003	.0010	-.0008	.0020	.0034
#2	.0007	.0010	.0005	.0039	-.0028	.0012	.0044
#3	.0003	-.0019	.0001	.0009	-.0024	.0015	.0046

Check ? High Limit Low Limit

Int. Std. Units	Y_3600	Y_3710	Y_2243	In2306
Cts/S				
Avg	141760.	15666.	6206.7	9897.5
Stddev	567.	130.	2.8	10.3
%RSD	.39991	.83199	.04508	.10356
#1	141460.	15524.	6203.5	9890.2
#2	142420.	15779.	6208.6	9893.1
#3	141420.	15696.	6208.0	9909.2

Sample Name: icv 1 Acquired: 4/12/2019 11:23:20 Type: QC
Method: SGS 3 NO Valve(v268) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Table with 10 columns: Elem, Units, Avg, Stddev, %RSD and 9 elements: Ba4554, Be3130, Cd2288, Co2286, Cr2677, Cu3247, Mn2576, Ni2316, Ag3280.

Table with 10 columns: #1, #2, #3 and 9 elements: 1.952, 1.952, 1.949, 2.013, 1.922, 1.925, 1.979, 1.970, 2543.

Check ? Value Range Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass

Table with 10 columns: Elem, Units, Avg, Stddev, %RSD and 9 elements: V_2924, Zn2062, As1890, Tl1908, Pb2203, Se1960, Sb2068, Al3961, Ca3179.

Table with 10 columns: #1, #2, #3 and 9 elements: 1.931, 1.929, 1.929, 2.028, 1.951, 1.933, 1.910, 38.22, 38.25.

Check ? Value Range Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass

Table with 10 columns: Elem, Units, Avg, Stddev, %RSD and 9 elements: Fe2599, Mg2790, K_7664, Na5895, B_2089, Mo2020, Si2124, Sn1899, Sr4077.

Table with 10 columns: #1, #2, #3 and 9 elements: 38.67, 38.75, 38.69, 38.98, 39.11, 38.77, 38.63, 38.95, 1.952.

Check ? Value Range Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Fail Chk Pass Chk Pass

Sample Name: icv 1 Acquired: 4/12/2019 11:23:20 Type: QC
Method: SGS 3 NO Valve(v268) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Table with 10 columns: Elem, Units, Avg, Stddev, %RSD and 9 elements: Ti3349, W_2079, Zr3391, S_1820, Bi2230, Li6707, P_1774.

Table with 10 columns: #1, #2, #3 and 9 elements: 1.936, 1.936, 1.933, 1.875, 1.873, 1.929, 1.873, 1.994, 1.955.

Check ? Value Range Chk Pass Chk Fail Chk Pass Chk Fail Chk Pass Chk Pass Chk Pass

Table with 10 columns: Int. Std. Units, Avg, Stddev, %RSD and 4 elements: Y_3600, Y_3710, Y_2243, In2306.

Table with 10 columns: #1, #2, #3 and 4 elements: 133000, 133720, 134280, 15540, 15394, 15640.

Sample Name: icb 7 Acquired: 4/12/2019 11:29:18 Type: QC
Method: SGS 3 NO Valve(v268) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Table with 10 columns: Elem, Units, Avg, Stddev, %RSD and 9 elements: Ba4554, Be3130, Cd2288, Co2286, Cr2677, Cu3247, Mn2576, Ni2316, Ag3280.

Table with 10 columns: #1, #2, #3 and 9 elements: -0.000, -0.005, -0.000, -0.001, -0.001, -0.001, -0.000, -0.000, -0.003.

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 10 columns: Elem, Units, Avg, Stddev, %RSD and 9 elements: V_2924, Zn2062, As1890, Tl1908, Pb2203, Se1960, Sb2068, Al3961, Ca3179.

Table with 10 columns: #1, #2, #3 and 9 elements: -0.001, -0.000, -0.001, -0.003, -0.001, -0.001, -0.000, -0.001, -0.003.

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 10 columns: Elem, Units, Avg, Stddev, %RSD and 9 elements: Fe2599, Mg2790, K_7664, Na5895, B_2089, Mo2020, Si2124, Sn1899, Sr4077.

Table with 10 columns: #1, #2, #3 and 9 elements: -0.020, -0.010, -0.041, -0.021, -0.174, -0.140, -0.213, -0.034, -0.004.

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: 4/12/2019 11:29:18 Type: QC
Method: SGS 3 NO Valve(v268) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Table with 10 columns: Elem, Units, Avg, Stddev, %RSD and 9 elements: Ti3349, W_2079, Zr3391, S_1820, Bi2230, Li6707, P_1774.

Table with 10 columns: #1, #2, #3 and 9 elements: -0.000, -0.004, -0.003, -0.002, -0.017, -0.003, -0.007, -0.001, -0.007.

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 10 columns: Int. Std. Units, Avg, Stddev, %RSD and 4 elements: Y_3600, Y_3710, Y_2243, In2306.

Table with 10 columns: #1, #2, #3 and 4 elements: 141800, 141290, 140940, 15754, 15688, 15782.

Sample Name: iccv 1 Acquired: 4/12/2019 11:37:11 Type: QC
 Method: SGS 3 NO Valve(v268) 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	2.000	2.018	2.013	2.043	1.998	1.978	2.036	2.046	2.468
Stddev	.002	.004	.078	.068	.004	.006	.011	.067	.009
%RSD	.0922	.1935	3.891	3.349	.1972	.3061	.5132	3.289	.3637
#1	1.999	2.017	2.129	2.145	1.996	1.975	2.048	2.147	2.465
#2	2.001	2.021	1.986	2.018	2.003	1.987	2.023	2.024	2.477
#3	1.997	2.013	1.965	2.003	1.995	1.973	2.036	2.008	2.472
#4	2.001	2.022	1.970	2.005	1.996	1.977	2.038	2.007	2.456
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	1.988	2.027	1.994	F 2.102	2.037	2.015	1.993	39.41	39.99
Stddev	.003	.079	.083	.082	.068	.086	.077	.07	.08
%RSD	.1504	3.905	4.162	3.912	3.322	4.266	3.884	.1669	.2113
#1	1.990	2.145	2.118	2.222	2.137	2.142	2.109	39.35	39.95
#2	1.990	2.000	1.968	2.085	2.014	1.990	1.962	39.44	40.01
#3	1.986	1.980	1.941	2.037	1.996	1.958	1.946	39.38	39.91
#4	1.984	1.984	1.951	2.066	1.999	1.969	1.956	39.50	40.10
Check ? Value Range	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
				2.000					
				5.000%					

Sample Name: iccv 1 Acquired: 4/12/2019 11:37:11 Type: QC
 Method: SGS 3 NO Valve(v268) 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	40.04	40.11	39.46	40.05	2.030	2.017	4.945	2.045	2.010
Stddev	.07	.13	.06	.05	.079	.082	.198	.085	.001
%RSD	.1736	.3244	.1566	.1200	3.866	4.042	3.994	4.154	.0646
#1	40.00	39.94	39.39	40.00	2.147	2.138	5.239	2.171	2.008
#2	40.06	40.19	39.47	40.03	2.000	1.990	4.876	2.018	2.011
#3	39.97	40.10	39.44	40.06	1.983	1.964	4.823	1.989	2.010
#4	40.13	40.24	39.54	40.11	1.990	1.974	4.842	2.001	2.011
Check ? Value Range	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass

Elem	Tl3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.988	1.969	2.001	1.986	2.079	2.083	F 1.888
Stddev	.004	.077	.004	.092	.076	.005	.074
%RSD	.2053	3.913	.1898	4.639	3.680	.2344	3.898
#1	1.993	2.083	2.003	2.121	2.193	2.081	1.998
#2	1.990	1.946	2.005	1.964	2.053	2.083	1.856
#3	1.986	1.920	1.999	1.915	2.029	2.078	1.838
#4	1.984	1.926	1.997	1.945	2.041	2.090	1.861
Check ? Value Range	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
							2.000
							-5.000%

Sample Name: iccv 1 Acquired: 4/12/2019 11:37:11 Type: QC
 Method: SGS 3 NO Valve(v268) Mode: CONC Corr. Factor: 1.000000
 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	132130.	15421.	5894.7	8884.2
Stddev	165.	99.	186.7	238.4
%RSD	.12487	.64256	3.1673	2.6833
#1	132200.	15514.	5616.1	8528.8
#2	131880.	15464.	5960.1	8966.1
#3	132170.	15421.	6001.3	9018.2
#4	132250.	15283.	6001.1	9023.8

Sample Name: iccv 1 Acquired: 4/12/2019 11:42:49 Type: QC
 Method: SGS 3 NO Valve(v268) 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	1.970	1.983	1.992	2.025	1.986	1.973	2.012	2.031	2.460
Stddev	.006	.008	.001	.002	.015	.013	.027	.002	.0015
%RSD	.3206	.3815	.0629	.0837	.7453	.6599	1.348	.0919	.5971
#1	1.976	1.989	1.992	2.026	2.004	1.990	2.001	2.030	2.480
#2	1.970	1.982	1.992	2.023	1.970	1.958	1.980	2.029	2.444
#3	1.972	1.989	1.991	2.024	1.980	1.970	2.043	2.032	2.458
#4	1.961	1.973	1.994	2.027	1.990	1.974	2.023	2.033	2.458
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	1.973	2.004	1.969	2.066	2.021	1.988	1.974	38.74	39.36
Stddev	.013	.001	.004	.004	.002	.004	.003	.14	.14
%RSD	.6449	.0658	.1929	.1863	.1195	.2039	.1421	.3701	.3600
#1	1.990	2.002	1.967	2.070	2.022	1.990	1.972	38.87	39.45
#2	1.959	2.004	1.970	2.066	2.019	1.984	1.971	38.71	39.35
#3	1.971	2.003	1.966	2.061	2.020	1.985	1.974	38.84	39.47
#4	1.974	2.005	1.974	2.068	2.024	1.993	1.978	38.56	39.16
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: 4/12/2019 11:42:49 Type: QC
 Method: SGS 3 NO Valve(v268) 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	39.36	39.61	39.12	39.43	2.014	1.996	4.896	2.018	1.984
Stddev	.16	.11	.14	.12	.002	.002	.006	.003	.007
%RSD	.4136	.2731	.3637	.2933	.0932	.0891	.1298	.1328	.3376
#1	39.47	39.65	39.31	39.51	2.014	1.994	4.894	2.018	1.989
#2	39.30	39.59	39.13	39.42	2.016	1.994	4.890	2.019	1.982
#3	39.51	39.72	39.07	39.53	2.012	1.996	4.895	2.015	1.988
#4	39.16	39.46	38.98	39.28	2.014	1.998	4.905	2.021	1.975

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
 Value Range

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.979	1.947	1.990	1.956	2.060	2.057	F 1.894
Stddev	.012	.003	.013	.006	.002	.005	.006
%RSD	.6127	.1320	.6559	.3073	.0954	.2385	.3043
#1	1.996	1.948	2.006	1.957	2.062	2.063	1.891
#2	1.966	1.945	1.974	1.954	2.058	2.056	1.892
#3	1.977	1.951	1.986	1.950	2.058	2.058	1.891
#4	1.978	1.946	1.991	1.964	2.061	2.051	1.903

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Fail
 Value Range 2.000
 -5.000%

Sample Name: iccv 1 Acquired: 4/12/2019 11:42:49 Type: QC
 Method: SGS 3 NO Valve(v268) 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	133600.	15582.	5952.3	8954.0
Stddev	758.	21.	13.0	14.1
%RSD	.56739	.13303	.21910	.15767
#1	132860.	15573.	5970.7	8974.0
#2	134660.	15602.	5940.2	8941.2
#3	133520.	15558.	5947.4	8952.2
#4	133370.	15596.	5950.9	8948.6

Sample Name: ccb 7 Acquired: 4/12/2019 11:51:34 Type: QC
 Method: SGS 3 NO Valve(v268) 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	.0003	.0002	.0000	.0002	.0000	.0003	.0000	-0.001
Stddev	.0001	.0001	.0002	.0000	.0002	.0000	.0003	.0003	.0006
%RSD	49.26	19.78	116.4	115.3	100.7	503.8	10.28	585.4	401.7
#1	-0.004	.0004	-0.000	-0.000	-0.000	-0.002	.0003	-0.002	-0.005
#2	-0.002	.0003	.0004	.0000	.0003	.0002	.0003	-0.000	.0005
#3	-0.002	.0003	.0001	.0000	.0004	.0001	.0003	.0003	-0.004

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	.0005	-0.001	-0.012	-0.006	-0.005	-0.005	.0013	-0.0189	.0034
Stddev	.0002	.0001	.0009	.0005	.0003	.0014	.0010	.0094	.0033
%RSD	34.22	94.00	80.86	74.87	67.01	254.5	78.70	55.76	96.61
#1	.0006	-0.001	-0.015	-0.007	-0.001	.0009	.0010	-0.0219	.0007
#2	.0007	.0000	-0.001	-0.011	-0.005	-0.018	.0025	-0.0060	.0070
#3	.0003	-0.001	-0.019	-0.001	-0.008	-0.008	.0005	-0.0227	.0024

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	.0058	.0059	.1345	.0309	.0043	.0004	.0059	-0.0002	.0003
Stddev	.0005	.0242	.0363	.0122	.0005	.0004	.0079	.0005	.0001
%RSD	8.922	408.6	26.98	39.40	12.20	93.30	132.2	262.2	24.88
#1	.0060	.0333	.0961	.0447	.0041	-0.000	.0006	.0004	.0003
#2	.0062	-0.128	.1393	.0262	.0049	.0005	.0023	-0.0005	.0004
#3	.0052	-0.027	.1682	.0218	.0038	.0007	.0150	-0.0005	.0003

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 7 Acquired: 4/12/2019 11:51:34 Type: QC
 Method: SGS 3 NO Valve(v268) 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
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0004	.0002	.0003	.0014	-0.0018	F .0041	.0098
Stddev	.0006	.0009	.0000	.0018	.0006	.0008	.0017
%RSD	128.2	364.1	14.61	128.0	31.92	20.43	17.17
#1	.0007	.0004	.0003	.0002	-0.0012	.0034	.0086
#2	.0008	.0010	.0004	.0005	-0.0017	.0051	.0117
#3	-0.002	-0.007	.0003	.0036	-0.0024	.0039	.0091

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Fail Chk Pass
 High Limit .0040
 Low Limit -0.0040

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	141650.	15711.	6234.9	9912.5
Stddev	542.	51.	12.8	24.3
%RSD	.38240	.32697	.20534	.24561
#1	141620.	15768.	6249.2	9937.8
#2	141130.	15696.	6230.8	9910.5
#3	142210.	15669.	6224.6	9889.2

Zoom In
Zoom Out

Sample Name: CRI Acquired: 4/12/2019 11:57:25 Type: QC
 Method: SGS 3 NO Valve(v268) 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	.2000	.0200	.0030	.0512	.0101	.0096	.0159	.0103	.0049
Stddev	.0007	.0001	.0000	.0002	.0005	.0003	.0000	.0001	.0004
%RSD	.3687	2.680	1.256	.4112	4.841	3.311	.1497	.7900	7.236
#1	.2008	.0201	.0029	.0510	.0106	.0098	.0159	.0104	.0053
#2	.1993	.0020	.0030	.0513	.0099	.0092	.0159	.0102	.0046
#3	.1999	.0021	.0030	.0514	.0097	.0096	.0158	.0102	.0048

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	.0503	.0204	.0075	.0096	F .0015	.0091	.0072	.1882	5.179
Stddev	.0005	.0001	.0005	.0010	.0009	.0006	.0012	.0064	.007
%RSD	.9427	.3321	7.133	10.02	60.88	6.619	17.26	3.386	.1388
#1	.0508	.0204	.0071	.0086	.0023	.0089	.0071	.1917	5.176
#2	.0501	.0205	.0081	.0105	.0016	.0098	.0060	.1920	5.174
#3	.0499	.0204	.0073	.0098	.0005	.0087	.0084	.1808	5.187

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Fail Chk Pass Chk Pass Chk Pass Chk Pass
 Value Range .0030 -20.00%

Zoom In
Zoom Out

Sample Name: CRI Acquired: 4/12/2019 11:57:25 Type: QC
 Method: SGS 3 NO Valve(v268) 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
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0102	.0499	.0104	.0492	.0224	.0594	F .0608
Stddev	.0005	.0008	.0002	.0036	.0013	.0006	.0003
%RSD	5.026	1.574	1.890	7.373	5.853	1.005	.5634
#1	.0096	.0490	.0102	.0514	.0236	.0589	.0609
#2	.0106	.0503	.0104	.0450	.0224	.0601	.0611
#3	.0103	.0504	.0106	.0512	.0210	.0593	.0604

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Fail
 Value Range .0500 20.00%

Int. Std. Units	Y_3600	Y_3710	Y_2243	In2306
Cts/S				
Avg	137960.	15644.	6093.3	9485.2
Stddev	586.	52.	9.2	10.4
%RSD	.42478	.33116	.15039	.11002
#1	137640.	15639.	6087.3	9482.5
#2	137610.	15594.	6103.8	9496.8
#3	138640.	15697.	6088.7	9476.5

11.3
11

Zoom In
Zoom Out

Sample Name: CRID Acquired: 4/12/2019 12:02:29 Type: QC
 Method: SGS 3 NO Valve(v268) 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	.0039	.0009	.0010	.0030	.0017	F -.0002	.0032	.0040
Stddev	.0002	.0000	.0001	.0001	.0005	.0004	.0002	.0001
%RSD	4.843	2.988	14.18	3.209	27.40	255.9	5.219	3.206
#1	.0039	.0009	.0012	.0029	.0012	-.0000	.0032	.0039
#2	.0041	.0010	.0009	.0031	.0021	-.0007	.0031	.0040
#3	.0037	.0009	.0010	.0030	.0019	.0002	.0034	.0042

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Fail Chk Pass Chk Pass
 Value Range .0020 -20.00%

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F .0006	.0021	.0101	F .0022	.0018	F -.0015	F .0065	.0029
Stddev	.0007	.0004	.0002	.0008	.0003	.0005	.0011	.0012
%RSD	119.3	18.68	1.682	36.47	18.19	35.03	17.47	40.68
#1	.0010	.0019	.0103	.0024	.0021	-.0019	.0052	.0021
#2	-.0002	.0018	.0100	.0029	.0015	-.0016	.0074	.0023
#3	.0009	.0025	.0100	.0013	.0018	-.0009	.0069	.0042

Check ? Chk Fail Chk Pass Chk Pass Chk Fail Chk Pass Chk Fail Chk Pass Chk Pass
 Value Range -20.00% .0030 -20.00% .0025 .0050 20.00%

Zoom In
Zoom Out

Sample Name: CRID Acquired: 4/12/2019 12:02:29 Type: QC
 Method: SGS 3 NO Valve(v268) Mode: CONC Corr. Factor: 1.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Si2124	Sn1899	Sr4077	Tl3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0023	-.0002	.0001	.0004	-.0004	-.0001	.0017	.0007
Stddev	.0003	.0003	.0001	.0002	.0010	.0002	.0012	.0017
%RSD	12.06	170.0	82.78	57.96	266.2	134.7	68.28	231.2
#1	-.0026	-.0005	.0000	.0003	-.0011	-.0002	.0025	-.0010
#2	-.0022	-.0001	.0002	.0003	-.0007	-.0001	.0023	.0024
#3	-.0021	.0001	.0000	.0007	.0007	-.0003	.0004	.0009

Check ? None None None None None None None None
 Value Range

Elem	Li6707	P_1774
Units	ppm	ppm
Avg	.0003	.0090
Stddev	.0020	.0005
%RSD	746.4	5.069
#1	-.0018	.0091
#2	.0021	.0086
#3	.0005	.0095

Check ? None None
 Value Range

Sample Name: ICSA Acquired: 4/12/2019 12:07:36 Type: QC
Method: SGS 3 NO Valve(v268) 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. Values include Ba4554, Be3130, Cd2288, Co2286, Cr2677, Cu3247, Mn2576, Ni2316, Ag3280.

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 10 columns: Elem, Units, Avg, Stddev, %RSD, #1, #2, #3. Values include V_2924, Zn2062, As1890, Tl1908, Pb2203, Se1960, Sb2068, Al3961, Ca3179.

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 10 columns: Elem, Units, Avg, Stddev, %RSD, #1, #2, #3. Values include Fe2599, Mg2790, K_7664, Na5895, B_2089, Mo2020, Si2124, Sn1899, Sr4077.

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: ICSA Acquired: 4/12/2019 12:07:36 Type: QC
Method: SGS 3 NO Valve(v268) 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. Values include Ti3349, W_2079, Zr3391, S_1820, Bi2230, Li6707, P_1774.

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 10 columns: Int. Std. Units, Avg, Stddev, %RSD, #1, #2, #3. Values include Y_3600, Y_3710, Y_2243, In2306.

11.3 11

Sample Name: ICSAB Acquired: 4/12/2019 12:12:49 Type: QC
Method: SGS 3 NO Valve(v268) 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. Values include Ba4554, Be3130, Cd2288, Co2286, Cr2677, Cu3247, Mn2576, Ni2316, Ag3280.

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
Value Range

Table with 10 columns: Elem, Units, Avg, Stddev, %RSD, #1, #2, #3. Values include V_2924, Zn2062, As1890, Tl1908, Pb2203, Se1960, Sb2068, Al3961, Ca3179.

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
Value Range

Table with 10 columns: Elem, Units, Avg, Stddev, %RSD, #1, #2, #3. Values include Fe2599, Mg2790, K_7664, Na5895, B_2089, Mo2020, Si2124, Sn1899, Sr4077.

Check ? Chk Pass Chk Pass None None Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
Value Range

Sample Name: ICSAB Acquired: 4/12/2019 12:12:49 Type: QC
Method: SGS 3 NO Valve(v268) 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. Values include Ti3349, W_2079, Zr3391, S_1820, Bi2230, Li6707, P_1774.

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
Value Range

Table with 10 columns: Int. Std. Units, Avg, Stddev, %RSD, #1, #2, #3. Values include Y_3600, Y_3710, Y_2243, In2306.

Sample Name: FECONF Acquired: 4/12/2019 12:29:13 Type: Unk
Method: SGS 3 NO Valve(v268) 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 rows of element data (Ba4554, Be3130, Cd2288, Co2286, Cr2677, Cu3247, Mn2576, Ni2316).

Sample Name: FECONF Acquired: 4/12/2019 12:29:13 Type: Unk
Method: SGS 3 NO Valve(v268) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Table with 5 columns (Elem, Units, Avg, Stddev, %RSD) and 8 rows of element data (Li6707, P_1774, Int. Std. Y_3600, Y_3710, Y_2243, In2306).

Sample Name: CRCONF Acquired: 4/12/2019 12:34:20 Type: Unk
Method: SGS 3 NO Valve(v268) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Table with 10 columns (Elem, Units, Avg, Stddev, %RSD) and 8 rows of element data (Ba4554, Be3130, Cd2288, Co2286, Cr2677, Cu3247, Mn2576, Ni2316, Ag3280).

Sample Name: CRCONF Acquired: 4/12/2019 12:34:20 Type: Unk
Method: SGS 3 NO Valve(v268) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Table with 5 columns (Int. Std. Units, Avg, Stddev, %RSD) and 4 rows of element data (Y_3600, Y_3710, Y_2243, In2306).

Sample Name: CCV Acquired: 4/12/2019 12:49:42 Type: QC
Method: SGS 3 NO Valve(v268) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Table with 10 columns: Elem, Units, Avg, Stddev, %RSD for elements Ba4554, Be3130, Cd2288, Co2286, Cr2677, Cu3247, Mn2576, Ni2316, Ag3280.

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, Units, Avg, Stddev, %RSD for elements V_2924, Zn2062, As1890, Tl1908, Pb2203, Se1960, Sb2068, Al3961, Ca3179.

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, Units, Avg, Stddev, %RSD for elements Fe2599, Mg2790, K_7664, Na5895, B_2089, Mo2020, Si2124, Sn1899, Sr4077.

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: 4/12/2019 12:49:42 Type: QC
Method: SGS 3 NO Valve(v268) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Table with 10 columns: Elem, Units, Avg, Stddev, %RSD for elements Ti3349, W_2079, Zr3391, S_1820, Bi2230, Li6707, P_1774.

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: Int. Std. Units, Avg, Stddev, %RSD for elements Y_3600, Y_3710, Y_2243, In2306.

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, Units, Avg, Stddev, %RSD for elements Fe2599, Mg2790, K_7664, Na5895, B_2089, Mo2020, Si2124, Sn1899, Sr4077.

Check ? Value Range Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass

Sample Name: CCB Acquired: 4/12/2019 12:54:43 Type: QC
Method: SGS 3 NO Valve(v268) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Table with 10 columns: Elem, Units, Avg, Stddev, %RSD for elements Ba4554, Be3130, Cd2288, Co2286, Cr2677, Cu3247, Mn2576, Ni2316, Ag3280.

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 10 columns: Elem, Units, Avg, Stddev, %RSD for elements V_2924, Zn2062, As1890, Tl1908, Pb2203, Se1960, Sb2068, Al3961, Ca3179.

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 10 columns: Elem, Units, Avg, Stddev, %RSD for elements Fe2599, Mg2790, K_7664, Na5895, B_2089, Mo2020, Si2124, Sn1899, Sr4077.

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: 4/12/2019 12:54:43 Type: QC
Method: SGS 3 NO Valve(v268) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Table with 10 columns: Elem, Units, Avg, Stddev, %RSD for elements Ti3349, W_2079, Zr3391, S_1820, Bi2230, Li6707, P_1774.

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 10 columns: Int. Std. Units, Avg, Stddev, %RSD for elements Y_3600, Y_3710, Y_2243, In2306.

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 10 columns: Elem, Units, Avg, Stddev, %RSD for elements Fe2599, Mg2790, K_7664, Na5895, B_2089, Mo2020, Si2124, Sn1899, Sr4077.

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: ASCONF Acquired: 4/12/2019 13:10:01 Type: Unk
Method: SGS 3 NO Valve(v268) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Table with columns: Elem, Units, Avg, Stddev, %RSD for elements Ba4554, Be3130, Cd2288, Co2286, Cr2677, Cu3247, Mn2576, Ni2316.

Table with columns: #1, #2, #3 for elements Ba4554, Be3130, Cd2288, Co2286, Cr2677, Cu3247, Mn2576, Ni2316.

Table with columns: Elem, Units, Avg, Stddev, %RSD for elements Ag3280, V_2924, Zn2062, As1890, Tl1908, Pb2203, Se1960, Sb2068.

Table with columns: #1, #2, #3 for elements Ag3280, V_2924, Zn2062, As1890, Tl1908, Pb2203, Se1960, Sb2068.

Table with columns: Elem, Units, Avg, Stddev, %RSD for elements Al3961, Ca3179, Fe2599, Mg2790, K_7664, Na5895, B_2089, Mo2020.

Table with columns: #1, #2, #3 for elements Al3961, Ca3179, Fe2599, Mg2790, K_7664, Na5895, B_2089, Mo2020.

Table with columns: Elem, Units, Avg, Stddev, %RSD for elements Si2124, Sn1899, Sr4077, Ti3349, W_2079, Zr3391, S_1820, Bi2230.

Table with columns: #1, #2, #3 for elements Si2124, Sn1899, Sr4077, Ti3349, W_2079, Zr3391, S_1820, Bi2230.

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Sample Name: ASCONF Acquired: 4/12/2019 13:10:01 Type: Unk
Method: SGS 3 NO Valve(v268) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Table with columns: Elem, Units, Avg, Stddev, %RSD for elements Li6707, P_1774.

Table with columns: #1, #2, #3 for elements Li6707, P_1774.

Table with columns: Int. Std. Units, Avg, Stddev, %RSD for elements Y_3600, Y_3710, Y_2243, In2306.

Table with columns: #1, #2, #3 for elements Y_3600, Y_3710, Y_2243, In2306.

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Sample Name: mp14093-s1 7 Acquired: 4/12/2019 13:15:04 Type: Unk
Method: SGS 3 NO Valve(v268) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Table with columns: Elem, Units, Avg, Stddev, %RSD for elements Ba4554, Be3130, Cd2288, Co2286, Cr2677, Cu3247, Mn2576, Ni2316, Ag3280.

Table with columns: #1, #2, #3 for elements Ba4554, Be3130, Cd2288, Co2286, Cr2677, Cu3247, Mn2576, Ni2316, Ag3280.

Table with columns: Elem, Units, Avg, Stddev, %RSD for elements V_2924, Zn2062, As1890, Tl1908, Pb2203, Se1960, Sb2068, Al3961, Ca3179.

Table with columns: #1, #2, #3 for elements V_2924, Zn2062, As1890, Tl1908, Pb2203, Se1960, Sb2068, Al3961, Ca3179.

Table with columns: Elem, Units, Avg, Stddev, %RSD for elements Fe2599, Mg2790, K_7664, Na5895, B_2089, Mo2020, Si2124, Sn1899, Sr4077.

Table with columns: #1, #2, #3 for elements Fe2599, Mg2790, K_7664, Na5895, B_2089, Mo2020, Si2124, Sn1899, Sr4077.

Table with columns: Elem, Units, Avg, Stddev, %RSD for elements Ti3349, W_2079, Zr3391, S_1820, Bi2230, Li6707, P_1774.

Table with columns: #1, #2, #3 for elements Ti3349, W_2079, Zr3391, S_1820, Bi2230, Li6707, P_1774.

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Sample Name: mp14093-s1 7 Acquired: 4/12/2019 13:15:04 Type: Unk
Method: SGS 3 NO Valve(v268) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Table with columns: Int. Std. Units, Avg, Stddev, %RSD for elements Y_3600, Y_3710, Y_2243, In2306.

Table with columns: #1, #2, #3 for elements Y_3600, Y_3710, Y_2243, In2306.

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Sample Name: mp14093-s2 Acquired: 4/12/2019 13:19:55 Type: Unk
 Method: SGS 3 NO Valve(v268) 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	2.363	1.973	2.010	2.087	2.152	2.036	4.191	2.150	2616
Stddev	.004	.003	.049	.046	.029	.028	.059	.049	.0045
%RSD	.1749	.1547	2.458	2.191	1.346	1.360	1.415	2.257	1.703
#1	2.359	1.970	1.980	2.059	2.169	2.051	4.226	2.120	2632
#2	2.362	1.975	1.983	2.063	2.119	2.004	4.123	2.124	2566
#3	2.367	1.975	2.067	2.140	2.170	2.053	4.225	2.206	2650
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.031	2.711	2.019	2.165	2.283	1.968	1.568	83.49	39.19
Stddev	.028	.069	.052	.032	.054	.041	.032	.11	.08
%RSD	1.393	2.554	2.556	1.477	2.352	2.096	2.013	.1348	.2014
#1	2.046	2.671	1.985	2.147	2.254	1.934	1.549	83.38	39.12
#2	1.999	2.672	1.994	2.146	2.250	1.956	1.551	83.61	39.18
#3	2.049	2.791	2.078	2.202	2.345	2.014	1.605	83.49	39.28
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	124.9	43.26	34.64	26.31	1.988	2.020	4.954	2.100	2.065
Stddev	.1	.11	.13	.11	.052	.050	.117	.049	.002
%RSD	.0935	.2519	.3687	.4331	2.636	2.483	2.367	2.316	.0870
#1	124.8	43.30	34.53	26.25	1.956	1.993	4.877	2.072	2.064
#2	125.0	43.14	34.60	26.44	1.958	1.990	4.896	2.071	2.065
#3	125.0	43.35	34.78	26.24	2.048	2.078	5.089	2.156	2.067
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	4.075	1.230	2.026	26.26	.1166	.0857	4.158		
Stddev	.057	.030	.028	.60	.0058	.0021	.125		
%RSD	1.404	2.409	1.387	2.271	4.995	2.433	3.004		
#1	4.107	1.211	2.044	25.94	.1107	.0877	4.073		
#2	4.009	1.215	1.994	25.90	.1223	.0859	4.100		
#3	4.109	1.264	2.041	26.95	.1169	.0836	4.302		

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Sample Name: mp14093-s2 Acquired: 4/12/2019 13:19:55 Type: Unk
 Method: SGS 3 NO Valve(v268) 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	141910.	15966.	6145.1	9405.4
Stddev	1585.	105.	139.7	180.3
%RSD	1.1169	.65922	2.2731	1.9171

#1	140930.	15989.	6218.1	9503.8
#2	143740.	16058.	6233.1	9515.2
#3	141050.	15851.	5984.0	9197.3

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Sample Name: jc86043-4 Acquired: 4/12/2019 13:24:45 Type: Unk
 Method: SGS 3 NO Valve(v268) 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	.2404	.0018	.0004	.0353	.1212	.1123	1.614	.0693	.0031
Stddev	.0025	.0002	.0009	.0003	.0012	.0004	.004	.0034	.0007
%RSD	1.029	11.43	216.6	8230	9854	.3357	.2561	4.880	23.89
#1	.2389	.0019	.0012	.0354	.1224	.1121	1.615	.0665	.0031
#2	.2433	.0019	.0006	.0350	.1201	.1127	1.618	.0683	.0024
#3	.2391	.0015	-.0006	.0356	.1210	.1120	1.610	.0731	.0039
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0831	.5603	.0282	.0017	.1722	-.0004	.0035	33.79	502.4
Stddev	.0008	.0020	.0047	.0039	.0051	.0045	.0050	.06	1.1
%RSD	1.018	.3597	16.53	226.9	2.975	1060.	142.6	.1672	.2138
#1	.0841	.5581	.0332	.0042	.1754	-.0053	.0059	33.78	502.0
#2	.0825	.5607	.0241	.0039	.1750	.0036	.0068	33.73	501.7
#3	.0827	.5620	.0271	-.0028	.1663	.0004	-.0022	33.85	503.7
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	78.10	307.1	5.443	6605	.0315	.0031	4.166	.0405	.1353
Stddev	.26	.5	.177	.0255	.0020	.0013	.046	.0026	.0003
%RSD	.3330	.1597	3.260	3.864	6.261	40.56	1.094	6.412	.2468
#1	77.93	307.3	5.393	6891	.0310	.0018	4.185	.0387	.1356
#2	77.96	306.6	5.640	6525	.0337	.0032	4.199	.0394	.1352
#3	78.40	307.5	5.296	6399	.0298	.0043	4.114	.0435	.1350
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	1.528	.0118	.0335	18.93	.0435	.0774	1.839		
Stddev	.001	.0038	.0006	.05	.0090	.0025	.012		
%RSD	.0630	32.35	1.826	.2725	20.65	3.188	.6656		
#1	1.527	.0096	.0333	18.99	.0339	.0801	1.845		
#2	1.529	.0162	.0342	18.90	.0450	.0753	1.824		
#3	1.528	.0097	.0330	18.90	.0517	.0768	1.846		

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Sample Name: jc86043-4 Acquired: 4/12/2019 13:24:45 Type: Unk
 Method: SGS 3 NO Valve(v268) 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	136270.	15603.	6043.8	9068.0
Stddev	821.	5.	18.2	18.8
%RSD	.60213	.03147	.30093	.20695

#1	135490.	15605.	6060.6	9079.0
#2	136200.	15598.	6046.3	9078.6
#3	137130.	15607.	6024.5	9046.3

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Sample Name: mp14093-sd1 Acquired: 4/12/2019 13:29:46 Type: Unk
 Method: SGS 3 NO Valve(v268) Mode: CONC Corr. Factor: 25.000000
 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	.2273	-0.0016	-0.0024	.0387	.1173	.1058	1.656	.0748	-0.0082
Stddev	.0061	.0017	.0061	.0020	.0102	.0016	.001	.0061	.0094
%RSD	2.687	298.9	255.3	5.234	8.657	1.543	.0818	8.207	.0094

#1	.2309	.0003	.0036	.0388	.1291	.1050	1.655	.0690	.0020
#2	.2203	-.0025	-.0085	.0366	.1111	.1047	1.657	.0813	-.0102
#3	.2309	.0006	-.0023	.0406	.1119	.1077	1.655	.0743	-.0165

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0752	.5966	.0328	-.0009	.1877	.0276	.0051	35.20	512.9
Stddev	.0017	.0013	.0041	.0396	.0259	.0056	.0499	.32	.9
%RSD	2.214	.2149	12.39	4598.	13.78	20.31	976.6	.9208	.1735

#1	.0733	.5952	.0344	.0206	.1899	.0315	.0466	35.14	512.5
#2	.0765	.5975	.0358	.0234	.1608	.0300	-.0502	34.91	513.9
#3	.0758	.5973	.0282	-.0465	.2124	.0212	.0189	35.55	512.3

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	80.38	316.0	4.780	.6693	.0688	.0096	4.302	.0202	.1371
Stddev	.21	.7	.562	.2576	.0200	.0014	.167	.0083	.0016
%RSD	.2637	.2133	11.75	38.50	29.14	14.15	3.870	40.97	1.189

#1	80.27	316.1	4.138	.9304	.0807	.0110	4.473	.0108	.1388
#2	80.62	316.7	5.185	.4153	.0456	.0096	4.140	.0264	.1370
#3	80.25	315.3	5.016	.6621	.0800	.0083	4.291	.0232	.1356

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.546	.0049	.0343	18.81	.0078	.1179	2.038
Stddev	.013	.0096	.0026	.14	.0193	.0926	.055
%RSD	.8345	198.4	7.639	.7556	246.9	78.54	2.718

#1	1.531	.0066	.0357	18.91	-.0131	.0354	2.098
#2	1.557	-.0055	.0313	18.64	.0116	.2180	1.989
#3	1.549	.0135	.0360	18.86	.0249	.1002	2.028

Sample Name: mp14093-sd1 Acquired: 4/12/2019 13:29:46 Type: Unk
 Method: SGS 3 NO Valve(v268) Mode: CONC Corr. Factor: 25.000000
 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	140500.	15665.	6142.1	9560.7
Stddev	296.	25.	11.4	13.6
%RSD	.21081	.15821	.18628	.14190

#1	140790.	15676.	6149.5	9565.1
#2	140510.	15637.	6128.9	9545.5
#3	140190.	15683.	6147.9	9571.6

Sample Name: mp14093-ps1 Acquired: 4/12/2019 13:34:48 Type: Unk
 Method: SGS 3 NO Valve(v268) 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	2.164	1.927	1.952	1.970	1.978	2.038	3.309	2.008	.2489
Stddev	.004	.002	.002	.002	.001	.005	.031	.002	.0003
%RSD	.1715	.1008	.0912	.1032	.0261	.2375	.9350	.0826	.1123

#1	2.164	1.926	1.951	1.970	1.979	2.033	3.294	2.008	.2487
#2	2.168	1.929	1.954	1.971	1.978	2.039	3.345	2.009	.2489
#3	2.160	1.925	1.950	1.967	1.978	2.043	3.289	2.006	.2492

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.955	2.312	2.035	1.975	2.075	1.947	1.960	55.08	F 455.3
Stddev	.003	.003	.001	.006	.001	.002	.003	.08	4.7
%RSD	.1287	.1192	.0588	.3022	.0659	.0999	.1540	.1529	1.036

#1	1.958	2.311	2.036	1.973	2.074	1.945	1.963	55.03	457.0
#2	1.954	2.315	2.034	1.970	2.073	1.948	1.960	55.18	458.9
#3	1.954	2.311	2.035	1.981	2.076	1.949	1.957	55.04	449.9

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	92.66	292.9	30.27	26.10	1.946	1.885	3.406	1.924	2.059
Stddev	.09	.2	.07	.03	.003	.003	.013	.003	.001
%RSD	.0958	.0541	.2340	.1101	.1348	.1586	.3709	.1703	.0694

#1	92.61	292.9	30.21	26.08	1.944	1.882	3.410	1.922	2.058
#2	92.76	292.7	30.34	26.08	1.946	1.888	3.417	1.924	2.061
#3	92.60	293.0	30.25	26.13	1.949	1.887	3.392	1.928	2.059

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.305	1.743	1.952	17.73	.1298	.0656	3.580
Stddev	.003	.011	.002	.07	.0016	.0006	.015
%RSD	.0764	.6365	.0963	.4118	1.202	.9338	.4212

#1	3.306	1.731	1.954	17.75	.1280	.0663	3.574
#2	3.307	1.746	1.952	17.64	.1309	.0651	3.569
#3	3.302	1.752	1.951	17.78	.1304	.0654	3.597

Sample Name: mp14093-ps1 Acquired: 4/12/2019 13:34:48 Type: Unk
 Method: SGS 3 NO Valve(v268) 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	129610.	15654.	5735.8	8300.4
Stddev	350.	17.	10.2	11.9
%RSD	.26985	.10617	.17708	.14376

#1	129950.	15636.	5747.1	8314.1
#2	129630.	15667.	5727.5	8293.6
#3	129260.	15660.	5732.7	8293.3

Sample Name: jc86043-2 Acquired: 4/12/2019 13:39:56 Type: Unk
Method: SGS 3 NO Valve(v268) 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	4.606	0.042	0.046	0.0495	0.1875	0.7161	1.631	1.080	0.096
Stddev	.099	.0001	.0004	.0017	.0053	.0131	.032	.0016	.0032
%RSD	2.155	3.332	.8879	3.467	2.851	1.828	1.933	1.483	33.92

#1	4.696	.0040	.0469	.0512	.1915	.7297	1.663	.1098	.0080
#2	4.622	.0043	.0468	.0494	.1897	.7150	1.630	.1076	.0133
#3	4.500	.0043	.0462	.0478	.1815	.7036	1.600	.1067	.0074

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.1371	4.072	0.0721	-0.0033	21.50	0.0050	0.112	60.72	92.91
Stddev	.0020	.083	.0044	.0034	.45	.0040	.0047	1.34	1.98
%RSD	1.458	2.044	6.158	103.0	2.083	80.80	42.19	2.212	2.130

#1	.1394	4.160	.0717	-.0070	21.98	.0097	.0080	61.80	94.63
#2	.1365	4.061	.0768	-.0029	21.42	.0025	.0166	61.14	93.35
#3	.1355	3.995	.0679	-.0001	21.10	.0029	.0090	59.22	90.74

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sr1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	193.3	64.36	6.754	6.654	0.0436	0.0298	3.720	7.626	2.174
Stddev	4.1	1.44	.267	.0517	.0013	.0026	.087	.0146	.0049
%RSD	2.134	2.233	3.953	7.771	3.071	8.580	2.344	1.920	2.250

#1	196.9	65.56	7.062	.7251	.0452	.0324	3.818	.7775	.2222
#2	194.2	64.76	6.615	.6357	.0431	.0298	3.693	.7621	.2175
#3	188.8	62.77	6.586	.6354	.0427	.0273	3.650	.7483	.2124

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	1.095	1.193	0.0505	5.735	0.0263	1.146	2.569		
Stddev	.020	.0138	.0017	.104	.0040	.0113	.043		
%RSD	1.779	11.57	3.362	1.808	15.11	9.834	1.687		

#1	1.113	.1318	.0524	5.851	.0233	.1276	2.619		
#2	1.098	.1215	.0492	5.703	.0308	.1072	2.549		
#3	1.075	.1045	.0499	5.652	.0249	.1090	2.540		

Sample Name: jc86043-2 Acquired: 4/12/2019 13:39:56 Type: Unk
Method: SGS 3 NO Valve(v268) 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	140590	15895	6200.0	9543.4
Stddev	268	70	21.0	18.6
%RSD	.19076	.44047	.33818	.19450

#1	140620	15962	6222.8	9564.6
#2	140840	15822	6181.6	9529.8
#3	140310	15899	6195.5	9535.9

Sample Name: ccv Acquired: 4/12/2019 13:44:57 Type: QC
Method: SGS 3 NO Valve(v268) 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	1.998	2.001	1.994	2.026	2.058	2.052	2.075	2.041	2.550
Stddev	.003	.002	.003	.003	.112	.110	.107	.004	.0137
%RSD	.1671	.1126	.1285	.1455	5.464	5.344	5.132	.1696	5.378

#1	1.997	2.002	1.997	2.028	2.188	2.179	2.195	2.044	.2708
#2	2.002	2.003	1.993	2.027	1.992	1.987	1.991	2.040	.2473
#3	1.996	1.999	1.992	2.022	1.994	1.990	2.040	2.037	.2468

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	2.033	1.997	1.993	2.111	2.032	2.006	1.984	39.15	39.86
Stddev	.108	.003	.004	.011	.002	.009	.003	.10	.06
%RSD	5.317	.1613	.1768	.5356	.1158	.4218	.1346	.2439	.1626

#1	2.158	2.001	1.994	2.123	2.034	2.014	1.987	39.17	39.86
#2	1.971	1.996	1.988	2.100	2.032	2.006	1.983	39.24	39.92
#3	1.971	1.995	1.995	2.112	2.029	1.997	1.982	39.05	39.79

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	Sr1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	39.88	39.98	39.39	39.89	2.027	2.012	4.898	2.039	2.010
Stddev	.04	.03	.07	.07	.003	.004	.005	.004	.003
%RSD	.1076	.0651	.1686	.1647	.1229	.1888	.1087	.1901	.1265

#1	39.89	39.96	39.32	39.93	2.030	2.016	4.903	2.040	2.009
#2	39.92	40.01	39.46	39.93	2.027	2.009	4.899	2.035	2.013
#3	39.84	39.96	39.39	39.82	2.025	2.011	4.893	2.043	2.008

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: 4/12/2019 13:44:57 Type: QC
Method: SGS 3 NO Valve(v268) 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		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	2.053	1.969	2.053	2.006	2.086	2.063	2.011		
Stddev	.109	.003	.109	.009	.010	.004	.015		
%RSD	5.313	.1390	5.284	.4535	.4748	.1719	.7231		

#1	2.179	1.971	2.178	2.007	2.097	2.061	2.006		
#2	1.990	1.970	1.990	1.996	2.080	2.067	1.999		
#3	1.990	1.966	1.990	2.014	2.080	2.060	2.027		

Check ?	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	129590	15447	5933.9	8910.1
Stddev	6315	69	6.3	9.1
%RSD	4.8731	.44645	.10595	.10243

#1	122300	15490	5940.3	8920.6
#2	133360	15367	5933.8	8905.5
#3	133110	15483	5927.7	8904.2

Sample Name: ccb Acquired: 4/12/2019 13:52:22 Type: QC
 Method: SGS 3 NO Valve(v268) 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	.0004	.0002	.0003	.0003	.0003	.0006	.0003	-.0001
Stddev	.0003	.0000	.0001	.0001	.0004	.0002	.0002	.0005	.0003
%RSD	68.62	6.402	35.09	19.17	128.8	87.99	27.90	159.0	179.5
#1	.0001	.0004	.0002	.0004	.0007	.0005	.0008	.0000	-.0002
#2	.0007	.0004	.0002	.0003	-.0000	.0003	.0007	.0009	-.0003
#3	.0005	.0004	.0001	.0003	.0002	.0000	.0004	.0000	.0001
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	.0008	.0000	-.0003	-.0011	-.0003	-.0004	.0010	-.0161	.0057
Stddev	.0001	.0001	.0002	.0002	.0009	.0008	.0015	.0101	.0018
%RSD	13.91	701.7	72.58	16.21	313.7	237.5	145.5	62.77	31.71
#1	.0009	-.0001	-.0003	-.0013	.0000	-.0010	.0021	-.0165	.0045
#2	.0007	.0002	-.0005	-.0012	.0004	.0006	.0016	-.0059	.0048
#3	.0007	-.0000	-.0001	-.0009	-.0013	-.0006	-.0007	-.0261	.0078
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	.0094	.0179	.0918	.0308	.0035	.0016	.0023	.0008	.0005
Stddev	.0042	.0189	.0299	.0116	.0003	.0002	.0008	.0010	.0001
%RSD	45.14	105.7	32.54	37.78	8.134	12.95	35.53	121.7	22.43
#1	.0045	.0153	.1253	.0189	.0038	.0019	.0024	.0007	.0004
#2	.0118	.0380	.0821	.0421	.0033	.0016	.0031	.0019	.0006
#3	.0118	.0004	.0680	.0315	.0034	.0015	.0014	-.0001	.0006
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: 4/12/2019 13:52:22 Type: QC
 Method: SGS 3 NO Valve(v268) 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
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0005	F_0069	.0005	.0022	-.0006	-.0005	.0191
Stddev	.0005	.0005	.0001	.0005	.0004	.0012	.0012
%RSD	89.23	7.304	19.26	24.61	68.93	247.2	6.342
#1	.0010	.0066	.0005	.0021	-.0002	.0007	.0195
#2	.0001	.0075	.0006	.0017	-.0007	-.0018	.0200
#3	.0005	.0066	.0004	.0028	-.0010	-.0005	.0177
Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit		.0050					
Low Limit		-.0050					
Int. Std.	Y_3600	Y_3710	Y_2243	In2306			
Units	Cts/S	Cts/S	Cts/S	Cts/S			
Avg	141610.	15596.	6202.0	9817.6			
Stddev	249.	81.	48.9	63.1			
%RSD	.17577	.51788	.78915	.64290			
#1	141390.	15686.	6228.7	9853.4			
#2	141880.	15574.	6231.7	9854.7			
#3	141570.	15529.	6145.5	9744.8			

Sample Name: jc86043-3 Acquired: 4/12/2019 13:57:31 Type: Unk
 Method: SGS 3 NO Valve(v268) 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	.8439	.0052	.0032	.0511	.1781	2.244	2.624	.1102	.0062
Stddev	.0102	.0002	.0000	.0007	.0006	.014	.018	.0016	.0005
%RSD	1.205	2.934	1.518	1.278	.3556	.6245	.6748	1.412	7.766
#1	.8541	.0053	.0032	.0518	.1788	2.260	2.644	.1120	.0058
#2	.8440	.0054	.0032	.0505	.1778	2.240	2.616	.1090	.0067
#3	.8338	.0051	.0032	.0510	.1776	2.233	2.611	.1097	.0062
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2238	2.080	.0606	.0024	3.066	.0055	.0134	93.76	318.6
Stddev	.0021	.017	.0022	.0039	.028	.0040	.0017	1.22	11.3
%RSD	.9320	.8275	3.611	162.4	.9149	71.57	12.35	1.305	3.542
#1	.2258	2.099	.0626	.0025	3.097	.0099	.0116	95.01	331.6
#2	.2239	2.074	.0583	-.0016	3.056	.0045	.0148	93.70	312.8
#3	.2216	2.067	.0610	.0063	3.044	.0022	.0140	92.56	311.4
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	164.4	110.5	12.17	1.173	.0831	.0104	7.715	3669	9852
Stddev	2.1	1.5	.24	.008	.0027	.0005	.080	.0038	.0119
%RSD	1.259	1.332	1.961	.6749	3.274	4.559	1.039	1.049	1.210
#1	166.6	112.0	12.38	1.168	.0851	.0109	7.801	.3708	9970
#2	164.3	110.3	12.22	1.182	.0843	.0100	7.700	.3668	9855
#3	162.5	109.1	11.91	1.169	.0800	.0102	7.643	.3631	9732
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	3.078	.0044	.0871	3.826	.0931	.1078	3.305		
Stddev	.021	.0008	.0007	.043	.0027	.0035	.044		
%RSD	.6992	17.84	.8504	1.120	2.880	3.240	1.320		
#1	3.102	.0042	.0879	3.875	.0947	.1118	3.351		
#2	3.069	.0038	.0867	3.797	.0900	.1054	3.265		
#3	3.062	.0053	.0866	3.806	.0945	.1063	3.298		

Sample Name: jc86043-3 Acquired: 4/12/2019 13:57:31 Type: Unk
 Method: SGS 3 NO Valve(v268) 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	137190.	15863.	6052.8	8871.5
Stddev	589.	174.	6.9	5.7
%RSD	.42920	1.0937	.11482	.06470
#1	136640.	15663.	6058.3	8866.3
#2	137810.	15955.	6055.0	8877.7
#3	137140.	15971.	6045.0	8870.5

Sample Name: jc86046-1 Acquired: 4/12/2019 14:02:34 Type: Unk
Method: SGS 3 NO Valve(v268) Mode: CONC Corr. Factor: 2.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Table with 10 columns: Elem, Units, Ba4554, Be3130, Cd2288, Co2286, Cr2677, Cu3247, Mn2576, Ni2316, Ag3280. Rows include Avg, Stddev, %RSD and #1-3.

Table with 10 columns: Elem, Units, V_2924, Zn2062, As1890, Tl1908, Pb2203, Se1960, Sb2068, Al3961, Ca3179. Rows include Avg, Stddev, %RSD and #1-3.

Table with 10 columns: Elem, Units, Fe2599, Mg2790, K_7664, Na5895, B_2089, Mo2020, Si2124, Sn1899, Sr4077. Rows include Avg, Stddev, %RSD and #1-3.

Table with 10 columns: Elem, Units, Ti3349, W_2079, Zr3391, S_1820, Bi2230, Li6707, P_1774. Rows include Avg, Stddev, %RSD and #1-3.

Sample Name: jc86046-1 Acquired: 4/12/2019 14:02:34 Type: Unk
Method: SGS 3 NO Valve(v268) Mode: CONC Corr. Factor: 2.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Table with 5 columns: Int. Std. Units, Y_3600 Cts/S, Y_3710 Cts/S, Y_2243 Cts/S, In2306 Cts/S. Rows include Avg, Stddev, %RSD and #1-3.

Table with 5 columns: #1, #2, #3. Rows include values for Y_3600, Y_3710, Y_2243, In2306.

Sample Name: jc86118-1 Acquired: 4/12/2019 14:07:44 Type: Unk
Method: SGS 3 NO Valve(v268) Mode: CONC Corr. Factor: 2.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Table with 10 columns: Elem, Units, Ba4554, Be3130, Cd2288, Co2286, Cr2677, Cu3247, Mn2576, Ni2316, Ag3280. Rows include Avg, Stddev, %RSD and #1-3.

Table with 10 columns: Elem, Units, V_2924, Zn2062, As1890, Tl1908, Pb2203, Se1960, Sb2068, Al3961, Ca3179. Rows include Avg, Stddev, %RSD and #1-3.

Table with 10 columns: Elem, Units, Fe2599, Mg2790, K_7664, Na5895, B_2089, Mo2020, Si2124, Sn1899, Sr4077. Rows include Avg, Stddev, %RSD and #1-3.

Table with 10 columns: Elem, Units, Ti3349, W_2079, Zr3391, S_1820, Bi2230, Li6707, P_1774. Rows include Avg, Stddev, %RSD and #1-3.

Sample Name: jc86118-1 Acquired: 4/12/2019 14:07:44 Type: Unk
Method: SGS 3 NO Valve(v268) Mode: CONC Corr. Factor: 2.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Table with 5 columns: Int. Std. Units, Y_3600 Cts/S, Y_3710 Cts/S, Y_2243 Cts/S, In2306 Cts/S. Rows include Avg, Stddev, %RSD and #1-3.

Table with 5 columns: #1, #2, #3. Rows include values for Y_3600, Y_3710, Y_2243, In2306.

Sample Name: jc86118-3 Acquired: 4/12/2019 14:12:44 Type: Unk
Method: SGS 3 NO Valve(v268) 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	2.520	.0032	.0112	.0501	.1997	.9439	2.158	.1843	.0409
Stddev	.004	.0001	.0001	.0004	.0008	.0030	.007	.0015	.0004
%RSD	.1487	2.426	.6317	.7674	.4072	.3134	.3085	.8071	.8785

#1	2.519	.0033	.0112	.0505	.2004	.9473	2.165	.1860	.0407
#2	2.525	.0033	.0113	.0499	.1999	.9428	2.158	.1837	.0414
#3	2.517	.0032	.0112	.0498	.1988	.9417	2.152	.1831	.0408

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5540	3.379	.5963	.0015	9.402	.0075	.0097	82.37	28.56
Stddev	.0009	.012	.0029	.0009	.025	.0013	.0026	.08	.01
%RSD	.1594	.3439	.4927	58.58	.2643	17.03	26.59	.0991	.0417

#1	.5543	3.393	.5997	.0005	9.426	.0088	.0082	82.34	28.56
#2	.5547	3.374	.5941	.0022	9.404	.0062	.0127	82.46	28.58
#3	.5530	3.371	.5953	.0019	9.376	.0076	.0082	82.30	28.55

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	165.3	17.83	5.666	2.610	.0357	.0142	7.217	2695	1.797
Stddev	.1	.06	.061	.023	.0013	.0006	.026	.0024	.0001
%RSD	.0746	.3251	1.075	.8803	3.510	4.396	.3578	.8739	.0566

#1	165.3	17.90	5.698	2.589	.0366	.0138	7.247	.2714	.1798
#2	165.4	17.82	5.703	2.635	.0363	.0139	7.204	.2703	.1796
#3	165.1	17.78	5.595	2.606	.0343	.0149	7.201	.2669	.1798

Elem	Tl3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.704	.0046	.0126	2.608	.1047	.0759	7.038
Stddev	.015	.0008	.0001	.039	.0044	.0026	.067
%RSD	.3980	17.00	.9174	1.487	4.186	3.468	.9477

#1	3.719	.0037	.0127	2.646	.1098	.0754	7.106
#2	3.704	.0052	.0125	2.608	.1017	.0735	7.034
#3	3.689	.0050	.0126	2.569	.1027	.0787	6.973

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Sample Name: jc86118-3 Acquired: 4/12/2019 14:12:44 Type: Unk
Method: SGS 3 NO Valve(v268) 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	140370.	15915.	6238.1	9341.6
Stddev	461.	76.	13.7	18.0
%RSD	.32820	.47861	.22034	.19273

#1	140820.	15880.	6222.7	9320.8
#2	140390.	16002.	6249.0	9352.5
#3	139900.	15862.	6242.6	9351.5

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Sample Name: jc86118-8 Acquired: 4/12/2019 14:17:39 Type: Unk
Method: SGS 3 NO Valve(v268) 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	1.776	.0042	.0203	.0525	.1988	1.268	2.204	.1874	.0198
Stddev	.008	.0002	.0003	.0010	.0011	.006	.006	.0026	.0004
%RSD	.4636	4.014	1.270	1.840	.5337	.4733	.2772	1.386	2.210

#1	1.783	.0040	.0200	.0519	.1990	1.271	2.209	.1865	.0202
#2	1.778	.0042	.0205	.0537	.1977	1.261	2.197	.1903	.0199
#3	1.767	.0043	.0205	.0520	.1998	1.272	2.206	.1853	.0193

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4677	4.880	.3492	.0012	12.08	.0089	.0116	79.62	34.25
Stddev	.0006	.073	.0045	.0036	.15	.0058	.0016	.38	.17
%RSD	.1251	1.495	1.285	309.7	1.249	65.28	14.07	.4765	.5047

#1	.4683	4.838	.3463	.0048	11.99	.0142	.0130	80.04	34.44
#2	.4672	4.964	.3544	-.0024	12.25	.0027	.0098	79.54	34.22
#3	.4675	4.838	.3468	.0011	11.99	.0096	.0119	79.29	34.10

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	147.0	17.12	5.708	2.509	.0383	.0124	7.658	2791	2050
Stddev	.6	.06	.088	.012	.0012	.0004	.125	.0038	.0007
%RSD	.4296	.3474	1.538	.4750	3.068	3.037	1.634	1.377	.3260

#1	147.6	17.16	5.742	2.522	.0392	.0120	7.584	.2767	2056
#2	147.0	17.14	5.774	2.499	.0387	.0128	7.803	.2835	2051
#3	146.3	17.05	5.609	2.504	.0370	.0123	7.588	.2770	2042

Elem	Tl3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.718	.0018	.0115	2.714	.1078	.0738	6.852
Stddev	.013	.0024	.0001	.056	.0028	.0024	.120
%RSD	.3352	132.8	.4977	2.049	2.604	3.297	1.746

#1	3.728	-.0008	.0115	2.675	.1098	.0765	6.732
#2	3.704	.0023	.0115	2.777	.1046	.0729	6.972
#3	3.721	.0039	.0116	2.689	.1089	.0719	6.852

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Sample Name: jc86118-8 Acquired: 4/12/2019 14:17:39 Type: Unk
Method: SGS 3 NO Valve(v268) 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	141340.	15909.	6244.5	9344.0
Stddev	468.	105.	86.5	111.7
%RSD	.33114	.65999	1.3847	1.1951

#1	141820.	15850.	6296.1	9406.6
#2	140880.	16031.	6144.6	9215.1
#3	141320.	15847.	6292.6	9410.4

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Zoom In

Zoom Out

Sample Name: jc86147-1 Acquired: 4/12/2019 14:22:33 Type: Unk
 Method: SGS 3 NO Valve(v268) 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	.9695	.0054	.0015	.0805	.1229	.1758	4.090	.1870	.0016
Stddev	.0047	.0002	.0003	.0007	.0012	.0011	.040	.0007	.0003
%RSD	.4831	3.248	20.81	.9075	.9791	.6306	.9848	.3573	16.01
#1	.9748	.0056	.0014	.0810	.1242	.1771	4.133	.1863	.0013
#2	.9675	.0055	.0012	.0797	.1227	.1755	4.053	.1875	.0019
#3	.9661	.0052	.0018	.0809	.1219	.1750	4.084	.1873	.0016
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1554	.8116	.0961	.0040	.1386	.0048	.0033	80.58	332.2
Stddev	.0019	.0026	.0033	.0006	.0002	.0015	.0016	.45	4.7
%RSD	1.233	.3223	3.427	15.16	.1767	32.13	46.56	.5542	1.416
#1	.1576	.8088	.0993	.0044	.1386	.0066	.0044	81.05	337.4
#2	.1546	.8119	.0927	.0043	.1383	.0041	.0041	80.53	328.2
#3	.1540	.8140	.0962	.0033	.1388	.0037	.0016	80.16	331.0
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	267.3	26.51	11.83	.6219	.0401	.0381	5.169	.0261	.6135
Stddev	1.4	.15	.13	.0202	.0008	.0005	.020	.0006	.0031
%RSD	.5222	.5811	1.132	3.245	2.064	1.254	.3843	2.389	.5078
#1	268.7	26.63	11.98	.6216	.0404	.0381	5.147	.0255	.6167
#2	267.1	26.56	11.79	.6421	.0407	.0386	5.185	.0259	.6135
#3	265.9	26.34	11.72	.6018	.0392	.0376	5.175	.0267	.6104
Elem	Tl3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	.5971	.0006	.0795	2.854	.0146	.1280	2.207		
Stddev	.0056	.0006	.0006	.016	.0027	.0019	.015		
%RSD	.9407	98.76	.8173	.5732	18.20	1.488	.6609		
#1	.6035	.0005	.0800	2.841	.0175	.1264	2.194		
#2	.5947	.0013	.0787	2.850	.0124	.1301	2.205		
#3	.5931	.0001	.0796	2.872	.0139	.1274	2.223		

Zoom In

Zoom Out

Sample Name: jc86147-1 Acquired: 4/12/2019 14:22:33 Type: Unk
 Method: SGS 3 NO Valve(v268) 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	135640.	15814.	6150.6	9013.1
Stddev	1048.	17.	18.3	23.6
%RSD	.77245	.10522	.29685	.26215
#1	134430.	15808.	6168.6	9039.7
#2	136290.	15801.	6132.1	8994.5
#3	136200.	15833.	6151.1	9005.1

Zoom In

Zoom Out

Sample Name: jc86147-2 Acquired: 4/12/2019 14:27:49 Type: Unk
 Method: SGS 3 NO Valve(v268) 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	1.118	.0041	.0006	.0629	.0863	.1360	3.150	.1402	.0017
Stddev	.012	.0001	.0005	.0008	.0006	.0010	.030	.0011	.0009
%RSD	1.053	2.971	92.29	1.314	.7288	.7529	.9400	.8038	52.53
#1	1.129	.0040	.0012	.0631	.0868	.1369	3.178	.1415	.0026
#2	1.119	.0041	.0002	.0636	.0865	.1349	3.152	.1399	.0008
#3	1.106	.0042	.0004	.0620	.0856	.1363	3.119	.1393	.0018
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1142	.7235	.0604	.0002	.1018	.0021	.0047	65.09	473.7
Stddev	.0006	.0063	.0038	.0049	.0018	.0030	.0028	.70	4.6
%RSD	.4868	.8659	6.320	2682.	1.735	143.1	60.66	1.081	.9792
#1	.1137	.7296	.0578	-.0037	.1029	.0039	-.0014	65.67	477.8
#2	.1148	.7238	.0648	-.0058	.0998	-.0014	-.0063	65.28	474.7
#3	.1141	.7170	.0586	-.0015	.1028	.0037	-.0062	64.31	468.6
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	162.7	41.29	11.98	.6261	.0409	.0187	5.263	.0195	.7542
Stddev	1.5	.26	.20	.0548	.0019	.0008	.055	.0024	.0082
%RSD	.9087	.6344	1.639	8.745	4.636	4.183	1.045	12.32	1.084
#1	164.0	41.52	11.97	.6874	.0391	.0184	5.323	.0167	.7615
#2	163.1	41.34	12.18	.5819	.0429	.0181	5.252	.0209	.7558
#3	161.1	41.01	11.79	.6090	.0406	.0196	5.214	.0208	.7454
Elem	Tl3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	.5378	.0024	.0664	2.846	.0157	.1437	1.913		
Stddev	.0059	.0023	.0005	.029	.0084	.0045	.010		
%RSD	1.100	96.48	.6980	1.030	53.83	3.110	.5091		
#1	.5408	.0048	.0663	2.879	.0096	.1463	1.920		
#2	.5417	.0003	.0669	2.837	.0253	.1386	1.917		
#3	.5310	.0020	.0660	2.822	.0121	.1463	1.902		

Zoom In

Zoom Out

Sample Name: jc86147-2 Acquired: 4/12/2019 14:27:49 Type: Unk
 Method: SGS 3 NO Valve(v268) 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	137840.	15511.	6199.3	9198.8
Stddev	190.	85.	18.9	18.3
%RSD	.13771	.54607	.30448	.19919
#1	137860.	15603.	6199.7	9197.4
#2	137640.	15492.	6180.2	9181.2
#3	138020.	15436.	6217.9	9217.8

Sample Name: jc86147-3 Acquired: 4/12/2019 14:32:50 Type: Unk
 Method: SGS 3 NO Valve(v268) Mode: CONC Corr. Factor: 2.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Elem Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.8466	.0041	.0017	.0760	.0960	.1580	3.464	.1841	.0003
Stddev	.0014	.0002	.0003	.0001	.0005	.0010	.021	.0006	.0004
%RSD	.1696	5.473	16.44	.1505	.4896	.6361	.6114	.3328	148.8

#1	.8451	.0039	.0019	.0760	.0962	.1582	3.455	.1841	.0001
#2	.8479	.0043	.0017	.0761	.0955	.1589	3.449	.1847	-.0000
#3	.8467	.0040	.0014	.0759	.0963	.1569	3.488	.1834	.0007

	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Elem Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1133	1.128	.0622	.0037	.1034	.0024	-.0027	69.73	269.1
Stddev	.0012	.002	.0008	.0010	.0022	.0020	.0011	.16	.5
%RSD	1.071	.1868	1.256	25.88	2.111	84.90	41.66	.2276	.1814

#1	.1122	1.129	.0625	.0039	.1017	.0044	-.0022	69.68	268.7
#2	.1132	1.129	.0627	.0027	.1059	.0005	-.0040	69.90	269.7
#3	.1146	1.126	.0613	.0046	.1026	.0022	-.0019	69.60	268.9

	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Elem Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	161.5	27.91	12.24	4.802	.0333	.0220	7.851	.0039	.6243
Stddev	.3	.07	.06	.0131	.0005	.0005	.028	.0011	.0009
%RSD	.1638	.2402	.5300	2.731	1.389	2.310	.3517	26.76	.1452

#1	161.4	27.93	12.16	.4654	.0329	.0216	7.874	.0028	.6241
#2	161.8	27.96	12.28	.4904	.0338	.0218	7.860	.0043	.6253
#3	161.3	27.83	12.27	.4847	.0333	.0226	7.820	.0048	.6236

	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Elem Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4052	.0018	.0717	2.609	.0058	.1314	1.920
Stddev	.0014	.0022	.0003	.020	.0030	.0024	.020
%RSD	.3416	119.2	.3740	.7746	51.13	1.857	1.052

#1	.4048	-.0006	.0714	2.595	.0026	.1335	1.938
#2	.4067	.0034	.0719	2.632	.0086	.1320	1.924
#3	.4040	.0027	.0719	2.600	.0063	.1288	1.898

Sample Name: jc86147-3 Acquired: 4/12/2019 14:32:50 Type: Unk
 Method: SGS 3 NO Valve(v268) Mode: CONC Corr. Factor: 2.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

	Y_3600	Y_3710	Y_2243	In2306
Int. Std. Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	137490.	15804.	6175.4	9059.1
Stddev	844.	12.	19.1	17.1
%RSD	.61423	.07356	.30853	.18841

#1	136520.	15803.	6155.2	9040.9
#2	137900.	15792.	6178.0	9061.4
#3	138050.	15815.	6193.1	9074.8

Sample Name: jc85942-3conf Acquired: 4/12/2019 14:37:55 Type: Unk
 Method: SGS 3 NO Valve(v268) Mode: CONC Corr. Factor: 1.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Elem Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2122	.0027	.0026	.0279	.4697	.1828	.8045	.0903
Stddev	.0012	.0000	.0002	.0001	.0017	.0005	.0008	.0002
%RSD	.5481	.9438	6.011	2.241	.3525	.2997	.0973	.1686

#1	.2110	.0027	.0024	.0280	.4697	.1822	.8038	.0904
#2	.2133	.0027	.0026	.0278	.4714	.1830	.8053	.0901
#3	.2123	.0027	.0027	.0279	.4681	.1833	.8043	.0904

	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Elem Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0018	.2527	.5762	.0500	.0023	.1647	.0040	-.0046
Stddev	.0004	.0007	.0007	.0009	.0015	.0022	.0015	.0012
%RSD	19.71	.2875	.1151	1.866	66.39	1.308	37.16	25.45

#1	.0021	.2534	.5764	.0497	.0006	.1626	.0025	-.0050
#2	.0019	.2529	.5755	.0510	.0029	.1644	.0041	-.0055
#3	.0014	.2519	.5768	.0492	.0035	.1669	.0054	-.0033

	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Elem Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	107.8	115.7	173.4	23.46	9.242	4.023	.0792	.0080
Stddev	.2	.1	.3	.03	.008	.003	.0004	.0003
%RSD	.2060	.1089	.1634	.1363	.0899	.0830	.5232	3.394

#1	107.7	115.6	173.2	23.49	9.251	4.021	.0788	.0078
#2	108.0	115.9	173.7	23.43	9.235	4.027	.0796	.0083
#3	107.6	115.7	173.2	23.46	9.240	4.022	.0792	.0078

	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Elem Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	7.427	.0187	.2795	2.628	.0058	.0695	1.198	.0817
Stddev	.013	.0002	.0006	.003	.0011	.0001	.009	.0021
%RSD	.1787	1.201	.1975	.0933	18.48	.1690	.7173	2.514

#1	7.431	.0186	.2793	2.626	.0070	.0695	1.197	.0841
#2	7.412	.0185	.2801	2.630	.0049	.0696	1.207	.0802
#3	7.437	.0189	.2791	2.629	.0056	.0694	1.190	.0809

Sample Name: jc85942-3conf Acquired: 4/12/2019 14:37:55 Type: Unk
 Method: SGS 3 NO Valve(v268) Mode: CONC Corr. Factor: 1.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

	Li6707	P_1774
Elem Units	ppm	ppm
Avg	.0431	1.968
Stddev	.0005	.026
%RSD	1.099	1.302

#1	.0426	1.947
#2	.0435	1.960
#3	.0432	1.997

	Y_3600	Y_3710	Y_2243	In2306
Int. Std. Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	138930.	16026.	6221.7	9165.0
Stddev	725.	153.	14.3	11.3
%RSD	.52168	.95490	.22997	.12331

#1	138830.	15914.	6215.2	9168.6
#2	138260.	16201.	6238.1	9174.2
#3	139690.	15964.	6211.7	9152.4

Zoom In

Zoom Out

Sample Name: ccv Acquired: 4/12/2019 14:42:54 Type: QC
 Method: SGS 3 NO Valve(v268) 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	2.030	2.021	2.011	2.050	1.999	1.998	2.031	2.075	2.484
Stddev	.008	.004	.056	.049	.001	.002	.010	.050	.0003
%RSD	.3742	.2117	2.761	2.380	.0562	.1203	.4733	2.400	.1208

	#1	#2	#3
2.021	2.016	1.982	2.027
2.035	2.024	2.075	2.106
2.034	2.022	1.976	2.017
2.000	1.999	2.026	2.050
2.000	2.000	2.042	2.132
1.998	1.995	2.025	2.042

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	1.964	2.015	2.008	2.122	2.060	2.029	2.004	39.52	40.45
Stddev	.002	.056	.059	.058	.048	.058	.054	.18	.21
%RSD	.1028	2.759	2.916	2.746	2.314	2.880	2.716	.4560	.5158

	#1	#2	#3
1.962	1.984	1.971	2.082
1.965	2.079	2.075	2.189
1.966	1.982	1.977	2.095
2.035	1.993	1.974	39.32
2.115	2.096	2.066	39.61
2.029	1.997	1.971	39.65

Zoom In

Zoom Out

Sample Name: ccv Acquired: 4/12/2019 14:42:54 Type: QC
 Method: SGS 3 NO Valve(v268) 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
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.996	1.991	1.991	1.965	2.117	2.103	1.818
Stddev	.002	.059	.001	.069	.059	.005	.061
%RSD	.0979	2.951	.0474	3.508	2.789	.2279	3.352

	#1	#2	#3
1.994	1.957	1.990	1.912
1.996	2.058	1.991	2.043
1.998	1.956	1.992	1.939
1.912	2.086	2.098	1.760
2.185	2.105	1.882	
2.080	2.107	1.812	

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
Cts/S				
Avg	132570.	15308.	5879.0	8749.7
Stddev	370.	92.	143.9	179.0
%RSD	.27884	.60070	2.4477	2.0455

	#1	#2	#3
132630.	15204.	5961.6	8844.3
132180.	15380.	5712.9	8543.3
132910.	15340.	5962.7	8861.5

11.3
11

Zoom In

Zoom Out

Sample Name: ccb Acquired: 4/12/2019 14:47:55 Type: QC
 Method: SGS 3 NO Valve(v268) 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	.0005	.0002	.0002	.0002	.0002	-0.0005	.0002	.0005	-0.0007
Stddev	.0004	.0002	.0000	.0004	.0001	.0001	.0000	.0002	.0003
%RSD	75.10	80.54	11.86	185.8	74.74	27.35	17.50	45.70	50.87

	#1	#2	#3
.0002	.0000	.0002	.0004
.0009	.0003	.0002	.0004
.0004	.0003	.0002	.0002
.0003	-0.0005	.0003	.0007
-0.0004	.0003	.0006	-0.0006
.0002	.0002	.0002	.0004

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	.0000	-0.0007	-0.0011	-0.0008	.0000	.0006	-0.0012	.0027
Stddev	.0002	.0001	.0003	.0017	.0007	.0025	.0016	.0106	.0043
%RSD	7582.	489.0	41.15	154.2	86.54	6083.	279.1	863.0	155.4

	#1	#2	#3
.0002	.0002	-0.0008	.0008
-0.0002	-0.0001	-0.0004	-0.0017
-0.0000	.0000	-0.0009	-0.0024
.0001	.0000	.0001	.0000
.0002	.0002	.0000	.0000
.0001	.0001	.0000	.0000
.0000	.0000	.0000	.0000
.0000	.0000	.0000	.0000
.0000	.0000	.0000	.0000
.0000	.0000	.0000	.0000
.0000	.0000	.0000	.0000
.0000	.0000	.0000	.0000
.0000	.0000	.0000	.0000
.0000	.0000	.0000	.0000

Zoom In

Zoom Out

Sample Name: ccb Acquired: 4/12/2019 14:47:55 Type: QC
 Method: SGS 3 NO Valve(v268) 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
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000	.0005	.0003	.0044	-0.0017	F .0048	F .0262
Stddev	.0003	.0009	.0000	.0028	.0009	.0017	.0018
%RSD	6498.	163.9	17.99	64.97	55.26	34.99	6.733

	#1	#2	#3
-0.0003	.0014	.0003	.0024
.0000	.0004	.0002	.0076
.0003	-0.0003	.0002	.0031
-0.0022	.0060	.0250	.0250
-0.0006	.0029	.0254	.0254
.0055	.0060	.0254	.0254

Check ? High Limit Low Limit Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Fail Chk Fail

Int. Std. Units	Y_3600	Y_3710	Y_2243	In2306
Cts/S				
Avg	142290.	15255.	6266.4	9822.9
Stddev	2016.	372.	10.9	8.2
%RSD	1.4169	2.4408	.17430	.08348

	#1	#2	#3
140010.	15153.	6259.9	9819.6
143020.	14944.	6260.2	9817.0
143840.	15668.	6279.0	9832.3

Zoom In

Zoom Out

Sample Name: mp14093-mb1conf Acquired: 4/12/2019 14:53:04 Type: Unk
 Method: SGS 3 NO Valve(v268) 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	.0000	-0.001	-0.001	.0008	.0022	.0004	.0006	-0.002
Stddev	.0004	.0000	.0002	.0002	.0002	.0002	.0000	.0001	.0004
%RSD	309.7	69.27	361.9	228.0	26.66	9.009	6.610	12.15	202.4
#1	-.0000	.0000	-.0003	-.0002	.0006	.0021	.0004	.0005	-.0002
#2	.0002	.0001	-.0001	-.0003	.0010	.0024	.0004	.0006	-.0003
#3	-.0006	.0000	-.0000	-.0002	.0008	.0020	.0004	.0005	-.0005

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0001	.0081	-0.0001	-0.0005	-0.0009	.0002	.0021	-0.0008	-0.025
Stddev	.0002	.0003	.0005	.0008	.0008	.0004	.0015	.0157	.0004
%RSD	224.6	3.330	356.9	146.9	85.18	166.8	70.83	2017.	.3926
#1	.0001	.0080	-.0007	-.0001	-.0004	.0003	.0024	.0173	-.020
#2	-.0004	.0078	.0002	-.0003	-.0005	-.0002	.0005	-.0095	.027
#3	-.0001	.0083	.0001	-.0014	-.0018	.0006	.0034	-.0101	.027

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0204	.0010	.1228	.0771	.0023	.0008	.0146	.0273	.0003
Stddev	.0015	.0047	.0047	.0051	.0004	.0004	.0014	.0005	.0001
%RSD	7.232	465.2	3.822	6.565	16.41	43.59	9.779	1.663	28.83
#1	.0213	.0008	.1281	.0730	.0026	.0011	.0159	.0269	.0003
#2	.0187	-.0036	.1212	.0756	.0019	.0004	.0131	.0272	.0004
#3	.0211	.0058	.1192	.0828	.0023	.0010	.0149	.0278	.0003

Elem	Tl3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0005	-0.0000	.0002	.0142	-0.0013	.0019	.0469
Stddev	.0002	.0005	.0001	.0006	.0027	.0021	.0012
%RSD	48.54	1842.	76.07	3.932	199.3	105.5	2.625
#1	.0005	.0000	.0000	.0144	-.0018	.0003	.0459
#2	.0007	-.0005	.0002	.0147	-.0038	.0012	.0483
#3	.0002	.0004	.0003	.0136	.0015	.0043	.0465

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Zoom In

Zoom Out

Sample Name: mp14093-mb1conf Acquired: 4/12/2019 14:53:04 Type: Unk
 Method: SGS 3 NO Valve(v268) 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	145010.	15898.	6253.7	9743.4
Stddev	466.	104.	129.8	174.7
%RSD	.32107	.65161	2.0753	1.7932
#1	144550.	15783.	6310.0	9824.9
#2	145480.	15984.	6345.8	9862.4
#3	144990.	15928.	6105.2	9542.8

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11.3

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Zoom In Zoom Out

Sample Name: jc85781-51 Acquired: 4/12/2019 14:58:11 Type: Unk
 Method: SGS 3 NO Valve(v268) 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	.5351	.0012	.0193	.0377	4.150	.5853	1.223	.2037	.0092
Stddev	.0003	.0001	.0000	.0000	.0002	.0006	.001	.0005	.0005
%RSD	.0639	4.451	.2217	.0620	.0463	.0948	.0682	.2303	5.360
#1	.5349	.0012	.0194	.0377	4.150	.5858	1.222	.2033	.0087
#2	.5348	.0012	.0193	.0376	4.148	.5847	1.223	.2042	.0094
#3	.5354	.0011	.0193	.0377	4.152	.5854	1.223	.2037	.0096

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2041	2.620	.0360	-0.0004	2.024	.0054	.0050	23.39	25.33
Stddev	.0001	.005	.0004	.0005	.003	.0015	.0004	.04	.02
%RSD	.0721	.1883	1.180	136.6	.1477	27.45	8.462	.1523	.0730
#1	.2040	2.626	.0357	-.0003	2.021	.0037	.0054	23.39	25.34
#2	.2041	2.617	.0358	-.0001	2.024	.0058	.0049	23.42	25.34
#3	.2043	2.617	.0365	-.0010	2.027	.0065	.0046	23.35	25.31

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	69.77	11.87	3.051	26.26	.0556	.0124	1.377	.6418	.1999
Stddev	.04	.04	.008	.03	.0008	.0002	.009	.0006	.0002
%RSD	.0645	.3664	.2741	.1180	1.368	1.563	.6825	.0873	.1135
#1	69.79	11.84	3.053	26.26	.0556	.0124	1.382	.6422	.1998
#2	69.80	11.92	3.041	26.28	.0549	.0123	1.383	.6412	.2002
#3	69.72	11.86	3.058	26.22	.0564	.0127	1.366	.6421	.1997

Elem	Tl3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.8212	.0317	.0237	30.27	.0281	.0100	5.883
Stddev	.0007	.0009	.0002	.15	.0017	.0017	.061
%RSD	.0865	2.935	.8939	4.892	5.966	16.69	1.038
#1	.8206	.0313	.0238	30.14	.0263	.0113	5.877
#2	.8211	.0310	.0235	30.24	.0295	.0106	5.826
#3	.8220	.0327	.0239	30.43	.0286	.0081	5.947

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Zoom In Zoom Out

Sample Name: jc85781-51 Acquired: 4/12/2019 14:58:11 Type: Unk
 Method: SGS 3 NO Valve(v268) 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	143330.	16430.	6377.9	9357.6
Stddev	629.	54.	15.1	21.1
%RSD	.43871	.32568	.23744	.22509
#1	143240.	16491.	6363.9	9356.1
#2	142750.	16406.	6394.0	9379.3
#3	144000.	16392.	6375.8	9337.3

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Sample Name: jc85781-53 Acquired: 4/12/2019 15:03:08 Type: Unk
Method: SGS 3 NO Valve(v268) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Table with 10 columns: Elem, Units, Avg, Stddev, %RSD, Ba4554, Be3130, Cd2288, Co2286, Cr2677, Cu3247, Mn2576, Ni2316, Ag3280. Values include ppm, Cts/S, and %RSD.

Table with 10 columns: #1, #2, #3, Ba4554, Be3130, Cd2288, Co2286, Cr2677, Cu3247, Mn2576, Ni2316, Ag3280. Values include ppm and %RSD.

Table with 10 columns: Elem, Units, Avg, Stddev, %RSD, V_2924, Zn2062, As1890, Tl1908, Pb2203, Se1960, Sb2068, Al3961, Ca3179. Values include ppm and %RSD.

Table with 10 columns: #1, #2, #3, V_2924, Zn2062, As1890, Tl1908, Pb2203, Se1960, Sb2068, Al3961, Ca3179. Values include ppm and %RSD.

Table with 10 columns: Elem, Units, Avg, Stddev, %RSD, Fe2599, Mg2790, K_7664, Na5895, B_2089, Mo2020, Si2124, Sn1899, Sr4077. Values include ppm and %RSD.

Table with 10 columns: #1, #2, #3, Fe2599, Mg2790, K_7664, Na5895, B_2089, Mo2020, Si2124, Sn1899, Sr4077. Values include ppm and %RSD.

Table with 10 columns: Elem, Units, Avg, Stddev, %RSD, Ti3349, W_2079, Zr3391, S_1820, Bi2230, Li6707, P_1774. Values include ppm and %RSD.

Table with 10 columns: #1, #2, #3, Ti3349, W_2079, Zr3391, S_1820, Bi2230, Li6707, P_1774. Values include ppm and %RSD.

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Sample Name: jc85781-53 Acquired: 4/12/2019 15:03:08 Type: Unk
Method: SGS 3 NO Valve(v268) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Table with 10 columns: Int. Std, Units, Avg, Stddev, %RSD, Y_3600, Y_3710, Y_2243, In2306. Values include Cts/S and %RSD.

Table with 10 columns: #1, #2, #3, Y_3600, Y_3710, Y_2243, In2306. Values include Cts/S and %RSD.

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Sample Name: jc85781-57 Acquired: 4/12/2019 15:08:14 Type: Unk
Method: SGS 3 NO Valve(v268) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Table with 10 columns: Elem, Units, Avg, Stddev, %RSD, Ba4554, Be3130, Cd2288, Co2286, Cr2677, Cu3247, Mn2576, Ni2316, Ag3280. Values include ppm and %RSD.

Table with 10 columns: #1, #2, #3, Ba4554, Be3130, Cd2288, Co2286, Cr2677, Cu3247, Mn2576, Ni2316, Ag3280. Values include ppm and %RSD.

Table with 10 columns: Elem, Units, Avg, Stddev, %RSD, V_2924, Zn2062, As1890, Tl1908, Pb2203, Se1960, Sb2068, Al3961, Ca3179. Values include ppm and %RSD.

Table with 10 columns: #1, #2, #3, V_2924, Zn2062, As1890, Tl1908, Pb2203, Se1960, Sb2068, Al3961, Ca3179. Values include ppm and %RSD.

Table with 10 columns: Elem, Units, Avg, Stddev, %RSD, Fe2599, Mg2790, K_7664, Na5895, B_2089, Mo2020, Si2124, Sn1899, Sr4077. Values include ppm and %RSD.

Table with 10 columns: #1, #2, #3, Fe2599, Mg2790, K_7664, Na5895, B_2089, Mo2020, Si2124, Sn1899, Sr4077. Values include ppm and %RSD.

Table with 10 columns: Elem, Units, Avg, Stddev, %RSD, Ti3349, W_2079, Zr3391, S_1820, Bi2230, Li6707, P_1774. Values include ppm and %RSD.

Table with 10 columns: #1, #2, #3, Ti3349, W_2079, Zr3391, S_1820, Bi2230, Li6707, P_1774. Values include ppm and %RSD.

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Sample Name: jc85781-57 Acquired: 4/12/2019 15:08:14 Type: Unk
Method: SGS 3 NO Valve(v268) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Table with 10 columns: Int. Std, Units, Avg, Stddev, %RSD, Y_3600, Y_3710, Y_2243, In2306. Values include Cts/S and %RSD.

Table with 10 columns: #1, #2, #3, Y_3600, Y_3710, Y_2243, In2306. Values include Cts/S and %RSD.

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11.3
11

Zoom In
Zoom Out

Sample Name: mp14029-mb1conf Acquired: 4/12/2019 15:13:18 Type: Unk
Method: SGS 3 NO Valve(v268) 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	-0.002	-0.000	-0.001	-0.000	-0.004	-0.003	-0.003	-0.002	-0.003
Stddev	.0002	.0000	.0002	.0001	.0001	.0005	.0000	.0001	.0005
%RSD	115.7	91.39	305.3	6460.	21.24	150.7	13.23	49.30	171.1
#1	-0.004	-0.000	-0.002	-0.001	-0.003	-0.009	-0.004	-0.001	-0.008
#2	.0001	-0.001	-0.002	-0.000	-0.005	-0.000	-0.003	-0.002	-0.001
#3	-0.003	-0.000	-0.001	-0.001	-0.005	-0.001	-0.003	-0.002	-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	-0.062	-0.001	-0.003	-0.005	-0.009	-0.015	-0.057	-0.428
Stddev	.0003	.0000	.0011	.0008	.0002	.0014	.0002	.0010	.0026
%RSD	377.3	.4688	1012.	334.4	38.03	155.3	12.40	17.06	6.170
#1	-0.004	.0061	-0.007	-0.002	-0.003	-0.003	.0014	-0.067	.0399
#2	.0001	.0062	-0.007	-0.006	-0.005	-0.025	.0017	-0.058	.0449
#3	.0001	.0061	.0012	-0.011	-0.007	.0001	.0013	-0.047	.0437
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0256	.0094	.0978	.0444	.0018	.0005	.0269	.0209	.0002
Stddev	.0011	.0057	.0626	.0069	.0003	.0001	.0006	.0004	.0001
%RSD	4.161	60.37	63.99	15.59	16.51	22.53	2.152	1.981	40.66
#1	.0256	.0066	.1451	.0521	.0015	.0005	.0268	.0207	.0003
#2	.0245	.0057	.1216	.0389	.0021	.0004	.0276	.0213	.0003
#3	.0266	.0160	.0268	.0421	.0017	.0007	.0264	.0205	.0001
Elem	Tl3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	.0006	.0005	.0002	.0186	-0.006	.0004	.0489		
Stddev	.0001	.0005	.0000	.0035	.0012	.0022	.0030		
%RSD	23.92	93.66	18.28	18.93	185.7	601.7	6.058		
#1	.0007	.0003	.0002	.0225	-0.006	.0029	.0519		
#2	.0004	.0010	.0002	.0178	-0.019	-0.008	.0487		
#3	.0005	.0002	.0002	.0156	.0005	-0.010	.0460		

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Zoom In
Zoom Out

Sample Name: mp14029-mb1conf Acquired: 4/12/2019 15:13:18 Type: Unk
Method: SGS 3 NO Valve(v268) Mode: CONC Corr. Factor: 1.000000
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	144870.	15952.	6376.9	9966.8
Stddev	769.	40.	49.4	64.7
%RSD	.53046	.25080	.77437	.64945
#1	145710.	15998.	6359.2	9935.7
#2	144190.	15933.	6338.8	9923.5
#3	144720.	15926.	6432.7	10041.

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Zoom In
Zoom Out

Sample Name: mp14029-ps1 Acquired: 4/12/2019 15:18:24 Type: Unk
Method: SGS 3 NO Valve(v268) 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	2.322	1.935	1.922	1.995	2.254	2.347	3.169	2.149	2.374
Stddev	.013	.009	.003	.001	.017	.019	.058	.001	.0023
%RSD	.5367	.4548	.1734	.0425	.7455	.8218	1.821	.0271	.9616
#1	2.333	1.942	1.926	1.995	2.241	2.331	3.127	2.149	2.353
#2	2.325	1.937	1.921	1.995	2.247	2.341	3.146	2.149	2.371
#3	2.308	1.925	1.920	1.994	2.273	2.368	3.235	2.148	2.398
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.978	3.442	2.003	2.019	2.611	1.949	1.943	58.87	116.1
Stddev	.014	.008	.003	.007	.002	.003	.004	.29	.5
%RSD	.6875	.2253	.1518	.3333	.0701	.1687	.2038	.4864	.3911
#1	1.968	3.449	2.006	2.025	2.613	1.953	1.947	59.13	116.5
#2	1.972	3.434	2.004	2.022	2.610	1.947	1.943	58.91	116.3
#3	1.993	3.443	2.000	2.012	2.610	1.949	1.939	58.56	116.6
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	115.7	46.20	31.13	55.13	2.092	1.913	1.462	2.166	2.706
Stddev	.4	.08	.11	.13	.003	.001	.011	.007	.009
%RSD	.3636	.1751	.3607	.2336	.1410	.0336	.7801	.3145	.3201
#1	116.1	46.28	31.15	55.27	2.095	1.914	1.452	2.173	2.716
#2	115.8	46.20	31.23	55.10	2.090	1.913	1.460	2.161	2.703
#3	115.3	46.12	31.01	55.02	2.091	1.913	1.475	2.163	2.699
Elem	Tl3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	3.203	1.766	1.976	61.99	1.403	.0416	5.297		
Stddev	.023	.007	.013	.21	.0016	.0012	.013		
%RSD	.7302	.3726	.6647	.3337	1.174	2.898	.2377		
#1	3.185	1.759	1.968	62.19	.1403	.0429	5.311		
#2	3.194	1.767	1.970	62.00	.1386	.0412	5.293		
#3	3.229	1.772	1.992	61.77	.1419	.0405	5.287		

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Zoom In
Zoom Out

Sample Name: mp14029-ps1 Acquired: 4/12/2019 15:18:24 Type: Unk
Method: SGS 3 NO Valve(v268) Mode: CONC Corr. Factor: 1.000000
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	137260.	15975.	6175.7	8905.1
Stddev	917.	57.	30.5	33.2
%RSD	.66786	.35571	.49383	.37311
#1	138150.	16008.	6150.6	8881.2
#2	137310.	15909.	6209.6	8943.0
#3	136320.	16007.	6166.8	8891.1

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Sample Name: mp14092-mb1conf Acquired: 4/12/2019 15:23:21 Type: Unk
 Method: SGS 3 NO Valve(v268) 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	-0.001	0.001	-0.001	0.007	0.022	0.002	0.006	-0.007
Stddev	0.002	0.001	0.001	0.001	0.002	0.002	0.001	0.000	0.001
%RSD	70.84	161.5	89.66	120.5	27.13	8.802	30.11	7.800	8.380
#1	-0.004	-0.000	0.001	-0.001	0.005	0.020	0.003	0.006	-0.007
#2	-0.001	0.000	0.000	-0.002	0.007	0.023	0.002	0.006	-0.008
#3	-0.005	-0.001	0.002	-0.000	0.009	0.024	0.002	0.006	-0.007

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	0.007	0.037	-0.009	-0.019	-0.006	0.005	0.013	-0.135	0.076
Stddev	0.004	0.000	0.003	0.006	0.009	0.012	0.026	0.084	0.010
%RSD	52.00	1.274	35.89	33.64	145.2	236.7	205.9	62.25	1.413
#1	0.003	0.038	-0.011	-0.021	-0.002	0.013	0.018	-0.205	0.086
#2	0.010	0.037	-0.010	-0.024	-0.000	0.010	0.036	-0.042	0.074
#3	0.009	0.037	-0.005	-0.012	-0.017	-0.008	-0.016	-0.157	0.067

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	0.0216	0.121	0.1569	0.0842	0.0034	0.0045	0.0108	0.0276	0.0003
Stddev	0.0023	0.125	0.0649	0.068	0.002	0.005	0.017	0.004	0.001
%RSD	10.69	104.0	41.35	8.105	6.245	12.00	16.06	1.624	40.80
#1	0.0207	0.039	0.1347	0.0814	0.0033	0.0050	0.0127	0.0280	0.002
#2	0.0242	0.0265	0.2300	0.0920	0.0037	0.0045	0.0093	0.0277	0.004
#3	0.0198	0.0057	0.1061	0.0792	0.0033	0.0040	0.0104	0.0271	0.002

Elem	Tl3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	0.0006	0.0218	0.0003	0.0194	-0.0008	0.0002	0.0559		
Stddev	0.0001	0.0027	0.0002	0.0004	0.0012	0.0004	0.0016		
%RSD	18.99	12.47	85.27	1.911	151.8	188.1	2.918		
#1	0.0007	0.0246	0.0004	0.0195	-0.0014	-0.0000	0.0560		
#2	0.0007	0.0215	0.0000	0.0189	-0.0017	0.0007	0.0576		
#3	0.0005	0.0192	0.0003	0.0197	0.0006	0.0000	0.0543		

Sample Name: mp14092-mb1conf Acquired: 4/12/2019 15:23:21 Type: Unk
 Method: SGS 3 NO Valve(v268) 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	144170.	15762.	6334.8	9848.8
Stddev	723.	135.	19.1	13.6
%RSD	0.50170	0.85376	0.30150	0.13836
#1	143350.	15900.	6322.7	9838.0
#2	144710.	15632.	6324.9	9844.3
#3	144450.	15755.	6356.8	9864.1

Sample Name: jc86133-5 Acquired: 4/12/2019 15:28:26 Type: Unk
 Method: SGS 3 NO Valve(v268) 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	0.5152	0.0058	-0.0002	0.0441	0.2228	0.0583	0.8418	0.0970	-0.0012
Stddev	0.0039	0.001	0.001	0.008	0.017	0.002	0.046	0.007	0.013
%RSD	7.542	88.99	44.27	1.875	7.589	3.587	5.507	6.990	112.2
#1	0.5113	0.0057	-0.002	0.0436	0.2209	0.0582	0.8367	0.0973	-0.0013
#2	0.5153	0.0058	-0.0003	0.0450	0.2238	0.0582	0.8430	0.0975	-0.0025
#3	0.5191	0.0058	-0.001	0.0436	0.2239	0.0586	0.8457	0.0962	-0.002

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	0.3020	0.1865	0.0558	-0.0011	0.1777	0.0020	-0.0045	158.0	5.134
Stddev	0.0020	0.0030	0.0017	0.009	0.010	0.0058	0.0027	1.0	0.037
%RSD	0.6742	1.615	2.961	85.93	5.498	295.1	60.71	0.6250	0.7218
#1	0.2997	0.1842	0.0568	-0.0007	0.1773	-0.0026	-0.0060	157.0	5.099
#2	0.3035	0.1899	0.0566	-0.0004	0.1788	0.0084	-0.0061	158.0	5.129
#3	0.3028	0.1854	0.0538	-0.0022	0.1770	0.0000	-0.0013	158.9	5.173

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	237.6	6.824	7.519	8.548	0.367	0.0103	2.000	0.304	0.0416
Stddev	1.4	0.79	0.081	0.086	0.018	0.007	0.32	0.011	0.001
%RSD	0.5976	1.159	1.072	1.005	4.922	6.913	1.599	3.677	0.3598
#1	236.2	6.739	7.428	8.466	0.354	0.0109	1.973	0.305	0.0415
#2	237.6	6.896	7.546	8.541	0.388	0.0095	2.036	0.315	0.0416
#3	239.0	6.837	7.582	8.637	0.361	0.0105	1.992	0.293	0.0418

Elem	Tl3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	1.854	0.0163	0.0655	0.2878	0.0530	0.0420	2.210		
Stddev	0.009	0.0005	0.008	0.0053	0.0032	0.0031	0.009		
%RSD	0.4966	3.270	1.254	1.850	6.064	7.390	0.4066		
#1	1.844	0.0157	0.0649	0.2817	0.0529	0.0388	2.202		
#2	1.855	0.0168	0.0652	0.2909	0.0563	0.0424	2.220		
#3	1.862	0.0163	0.0665	0.2909	0.0499	0.0449	2.207		

Sample Name: jc86133-5 Acquired: 4/12/2019 15:28:26 Type: Unk
 Method: SGS 3 NO Valve(v268) 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	144330.	16224.	6444.5	9428.0
Stddev	752.	98.	76.1	99.1
%RSD	0.52120	0.60693	1.1810	1.0506
#1	144840.	16264.	6506.3	9511.0
#2	143470.	16112.	6359.5	9318.3
#3	144690.	16297.	6467.8	9454.6

11.3
11

Sample Name: jc86133-9 Acquired: 4/12/2019 15:33:27 Type: Unk
Method: SGS 3 NO Valve(v268) 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	.6155	.0070	-0.000	.0648	.3008	.0729	.6882	.1996	-0.004
Stddev	.0003	.0000	.0004	.0005	.0014	.0005	.0005	.0001	.0008
%RSD	.0565	.5825	3782.	.7272	.4571	.7390	.0679	.0401	204.2

#1	.6156	.0070	.0001	.0652	.3019	.0729	.6887	.1995	.0000
#2	.6157	.0070	.0003	.0649	.2993	.0724	.6882	.1996	.0001
#3	.6151	.0071	-0.004	.0643	.3012	.0735	.6877	.1995	-0.014

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4620	.4070	.0788	.0028	.1301	.0081	-0.0046	193.8	5.913
Stddev	.0002	.0011	.0025	.0038	.0011	.0016	.0025	.3	.006
%RSD	.0369	.2617	3.127	138.8	.8760	19.80	54.76	.1698	.0983

#1	.4619	.4082	.0784	-.0006	.1295	.0099	-.0051	194.1	5.920
#2	.4619	.4068	.0765	.0020	.1314	.0078	-.0067	193.7	5.909
#3	.4622	.4061	.0814	.0069	.1295	.0067	-.0018	193.5	5.911

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	315.6	8.599	10.05	1.292	.0445	.0117	1.944	.0276	.0639
Stddev	.7	.054	.11	.025	.0006	.0004	.012	.0014	.0003
%RSD	.2233	.6287	1.136	1.940	1.450	3.378	.6199	5.209	.5076

#1	316.4	8.660	10.10	1.273	.0445	.0122	1.949	.0291	.0635
#2	315.5	8.557	10.13	1.281	.0439	.0117	1.953	.0275	.0641
#3	315.0	8.579	9.916	1.320	.0452	.0114	1.930	.0263	.0640

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.545	.0095	.0963	.2399	.0784	.0508	2.988
Stddev	.001	.0014	.0001	.0017	.0034	.0006	.016
%RSD	.0524	14.66	.1086	.7267	4.361	1.161	.5366

#1	2.544	.0100	.0964	.2417	.0819	.0514	2.969
#2	2.546	.0106	.0962	.2383	.0781	.0503	2.999
#3	2.544	.0079	.0963	.2397	.0751	.0506	2.995

Sample Name: jc86133-9 Acquired: 4/12/2019 15:33:27 Type: Unk
Method: SGS 3 NO Valve(v268) 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	143200.	16149.	6470.4	9460.5
Stddev	287.	87.	13.6	15.4
%RSD	.20072	.53922	.20982	.16265

#1	143190.	16085.	6460.9	9454.3
#2	143490.	16113.	6464.3	9449.2
#3	142920.	16248.	6485.9	9478.1

Sample Name: ccv Acquired: 4/12/2019 15:38:29 Type: QC
Method: SGS 3 NO Valve(v268) 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	2.028	2.005	1.964	2.008	1.984	1.986	1.992	2.039	2.465
Stddev	.010	.007	.005	.007	.004	.005	.015	.007	.0004
%RSD	.5124	.3635	.2763	.3686	.2229	.2334	.7682	.3411	.1731

#1	2.037	2.011	1.968	2.013	1.988	1.991	1.976	2.044	.2470
#2	2.029	2.007	1.965	2.011	1.984	1.984	2.007	2.041	.2466
#3	2.017	1.997	1.958	2.000	1.980	1.982	1.993	2.031	.2461

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	1.936	1.963	1.969	2.080	1.991	1.991	1.960	39.44	40.52
Stddev	.004	.007	.013	.027	.007	.016	.007	.14	.13
%RSD	.1920	.3384	.6586	1.278	.3344	.8128	.3477	.3492	.3214

#1	1.939	1.969	1.980	2.100	2.033	2.006	1.967	39.59	40.63
#2	1.938	1.965	1.972	2.089	2.030	1.994	1.960	39.42	40.55
#3	1.932	1.956	1.955	2.050	2.020	1.974	1.953	39.31	40.38

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	40.23	40.61	39.84	40.33	2.009	2.008	4.840	2.027	2.031
Stddev	.16	.14	.19	.15	.006	.010	.018	.014	.007
%RSD	.3917	.3468	.4738	.3714	.3237	.5139	.3648	.7097	.3696

#1	40.35	40.77	39.98	40.45	2.015	2.017	4.856	2.040	2.036
#2	40.29	40.59	39.92	40.37	2.010	2.011	4.843	2.029	2.034
#3	40.05	40.49	39.63	40.16	2.002	1.997	4.821	2.012	2.022

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: 4/12/2019 15:38:29 Type: QC
Method: SGS 3 NO Valve(v268) 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
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.979	1.952	1.966	1.923	2.078	2.108	F 1.791
Stddev	.004	.009	.003	.027	.009	.006	.020
%RSD	.2176	.4474	.1612	1.422	.4546	.3057	1.089

#1	1.980	1.960	1.969	1.945	2.088	2.112	1.812
#2	1.982	1.953	1.968	1.932	2.079	2.110	1.787
#3	1.974	1.943	1.963	1.893	2.069	2.100	1.774

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Fail
Value Range -10.00%

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	134720.	15257.	6036.2	8928.1
Stddev	532.	58.	14.9	28.2
%RSD	.39455	.37777	.24759	.31564

#1	134980.	15196.	6022.9	8906.1
#2	134100.	15311.	6033.3	8918.3
#3	135060.	15263.	6052.3	8959.9

Sample Name: ccb Acquired: 4/12/2019 15:43:30 Type: QC
 Method: SGS 3 NO Valve(v268) 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	.0002	.0003	.0004	.0004	.0001	.0005	.0004	-.0005
Stddev	.0001	.0001	.0001	.0004	.0002	.0004	.0000	.0002	.0003
%RSD	51.48	31.50	46.32	102.1	60.98	707.4	8.645	50.47	55.52

#1	.0002	.0001	.0005	.0008	.0003	.0004	.0005	.0007	-.0003
#2	.0001	.0002	.0002	.0002	.0002	-.0004	.0004	.0004	-.0008
#3	.0004	.0002	.0003	.0001	.0006	.0002	.0005	.0002	-.0004

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	.0010	.0002	-.0007	.0000	-.0005	.0007	.0014	-.0131	.0043
Stddev	.0003	.0002	.0009	.0018	.0009	.0014	.0020	.0036	.0028
%RSD	36.31	108.3	122.3	7217.	175.3	220.4	142.2	27.76	65.05

#1	.0008	.0002	-.0015	-.0017	.0004	.0021	-.0009	-.0096	.0018
#2	.0007	.0003	-.0008	-.0001	-.0006	-.0008	.0024	-.0168	.0038
#3	.0014	-.0000	.0002	.0019	-.0014	.0007	.0028	-.0130	.0073

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	.0027	.0008	.0909	.0211	.0035	.0013	.0021	.0002	.0003
Stddev	.0049	.0118	.0413	.0081	.0001	.0002	.0004	.0005	.0001
%RSD	181.6	1452.	45.37	38.63	3.380	17.12	18.42	198.6	46.06

#1	-.0001	-.0026	.0444	.0237	.0035	.0014	.0021	.0008	.0002
#2	-.0002	.0139	.1229	.0275	.0034	.0010	.0026	.0001	.0003
#3	.0084	-.0089	.1055	.0119	.0036	.0014	.0018	-.0002	.0005

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: 4/12/2019 15:43:30 Type: QC
 Method: SGS 3 NO Valve(v268) 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
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0006	.0044	.0005	.0051	-.0018	.0032	F_0289
Stddev	.0006	.0009	.0001	.0005	.0012	.0021	.0006
%RSD	100.2	20.00	24.05	9.467	65.45	65.78	2.004

#1	.0012	.0037	.0006	.0055	-.0007	.0011	.0285
#2	.0001	.0054	.0004	.0054	-.0030	.0053	.0286
#3	.0005	.0041	.0004	.0046	-.0018	.0033	.0296

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Fail
 High Limit
 Low Limit .0200
 -.0200

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	137570.	15662.	6252.9	9770.0
Stddev	6536.	77.	21.3	21.2
%RSD	4.7506	.49355	.34026	.21659

#1	130030.	15610.	6241.0	9758.2
#2	141250.	15751.	6240.2	9757.4
#3	141450.	15624.	6277.5	9794.4

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Sample Name: jc86133-14 Acquired: 4/12/2019 15:48:39 Type: Unk
 Method: SGS 3 NO Valve(v268) 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	.4747	.0067	-.0004	.0567	.3269	.1328	.7708	.1930	-.0013
Stddev	.0041	.0002	.0005	.0006	.0026	.0017	.0053	.0004	.0018
%RSD	.8729	2.976	119.9	1.058	.7823	1.292	.6920	.1903	142.2

#1	.4701	.0066	-.0008	.0571	.3276	.1309	.7689	.1931	-.0018
#2	.4758	.0065	-.0002	.0560	.3290	.1337	.7768	.1925	-.0028
#3	.4782	.0069	-.0007	.0569	.3240	.1340	.7666	.1932	.0007

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5073	.2206	.0725	.0062	.1029	.0030	-.0054	356.3	8.870
Stddev	.0037	.0014	.0006	.0040	.0011	.0015	.0027	3.2	.073
%RSD	.7269	.6313	.8264	64.90	1.099	51.58	49.25	.9090	.8240

#1	.5063	.2216	.0730	.0017	.1030	.0017	-.0068	352.9	8.797
#2	.5114	.2190	.0719	.0072	.1018	.0026	-.0024	356.4	8.870
#3	.5042	.2212	.0726	.0096	.1040	.0047	-.0072	359.4	8.943

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	310.5	8.901	13.10	9385	.0607	.0099	2.100	.0300	.1200
Stddev	2.6	.086	.03	.0237	.0010	.0003	.019	.0004	.0010
%RSD	.8517	.9685	.1918	2.525	1.632	2.899	.9147	1.192	.8234

#1	307.8	8.801	13.08	9133	.0619	.0100	2.120	.0303	.1192
#2	310.5	8.952	13.11	9603	.0600	.0101	2.082	.0300	.1198
#3	313.1	8.949	13.12	9420	.0603	.0095	2.098	.0296	.1211

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.308	.0058	.1272	2665	.1072	.0835	2.320
Stddev	.023	.0012	.0009	.0047	.0043	.0014	.009
%RSD	.6896	20.14	.6939	1.773	3.999	1.641	.4111

#1	3.303	.0070	.1268	2696	.1043	.0834	2.326
#2	3.333	.0046	.1282	2611	.1122	.0822	2.309
#3	3.288	.0057	.1266	2688	.1052	.0849	2.325

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Sample Name: jc86133-14 Acquired: 4/12/2019 15:48:39 Type: Unk
 Method: SGS 3 NO Valve(v268) 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	136680.	16003.	6350.9	9269.8
Stddev	866.	128.	38.5	49.0
%RSD	.63345	.79709	.60689	.52831

#1	137280.	16123.	6338.1	9257.8
#2	135680.	16016.	6394.2	9323.7
#3	137070.	15869.	6320.4	9228.0

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Sample Name: jc86133-15 Acquired: 4/12/2019 15:53:37 Type: Unk
Method: SGS 3 NO Valve(v268) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Table with 10 columns: Elem, Units, Avg, Stddev, %RSD for elements Ba4554, Be3130, Cd2288, Co2286, Cr2677, Cu3247, Mn2576, Ni2316, Ag3280.

Table with 10 columns: #1, #2, #3 for elements Ba4554, Be3130, Cd2288, Co2286, Cr2677, Cu3247, Mn2576, Ni2316, Ag3280.

Table with 10 columns: Elem, Units, Avg, Stddev, %RSD for elements V_2924, Zn2062, As1890, Tl1908, Pb2203, Se1960, Sb2068, Al3961, Ca3179.

Table with 10 columns: #1, #2, #3 for elements V_2924, Zn2062, As1890, Tl1908, Pb2203, Se1960, Sb2068, Al3961, Ca3179.

Table with 10 columns: Elem, Units, Avg, Stddev, %RSD for elements Fe2599, Mg2790, K_7664, Na5895, B_2089, Mo2020, Si2124, Sn1899, Sr4077.

Table with 10 columns: #1, #2, #3 for elements Fe2599, Mg2790, K_7664, Na5895, B_2089, Mo2020, Si2124, Sn1899, Sr4077.

Table with 10 columns: Elem, Units, Avg, Stddev, %RSD for elements Ti3349, W_2079, Zr3391, S_1820, Bi2230, Li6707, P_1774.

Table with 10 columns: #1, #2, #3 for elements Ti3349, W_2079, Zr3391, S_1820, Bi2230, Li6707, P_1774.

Sample Name: jc86133-15 Acquired: 4/12/2019 15:53:37 Type: Unk
Method: SGS 3 NO Valve(v268) 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. Units: Cts/S.

Table with 5 columns: #1, #2, #3 for Int. Std, Y_3600, Y_3710, Y_2243, In2306.

Sample Name: jc86133-16 Acquired: 4/12/2019 15:58:37 Type: Unk
Method: SGS 3 NO Valve(v268) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Table with 10 columns: Elem, Units, Avg, Stddev, %RSD for elements Ba4554, Be3130, Cd2288, Co2286, Cr2677, Cu3247, Mn2576, Ni2316, Ag3280.

Table with 10 columns: #1, #2, #3 for elements Ba4554, Be3130, Cd2288, Co2286, Cr2677, Cu3247, Mn2576, Ni2316, Ag3280.

Table with 10 columns: Elem, Units, Avg, Stddev, %RSD for elements V_2924, Zn2062, As1890, Tl1908, Pb2203, Se1960, Sb2068, Al3961, Ca3179.

Table with 10 columns: #1, #2, #3 for elements V_2924, Zn2062, As1890, Tl1908, Pb2203, Se1960, Sb2068, Al3961, Ca3179.

Table with 10 columns: Elem, Units, Avg, Stddev, %RSD for elements Fe2599, Mg2790, K_7664, Na5895, B_2089, Mo2020, Si2124, Sn1899, Sr4077.

Table with 10 columns: #1, #2, #3 for elements Fe2599, Mg2790, K_7664, Na5895, B_2089, Mo2020, Si2124, Sn1899, Sr4077.

Table with 10 columns: Elem, Units, Avg, Stddev, %RSD for elements Ti3349, W_2079, Zr3391, S_1820, Bi2230, Li6707, P_1774.

Table with 10 columns: #1, #2, #3 for elements Ti3349, W_2079, Zr3391, S_1820, Bi2230, Li6707, P_1774.

Sample Name: jc86133-16 Acquired: 4/12/2019 15:58:37 Type: Unk
Method: SGS 3 NO Valve(v268) 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. Units: Cts/S.

Table with 5 columns: #1, #2, #3 for Int. Std, Y_3600, Y_3710, Y_2243, In2306.

Sample Name: jc86133-17 Acquired: 4/12/2019 16:03:44 Type: Unk
 Method: SGS 3 NO Valve(v268) 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	.3468	.0049	-.0001	.0709	.2612	.0810	1.157	1.1374
Stddev	.0007	.0001	.0001	.0002	.0009	.0009	.001	.0002
%RSD	.2113	1.546	42.76	.2909	.3519	1.119	.1074	.1351
#1	.3461	.0048	-.0002	.0710	.2621	.0815	1.158	.1375
#2	.3476	.0050	-.0001	.0706	.2603	.0799	1.155	.1372
#3	.3467	.0049	-.0001	.0709	.2611	.0815	1.157	.1376
Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0021	.3426	.4000	.0672	.0007	.0800	.0021	F -.0043
Stddev	.0003	.0009	.0004	.0004	.0015	.0004	.0025	.0015
%RSD	13.61	2.724	.1019	.5303	218.3	4.554	119.6	34.86
#1	-.0018	.3436	.4002	.0675	.0022	.0797	.0040	-.0050
#2	-.0023	.3420	.4003	.0672	.0007	.0804	-.0008	-.0026
#3	-.0023	.3420	.3995	.0668	-.0008	.0799	.0031	-.0054
Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	125.8	5.177	F 256.4	8.031	10.22	.5435	.0463	.0124
Stddev	.3	.013	1.9	.015	.01	.0115	.0007	.0001
%RSD	.2342	.2458	.7328	.1906	.0651	2.116	1.441	1.064
#1	125.4	5.165	258.0	8.040	10.22	.5528	.0466	.0123
#2	126.0	5.176	254.3	8.039	10.21	.5469	.0456	.0125
#3	125.9	5.190	257.0	8.013	10.22	.5306	.0469	.0123
Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.820	.0237	.0578	1.825	.0015	.0956	.2202	.0558
Stddev	.006	.0001	.0003	.003	.0011	.0004	.0028	.0016
%RSD	.3404	.3700	.5519	.1608	73.72	3837	1.274	2.799
#1	1.825	.0238	.0574	1.827	.0015	.0960	.2197	.0543
#2	1.821	.0237	.0577	1.822	.0004	.0952	.2177	.0574
#3	1.813	.0236	.0581	1.827	.0026	.0955	.2232	.0556

Sample Name: jc86133-17 Acquired: 4/12/2019 16:03:44 Type: Unk
 Method: SGS 3 NO Valve(v268) Mode: CONC Corr. Factor: 1.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Li6707	P_1774		
Units	ppm	ppm		
Avg	.0586	1.678		
Stddev	.0008	.017		
%RSD	1.359	1.032		
#1	.0582	1.661		
#2	.0595	1.678		
#3	.0580	1.696		
Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	145160.	16557.	6600.6	9419.2
Stddev	368.	19.	10.1	12.0
%RSD	.25321	.11469	.15277	.12786
#1	144740.	16570.	6605.2	9431.1
#2	145290.	16566.	6589.0	9407.5
#3	145430.	16535.	6607.6	9419.5

Sample Name: mp14093-b1conf Acquired: 4/12/2019 16:08:47 Type: Unk
 Method: SGS 3 NO Valve(v268) 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	1.948	1.934	1.871	1.927	1.893	1.911	1.911	1.956	2.497
Stddev	.006	.004	.003	.001	.003	.003	.007	.002	.0004
%RSD	.3061	.1926	.1520	.0708	.1317	.1524	.3633	.1065	.1611
#1	1.944	1.932	1.874	1.926	1.892	1.908	1.914	1.954	2.494
#2	1.955	1.939	1.868	1.927	1.892	1.912	1.903	1.955	2.497
#3	1.945	1.932	1.873	1.929	1.896	1.914	1.915	1.958	2.502
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.854	1.885	1.892	2.019	1.944	1.886	1.887	23.77	24.56
Stddev	.002	.003	.006	.016	.005	.001	.004	.06	.05
%RSD	.1031	.1728	.2958	.8088	.2364	.0532	.2090	.2461	.2076
#1	1.853	1.885	1.887	2.011	1.943	1.885	1.888	23.74	24.53
#2	1.853	1.881	1.898	2.038	1.940	1.887	1.883	23.84	24.62
#3	1.856	1.888	1.891	2.009	1.949	1.886	1.891	23.74	24.53
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	24.44	24.70	24.04	24.70	1.871	1.963	.0111	2.006	1.957
Stddev	.05	.04	.04	.02	.003	.002	.0015	.004	.002
%RSD	.2039	.1800	.1505	.0861	.1527	.0845	13.87	.2023	.0806
#1	24.42	24.65	24.07	24.68	1.871	1.962	.0129	2.004	1.956
#2	24.49	24.73	24.04	24.70	1.869	1.964	.0105	2.011	1.959
#3	24.40	24.71	24.00	24.72	1.874	1.965	.0100	2.004	1.957
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	1.926	1.734	1.907	.0279	.0953	.0042	1.639		
Stddev	.001	.001	.001	.0014	.0023	.0018	.012		
%RSD	.0488	.0548	.0438	5.133	2.437	43.20	.7077		
#1	1.925	1.733	1.907	.0277	.0939	.0049	1.630		
#2	1.926	1.734	1.907	.0294	.0941	.0057	1.652		
#3	1.927	1.734	1.906	.0266	.0980	.0022	1.634		

Sample Name: mp14093-b1conf Acquired: 4/12/2019 16:08:47 Type: Unk
 Method: SGS 3 NO Valve(v268) 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	137060.	15432.	6080.7	9060.9
Stddev	709.	75.	13.8	9.6
%RSD	.51744	.48842	.22655	.10643
#1	136660.	15363.	6068.0	9049.8
#2	137880.	15421.	6095.4	9065.3
#3	136640.	15512.	6078.9	9067.4

Sample Name: mp14139-mb1 Acquired: 4/12/2019 16:13:47 Type: Unk
 Method: SGS 3 NO Valve(v268) 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	-0.001	-0.000	-0.001	0.001	-0.005	0.001	-0.001	-0.004
Stddev	.0003	.0000	.0001	.0001	.0002	.0003	.0000	.0002	.0003
%RSD	111.8	39.13	292.4	72.08	214.3	66.49	53.08	316.9	80.43
#1	-0.007	-0.001	-0.002	-0.001	0.003	-0.008	0.001	-0.002	-0.001
#2	-0.001	-0.001	0.001	-0.000	0.001	-0.001	0.000	0.001	-0.004
#3	-0.001	-0.001	-0.000	-0.002	-0.001	-0.006	0.001	-0.001	-0.007
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	0.003	0.007	-0.002	-0.011	-0.011	-0.007	0.017	0.022	0.085
Stddev	.0003	.0001	.0003	.0004	.0013	.0025	.0009	.0043	.0013
%RSD	105.3	9.157	142.1	37.13	122.4	333.6	50.88	198.0	15.43
#1	-0.001	.0006	-0.003	-0.007	-0.015	-0.002	.0023	.0041	.0100
#2	.0004	.0007	.0001	-0.010	.0004	.0014	.0022	-.0028	.0078
#3	.0005	.0007	-0.004	-0.015	-0.022	-0.035	.0007	.0051	.0077
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	0.048	-0.030	0.128	0.029	0.006	0.008	-0.002	-0.001	0.001
Stddev	.0013	.0067	.0340	.0064	.0003	.0002	.0005	.0001	.0001
%RSD	27.00	226.4	203.3	49.73	9.723	38.03	5.895	38.91	60.47
#1	.0034	.0018	-0.555	.0175	.0031	.0004	.0092	-0.002	.0000
#2	.0050	-0.107	.0083	.0153	.0031	.0007	.0082	-0.002	.0001
#3	.0060	-0.001	-0.030	.0056	.0026	.0008	.0086	-0.003	.0002
Elem	Tl3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	0.002	0.014	0.000	0.098	-0.030	0.014	0.349		
Stddev	.0002	.0011	.0002	.0022	.0015	.0009	.0014		
%RSD	115.5	79.62	457.4	22.35	49.21	64.69	4.101		
#1	.0005	.0011	-0.002	.0073	-0.014	.0012	.0345		
#2	-0.0000	.0026	.0002	.0115	-0.032	.0007	.0365		
#3	.0002	.0005	.0001	.0106	-0.043	.0025	.0337		

Sample Name: mp14139-mb1 Acquired: 4/12/2019 16:13:47 Type: Unk
 Method: SGS 3 NO Valve(v268) 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	144190.	15712.	6320.6	9831.2
Stddev	800.	106.	92.2	121.1
%RSD	.55469	.67667	1.4593	1.2323
#1	143610.	15722.	6368.6	9897.9
#2	145100.	15601.	6214.3	9691.4
#3	143850.	15813.	6379.0	9904.5

Sample Name: mp14139-b1 Acquired: 4/12/2019 16:19:14 Type: Unk
 Method: SGS 3 NO Valve(v268) 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	1.969	1.957	1.891	1.946	1.965	1.979	1.971	1.965	2.639
Stddev	.002	.002	.000	.001	.070	.069	.053	.001	.0089
%RSD	.0778	.0837	.0210	.0418	3.587	3.491	2.706	.0318	3.379
#1	1.971	1.959	1.891	1.947	1.915	1.927	1.923	1.966	2.571
#2	1.968	1.957	1.892	1.946	2.046	2.057	2.029	1.965	2.740
#3	1.968	1.956	1.892	1.945	1.935	1.952	1.961	1.966	2.606
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.921	1.899	1.888	1.994	1.956	1.892	1.904	24.61	25.29
Stddev	.067	.001	.004	.014	.001	.005	.002	.03	.02
%RSD	3.474	.0444	.1904	.7141	.0655	.2576	.1080	.1221	.0795
#1	1.873	1.900	1.884	1.995	1.957	1.893	1.903	24.63	25.31
#2	1.997	1.898	1.892	2.007	1.954	1.897	1.906	24.61	25.27
#3	1.893	1.900	1.887	1.979	1.956	1.887	1.903	24.58	25.29
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	25.15	25.33	24.77	25.09	1.901	1.957	-0.487	1.964	1.957
Stddev	.03	.06	.03	.03	.000	.001	.0028	.002	.003
%RSD	.1251	.2457	.1091	.1245	.0181	.0740	5.656	.0853	.1582
#1	25.15	25.29	24.75	25.09	1.902	1.958	-0.497	1.966	1.960
#2	25.18	25.40	24.76	25.12	1.901	1.957	-0.508	1.964	1.955
#3	25.12	25.30	24.80	25.06	1.901	1.955	-0.456	1.963	1.955
Elem	Tl3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	1.970	1.839	1.961	0.235	0.972	0.006	1.568		
Stddev	.069	.001	.068	.0015	.0029	.0018	.004		
%RSD	3.497	.0630	3.442	6.304	2.963	297.6	.2364		
#1	1.917	1.838	1.911	.0252	.0951	.0025	1.571		
#2	2.048	1.840	2.038	.0228	.1005	.0005	1.570		
#3	1.944	1.840	1.934	.0224	.0961	-0.012	1.564		

Sample Name: mp14139-b1 Acquired: 4/12/2019 16:19:14 Type: Unk
 Method: SGS 3 NO Valve(v268) 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	133930.	15525.	6101.8	9096.2
Stddev	4582.	122.	4.9	3.6
%RSD	3.4208	.78572	.08105	.03906
#1	137730.	15572.	6106.0	9098.2
#2	128840.	15387.	6103.2	9098.2
#3	135230.	15617.	6096.4	9092.1

Sample Name: ccv Acquired: 4/12/2019 16:34:31 Type: QC
Method: SGS 3 NO Valve(v268) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Table with 10 columns: Elem, Units, Avg, Stddev, %RSD. Rows include Ba4554, Be3130, Cd2288, Co2286, Cr2677, Cu3247, Mn2576, Ni2316, Ag3280.

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
Value Range

Table with 10 columns: Elem, Units, Avg, Stddev, %RSD. Rows include V_2924, Zn2062, As1890, Ti1908, Pb2203, Se1960, Sb2068, Al3961, Ca3179.

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
Value Range

Table with 10 columns: Elem, Units, Avg, Stddev, %RSD. Rows include Fe2599, Mg2790, K_7664, Na5895, B_2089, Mo2020, Si2124, Sn1899, Sr4077.

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: 4/12/2019 16:34:31 Type: QC
Method: SGS 3 NO Valve(v268) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Table with 10 columns: Elem, Units, Avg, Stddev, %RSD. Rows include Ti3349, W_2079, Zr3391, S_1820, Bi2230, Li6707, P_1774.

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Fail
Value Range 2.000 -10.00%

Table with 10 columns: Int. Std. Units, Avg, Stddev, %RSD. Rows include Y_3600, Y_3710, Y_2243, In2306.

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
Value Range

Table with 10 columns: Elem, Units, Avg, Stddev, %RSD. Rows include Fe2599, Mg2790, K_7664, Na5895, B_2089, Mo2020, Si2124, Sn1899, Sr4077.

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
Value Range

Sample Name: ccb Acquired: 4/12/2019 16:39:35 Type: QC
Method: SGS 3 NO Valve(v268) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Table with 10 columns: Elem, Units, Avg, Stddev, %RSD. Rows include Ba4554, Be3130, Cd2288, Co2286, Cr2677, Cu3247, Mn2576, Ni2316, Ag3280.

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 10 columns: Elem, Units, Avg, Stddev, %RSD. Rows include V_2924, Zn2062, As1890, Ti1908, Pb2203, Se1960, Sb2068, Al3961, Ca3179.

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 10 columns: Elem, Units, Avg, Stddev, %RSD. Rows include Fe2599, Mg2790, K_7664, Na5895, B_2089, Mo2020, Si2124, Sn1899, Sr4077.

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: 4/12/2019 16:39:35 Type: QC
Method: SGS 3 NO Valve(v268) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Table with 10 columns: Elem, Units, Avg, Stddev, %RSD. Rows include Ti3349, W_2079, Zr3391, S_1820, Bi2230, Li6707, P_1774.

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Fail
High Limit Low Limit .0040 .0200 -0.0040 -0.0200

Table with 10 columns: Int. Std. Units, Avg, Stddev, %RSD. Rows include Y_3600, Y_3710, Y_2243, In2306.

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
Value Range

Table with 10 columns: Elem, Units, Avg, Stddev, %RSD. Rows include Fe2599, Mg2790, K_7664, Na5895, B_2089, Mo2020, Si2124, Sn1899, Sr4077.

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
Value Range

Sample Name: mp13928-mb1conf Acquired: 4/12/2019 16:44:46 Type: Unk
Method: SGS 3 NO Valve(v268) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Table with 10 columns: Elem, Units, Avg, Stddev, %RSD for elements Ba4554, Be3130, Cd2288, Co2286, Cr2677, Cu3247, Mn2576, Ni2316, Ag3280.

Table with 10 columns: #1, #2, #3 for elements Ba4554, Be3130, Cd2288, Co2286, Cr2677, Cu3247, Mn2576, Ni2316, Ag3280.

Table with 10 columns: Elem, Units, Avg, Stddev, %RSD for elements V_2924, Zn2062, As1890, Tl1908, Pb2203, Se1960, Sb2068, Al3961, Ca3179.

Table with 10 columns: #1, #2, #3 for elements V_2924, Zn2062, As1890, Tl1908, Pb2203, Se1960, Sb2068, Al3961, Ca3179.

Table with 10 columns: Elem, Units, Avg, Stddev, %RSD for elements Fe2599, Mg2790, K_7664, Na5895, B_2089, Mo2020, Si2124, Sn1899, Sr4077.

Table with 10 columns: #1, #2, #3 for elements Fe2599, Mg2790, K_7664, Na5895, B_2089, Mo2020, Si2124, Sn1899, Sr4077.

Table with 10 columns: Elem, Units, Avg, Stddev, %RSD for elements Ti3349, W_2079, Zr3391, S_1820, Bi2230, Li6707, P_1774.

Table with 10 columns: #1, #2, #3 for elements Ti3349, W_2079, Zr3391, S_1820, Bi2230, Li6707, P_1774.

Sample Name: mp13928-mb1conf Acquired: 4/12/2019 16:44:46 Type: Unk
Method: SGS 3 NO Valve(v268) 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 for units Cts/S.

Table with 5 columns: #1, #2, #3 for units Cts/S.

Table with 5 columns: Int. Std, Y_3600, Y_3710, Y_2243, In2306 for units Cts/S.

Table with 5 columns: #1, #2, #3 for units Cts/S.

Sample Name: mp14043-mb1conf Acquired: 4/12/2019 16:49:56 Type: Unk
Method: SGS 3 NO Valve(v268) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Table with 10 columns: Elem, Units, Avg, Stddev, %RSD for elements Ba4554, Be3130, Cd2288, Co2286, Cr2677, Cu3247, Mn2576, Ni2316, Ag3280.

Table with 10 columns: #1, #2, #3 for elements Ba4554, Be3130, Cd2288, Co2286, Cr2677, Cu3247, Mn2576, Ni2316, Ag3280.

Table with 10 columns: Elem, Units, Avg, Stddev, %RSD for elements V_2924, Zn2062, As1890, Tl1908, Pb2203, Se1960, Sb2068, Al3961, Ca3179.

Table with 10 columns: #1, #2, #3 for elements V_2924, Zn2062, As1890, Tl1908, Pb2203, Se1960, Sb2068, Al3961, Ca3179.

Table with 10 columns: Elem, Units, Avg, Stddev, %RSD for elements Fe2599, Mg2790, K_7664, Na5895, B_2089, Mo2020, Si2124, Sn1899, Sr4077.

Table with 10 columns: #1, #2, #3 for elements Fe2599, Mg2790, K_7664, Na5895, B_2089, Mo2020, Si2124, Sn1899, Sr4077.

Table with 10 columns: Elem, Units, Avg, Stddev, %RSD for elements Ti3349, W_2079, Zr3391, S_1820, Bi2230, Li6707, P_1774.

Table with 10 columns: #1, #2, #3 for elements Ti3349, W_2079, Zr3391, S_1820, Bi2230, Li6707, P_1774.

Sample Name: mp14043-mb1conf Acquired: 4/12/2019 16:49:56 Type: Unk
Method: SGS 3 NO Valve(v268) 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 for units Cts/S.

Table with 5 columns: #1, #2, #3 for units Cts/S.

Table with 5 columns: Int. Std, Y_3600, Y_3710, Y_2243, In2306 for units Cts/S.

Table with 5 columns: #1, #2, #3 for units Cts/S.

Sample Name: icsa Acquired: 4/12/2019 16:55:04 Type: QC
 Method: SGS 3 NO Valve(v268) 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	.0000	.0001	.0011	-0.008	-0.060	.0026	-0.002	.0000
Stddev	.0002	.0001	.0000	.0003	.0003	.0004	.0000	.0005	.0003
%RSD	76.12	400.2	46.80	24.53	41.13	6.317	1.649	212.2	1248.
#1	.0002	.0001	.0001	.0008	-0.006	-0.059	.0025	-0.001	-0.000
#2	.0002	-0.001	.0001	.0013	-0.012	-0.057	.0026	.0002	.0003
#3	.0005	.0000	.0000	.0013	-0.006	-0.064	.0026	-0.008	-0.002
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	-0.0023	-0.0016	.0014	.0002	.0006	-0.0009	-0.0015	501.3	383.3
Stddev	.0003	.0002	.0030	.0020	.0018	.0013	.0035	9.5	1.5
%RSD	12.70	12.60	219.9	975.4	285.9	142.8	232.4	1.904	4038
#1	-0.0021	-0.0015	.0020	.0019	.0013	-0.0021	-0.0022	502.8	384.0
#2	-0.0027	-0.0014	.0040	-0.019	.0020	.0004	.0023	510.0	384.3
#3	-0.0023	-0.0018	-0.019	.0006	-0.014	-0.010	-0.0045	491.1	381.5
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	192.7	497.7	.2769	.0326	.0005	.0009	-0.0005	-0.0012	-0.0001
Stddev	.7	1.8	.0097	.0140	.0006	.0001	.0015	.0004	.0001
%RSD	.3891	.3707	3.501	42.91	130.5	12.40	335.3	32.22	74.16
#1	193.2	498.7	.2775	.0341	-0.002	.0008	.0011	-0.0016	-0.0000
#2	193.1	498.9	.2670	.0179	.0009	.0010	-0.0019	-0.0010	-0.0002
#3	191.9	495.6	.2863	.0458	.0006	.0009	-0.0006	-0.0009	-0.0001
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: icsa Acquired: 4/12/2019 16:55:04 Type: QC
 Method: SGS 3 NO Valve(v268) 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
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0014	.0025	.0006	.0076	-0.0043	.0003	.0288
Stddev	.0003	.0008	.0005	.0009	.0021	.0020	.0002
%RSD	24.21	32.14	74.77	12.12	48.80	645.7	.7932
#1	-0.0017	.0030	.0010	.0068	-0.0062	-0.0020	.0291
#2	-0.0010	.0029	.0009	.0075	-0.0048	.0019	.0286
#3	-0.0016	.0016	.0001	.0086	-0.0020	.0010	.0287
Check ?	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	122050.	14928.	5604.0	8141.0
Stddev	428.	48.	16.3	15.7
%RSD	.35028	.32306	.29107	.19295
#1	122330.	14887.	5599.0	8140.4
#2	122260.	14917.	5622.2	8157.0
#3	121560.	14981.	5590.7	8125.6

Sample Name: ICSAB Acquired: 4/12/2019 17:00:18 Type: QC
 Method: SGS 3 NO Valve(v268) 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	.5206	.4980	.9995	.4901	.4896	.5023	.5097	.9830	1.124
Stddev	.0011	.0008	.0030	.0006	.0019	.0008	.0003	.0026	.001
%RSD	.2060	.1551	.2981	.1165	.3849	.1500	.0526	.2642	.1207
#1	.5215	.4989	.9974	.4896	.4880	.5015	.5095	.9801	1.124
#2	.5208	.4976	1.003	.4907	.4917	.5030	.5100	.9851	1.125
#3	.5194	.4975	.9983	.4900	.4891	.5022	.5095	.9839	1.123
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	.4871	.9401	1.060	.9666	.9563	1.049	1.054	495.0	385.5
Stddev	.0007	.0030	.006	.0092	.0032	.000	.004	3.3	2.4
%RSD	.1502	.3228	.5727	.9471	.3374	.0253	.3404	.6700	.6131
#1	.4866	.9376	1.054	.9571	.9538	1.049	1.050	498.6	387.8
#2	.4880	.9435	1.066	.9673	.9599	1.049	1.055	492.1	385.6
#3	.4868	.9392	1.061	.9753	.9550	1.049	1.057	494.4	383.1
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	198.3	505.8	.1902	.0384	.4825	.4873	.4689	.4709	.5353
Stddev	.3	.7	.0227	.0042	.0005	.0020	.0019	.0030	.0008
%RSD	.1354	.1449	11.94	11.03	.1138	.4200	.4083	.6420	.1572
#1	198.6	506.6	.1763	.0395	.4819	.4850	.4693	.4674	.5362
#2	198.3	505.4	.1779	.0420	.4830	.4890	.4706	.4724	.5353
#3	198.1	505.4	.2164	.0337	.4825	.4878	.4668	.4728	.5345
Check ?	Chk Pass	Chk Pass	None	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value Range									

Sample Name: ICSAB Acquired: 4/12/2019 17:00:18 Type: QC
 Method: SGS 3 NO Valve(v268) 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
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4983	.4727	.4946	.4476	.5115	.5366	F .3317
Stddev	.0005	.0030	.0008	.0009	.0014	.0004	.0018
%RSD	.0976	.6276	.1683	.1911	.2795	.0666	.5541
#1	.4981	.4694	.4944	.4468	.5112	.5364	.3302
#2	.4988	.4750	.4955	.4476	.5130	.5370	.3337
#3	.4979	.4739	.4939	.4485	.5102	.5363	.3312
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
Value Range							.5000
							-20.00%

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	121690.	14817.	5562.2	8120.9
Stddev	147.	64.	23.6	28.9
%RSD	.12061	.43400	.42445	.35629
#1	121770.	14745.	5587.6	8153.2
#2	121520.	14867.	5540.9	8097.3
#3	121780.	14840.	5558.0	8112.1

Sample Name: jc86230-1 Acquired: 4/12/2019 17:05:28 Type: Unk
 Method: SGS 3 NO Valve(v268) Mode: CONC Corr. Factor: 1.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3172	.0014	.0003	.0683	.1379	.1990	2.974	.1242	-0.0006
Stddev	.0009	.0001	.0000	.0002	.0004	.0007	.015	.0005	.0000
%RSD	.2957	9.378	4.048	.3295	.2561	.3342	.4993	.3676	8.581
#1	.3166	.0013	.0003	.0683	.1382	.1992	2.957	.1242	-0.0005
#2	.3183	.0015	.0003	.0686	.1375	.1982	2.984	.1246	-0.0005
#3	.3168	.0013	.0003	.0681	.1379	.1995	2.981	.1237	-0.0006

	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2775	.2249	.0151	.0024	.0766	-0.0007	-0.0011	84.18	23.49
Stddev	.0003	.0002	.0010	.0017	.0003	.0022	.0007	.18	.06
%RSD	.0912	.0832	6.363	69.92	.3499	319.7	61.87	.2094	.2578
#1	.2778	.2249	.0142	.0005	.0769	-.0028	-.0015	84.06	23.46
#2	.2773	.2247	.0161	.0038	.0765	.0016	-.0014	84.38	23.56
#3	.2775	.2251	.0149	.0029	.0764	-.0008	-.0003	84.08	23.45

	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sr1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	150.7	26.66	4.339	1.687	.0162	.0035	2.429	.0313	.0910
Stddev	.4	.05	.025	.015	.0006	.0001	.058	.0007	.0003
%RSD	.2565	.1955	.5726	.9152	3.621	3.695	2.395	2.242	.2868
#1	150.6	26.67	4.368	1.671	.0157	.0035	2.482	.0305	.0908
#2	151.1	26.71	4.323	1.690	.0169	.0035	2.438	.0317	.0909
#3	150.3	26.61	4.327	1.702	.0160	.0033	2.366	.0317	.0913

	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.558	.0001	.0554	1.931	.1850	.0559	1.914
Stddev	.002	.0004	.0021	.005	.0030	.0017	.007
%RSD	.0413	403.5	3.768	.2660	1.625	3.130	.3585
#1	5.561	-.0001	.0578	1.935	.1854	.0542	1.906
#2	5.556	-.0002	.0543	1.925	.1819	.0577	1.920
#3	5.559	.0005	.0541	1.931	.1879	.0557	1.914

Sample Name: jc86230-1 Acquired: 4/12/2019 17:05:28 Type: Unk
 Method: SGS 3 NO Valve(v268) 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	Cts/S
Avg	140890.	16067.	6353.4	9263.2	
Stddev	521.	46.	7.5	10.6	
%RSD	.36990	.28328	.11794	.11455	
#1	140320.	16037.	6347.2	9252.1	
#2	141330.	16044.	6361.7	9273.2	
#3	141040.	16119.	6351.2	9264.3	

11.3

11

Sample Name: jc86230-2 Acquired: 4/12/2019 17:10:37 Type: Unk
 Method: SGS 3 NO Valve(v268) Mode: CONC Corr. Factor: 1.000000
 User: admin Custom ID1: Custom ID2: Custom ID3:
 Comment:

	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4210	.0035	.0011	.0683	.1473	.1632	2.650	.2904	-0.0020
Stddev	.0009	.0001	.0002	.0007	.0004	.0004	.030	.0018	.0004
%RSD	.2069	1.721	19.04	.9887	.2674	.2425	1.151	.6083	20.22
#1	.4200	.0035	.0010	.0683	.1477	.1631	2.644	.2893	-.0023
#2	.4217	.0035	.0013	.0677	.1469	.1628	2.683	.2894	-.0023
#3	.4212	.0036	.0009	.0690	.1474	.1636	2.623	.2924	-.0016

	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2240	.5179	.0397	.0001	.2685	-0.0000	-0.0020	76.61	101.3
Stddev	.0006	.0031	.0006	.0019	.0011	.0004	.0001	.01	.1
%RSD	.2898	.6031	1.444	135.1	.4085	5497.	2.655	.0085	.0830
#1	.2241	.5162	.0398	.0022	.2674	.0005	-0.0020	76.62	101.2
#2	.2245	.5160	.0402	-.0014	.2687	-.0003	-0.0020	76.61	101.3
#3	.2232	.5215	.0390	-.0004	.2696	-.0002	-0.0019	76.61	101.3

	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sr1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	135.0	69.83	10.74	1.703	.0283	.0044	2.789	.0324	.1715
Stddev	.1	.09	.03	.005	.0004	.0000	.025	.0005	.0002
%RSD	.0658	.1340	.2650	.2783	1.337	.7980	.9129	1.433	.1086
#1	134.9	69.73	10.76	1.708	.0282	.0044	2.795	.0321	.1713
#2	135.0	69.91	10.75	1.700	.0287	.0044	2.762	.0322	.1717
#3	135.0	69.87	10.71	1.699	.0280	.0044	2.812	.0330	.1714

	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.462	.0002	.0480	1.372	.1414	.0907	2.183
Stddev	.004	.0006	.0001	.010	.0011	.0020	.021
%RSD	.1008	279.1	.3082	.7248	.7691	2.250	.9873
#1	4.459	.0002	.0480	1.371	.1418	.0884	2.180
#2	4.467	-.0004	.0478	1.363	.1422	.0923	2.163
#3	4.460	.0008	.0481	1.383	.1401	.0912	2.205

Sample Name: jc86230-2 Acquired: 4/12/2019 17:10:37 Type: Unk
 Method: SGS 3 NO Valve(v268) 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	Cts/S
Avg	145080.	16786.	6468.9	8935.8	
Stddev	450.	16.	26.0	37.6	
%RSD	.31035	.09617	.40144	.42030	
#1	145590.	16791.	6486.2	8964.2	
#2	144890.	16768.	6481.4	8950.1	
#3	144750.	16798.	6439.0	8993.2	

Sample Name: jc86206-2a Acquired: 4/12/2019 17:15:44 Type: Unk
Method: SGS 3 NO Valve(v268) 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	.6245	.0040	.0064	.0525	.1208	.5396	2.408	.1194	.0011
Stddev	.0108	.0001	.0001	.0008	.0004	.0015	.022	.0020	.0004
%RSD	1.727	3.018	1.994	1.588	.2993	.2824	.8958	1.655	32.85
#1	.6370	.0040	.0066	.0535	.1212	.5396	2.398	.1217	.0011
#2	.6184	.0041	.0064	.0522	.1205	.5411	2.433	.1181	.0008
#3	.6182	.0038	.0064	.0520	.1206	.5381	2.394	.1186	.0015
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1704	4.633	.0543	.0018	.7782	.0050	.0028	102.3	19.98
Stddev	.0008	.101	.0015	.0002	.0150	.0026	.0006	1.7	.35
%RSD	.4913	2.178	2.707	12.00	1.922	50.94	20.38	1.681	1.766
#1	.1704	4.750	.0560	.0016	.7955	.0069	.0033	104.3	20.39
#2	.1713	4.575	.0534	.0021	.7701	.0061	.0030	101.4	19.79
#3	.1696	4.575	.0535	.0018	.7691	.0021	.0022	101.2	19.76
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	132.2	18.98	5.903	1.234	.0592	.0049	2.869	.0601	1.088
Stddev	2.3	.33	.079	.013	.0014	.0001	.108	.0009	.0019
%RSD	1.727	1.760	1.346	1.046	2.331	2.919	3.777	1.503	1.766
#1	134.8	19.36	5.990	1.232	.0608	.0051	2.992	.0611	.1110
#2	131.0	18.80	5.834	1.247	.0582	.0048	2.826	.0598	.1076
#3	130.7	18.77	5.886	1.221	.0585	.0049	2.788	.0594	.1077
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	1.487	-.0047	.0330	13.08	.0444	.1436	3.471		
Stddev	.004	.0018	.0004	.27	.0010	.0041	.069		
%RSD	.2458	38.16	1.296	2.095	2.249	2.879	1.992		
#1	1.490	-.0031	.0334	13.40	.0435	.1482	3.545		
#2	1.489	-.0067	.0326	12.92	.0455	.1424	3.459		
#3	1.483	-.0044	.0332	12.92	.0443	.1402	3.408		

Sample Name: jc86206-2a Acquired: 4/12/2019 17:15:44 Type: Unk
Method: SGS 3 NO Valve(v268) Mode: CONC Corr. Factor: 1.000000
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	144870.	16450.	6465.7	9251.4
Stddev	716.	236.	131.9	166.1
%RSD	4.9440	1.4345	2.0405	1.7957
#1	144820.	16189.	6313.5	9059.6
#2	144180.	16512.	6536.5	9349.1
#3	145610.	16649.	6547.2	9345.6

Sample Name: jc86206-3a Acquired: 4/12/2019 17:20:50 Type: Unk
Method: SGS 3 NO Valve(v268) 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	.5310	.0029	.0042	.0380	.0955	.4004	1.530	.0887	.0010
Stddev	.0008	.0000	.0002	.0003	.0003	.0016	.004	.0002	.0003
%RSD	.1568	.8454	4.392	8.385	.3442	.4037	.2343	.2222	24.66
#1	.5303	.0029	.0041	.0376	.0958	.4021	1.534	.0887	.0008
#2	.5319	.0029	.0044	.0381	.0952	.4000	1.528	.0889	.0013
#3	.5307	.0029	.0040	.0382	.0954	.3989	1.527	.0885	.0010
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1278	4.703	.0398	.0015	.6189	.0027	.0014	78.92	16.81
Stddev	.0004	.010	.0013	.0007	.0008	.0017	.0010	.10	.03
%RSD	.3452	.2072	3.165	46.49	.1222	65.25	69.24	.1271	.1696
#1	.1283	4.714	.0394	.0015	6195	.0030	.0005	78.94	16.79
#2	.1274	4.696	.0411	.0008	6192	.0008	.0024	79.02	16.84
#3	.1276	4.698	.0387	.0023	6181	.0042	.0012	78.82	16.79
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	96.20	15.24	5.210	9624	.0611	.0050	2.962	.0556	.0813
Stddev	.11	.05	.028	.0164	.0007	.0000	.058	.0010	.0002
%RSD	.1172	.3461	.5430	1.702	1.152	.9168	1.971	1.713	.2595
#1	96.22	15.28	5.241	9809	.0618	.0050	3.022	.0566	.0815
#2	96.30	15.26	5.204	9567	.0611	.0050	2.958	.0550	.0811
#3	96.07	15.18	5.185	9497	.0604	.0050	2.906	.0550	.0811
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	1.340	-.0057	.0367	10.43	.0416	.1442	1.721		
Stddev	.006	.0009	.0001	.06	.0002	.0015	.011		
%RSD	.4302	16.51	.3988	6.097	.4123	1.068	.6500		
#1	1.345	-.0050	.0367	10.49	.0415	.1455	1.733		
#2	1.343	-.0068	.0369	10.36	.0418	.1425	1.712		
#3	1.334	-.0054	.0366	10.43	.0415	.1447	1.716		

Sample Name: jc86206-3a Acquired: 4/12/2019 17:20:50 Type: Unk
Method: SGS 3 NO Valve(v268) Mode: CONC Corr. Factor: 1.000000
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	143260.	16181.	6471.0	9350.0
Stddev	365.	52.	9.9	13.0
%RSD	25460	31931	15332	13858
#1	142950.	16126.	6461.3	9342.6
#2	143660.	16229.	6481.1	9365.0
#3	143170.	16189.	6470.4	9342.5

Sample Name: ccv Acquired: 4/12/2019 17:25:49 Type: QC
Method: SGS 3 NO Valve(v268) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Table with 10 columns: Elem, Units, ppm, Avg, Stddev, %RSD, and 9 elements (Ba4554 to Ag3280). Includes rows for #1, #2, #3 and a 'Check ? Value Range' row.

Check ? Value Range row with 10 columns: Chk Pass, Chk Pass, Chk Pass, Chk Pass, Chk Pass, Chk Pass, Chk Pass, Chk Pass, Chk Pass, Chk Pass.

Table with 10 columns: Elem, Units, ppm, Avg, Stddev, %RSD, and 9 elements (V_2924 to Ca3179). Includes rows for #1, #2, #3 and a 'Check ? Value Range' row.

Check ? Value Range row with 10 columns: Chk Pass, Chk Pass, Chk Pass, Chk Pass, Chk Pass, Chk Pass, Chk Pass, Chk Pass, Chk Pass, Chk Pass.

Table with 10 columns: Elem, Units, ppm, Avg, Stddev, %RSD, and 9 elements (Fe2599 to Sr4077). Includes rows for #1, #2, #3 and a 'Check ? Value Range' row.

Check ? Value Range row with 10 columns: Chk Pass, Chk Pass, Chk Pass, Chk Pass, Chk Pass, Chk Pass, Chk Pass, Chk Pass, Chk Pass, Chk Pass.

Sample Name: ccv Acquired: 4/12/2019 17:25:49 Type: QC
Method: SGS 3 NO Valve(v268) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Table with 12 columns: Elem, Units, ppm, Avg, Stddev, %RSD, and 11 elements (Ti3349 to P_1774). Includes rows for #1, #2, #3 and a 'Check ? Value Range' row.

Check ? Value Range row with 12 columns: Chk Pass, Chk Pass, Chk Pass, Chk Pass, Chk Fail, Chk Pass, Chk Pass, Chk Fail.

Table with 12 columns: Int. Std. Units, Cts/S, Avg, Stddev, %RSD, and 11 elements (Y_3600 to Ca3179). Includes rows for #1, #2, #3 and a 'Check ? Value Range' row.

Check ? Value Range row with 12 columns: Chk Pass, Chk Pass, Chk Pass, Chk Pass, Chk Fail, Chk Pass, Chk Pass, Chk Fail.

Table with 12 columns: Int. Std. Units, Cts/S, Avg, Stddev, %RSD, and 11 elements (Y_3600 to Ca3179). Includes rows for #1, #2, #3 and a 'Check ? Value Range' row.

Check ? Value Range row with 12 columns: Chk Pass, Chk Pass, Chk Pass, Chk Pass, Chk Fail, Chk Pass, Chk Pass, Chk Fail.

Sample Name: ccb Acquired: 4/12/2019 17:30:52 Type: QC
Method: SGS 3 NO Valve(v268) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Table with 10 columns: Elem, Units, ppm, Avg, Stddev, %RSD, and 9 elements (Ba4554 to Ag3280). Includes rows for #1, #2, #3 and a 'Check ? High Limit Low Limit' row.

Check ? High Limit Low Limit row with 10 columns: Chk Pass, Chk Pass, Chk Pass, Chk Pass, Chk Pass, Chk Pass, Chk Pass, Chk Pass, Chk Pass, Chk Pass.

Table with 10 columns: Elem, Units, ppm, Avg, Stddev, %RSD, and 9 elements (V_2924 to Ca3179). Includes rows for #1, #2, #3 and a 'Check ? High Limit Low Limit' row.

Check ? High Limit Low Limit row with 10 columns: Chk Pass, Chk Pass, Chk Pass, Chk Pass, Chk Pass, Chk Pass, Chk Pass, Chk Pass, Chk Pass, Chk Pass.

Table with 10 columns: Elem, Units, ppm, Avg, Stddev, %RSD, and 9 elements (Fe2599 to Sr4077). Includes rows for #1, #2, #3 and a 'Check ? High Limit Low Limit' row.

Check ? High Limit Low Limit row with 10 columns: Chk Pass, Chk Pass, Chk Pass, Chk Pass, Chk Pass, Chk Pass, Chk Pass, Chk Pass, Chk Pass, Chk Pass.

Sample Name: ccb Acquired: 4/12/2019 17:30:52 Type: QC
Method: SGS 3 NO Valve(v268) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Table with 12 columns: Elem, Units, ppm, Avg, Stddev, %RSD, and 11 elements (Ti3349 to P_1774). Includes rows for #1, #2, #3 and a 'Check ? High Limit Low Limit' row.

Check ? High Limit Low Limit row with 12 columns: Chk Pass, Chk Pass, Chk Pass, Chk Pass, Chk Pass, Chk Pass, Chk Pass, Chk Pass.

Table with 12 columns: Int. Std. Units, Cts/S, Avg, Stddev, %RSD, and 11 elements (Y_3600 to Ca3179). Includes rows for #1, #2, #3 and a 'Check ? High Limit Low Limit' row.

Check ? High Limit Low Limit row with 12 columns: Chk Pass, Chk Pass, Chk Pass, Chk Pass, Chk Pass, Chk Pass, Chk Pass, Chk Pass.

Table with 12 columns: Int. Std. Units, Cts/S, Avg, Stddev, %RSD, and 11 elements (Y_3600 to Ca3179). Includes rows for #1, #2, #3 and a 'Check ? High Limit Low Limit' row.

Check ? High Limit Low Limit row with 12 columns: Chk Pass, Chk Pass, Chk Pass, Chk Pass, Chk Pass, Chk Pass, Chk Pass, Chk Pass.

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"/>	6	V	0.001156	0.000000	No
			Mo	-0.000047	0.000000	No
			Ti	-0.000191	0.000000	No
			Mn	0.000010	0.000000	No
			Cu	0.000014	0.000000	No
			Bi	0.000060	0.000000	No
Cd 228.802 {448}	<input checked="" type="checkbox"/>	11	As	0.012000	0.000000	No
			Ni	-0.000328	0.000000	No
			Fe	-0.000003	0.000000	No
			V	0.000091	0.000000	No
			Ba	0.000064	0.000000	No
			Co	-0.001130	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	0.000009	0.000000	No
			Mo	-0.000790	0.000000	No
			Ni	0.000091	0.000000	No
			Ti	0.002192	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	0.000348	0.000000	No
			V	0.000090	0.000000	No
			Mo	-0.000082	0.000000	No
			Fe	-0.000005	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"/>	13	Cr	-0.000004	0.000000	No
			V	-0.000397	0.000000	No
			Mo	0.000544	0.000000	No
			Ti	-0.000208	0.000000	No
			Fe	-0.000226	0.000000	No
			Zn	-0.000041	0.000000	No
			Co	-0.001373	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	0.000004	0.000000	No
Mn 257.610 {131}	<input checked="" type="checkbox"/>	4	Fe	-0.000107	0.000000	No
			Si	0.000010	0.000000	No
			Ba	0.000004	0.000000	No
			Ni	0.000028	0.000000	No
Ni 231.604 {446}	<input checked="" type="checkbox"/>	8	Fe	0.000008	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

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
			Cu	0.000050	0.000000	No
			Se	0.000100	0.000000	No
Ag 328.068 {103}	<input checked="" type="checkbox"/>	14	Mn	0.000252	0.000000	No
			Mo	0.000012	-0.000003	No
			Ti	-0.000090	0.000000	No
			Fe	-0.000255	0.000000	No
			Zn	-0.000020	0.000000	No
			Ca	-0.000001	0.000000	No
			Zr	0.007115	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	-0.004037	0.000000	No
			Al	-0.000006	0.000000	No
			W	0.000000	0.000000	No
V 292.402 {115}	<input checked="" type="checkbox"/>	6	Ti	0.000689	0.000000	No
			Mo	-0.000304	0.000000	No
			Fe	0.000029	0.000000	No
			Sr	-0.000100	0.000000	No
			Cr	-0.007936	0.000000	No
			Mn	-0.002777	0.000000	No
Zn 206.200 {464}	<input checked="" type="checkbox"/>	9	Cr	-0.000850	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"/>	18	Al	0.000016	0.000000	No
			Fe	-0.000180	0.000000	No
			Ca	0.000004	0.000000	No
			Mo	0.002500	0.000000	No
			Cr	0.000794	0.000000	No
			Ba	0.000186	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	0.000000	0.000000	No
			Cu	-0.000058	0.000000	No
			Co	0.000047	0.000000	No
			Zr	0.000036	0.000000	No
			Mn	0.000022	0.000000	No
			S	0.000000	0.000000	No
			Ti	0.000100	0.000000	No
Tl 190.856 {477}	<input checked="" type="checkbox"/>	24	Cr	0.000315	0.000000	No
			Mo	-0.008000	0.000000	No
			Al	-0.000003	0.000000	No
			Fe	-0.000047	0.000000	No
			V	-0.030388	0.000000	No
			Mn	0.001790	0.000000	No
			Si	-0.000018	0.000000	No
			Ca	0.000000	0.000000	No

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
			Ti	-0.002390	0.000000	No
			Mg	0.000000	0.000000	No
			Co	0.003780	0.000000	No
			Sr	0.000010	0.000000	No
			B	-0.000003	0.000000	No
			Ba	0.000034	0.000000	No
			Zn	-0.000023	0.000000	No
			As	0.000068	0.000000	No
			W	-0.007000	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
Pb 220.353 (453)	<input checked="" type="checkbox"/>	20	Al	-0.000093	0.000000	No
			Fe	0.000023	0.000000	No
			Ca	0.000005	0.000000	No
			Mn	0.000154	0.000000	No
			Mo	-0.002200	0.000000	No
			Cu	0.000154	0.000000	No
			Co	-0.000236	0.000000	No
			Ti	-0.000500	0.000000	No
			Si	-0.000067	0.000000	No
			Ba	-0.000022	0.000000	No
			Sb	-0.000084	0.000000	No
			Sr	-0.000033	0.000000	No
			W	0.000000	0.000000	No
			Mg	0.000004	0.000000	No
			Cd	0.000012	0.000000	No
			Cr	-0.000031	0.000000	No
			Zr	-0.000281	0.000000	No
			Ni	0.000171	0.000000	No
			S	0.000010	0.000000	No
			Zn	-0.000106	0.000000	No
Se 196.090 (472)	<input checked="" type="checkbox"/>	23	Al	-0.000002	0.000000	No
			Ca	-0.000007	0.000000	No
			Mn	0.000594	0.000000	No
			Mo	0.000400	0.000000	No
			Fe	-0.000172	0.000000	No
			Co	-0.000182	0.000000	No
			Sr	-0.000011	0.000000	No
			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

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
			S	-0.000014	0.000000	No
			V	0.000188	0.000000	No
Sb 206.833 {463}	<input checked="" type="checkbox"/>	17	Fe	0.000031	0.000000	No
			Al	0.000015	0.000000	No
			Ca	0.000001	0.000000	No
			Ni	-0.000016	0.000000	No
			Cr	0.023900	0.000000	No
			V	-0.004022	0.000000	No
			Zn	-0.000115	0.000000	No
			Mo	0.000889	0.000000	No
			Ti	0.000030	0.000000	No
			Sn	-0.004925	0.000000	No
			Mg	-0.000003	0.000000	No
			Zr	-0.000463	0.000000	No
			Sr	0.000031	0.000000	No
			B	-0.000100	0.000000	No
			Co	-0.000251	0.000000	No
			W	0.000000	0.000000	No
Al 396.152 { 85}	<input checked="" type="checkbox"/>	5	Si	0.000130	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
			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
			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

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
			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	0.038137	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	0.036950	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	-0.001964	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
			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

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Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
Zr 339.198 { 99}	<input checked="" type="checkbox"/>	6	Mo	0.001069	0.000000	No
			Ti	0.000203	0.000000	No
			Fe	-0.000070	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	-0.004201	0.000000	No
			Al	-0.000034	0.000000	No
			Fe	0.000002	0.000000	No
			Mn	0.004620	0.000000	No
			W	-0.032564	0.000000	No
			Ca	0.000032	0.000000	No
Bi 223.061 {451}	<input checked="" type="checkbox"/>	9	Mg	0.000005	0.000000	No
			Ti	-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
Li 670.784 { 50}	<input checked="" type="checkbox"/>	2	W	-0.020000	0.000000	No
			Ca	0.000023	0.000000	No
P 177.495 {490}	<input checked="" type="checkbox"/>	10	Fe	0.000081	0.000000	No
			Mn	-0.006184	0.000000	No
			Al	-0.000060	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
Ca	0.000150	0.000000	No			

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Element, Wavelength and Order	Date of Fit	Date of Cal.	Type of Fit	Weighting	A0	A1	A2	n (Exponent)
Ba 455.403 { 74}	4/15/2019 10:00:35	4/12/2019 11:12:53	Linear	None	0.015699	2.089586	0.000000	1.000000
Be 313.042 {108}	4/15/2019 10:00:35	4/12/2019 11:12:53	Linear	None	-0.000548	2.789968	0.000000	1.000000
Cd 228.802 {448}	4/15/2019 10:00:35	4/12/2019 11:12:53	Linear	None	0.000636	1.202299	0.000000	1.000000
Co 228.616 {448}	4/15/2019 10:00:35	4/12/2019 11:12:53	Linear	None	-0.000166	0.758676	0.000000	1.000000
Cr 267.716 {126}	4/15/2019 10:00:35	4/12/2019 11:12:53	Linear	None	-0.000065	0.168469	0.000000	1.000000
Cu 324.754 {104}2	4/15/2019 10:00:35	4/12/2019 11:12:53	Linear	None	0.003010	0.270928	0.000000	1.000000
Mn 257.610 {131}	4/15/2019 10:00:35	4/12/2019 11:12:53	Linear	None	0.000050	0.941707	0.000000	1.000000
Ni 231.604 {446}	4/15/2019 10:00:35	4/12/2019 11:12:53	Linear	None	-0.000230	0.605305	0.000000	1.000000
Ag 328.068 {103}	4/15/2019 10:00:35	4/12/2019 11:12:53	Linear	None	-0.000245	0.157453	0.000000	1.000000
V 292.402 {115}	4/15/2019 10:00:35	4/12/2019 11:12:53	Linear	None	0.000359	0.245172	0.000000	1.000000
Zn 206.200 {464}	4/15/2019 10:00:35	4/12/2019 11:12:53	Linear	None	0.000608	1.833151	0.000000	1.000000
As 189.042 {478}	4/15/2019 10:00:35	4/12/2019 11:12:53	Linear	None	0.000203	0.121321	0.000000	1.000000
Tl 190.856 {477}	4/15/2019 10:00:35	4/12/2019 11:12:53	Linear	None	-0.000086	0.078931	0.000000	1.000000
Pb 220.353 {453}	4/15/2019 10:00:35	4/12/2019 11:12:53	Linear	None	0.000829	0.271410	0.000000	1.000000
Se 196.090 {472}	4/15/2019 10:00:35	4/12/2019 11:12:53	Linear	None	-0.000040	0.096167	0.000000	1.000000
Sb 206.833 {463}	4/15/2019 10:00:35	4/12/2019 11:12:53	Linear	None	0.001031	0.166409	0.000000	1.000000
Al 396.152 { 85}	4/15/2019 10:00:35	4/12/2019 11:12:53	Linear	None	0.000749	0.046877	0.000000	1.000000
Ca 317.933 {106}	4/15/2019 10:00:35	4/12/2019 11:12:53	Linear	None	0.007591	0.096430	0.000000	1.000000
Fe 259.940 {130}	4/15/2019 10:00:35	4/12/2019 11:12:53	Linear	None	0.000195	0.055349	0.000000	1.000000
Mg 279.079 {121}	4/15/2019 10:00:35	4/12/2019 11:12:53	Linear	None	-0.000033	0.010113	0.000000	1.000000
K 766.490 { 44}	4/15/2019 10:00:35	4/12/2019 11:12:53	Linear	None	-0.005203	0.030958	0.000000	1.000000
Na 589.592 { 57}	4/15/2019 10:00:35	4/12/2019 11:12:53	Linear	None	-0.020069	0.106299	0.000000	1.000000
B 208.959 {462}	4/15/2019 10:00:35	4/12/2019 11:12:53	Linear	None	0.000317	0.246269	0.000000	1.000000
Mo 202.030 {467}	4/15/2019 10:00:35	4/12/2019 11:12:53	Linear	None	-0.000731	0.773257	0.000000	1.000000
Si 212.412 {459}	4/15/2019 10:00:35	4/12/2019 11:12:53	Linear	None	0.003601	0.234613	0.000000	1.000000
Sn 189.989 {478}	4/15/2019 10:00:35	4/12/2019 11:12:53	Linear	None	0.000726	0.231393	0.000000	1.000000
Sr 407.771 { 83}	4/15/2019 10:00:35	4/12/2019 11:12:53	Linear	None	-0.002071	3.634107	0.000000	1.000000
Ti 334.904 {101}	4/15/2019 10:00:35	4/12/2019 11:12:53	Linear	None	0.000052	0.186998	0.000000	1.000000
Y 360.073 { 94}*	4/15/2019 10:00:35	12/23/2009 10:44:16	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000
Y 371.030 { 91}*	4/15/2019 10:00:35	12/23/2009 10:44:16	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000
Y 224.306 {451}*	4/15/2019 10:00:35	12/23/2009 10:44:16	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000
In 230.606 {446}*	4/15/2019 10:00:35	12/23/2009 10:44:16	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000
W 207.911 {462}	4/15/2019 10:00:35	4/12/2019 11:12:53	Linear	None	0.001132	0.404967	0.000000	1.000000
Zr 339.198 { 99}	4/15/2019 10:00:35	4/12/2019 11:12:53	Linear	None	-0.000615	0.538649	0.000000	1.000000
S 182.034 {485}	4/15/2019 10:00:35	4/12/2019 11:12:53	Linear	None	-0.000284	0.056409	0.000000	1.000000
Bi 223.061 {451}	4/15/2019 10:00:35	4/12/2019 11:12:53	Linear	None	-0.000176	0.187379	0.000000	1.000000
Li 670.784 { 50}	4/15/2019 10:00:35	4/12/2019 11:12:53	Linear	None	-0.001091	0.640052	0.000000	1.000000
P 177.495 {490}	4/15/2019 10:00:35	4/12/2019 11:12:53	Linear	1/Conc	-0.006758	0.045865	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	0.000349	0.001163	OK	1.000000	0.000000	1	0
Be 313.042 {108}	1.000000	0.000000	0.000089	0.000297	OK	1.000000	0.000000	1	0
Cd 228.802 {448}	1.000000	0.000000	0.000202	0.000674	OK	1.000000	0.000000	1	0
Co 228.616 {448}	1.000000	0.000000	0.000243	0.000810	OK	1.000000	0.000000	1	0
Cr 267.716 {126}	1.000000	0.000000	0.000327	0.001089	OK	1.000000	0.000000	1	0
Cu 324.754 {104}2	1.000000	0.000000	0.000462	0.001541	OK	1.000000	0.000000	1	0
Mn 257.610 {131}	1.000000	0.000000	0.000053	0.000175	OK	1.000000	0.000000	1	0
Ni 231.604 {446}	1.000000	0.000000	0.000349	0.001164	OK	1.000000	0.000000	1	0
Ag 328.068 {103}	1.000000	0.000000	0.000523	0.001742	OK	1.000000	0.000000	1	0
V 292.402 {115}	1.000000	0.000000	0.000380	0.001268	OK	1.000000	0.000000	1	0
Zn 206.200 {464}	1.000000	0.000000	0.000110	0.000368	OK	1.000000	0.000000	1	0
As 189.042 {478}	1.000000	0.000000	0.001212	0.004040	OK	1.000000	0.000000	1	0
Tl 190.856 {477}	1.000000	0.000000	0.001408	0.004695	OK	1.000000	0.000000	1	0
Pb 220.353 {453}	1.000000	0.000000	0.001100	0.003667	OK	1.000000	0.000000	1	0
Se 196.090 {472}	1.000000	0.000000	0.002154	0.007179	OK	1.000000	0.000000	1	0
Sb 206.833 {463}	1.000000	0.000000	0.001610	0.005365	OK	1.000000	0.000000	1	0
Al 396.152 { 85}	1.000000	0.000000	0.012395	0.041315	OK	1.000000	0.000000	1	0
Ca 317.933 {106}	1.000000	0.000000	0.003229	0.010764	OK	1.000000	0.000000	1	0
Fe 259.940 {130}	1.000000	0.000000	0.002761	0.009202	OK	1.000000	0.000000	1	0
Mg 279.079 {121}	1.000000	0.000000	0.019343	0.064476	OK	1.000000	0.000000	1	0
K 766.490 { 44}	1.000000	0.000000	0.038744	0.129148	OK	1.000000	0.000000	1	0
Na 589.592 { 57}	1.000000	0.000000	0.011429	0.038095	OK	1.000000	0.000000	1	0
B 208.959 {462}	1.000000	0.000000	0.000746	0.002487	OK	1.000000	0.000000	1	0
Mo 202.030 {467}	1.000000	0.000000	0.000300	0.000999	OK	1.000000	0.000000	1	0
Si 212.412 {459}	1.000000	0.000000	0.001137	0.003790	OK	1.000000	0.000000	1	0
Sn 189.989 {478}	1.000000	0.000000	0.000642	0.002141	OK	1.000000	0.000000	1	0
Sr 407.771 { 83}	1.000000	0.000000	0.000134	0.000446	OK	1.000000	0.000000	1	0
Ti 334.904 {101}	1.000000	0.000000	0.000394	0.001313	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	0.001139	0.003795	OK	1.000000	0.000000	1	0
Zr 339.198 { 99}	1.000000	0.000000	0.000194	0.000645	OK	1.000000	0.000000	1	0
S 182.034 {485}	1.000000	0.000000	0.002441	0.008136	OK	1.000000	0.000000	1	0
Bi 223.061 {451}	1.000000	0.000000	0.001921	0.006403	OK	1.000000	0.000000	1	0
Li 670.784 { 50}	1.000000	0.000000	0.001968	0.006560	OK	1.000000	0.000000	1	0
P 177.495 {490}	1.000000	0.000000	0.002727	0.009089	OK	1.000000	0.000000	1	0



Mercury Digestion Log

Product: **HG /HGLIQ**
 Matrix: **Soil / Oil / SL / Wipes**

MA Batch #: MA46477
 Analyst: EAL/LL
 Date: 4/10/2019
 Balance ID: B24
 Reagents: See attached sheet
 Auto pipet ID: M72

Method: **SW846 7471B**

Required corrected Temp. Range is 95C. +/- 3C.

Hot Block # 7 Start Time: 8:30 End Time: 9:00 Tube # 1-37
 Start Temp: 94 Corrected Start Temp: 93 Correction: -1 Thermometer ID: 6805236
 End Temp: 94 Corrected Start Temp: 93 Correction: -1 Thermometer ID: 6805236
 Hot Block # 7 Start Time: 9:00 End Time: 9:30 Tube # 1-48
 Start Temp: 94 Corrected Start Temp: 93 Correction: -1 Thermometer ID: 6805236
 End Temp: 94 Corrected Start Temp: 93 Correction: -1 Thermometer ID: 6805236

Bot #	Sample ID	Initial Sample Wt. (gm)	Final Vol. (ml)	Spike Used		Spikelet and Conc. (mg/L)	MP Number	Comments/Lot # and Vendor
				Amount Spiked	Added Y or N			
1	MP14055-MB1	0.6001	100				MP14055	
2	MP14055-B1	0.6001	100	2.0 ml	Y	0.1		HG-19-144-295-HGA1, IN. V
3	MP14055-S1	0.6351	100	2.0 ml	Y	0.1		JC85997-1, HG-19-144-295-HGA1, IN. V
4	MP14055-S2	0.6198	100	2.0 ml	Y	0.1		JC85997-1, HG-19-144-295-HGA1, IN. V
5	MP14055-D1	0.6627	100					JC85997-1
6	JC85997-1	0.6416	100					
7	JC85997-2	0.7232	100					
8	JC85997-3	0.6672	100					
9	JC85997-4	0.6270	100					
10	JC85997-5	0.6856	100					
11	JC85997-6	0.6336	100					
12	JC85997-7	0.6793	100					
13	JC85997-8	0.6821	100					
14	JC85997-9	0.6904	100					
15	JC85997-10	0.6960	100					
16	JC85998-1	0.8888	100					
17	JC85998-2	0.6607	100					
18	JC85998-3	0.6219	100					
19	JC85998-4	0.8760	100					
20	MP14056-MB1	0.6001	100				MP14056	
21	MP14056-B1	0.6001	100	2.0 ml	Y	0.1		HG-19-144-295-HGA1, IN. V
22	MP14056-S1	0.6185	100	2.0 ml	Y	0.1		JC85833-1A, HG-19-144-295-HGA1, IN. V
23	MP14056-S2	0.6521	100	2.0 ml	Y	0.1		JC85833-1A, HG-19-144-295-HGA1, IN. V
24	JC85833-1A	0.6465	100					
25	JC85833-2A	0.6643	100					
26	JC85833-3A	0.6099	100					
27	JC86043-1	0.7428	100					
28	JC86043-2	0.6308	100					
29	JC86043-3	0.6041	100					
30	JC86043-4	0.7048	100					
31	JC86043-5	0.7303	100					
32	JC85947-5	0.7057	100					
33	JC85947-10	0.6941	100					
34	JC85947-15	0.6359	100					
35	JC85947-20	0.6574	100					

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Form: **HG-022F-02**
 Revision Date: **08/24/15**

ANALYST: LL
 SPIKE WITNESS: EM
 QC REVIERER: CR

DATE: 4/10/19
 DATE: 4/10/19
 DATE: 4/10/19



Mercury Digestion Log

Product: **HG /HGLIQ**
 Matrix: **Soil / Oil / SL / Wipes**

MA Batch #: MA46477
 Analyst: EAL/LL
 Date: 4/10/2019
 Balance ID: B24
 Reagents: See attached sheet
 Auto pipet ID: M72

Method: **SW846 7471B**

Required corrected Temp. Range is 95C. +/- 3C.

Hot Block # 7 Start Time: 8:30 End Time: 9:00 Tube # 1-37
 Start Temp: 94 Corrected Start Temp: 93 Correction: -1 Thermometer ID: 6805236
 End Temp: 94 Corrected Start Temp: 93 Correction: -1 Thermometer ID: 6805236
 Hot Block # 7 Start Time: 9:00 End Time: 9:30 Tube # 1-48
 Start Temp: 94 Corrected Start Temp: 93 Correction: -1 Thermometer ID: 6805236
 End Temp: 94 Corrected Start Temp: 93 Correction: -1 Thermometer ID: 6805236

Bot #	Sample ID	Initial Sample Wt. (gm)	Final Vol. (ml)	Spike Used		Spike/lot and Conc. (mg/L)	MP Number	Comments/Lot # and Vendor
				Amount Spiked	Added Y or N			
36	JC85947-25	0.6607	100					
37	JC85947-30	0.7966	100					
38	MP14121-MB1	0.6001	100				MP14121	
39	MP14121-B1	0.6001	100	2.0 ml	Y	0.1		HG-19-144-295-HGA1, IN. V
40	MP14121-S1	1.0245	100	2.0 ml	Y	0.1		JC85964-19, HG-19-144-295-HGA1, IN. V
41	MP14121-S2	1.0660	100	2.0 ml	Y	0.1		JC85964-19, HG-19-144-295-HGA1, IN. V
42	JC85964-19	1.0663	100					
43	JC85964-1	1.0032	100					
44	JC85964-2	1.0332	100					
45	JC85964-3	1.0488	100					
46	JC85964-4	0.9664	100					
47	JC85964-5	0.9365	100					
48	JC85964-6	0.8526	100					
49	JC85964-7	0.9430	100					
50	JC85964-8	0.8197	100					
51	JC85964-9	0.8136	100					
52	JC85964-10	0.8816	100					
53	JC85964-11	1.0868	100					
54	JC85964-12	1.0485	100					
55	JC85964-13	1.0970	100					
56	JC85964-14	1.0498	100					
57	JC85964-15	1.0244	100					
58	JC85964-16	1.0442	100					
59	JC85964-17	1.0704	100					
60	JC85964-18	0.9075	100					
61	JC85964-20	0.9734	100					
62	MP14124-MB1	0.6001	100				MP14124	
63	MP14124-B1	0.6001	100	2.0 ml	Y	0.1		HG-19-144-295-HGA1, IN. V
64	MP14124-S1	0.9100	100	2.0 ml	Y	0.1		JC85964-67, HG-19-144-295-HGA1, IN. V
65	MP14124-S2	0.9288	100	2.0 ml	Y	0.1		JC85964-67, HG-19-144-295-HGA1, IN. V
66	JC85964-67	0.9222	100					
67	JC85964-61	0.9243	100					
68	JC85964-62	0.9337	100					
69	JC85964-63	1.0893	100					
70	JC85964-64	1.0614	100					

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Form: **HG-022F-02**
 Revision Date: **08/24/15**

ANALYST: LL
 SPIKE WITNESS: EAL
 QC REVIERER: _____

DATE: 4/10/19
 DATE: 4/10/19
 DATE: _____



Mercury Digestion Log

Product: HG /HGLIQ
 Matrix: Soil / Oil / SL / Wipes

MA Batch #: MA46477
 Analyst: EAL/LL
 Date: 4/10/2019
 Balance ID: B24
 Reagents: See attached sheet
 Auto pipet ID: M72

Method: SW846 7471B

Required corrected Temp. Range is 95C. +/- 3C.

Hot Block # 7 Start Time: 8:30 End Time: 9:00 Tube # 1-37
 Start Temp: 94 Corrected Start Temp: 93 Correction: -1 Thermometer ID: 6805236
 End Temp: 94 Corrected Start Temp: 93 Correction: -1 Thermometer ID: 6805236
 Hot Block # 7 Start Time: 9:00 End Time: 9:30 Tube # 1-48
 Start Temp: 94 Corrected Start Temp: 93 Correction: -1 Thermometer ID: 6805236
 End Temp: 94 Corrected Start Temp: 93 Correction: -1 Thermometer ID: 6805236

Bot #	Sample ID	Initial Sample Wt. (gm)	Final Vol. (ml)	Spike Used		Spike/lot and Conc. (mg/L)	MP Number	Comments/Lot # and Vendor
				Amount Spiked	Added Y or N			
71	JC85964-65	1.0114	100					
72	JC85964-66	1.0587	100					
73	JC85964-68	1.0964	100					
74	JC85964-69	1.0731	100					
75	JC85964-70	1.0326	100					
76	JC85964-71	1.0499	100					
77	JC85964-72	1.0985	100					
78	JC85964-73	1.1020	100					
79	JC85964-74	1.0132	100					
80	JC85964-75	0.8221	100					
81	JC85964-76	0.8521	100					
82	JC85964-77	1.0956	100					
83	JC85964-78	1.0865	100					
84	JC85964-79	0.7646	100					
85	JC85964-80	1.0379	100					
86			100					
87			100					
88			100					
89			100					
90			100					
91			100					
92			100					
93			100					
94			100					
95			100					
96			100					
97			100					
98			100					
99			100					
100			100					
101			100					
102			100					
103			100					
104			100					
105			100					

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Form: HG-022F-02
 Revision Date: 08/24/15

ANALYST: LL
 SPIKE WITNESS: EM
 QC REVIEWER: _____

DATE: 4/10/19
 DATE: 4/10/19
 DATE: _____



Mercury Digestion Log

Product: HG /HGLIQ
Matrix: Soil / Oil / SL / Wipes

MA Batch #: MA46477
Analyst: EAL/LL
Date: 4/10/2019
Balance ID: B24
Reagents: See attached sheet
Auto pipet ID: M72

Method: SW846 7471B

Required corrected Temp. Range is 95C. +/- 3 C.

Hot Block # 7 Start Time: 7:30 End Time: 8:00 Tube # 1-CRI
Start Temp: 94 Corrected Start Temp: 93 Correction: -1 Thermometer ID: 6805236
End Temp: 94 Corrected Start Temp: 93 Correction: -1 Thermometer ID: 6805236

Bot #	Sample ID	Initial Sample Wt. (gm)	Final Vol. (ml)	Spike Used		Spikelot and Conc. (mg/L)	MP Number	Comments/Lot # and Vendor
				Amount Spiked	Added Y or N			
S-1	Calibration Blank	0.6	100 ml	0.0 ml	N	N/A	N/A	N/A
S-2	0.20 ug/l standard	0.6	100 ml	2.0 ml	Y	0.0100	N/A	HG-19-144-296-HGA2, IN. V
S-3	0.50 ug/l standard	0.6	100 ml	5.0 ml	Y	0.0100	N/A	HG-19-144-296-HGA2, IN. V
S-4	1.00 ug/l standard	0.6	100 ml	1.0 ml	Y	0.1000	N/A	HG-19-144-295-HGA1, IN. V
S-5	2.50 ug/l standard	0.6	100 ml	2.5 ml	Y	0.1000	N/A	HG-19-144-295-HGA1, IN. V
S-6	5.00 ug/l standard	0.6	100 ml	5.0 ml	Y	0.1000	N/A	HG-19-144-295-HGA1, IN. V
ICV	ICV (External)	0.6	100 ml	3.0 ml	Y	0.1		HG-19-144-297-HGB1, IN. V
ICB	ICB	0.6	100 ml	0.0 ml	N	N/A	N/A	
ccv	CCV	0.6	100 ml	2.5 ml	Y	0.1		HG-19-144-295-HGA1, IN. V
ccb	CCB	0.6	100 ml	0.0 ml	N	N/A	N/A	
CRI	CRI	0.6	100 ml	2.0 ml	Y	0.01		HG-19-144-296-HGA2, IN. V

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Reagent Information Log- Hg Soil

MA # 46477

Reagents	Exp. Date	Reagent # or manufacturer lot #
<u>Conc. HydroChloric Acid</u>	<u>4/5/2021</u>	<u>Baker 217157</u>
<u>Conc. Nitric Acid</u>	<u>4/2/2021</u>	<u>Baker -213500</u>
<u>Sodium Chloride-Hydroxylamine Hydrochloride</u>	<u>10/1/2019</u>	<u>HG-19-144 257 -HGACL</u>
<u>Potassium Permanganate</u>	<u>10/1/2019</u>	<u>HG-19-144 255 -HGKM2</u>
<u>Stannous Chloride</u>	<u>4/12/2019</u>	<u>HG-19-144 298 -HGS</u>
<u>STD Hg standard solution 1000 ppm</u>	<u>3/1/2020</u>	<u>Inorganic Ventures K2-HG669550</u>
<u>STD Hg standard solution 100 ppb</u>	<u>4/12/2019</u>	<u>HG-19-144 295 -HGA1</u>
<u>STD Hg standard solution 10 ppb</u>	<u>4/12/2019</u>	<u>HG-19-144 296 -HGA2</u>
<u>ICV Hg standard solution 1000 ppm</u>	<u>6/30/2021</u>	<u>Ultra T00601</u>
<u>ICV Hg standard solution 100 ppb</u>	<u>4/12/2019</u>	<u>HG-19-144 297 -HGB1</u>
<u>Solid Lab control/Soil LC</u>	<u>3/31/2020</u>	<u>ERA D094-540</u>
<u>Aqua Regia</u>	<u>4/12/2019</u>	<u>HG-19-144 299 -HGKAQ</u>
<u>Dilution acid</u>	<u>10/1/2019</u>	<u>HG-19-144 258 -HGD1</u>
<u>Digestion Tubes</u>	<u>N/A</u>	<u>Environmental Express 1808354</u>
<u>Teflon Chips (For Soil MB)</u>	<u>N/A</u>	<u>Chemware , Lot: 23656541</u>

Form: GN087A80-04

Rev.Date: 06/06/17

Solids/Soil Metals Digestion Form

Batch Information							
Batch ID	Start Date	Start Time	End Date	End time	QC Samp 1	QC Samp 2	
MP14093	4/11/2019	9:10	4/11/2019	1330	JC86043-4		
Temperature							
		Block ID	Therm. ID#	Balance ID	Temperature	Correction	Corrected Temp
1	Start	7	3124598	B-41	94	-2	92
1	End	7	3124598	NA	96	-2	94
2	Start						
2	End			NA			
Methods and Equipment							
	Dig. Method	Heating Method		Auto Pipette #	Digestion Tube Lot #		
	SW846 3050B	Digestion Block		M-74	1812117		
Sample ID	Bottle ID	Final Volume (ML)	Wet Weight (G)	Reagent Groups Added	Spike Groups Added	Comments	
MP14093-MB1	N/A	100	1.05	ABCD			
MP14093-B1	N/A	100	1.00	ABCD	ABCD		
MP14093-S1	1	100	1.01	ABCD	ABCD		
MP14093-S2	1	100	1.04	ABCD	ABCD		
MP14093-SD1	1	100	1.02	ABCD			
JC86043-1	1	100	1.04	ABCD			
JC86043-2	1	100	1.04	ABCD			
JC86043-3	1	100	0.97	ABCD			
JC86043-4	1	100	1.02	ABCD			
JC86043-5	1	100	1.00	ABCD			
JC86046-1	1	100	0.97	ABCD			
JC86064-1	3	100	1.05	ABCD			
JC86118-1	1	100	1.01	ABCD			
JC86118-3	1	100	1.01	ABCD			
JC86118-5	1	100	0.98	ABCD			
JC86118-7	1	100	0.96	ABCD			
JC86118-8	1	100	0.99	ABCD			
JC86122-2A	1	100	0.97	ABCD			
JC86122-3A	1	100	0.98	ABCD			
JC86122-4A	1	100	1.04	ABCD			
JC86122-5A	1	100	1.01	ABCD			
JC86147-1	1	100	1.03	ABCD			
JC86147-2	1	100	1.01	ABCD			
JC86147-3	1	100	1.01	ABCD			

Reagents Groups		
Group	Description	MLs Used
A	CONC HNO3	5
B	1:1 HNO3	10
C	H2O2	5
D	CONC HCL	10
E		
F		
G		
H		

Spike Groups		
Group	Description	MLs Used
A	ACCUTEST 13A REV-1	1
B	ACCUTEST 14A REV-1	1
C	MINERALS 5000PPM	0.5
D	AG 20PPM	1.25
E		
F	AG 20PPM	1.25
G		
H		

Comments: _____

Analyst COLLEENH Approved by Wendyz Approved on 4/11/2019

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 14093 Date: 4/11/19
 Matrix: ALL

<u>Standard/Reagent Type</u>	<u>Exp. Date</u>	<u>Standard/Reagent ID</u>
Spiking Solution - (ACCUTEST-13A REV1)	9/27/2019	MP-015-1150
Spiking Solution - (ACCUTEST-14A REV1)	9/27/2019	MP-015-1151
Spiking Solution - 5000 mg/l Minerals	2/15/2020	N2-MEB674932 MFG: INO. VENT.
Spiking Solution - Sulfur 1000ppm	4/11/2021	LOT: 041118 MFG: ABS. GRADE
Spiking Solution - Si 1000ppm	10/31/2019	N2-SI668066 MFG: INO. VENT.
Spiking Solution - Bi 1000ppm	1/16/2020	N2-BI669548 MFG: INO. VENT.
Spiking Solution - Se 20ppm	9/27/2019	MP-015-1149
Spiking Solution - Li 1000ppm	1/24/2020	N2-LI665824 MFG: INO. VENT.
Spiking Solution- Ag 20 ppm	10/9/2019	MP-015-1155
Spiking Solution - (ACCUTEST-13B REV1)	9/27/2019	MP-015-1147
Spiking Solution - (ACCUTEST-14B REV1)	7/3/2019	MP-015-1126
Spiking Solution - 1000ppm Minerals	6/4/2019	MP-015-1117
Spiking Solution- P		
Nitric Acid	4/10/2021	LOT: 213500 MFG: J.T. BAKER
Nitric Acid (1:1)	10/9/2019	MP-018-42-174 1:1 HNO3
Hydrochloric Acid	4/8/2021	LOT: 217157 MFG: J.T. BAKER
Hydrochloric Acid (1:1)	10/8/2019	MP-018-42-173 1:1 HCL
Hydrogen Peroxide	4/4/2021	LOT: 188006 MFG: FISHER
Soil Lab Control/Soil LC	3/31/2020	LOT: D094-540 MFG: ERA
Teflon Chips(For Soil MB and Blank Spike)	N/A	LOT: 24242815 MFG: SAINT-GOBAIN
Digestion Tubes	N/A	LOT: 1812114 MFG: ENV. EXPRESS
pH Paper	6/15/2021	LOT: 217518 MFG: HYDRION
Filter paper Q8	N/A	LOT: 16917460 MFG: FISHER
Filter paper 0.45µm	N/A	LOT: F8MA26136E MFG: FISHER

Spike witnessed By: TG

Validated By: _____

Validated On: _____

Metals Prep Reagent
1/17/18

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14029
14093

Date: 6/26/19 Analyst: AD MP #

Post spike for ICP Method 6010D

Spiking solution	Elements	Spike added (Y/N)	Vendor	Intermediate Lot #	Exp. Date	Conc. (mg/l)	Amt of Spike added (ml)	Digestate sample volume (ml)	Final Digestate volume in ml (Spike+ Sample)	Final Conc at the instrument (mg/l)
Mixed ICP intermediate Metals Solution (ACCUTEST-13A-REVI)	Ba, Be, B, Cd, Cr, Co, Cu, Pb, Mn, Ni, P, Se, Sr, Tl, V, Zn	Yes	MP-015	MP-015-1120	6/27/19	200	0.2		20	2
Mixed ICP intermediate Metals Solution (ACCUTEST-14A-REVI)	Sb, As, Mo, Sn, Ti, W, Zr	Yes	MP-015	MP-015-1120	6/27/19	200	0.2	9.25	20	2
Ag Spike Intermediate	Ag	Yes	Whorise	MP-015-1116	5/28/19	20	0.25			0.25
Metals Mix	Ca, Al, Fe, Mg, K, Na	Yes	MP-015	N2-MEB 67-2948	11/27/19	5000	0.1			25
S spike	S					200	0.2			2
Bi Spike	Bi					200	0.2			2
Li Spike	Li					200	0.2			2
Si spike	Si					1000	0.1			5

Form: DAYT-MET-0095-01-FORM
Rev. Date : 7/10/2018

Reviewed by:

General Chemistry

QC Data Summaries

Includes the following where applicable:

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries
- Instrument Runlogs/QC
- Percent Solids Raw Data Summary

METHOD BLANK AND SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: JC86043
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	GP20669/GN94233	0.24	0.0	mg/kg	2	2.06	103.0	90-110%

Associated Samples:

Batch GP20669: JC86043-1, JC86043-2, JC86043-3, JC86043-4, JC86043-5

(*) Outside of QC limits

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DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: JC86043
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA

Analyte	Batch ID	QC Sample	Units	Original Result	DUP Result	RPD	QC Limits
Cyanide	GP20669/GN94233	JC86337-1	mg/kg	0.14	0.36	88.0(a)	0-49%
Solids, Percent	GN93922	JC86043-1	%	72.7	74.6	2.6	0-5%

Associated Samples:

Batch GN93922: JC86043-1, JC86043-2, JC86043-3, JC86043-4, JC86043-5

Batch GP20669: JC86043-1, JC86043-2, JC86043-3, JC86043-4, JC86043-5

(*) Outside of QC limits

(a) RPD acceptable due to low duplicate and sample concentrations.

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MATRIX SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: JC86043
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	GP20669/GN94233	JC86337-1	mg/kg	0.14	2.06	2.5	114.6	75-125%

Associated Samples:

Batch GP20669: JC86043-1, JC86043-2, JC86043-3, JC86043-4, JC86043-5

(*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

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SGS Instrument Runlog
Inorganics Analyses

Login Number: JC86043
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA

File ID: E041719W1.CN Date Analyzed: 04/17/19 Methods: EPA 335.4/LACHAT, SW846 9012B/LACHAT
Analyst: KI Run ID: GN94233
Parameters: Cyanide

Time	Sample Description	Dilution Factor	PS Recov	Comments
15:22	GN94233-STD1	1		STDA
15:24	GN94233-STD2	1		STDB
15:25	GN94233-STD3	1		STDC
15:26	GN94233-STD4	1		STDD
15:28	GN94233-STD5	1		STDE
15:29	GN94233-STD6	1		STDF
15:30	GN94233-STD7	1		STDG
15:32	GN94233-ICV1	1		
15:33	GN94233-ICB1	1		
15:35	GN94233-CCV1	1		
15:36	GN94233-CCB1	1		
15:37	GP20669-MB1	1		
15:39	GP20669-B1	1		
15:40	GP20669-S1	1		
15:41	GP20669-S2	1		
15:43	GP20669-D1	1		
15:44	JC86337-1	1		(sample used for QC only; not part of login JC86043)
15:45	JC86337-2	1		(sample used for QC only; not part of login JC86043)
15:47	ZZZZZZ	1		
15:48	ZZZZZZ	1		
15:49	ZZZZZZ	1		
15:51	GN94233-CCV2	1		
15:52	GN94233-CCB2	1		
15:54	ZZZZZZ	1		
15:55	ZZZZZZ	1		
15:56	ZZZZZZ	1		
15:58	ZZZZZZ	1		
15:59	ZZZZZZ	1		
16:00	ZZZZZZ	1		
16:02	JC86043-1	1		
16:03	JC86043-2	1		
16:04	JC86043-3	1		
16:06	JC86043-4	1		

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SGS Instrument Runlog
Inorganics Analyses

Login Number: JC86043
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA

File ID: E041719W1.CN Date Analyzed: 04/17/19 Methods: EPA 335.4/LACHAT, SW846 9012B/LACHAT
Analyst: KI Run ID: GN94233
Parameters: Cyanide

Time	Sample Description	Dilution Factor	PS Recov	Comments
16:07	GN94233-CCV3	1		
16:08	GN94233-CCB3	1		
16:10	JC86043-5	1		
16:11	GP20655-MB1	1		
16:13	GP20655-B1	1		
16:14	GP20655-S1	1		
16:15	GP20655-S2	1		
16:17	GP20655-D1	1		
16:18	ZZZZZZ	1		
16:19	ZZZZZZ	1		
16:21	ZZZZZZ	1		
16:22	ZZZZZZ	1		
16:23	GN94233-CCV4	1		
16:25	GN94233-CCB4	1		
16:26	ZZZZZZ	1		
16:28	ZZZZZZ	1		
16:29	ZZZZZZ	1		
16:30	ZZZZZZ	1		
16:32	ZZZZZZ	1		
16:33	ZZZZZZ	1		
16:34	ZZZZZZ	1		
16:36	GN94233-CCV5	1		
16:37	GN94233-CCB5	1		
16:41	GN94233-CCV6	1		
16:43	GN94233-CCB6	1		
16:44	JC86300-2	1		(sample used for QC only; not part of login JC86043)
16:45	GN94233-CCV7	1		
16:47	GN94233-CCB7	1		
16:48	JC86300-3	1		(sample used for QC only; not part of login JC86043)
16:49	ZZZZZZ	1		
16:51	ZZZZZZ	1		
16:52	ZZZZZZ	1		
16:54	ZZZZZZ	1		

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SGS Instrument Runlog
Inorganics Analyses

Login Number: JC86043
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA

File ID: E041719W1.CN Date Analyzed: 04/17/19 Methods: EPA 335.4/LACHAT, SW846 9012B/LACHAT
Analyst: KI Run ID: GN94233
Parameters: Cyanide

Time	Sample Description	Dilution Factor	PS Recov	Comments
16:55	ZZZZZZ	1		
16:56	GP20656-MB1	1		
16:58	GP20656-B1	1		
16:59	GP20656-S1	1		
17:00	GP20656-S2	1		
17:02	GN94233-CCV8	1		
17:03	GN94233-CCB8	1		
17:04	GP20656-D1	1		ccb failed, see rerun
17:06	JC86276-1	1		(sample used for QC only; not part of login JC86043)
17:07	JC86276-2	1		(sample used for QC only; not part of login JC86043)
17:08	ZZZZZZ	1		
17:10	ZZZZZZ	1		
17:11	ZZZZZZ	1		
17:13	ZZZZZZ	1		
17:14	ZZZZZZ	1		
17:15	ZZZZZZ	1		
17:17	ZZZZZZ	1		
17:18	GN94233-CCV9	1		
17:19	GN94233-CCB9	1		
17:27	GN94233-CCV10	1		
17:28	GN94233-CCB10	1		
17:30	GP20656-D1	1		
17:31	JC86276-1	1		(sample used for QC only; not part of login JC86043)
17:33	JC86276-2	1		(sample used for QC only; not part of login JC86043)
17:34	ZZZZZZ	1		
17:35	ZZZZZZ	1		
17:37	ZZZZZZ	1		
17:38	ZZZZZZ	1		
17:39	ZZZZZZ	1		
17:41	ZZZZZZ	1		
17:42	ZZZZZZ	1		
17:43	GN94233-CCV11	1		
17:45	GN94233-CCB11	1		

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SGS Instrument Runlog
Inorganics Analyses

Login Number: JC86043
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA

File ID: E041719W1.CN Date Analyzed: 04/17/19 Methods: EPA 335.4/LACHAT, SW846 9012B/LACHAT
Analyst: KI Run ID: GN94233
Parameters: Cyanide

Time	Sample Description	Dilution Factor	PS Recov	Comments
17:46	ZZZZZZ	1		
17:48	ZZZZZZ	1		
17:49	ZZZZZZ	1		
17:50	ZZZZZZ	1		
17:52	ZZZZZZ	1		
17:53	ZZZZZZ	1		
17:56	GN94233-CCV12	1		
17:57	GN94233-CCB12	1		

Refer to raw data for calibration curve and standards.

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Instrument QC Summary
Inorganics Analyses

Login Number: JC86043
Account: BBLNYS - Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA

File ID: E041719W1.CN Date Analyzed: 04/17/19 Methods: EPA 335.4/LACHAT, SW846 9012B/LACHAT
Run ID: GN94233 Units: mg/l

Sample Number	Parameter	Result	RL	IDL/MDL	True Value	% Recov.	QC Limits
GN94233-ICV1	Cyanide	0.311	0.010	0.0041	.3	103.7	90-110
GN94233-ICB1	Cyanide	-0.00476	0.010	0.0041			
GN94233-CCV1	Cyanide	0.420	0.010	0.0041	.4	105.0	90-110
GN94233-CCB1	Cyanide	-0.00628	0.010	0.0041			
GN94233-CCV2	Cyanide	0.422	0.010	0.0041	.4	105.5	90-110
GN94233-CCB2	Cyanide	-0.00437	0.010	0.0041			
GN94233-CCV3	Cyanide	0.420	0.010	0.0041	.4	105.0	90-110
GN94233-CCB3	Cyanide	-0.00608	0.010	0.0041			
GN94233-CCV4	Cyanide	0.418	0.010	0.0041	.4	104.5	90-110
GN94233-CCB4	Cyanide	0.0041 U	0.010	0.0041			
GN94233-CCV5	Cyanide	0.421	0.010	0.0041	.4	105.3	90-110
GN94233-CCB5	Cyanide	-0.00421	0.010	0.0041			
GN94233-CCV6	Cyanide	0.420	0.010	0.0041	.4	105.0	90-110
GN94233-CCB6	Cyanide	-0.00652	0.010	0.0041			
GN94233-CCV7	Cyanide	0.417	0.010	0.0041	.4	104.3	90-110
GN94233-CCB7	Cyanide	-0.00531	0.010	0.0041			
GN94233-CCV8	Cyanide	0.419	0.010	0.0041	.4	104.8	90-110
GN94233-CCB8	Cyanide	-0.00675	0.010	0.0041			
GN94233-CCV9	Cyanide	0.402	0.010	0.0041	.4	100.5	90-110
GN94233-CCB9	Cyanide	0.0337 *(a)	0.010	0.0041			
GN94233-CCV10	Cyanide	0.403	0.010	0.0041	.4	100.8	90-110
GN94233-CCB10	Cyanide	-0.00514	0.010	0.0041			
GN94233-CCV11	Cyanide	0.403	0.010	0.0041	.4	100.8	90-110
GN94233-CCB11	Cyanide	-0.00479	0.010	0.0041			
GN94233-CCV12	Cyanide	0.405	0.010	0.0041	.4	101.3	90-110
GN94233-CCB12	Cyanide	0.0041 U	0.010	0.0041			

(!) Outside of QC limits

(a) No samples reported for this test in the area associated with this QC.

12.4
12

Percent Solids Raw Data Summary

Job Number: JC86043
Account: BBLNYS Arcadis
Project: National Grid, Philly Coke, Philadelphia, PA

Sample: JC86043-1 Analyzed: 10-APR-19 by BG Method: SM2540 G 18TH ED MOD
ClientID: PCTP-08R (10-12)

Wet Weight (Total)	27.64	g
Tare Weight	19.54	g
Dry Weight (Total)	25.43	g
Solids, Percent	72.7	%

Sample: JC86043-2 Analyzed: 10-APR-19 by BG Method: SM2540 G 18TH ED MOD
ClientID: PCTP-10R (7-9)

Wet Weight (Total)	30.63	g
Tare Weight	22.26	g
Dry Weight (Total)	29.1	g
Solids, Percent	81.7	%

Sample: JC86043-3 Analyzed: 10-APR-19 by BG Method: SM2540 G 18TH ED MOD
ClientID: PCTP-47R (5-7)

Wet Weight (Total)	35.6	g
Tare Weight	26.35	g
Dry Weight (Total)	34.44	g
Solids, Percent	87.5	%

Sample: JC86043-4 Analyzed: 10-APR-19 by BG Method: SM2540 G 18TH ED MOD
ClientID: PCTP-32R (6-8)

Wet Weight (Total)	26.34	g
Tare Weight	18.15	g
Dry Weight (Total)	24.33	g
Solids, Percent	75.5	%

Sample: JC86043-5 Analyzed: 10-APR-19 by BG Method: SM2540 G 18TH ED MOD
ClientID: S-122 (10-12)

Wet Weight (Total)	28.17	g
Tare Weight	19.06	g
Dry Weight (Total)	24.39	g
Solids, Percent	58.5	%

12.5
12

General Chemistry

Raw Data

LABORATORY REVIEW SIGNATURE FORM
(To be stored with the raw data)

File ID: E041719W1.CN
Analyst: KI

Date Analyzed: 04/17/19
Run ID: GN94233

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 4/17/19

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 4/18/19

13.1
13

GN94233

e041719w1.cn

Author: Chemistry

Date : 4/17/2019

Original Run Filename: OM_4-17-2019_03-21-34PM.OMN Created: 4/17/2019 3:21:34 PM
 Original Run Author's Signature: [Chemistry]
 Current Run Filename: OM_4-17-2019_03-21-34PM.OMN Last Modified: 4/17/2019 4:39:51 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	4/17/2019@3:22:44 PM	
STDB	1	2	0.600	4/17/2019@3:24:06 PM	
STDC	1	3	0.400	4/17/2019@3:25:28 PM	
STDD	1	4	0.100	4/17/2019@3:26:50 PM	
STDE	1	5	0.0200	4/17/2019@3:28:12 PM	
STDF	1	6	0.0100	4/17/2019@3:29:34 PM	
STDG	1	7	0.00	4/17/2019@3:30:55 PM	
ICV	1	8	0.311	4/17/2019@3:32:17 PM	
Known Conc:			0.300		
Calibration:			Table/Fig. : 1		
ICB	1	9	-4.76e-3	4/17/2019@3:33:39 PM	
Known Conc:			0.00		
CCV	1	S9	0.420	4/17/2019@3:35:00 PM	
Known Conc:			0.400		
CCB	1	S10	-6.28e-3	4/17/2019@3:36:22 PM	
Known Conc:			0.00		
GP20669-MB1	1	10	-4.13e-4	4/17/2019@3:37:43 PM	
GP20669-B1	1	11	0.0860	4/17/2019@3:39:04 PM	
GP20669-S1	1	12	0.0995	4/17/2019@3:40:25 PM	
GP20669-S2	1	13	0.0917	4/17/2019@3:41:46 PM	
GP20669-D1	1	14	0.0130	4/17/2019@3:43:07 PM	
JC86337-1	1	15	5.17e-3	4/17/2019@3:44:28 PM	
JC86337-2	1	16	5.39e-3	4/17/2019@3:45:50 PM	
JC86337-3	1	17	1.19e-3	4/17/2019@3:47:13 PM	
JC86337-4	1	18	-2.24e-3	4/17/2019@3:48:35 PM	
JC86337-5	1	19	-7.78e-4	4/17/2019@3:49:57 PM	
CCV	1	S9	0.422	4/17/2019@3:51:18 PM	
Known Conc:			0.400		
CCB	1	S10	-4.37e-3	4/17/2019@3:52:40 PM	
Known Conc:			0.00		
JC86337-6	1	20	9.60e-4	4/17/2019@3:54:02 PM	
JC86307-2	1	21	-1.61e-3	4/17/2019@3:55:24 PM	
JC86307-3	1	22	-1.45e-3	4/17/2019@3:56:46 PM	
JC86307-4	1	23	-7.46e-4	4/17/2019@3:58:07 PM	
JC86307-5	1	24	-1.22e-3	4/17/2019@3:59:29 PM	
JC86307-6	1	25	-1.65e-3	4/17/2019@4:00:50 PM	
JC86043-1	1	26	6.91e-3	4/17/2019@4:02:11 PM	
JC86043-2	1	27	1.85e-3	4/17/2019@4:03:32 PM	
JC86043-3	1	28	7.41e-3	4/17/2019@4:04:53 PM	
JC86043-4	1	29	0.0147	4/17/2019@4:06:14 PM	
CCV	1	S9	0.420	4/17/2019@4:07:36 PM	
Known Conc:			0.400		
CCB	1	S10	-6.08e-3	4/17/2019@4:08:57 PM	
Known Conc:			0.00		
JC86043-5	1	30	4.23e-3	4/17/2019@4:10:18 PM	
GP20655-MB1	1	31	2.28e-6	4/17/2019@4:11:41 PM	
GP20655-B1	1	32	0.0802	4/17/2019@4:13:03 PM	
GP20655-S1	1	33	0.0724	4/17/2019@4:14:25 PM	
GP20655-S2	1	34	0.0603	4/17/2019@4:15:47 PM	
GP20655-D1	1	35	-5.88e-3	4/17/2019@4:17:10 PM	
JC86307-1A	1	36	-3.41e-3	4/17/2019@4:18:31 PM	
JC86307-7A	1	37	-3.72e-3	4/17/2019@4:19:52 PM	
JC86307-8A	1	38	-1.52e-3	4/17/2019@4:21:14 PM	
JC86307-9A	1	39	-3.27e-3	4/17/2019@4:22:35 PM	
CCV	1	S9	0.418	4/17/2019@4:23:57 PM	
Known Conc:			0.400		
CCB	1	S10	-3.64e-3	4/17/2019@4:25:19 PM	
Known Conc:			0.00		
JC86307-10A	1	40	-5.74e-3	4/17/2019@4:26:40 PM	
JC86307-11A	1	41	-3.61e-3	4/17/2019@4:28:02 PM	

76 rec

W3.7

W5

W3.2

W5.5

W5

96.2

W4.5

13.1
13

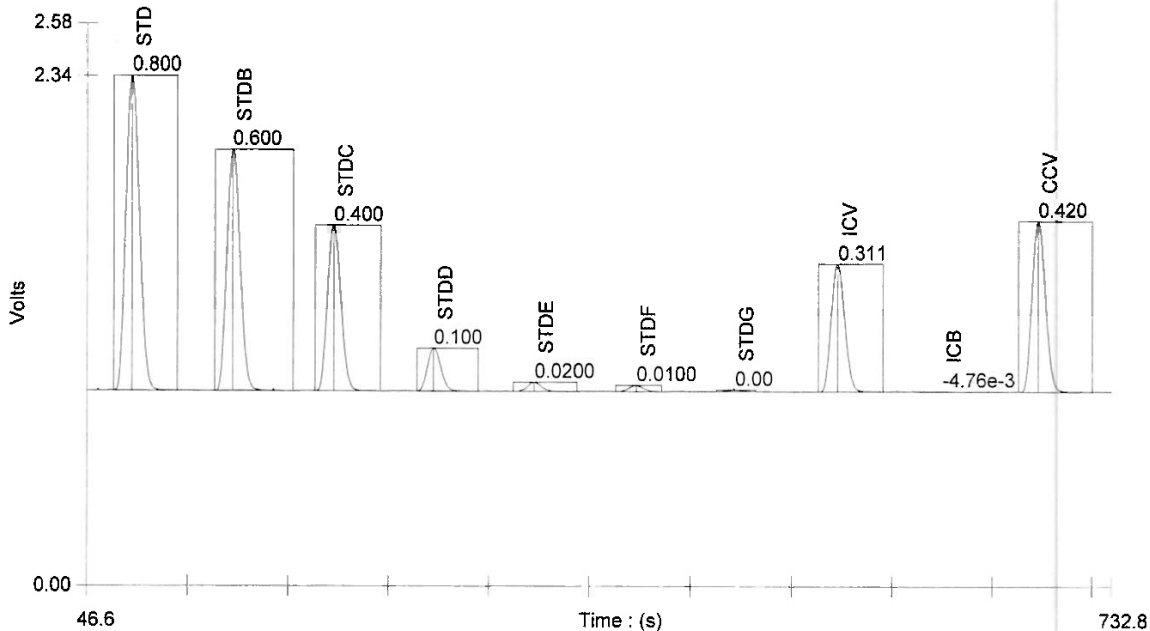
Author: Chemistry

Date : 4/17/2019

JC86307-12A	1	42	-3.97e-4	4/17/2019@4:29:23 PM	
JC86307-13A	1	43	-3.83e-3	4/17/2019@4:30:44 PM	
JC86307-14A	1	44	-3.03e-3	4/17/2019@4:32:05 PM	
JC86307-15A	1	45	-3.12e-3	4/17/2019@4:33:26 PM	
JC86307-16A	1	46	-2.60e-3	4/17/2019@4:34:48 PM	
CCV	1	S9	0.421	4/17/2019@4:36:10 PM	
Known Conc:			100		
CCB	1	S10	-4.21e-3	4/17/2019@4:37:32 PM	
Known Conc:			100		

W5-25

Channel 1 - Set: 1 / 6

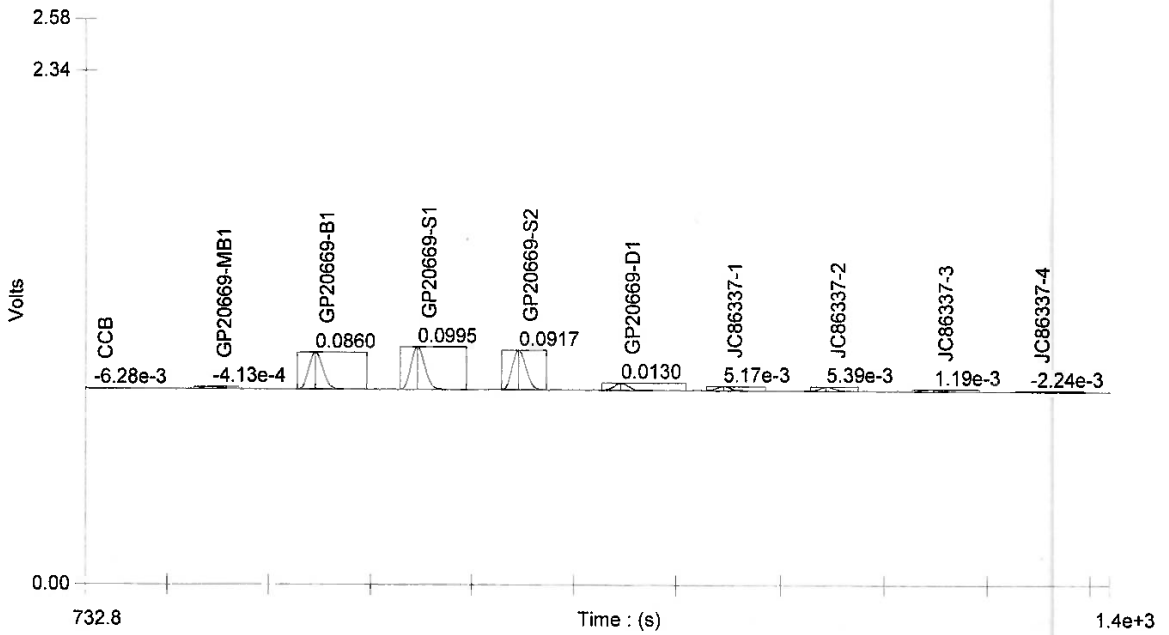


13.1
13

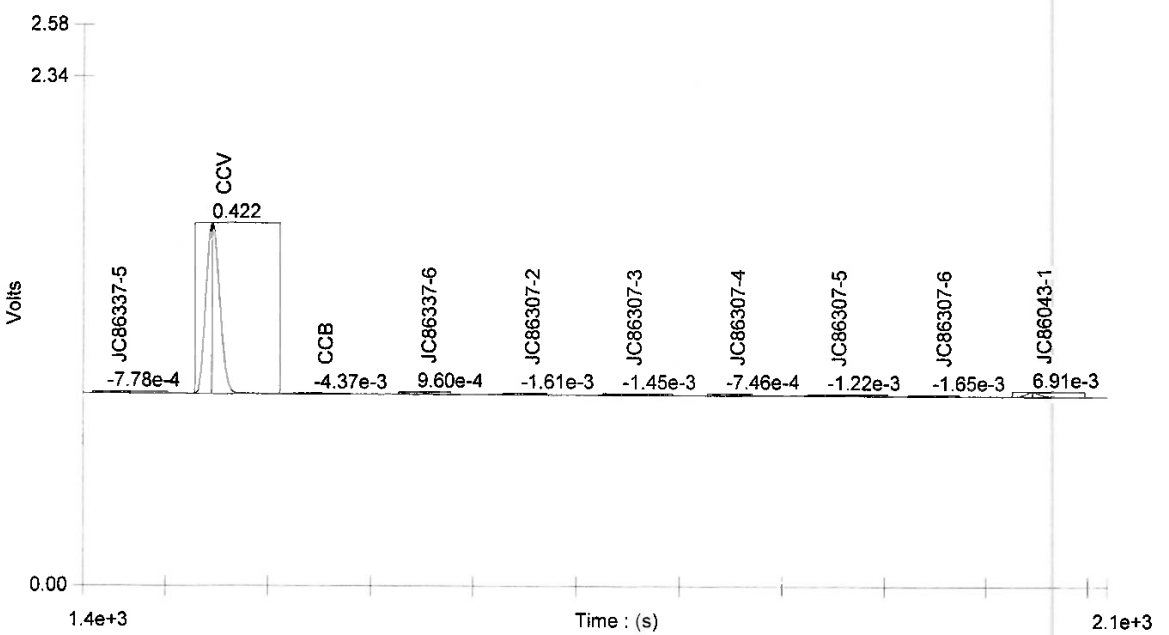
Author: Chemistry

Date : 4/17/2019

Channel 1 - Set: 2 / 6



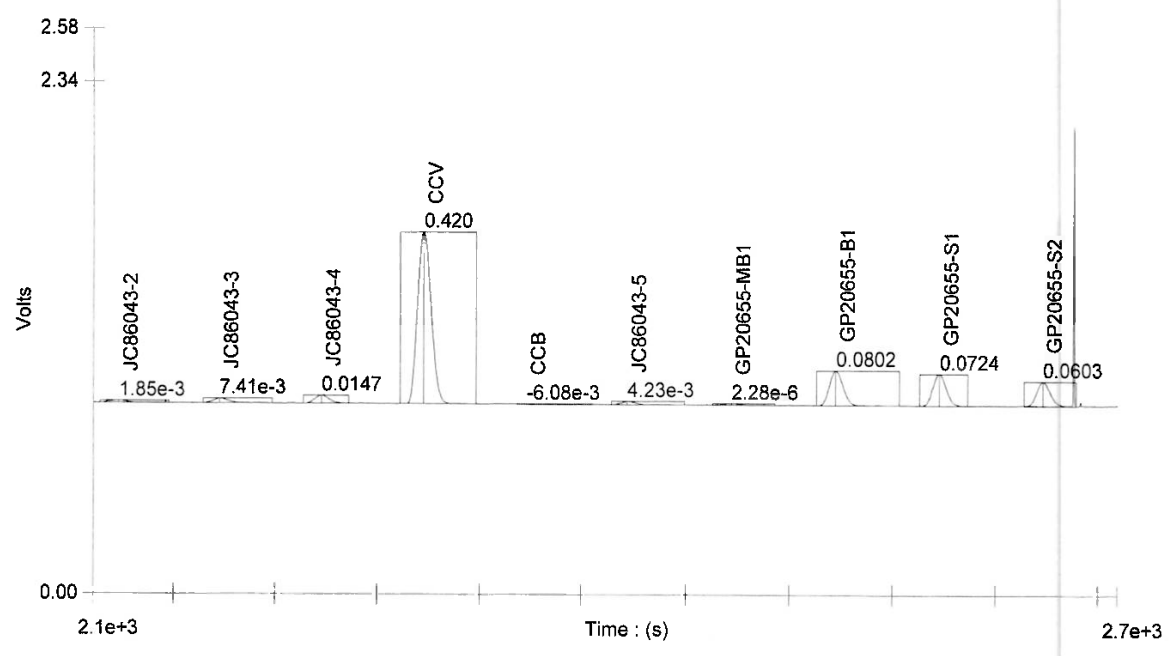
Channel 1 - Set: 3 / 6



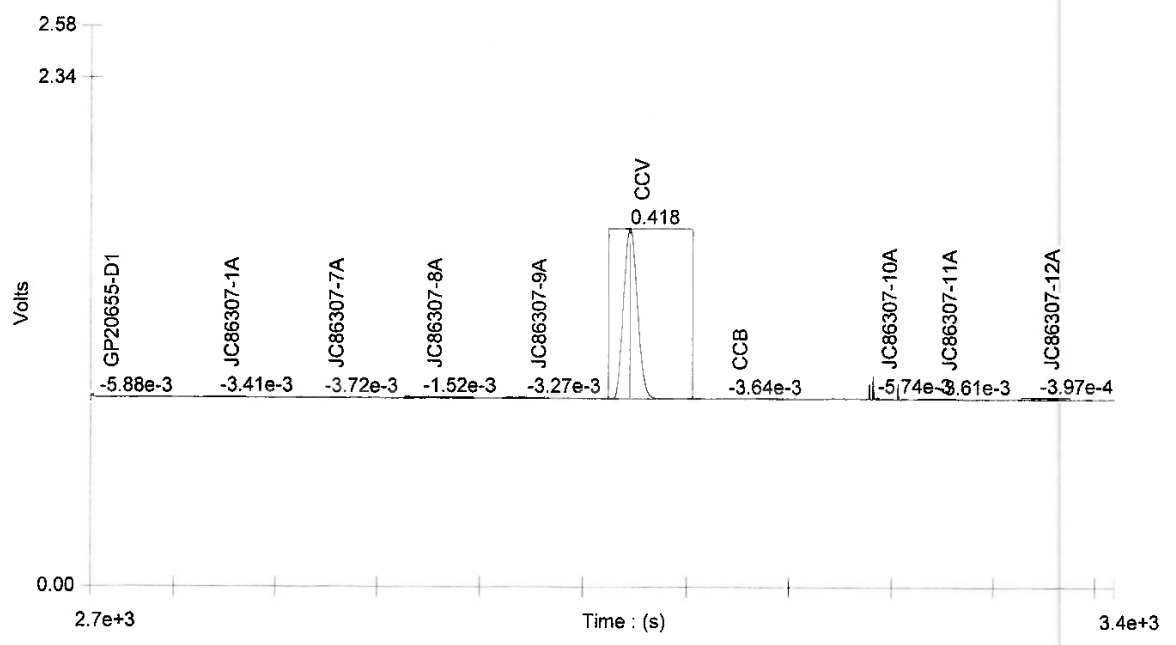
Author: Chemistry

Date : 4/17/2019

Channel 1 - Set: 4 / 6



Channel 1 - Set: 5 / 6



Author: Chemistry

Date : 4/17/2019

Channel 1 - Set: 6 / 6

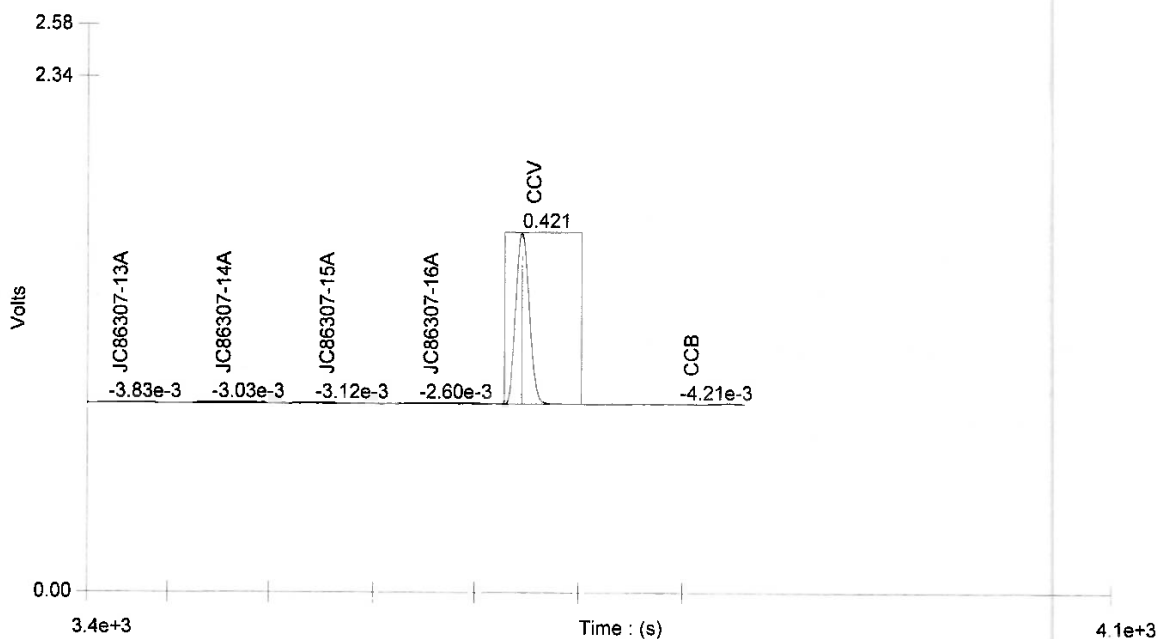
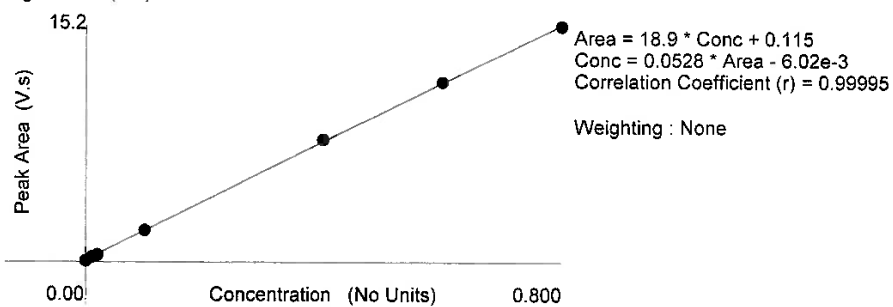


Table : 1 (CN)

	Known Conc. ()	Rep.	Peak Area (V.s)	Peak Height (V)	% RSD	% Residual	Det. Conc ()	Detection Date	Detection Time
1	0.800	1	15.2	1.44	0.0	0.6	0.795	4/17/2019	3:22:44 PM
2	0.600	1	11.5	1.10	0.0	-0.4	0.602	4/17/2019	3:24:06 PM
3	0.400	1	7.80	0.753	0.0	-1.4	0.406	4/17/2019	3:25:28 PM
4	0.100	1	2.01	0.194	0.0	-0.3	0.100	4/17/2019	3:26:50 PM
5	0.0200	1	0.451	0.0421	0.0	8.5	0.0178	4/17/2019	3:28:12 PM
6	0.0100	1	0.306	0.0287	0.0	-0.7	0.0101	4/17/2019	3:29:34 PM
7	0.00	1	0.0818	7.16e-3			-1.70e-3	4/17/2019	3:30:55 PM

Figure : 1 (CN)



2041719w2.cn

Author: Chemistry

Date : 4/17/2019

Original Run Filename: OM_4-17-2019_04-40-35PM.OMN Created: 4/17/2019 4:40:35 PM
 Original Run Author's Signature: [Chemistry]
 Current Run Filename: OM_4-17-2019_04-40-35PM.OMN Last Modified: 4/17/2019 5:22:19 PM
 Current Run Author's Signature: [Chemistry]
 Description: Default new Run

Sample	Rep.	Cup No.	Channel 1 CN	Detection Time	MDF
CCV	1	S9	0.420	4/17/2019@4:41:44 PM	
		Known Conc:	100		
CCB	1	S10	-6.52e-3	4/17/2019@4:43:06 PM	
		Known Conc:	100		
		Calibration:	Table/Fig. : 1		
JC86300-2	1	47	-2.80e-3	4/17/2019@4:44:28 PM	
CCV	1	S9	0.417	4/17/2019@4:45:50 PM	
		Known Conc:	0.400		
CCB	1	S10	-5.31e-3	4/17/2019@4:47:12 PM	
		Known Conc:	0.00		
JC86300-3	1	48	-1.36e-3	4/17/2019@4:48:34 PM	
JC86300-5	1	49	4.52e-5	4/17/2019@4:49:56 PM	
JC86300-6	1	50	-3.95e-3	4/17/2019@4:51:18 PM	
JC86335-1	1	51	-6.13e-3	4/17/2019@4:52:40 PM	
JC86335-2	1	52	-2.12e-3	4/17/2019@4:54:01 PM	
JC86335-3	1	53	2.39e-3	4/17/2019@4:55:23 PM	
GP20656-MB1	1	54	-9.03e-5	4/17/2019@4:56:45 PM	
GP20656-B1	1	55	0.0786	4/17/2019@4:58:06 PM	
GP20656-S1	1	56	0.0606	4/17/2019@4:59:27 PM	
GP20656-S2	1	57	0.0204	4/17/2019@5:00:48 PM	
CCV	1	S9	0.419	4/17/2019@5:02:10 PM	
		Known Conc:	0.400		
CCB	1	S10	-6.75e-3	4/17/2019@5:03:32 PM	
		Known Conc:	0.00		
GP20656-D1	1	58	1.08e-3	4/17/2019@5:04:52 PM	
JC86276-1	1	59	2.21e-3	4/17/2019@5:06:13 PM	
JC86276-2	1	60	-4.10e-3	4/17/2019@5:07:34 PM	
JC86276-3	1	61	8.21e-3	4/17/2019@5:08:57 PM	
JC86276-4	1	62	-4.55e-3	4/17/2019@5:10:19 PM	
JC86276-5	1	63	2.18e-4	4/17/2019@5:11:42 PM	
JC86276-6	1	64	-3.97e-3	4/17/2019@5:13:04 PM	
JC86308-1	1	65	-4.15e-3	4/17/2019@5:14:26 PM	
JC86308-2	1	66	-4.86e-3	4/17/2019@5:15:48 PM	
JC86308-3	1	67	-6.50e-3	4/17/2019@5:17:09 PM	
CCV	1	S9	0.402	4/17/2019@5:18:31 PM	
		Known Conc:	0.400		
CCB	1	S10	0.0337	4/17/2019@5:19:53 PM	
		Known Conc:	0.00		

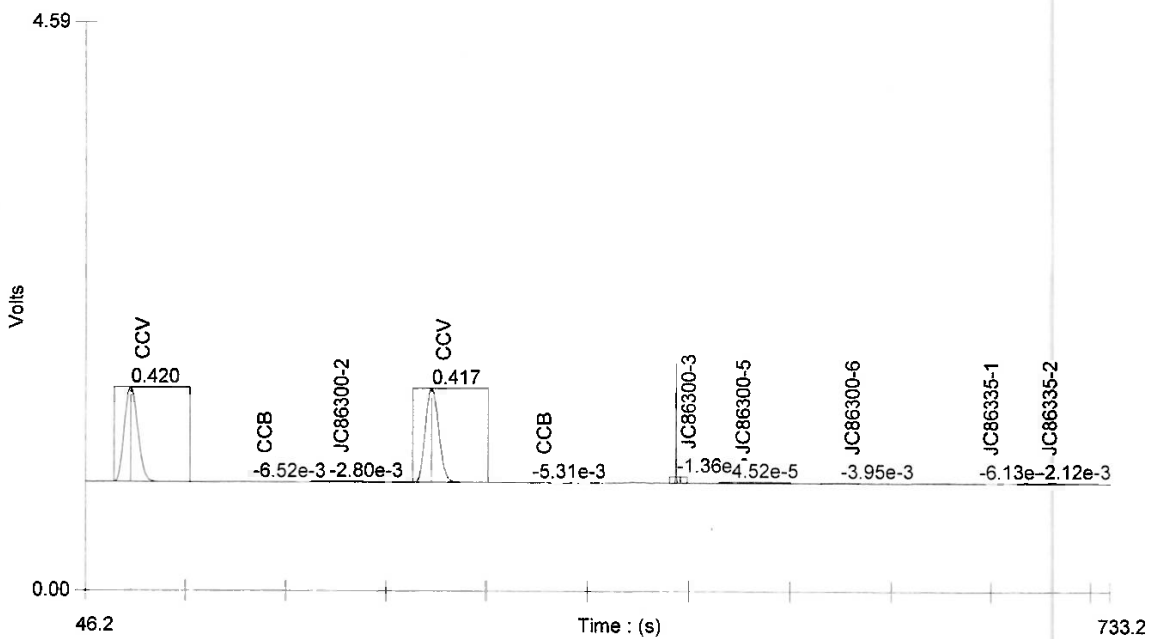
v6 rec
 W05
 W4.25
 94.3
 W4.75
 CCB failed. see vern
 W0.5

13.1
 13

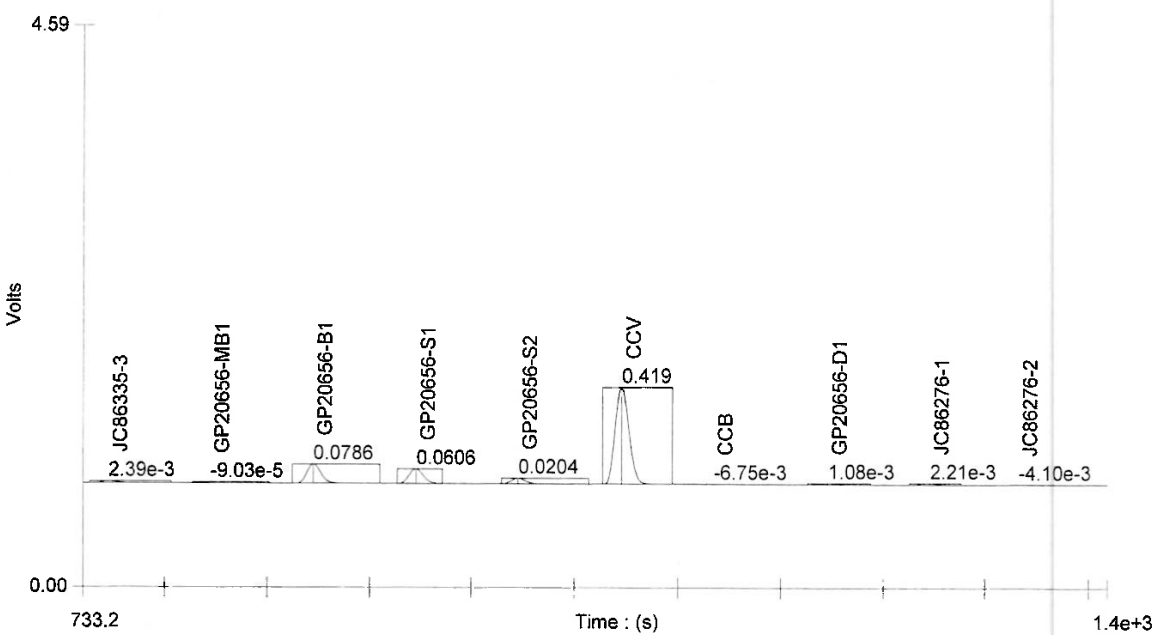
Author: Chemistry

Date: 4/17/2019

Channel 1 - Set: 1 / 3



Channel 1 - Set: 2 / 3



Author: Chemistry

Date : 4/17/2019

Channel 1 - Set: 3 / 3

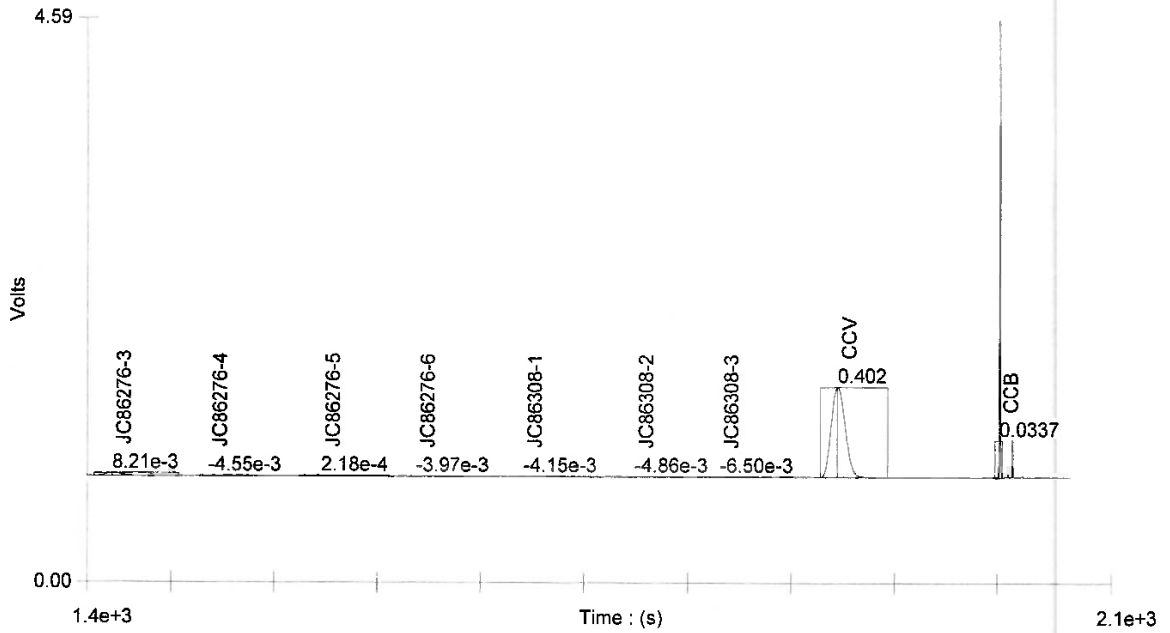
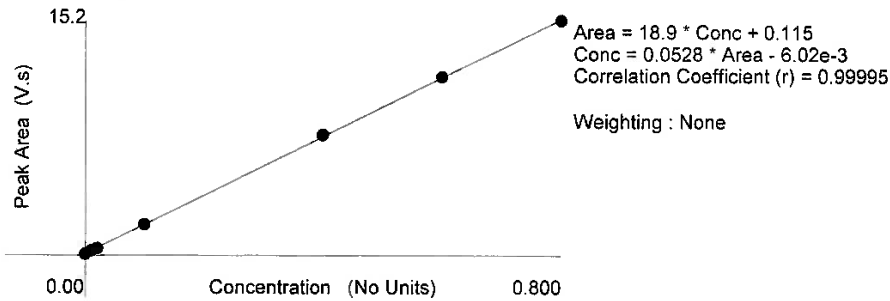


Table : 1 (CN)

	Known Conc. ()	Rep.	Peak Area (V.s)	Peak Height (V)	% RSD	% Residual	Det. Conc ()	Detection Date	Detection Time
1	0.800	1	15.2	1.44	0.0	0.6	0.795	4/17/2019	3:22:44 PM
2	0.600	1	11.5	1.10	0.0	-0.4	0.602	4/17/2019	3:24:06 PM
3	0.400	1	7.80	0.753	0.0	-1.4	0.406	4/17/2019	3:25:28 PM
4	0.100	1	2.01	0.194	0.0	-0.3	0.100	4/17/2019	3:26:50 PM
5	0.0200	1	0.451	0.0421	0.0	8.5	0.0178	4/17/2019	3:28:12 PM
6	0.0100	1	0.306	0.0287	0.0	-0.7	0.0101	4/17/2019	3:29:34 PM
7	0.00	1	0.0818	7.16e-3			-1.70e-3	4/17/2019	3:30:55 PM

Figure : 1 (CN)



2041719w3 cn

Author: Chemistry

Date : 4/17/2019

Original Run Filename: OM_4-17-2019_05-26-20PM.OMN Created: 4/17/2019 5:26:20 PM
 Original Run Author's Signature: [Chemistry]
 Current Run Filename: OM_4-17-2019_05-26-20PM.OMN Last Modified: 4/17/2019 5:59:57 PM
 Current Run Author's Signature: [Chemistry]
 Description: Default new Run

Sample	Rep.	Cup No.	Channel 1 CN	Detection Time	MDF
CCV	1	S9	0.403	4/17/2019@5:27:34 PM	
		Known Conc:	0.400		
CCB	1	S10	-5.14e-3	4/17/2019@5:28:56 PM	
		Known Conc:	0.00		
			Calibration: Table/Fig. : 1		
GP20656-D1	1	58	1.27e-3	4/17/2019@5:30:18 PM	
JC86276-1	1	59	1.22e-3	4/17/2019@5:31:39 PM	
JC86276-2	1	60	-1.78e-3	4/17/2019@5:33:00 PM	
JC86276-3	1	61	5.66e-3	4/17/2019@5:34:22 PM	
JC86276-4	1	62	-2.95e-3	4/17/2019@5:35:45 PM	
JC86276-5	1	63	-1.55e-3	4/17/2019@5:37:06 PM	
JC86276-6	1	64	-4.24e-3	4/17/2019@5:38:29 PM	
JC86308-1	1	65	-4.45e-3	4/17/2019@5:39:51 PM	
JC86308-2	1	66	-5.94e-3	4/17/2019@5:41:13 PM	
JC86308-3	1	67	-5.25e-3	4/17/2019@5:42:34 PM	
CCV	1	S9	0.403	4/17/2019@5:43:56 PM	
		Known Conc:	0.400		
CCB	1	S10	-4.79e-3	4/17/2019@5:45:18 PM	
		Known Conc:	0.00		
JC86308-4	1	68	-4.66e-3	4/17/2019@5:46:40 PM	
JC86308-5	1	69	-4.07e-3	4/17/2019@5:48:01 PM	
JC86308-6	1	70	-2.17e-3	4/17/2019@5:49:22 PM	
JC86308-7	1	71	-4.34e-3	4/17/2019@5:50:44 PM	
JC86308-8	1	72	3.98e-4	4/17/2019@5:52:05 PM	
JC86308-9	1	73	3.56e-4	4/17/2019@5:53:26 PM	
CCV	1	S9	0.405	4/17/2019@5:56:29 PM	
		Known Conc:	0.400		
CCB	1	S10	-3.26e-3	4/17/2019@5:57:51 PM	
		Known Conc:	0.00		

0.600
 100.75

100.75

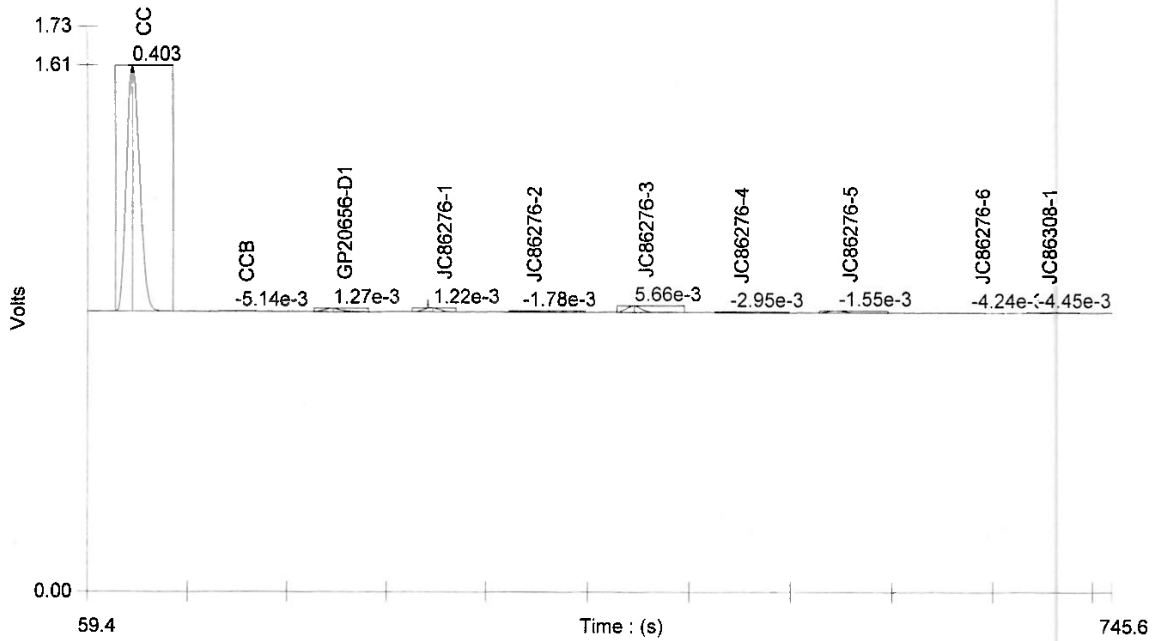
101.25

13.1
 13

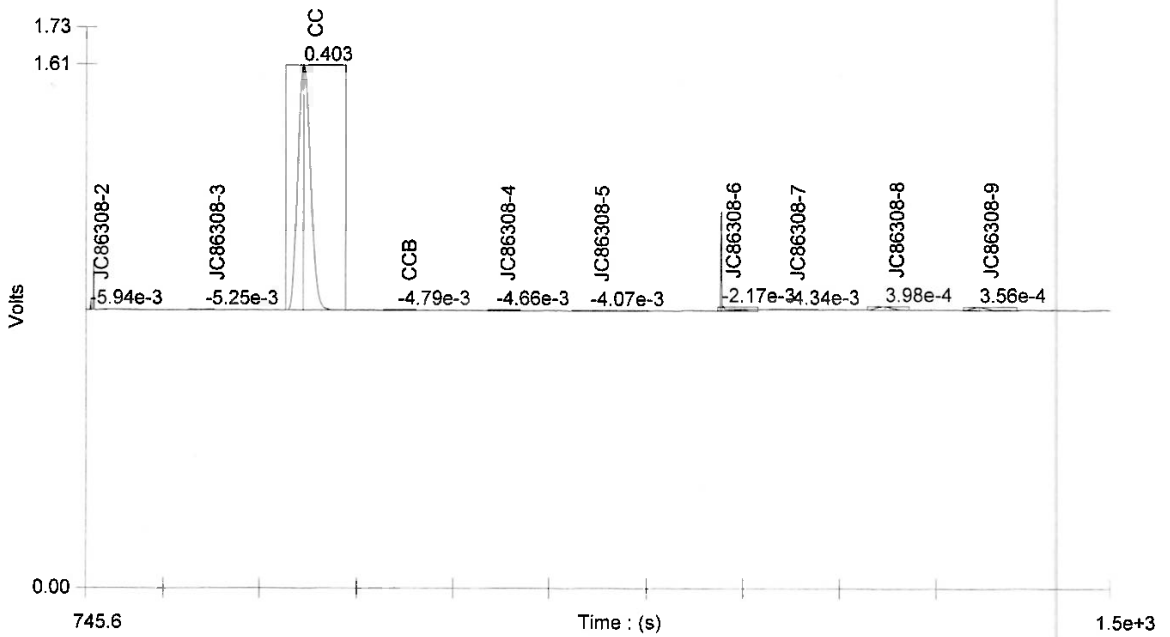
Author: Chemistry

Date: 4/17/2019

Channel 1 - Set: 1 / 3



Channel 1 - Set: 2 / 3



Author: Chemistry

Date : 4/17/2019

Channel 1 - Set: 3 / 3

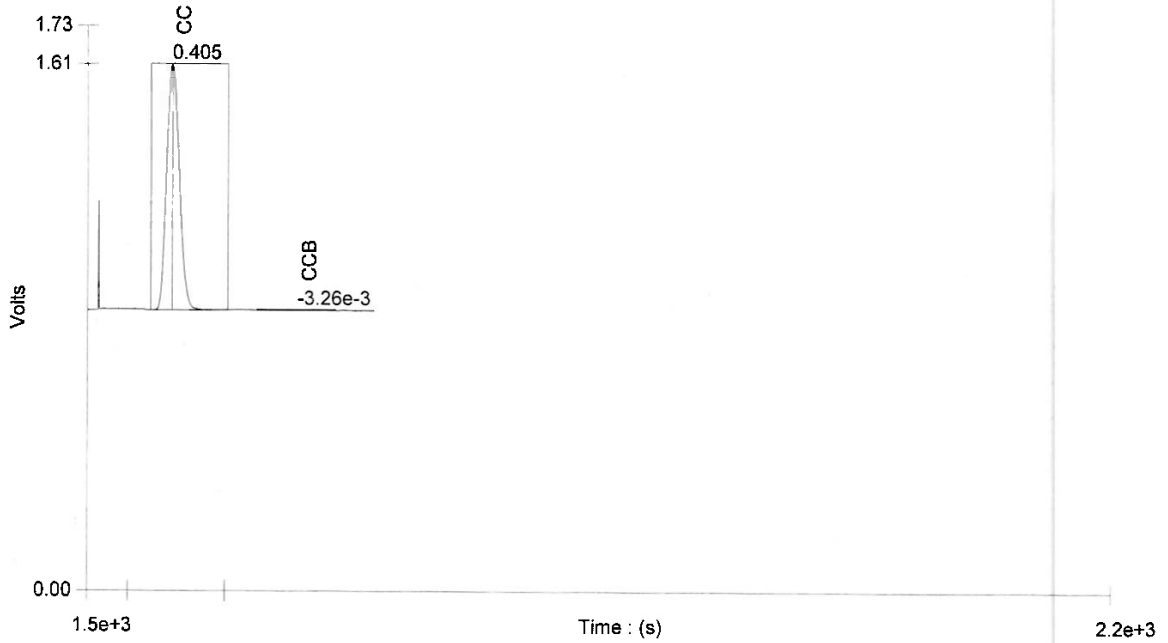
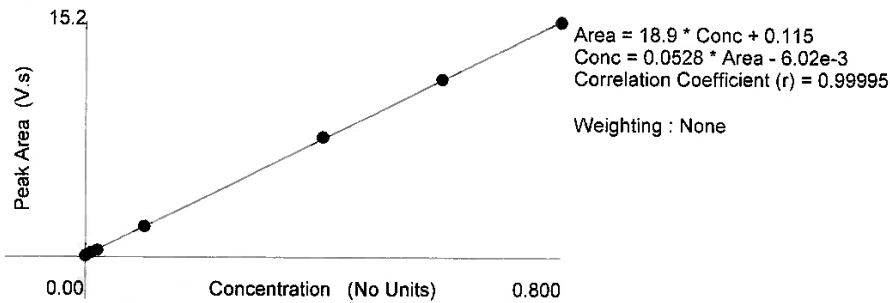


Table : 1 (CN)

	Known Conc. (l)	Rep.	Peak Area (V.s)	Peak Height (V)	% RSD	% Residual	Det. Conc (l)	Detection Date	Detection Time
1	0.800	1	15.2	1.44	0.0	0.6	0.795	4/17/2019	3:22:44 PM
2	0.600	1	11.5	1.10	0.0	-0.4	0.602	4/17/2019	3:24:06 PM
3	0.400	1	7.80	0.753	0.0	-1.4	0.406	4/17/2019	3:25:28 PM
4	0.100	1	2.01	0.194	0.0	-0.3	0.100	4/17/2019	3:26:50 PM
5	0.0200	1	0.451	0.0421	0.0	8.5	0.0178	4/17/2019	3:28:12 PM
6	0.0100	1	0.306	0.0287	0.0	-0.7	0.0101	4/17/2019	3:29:34 PM
7	0.00	1	0.0818	7.16e-3			-1.70e-3	4/17/2019	3:30:55 PM

Figure : 1 (CN)





Reagent Information Log - CN Lachat Autoanalyzer

GN Number: GN94233

Reagent	Reagent # or Manufacturer/Lot	Expiration date
Pyridine-Bartituristic Acid Reagent	GNE2-57177-CN	8/7/2019
Chloramine-T	GNE4-57788-CN	4/24/2019
Phosphate Buffer Solution, 1.0 M	GNE3-57668-CN	9/28/2019
0.25 N Sodium Hydroxide Carrier Solution	GNE2-57210-CN	8/11/2019

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

13.1
13



CYANIDE DISTILLATION LOG (SOILS- MICRO DISTILLATION)

Method: SW8469012B M

Batch ID: _____

Autopipette ID: 43

Balance ID: B-27

GP 20669

Boile #	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
3	MB1		12.0	✓	0.25	0.25	6	20.0	9:35	10:05	07/27/19	GP -MB1			PK
		B1				0.25									
		S1 J286337-1				0.25							0.10 ml of 5.0 mg/l (c)		
		S2 J286337-2				0.26							0.10 ml of 5.0 mg/l		
		E1 J286337-1				0.26							0.10 ml of 5.0 mg/l		
		J286337-1				0.26									
		-2				0.25									
		-3				0.25									
		-4				0.26									
		-5				0.25									
		-6				0.25									
		J286307-2A (E)				0.26									
		-3A				0.26									
		-4A				0.26									
		-5A				0.26									
		-6A				0.24									
		J286043-1				0.26									
		-2				0.26									
		-3				0.26									
		-4				0.26									
		-5				0.26									

(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: GN002-05

Rev Date: 12/15/13

Date: _____



Reagent Information Log - CN - Distillation

GP Numbers:

GP 2069

Reagent	Reagent # or Manufacturer/Lot	Expiration date
Silver Nitrate Solution 0.0192 N	GNE12-56761-CN	6/21/2019
Magnesium Chloride Solution	gne12-56762-cn	6/21/2019
Sulfamic Acid	RICCA 1705K24	2/29/2020
Sulfuric Ac id	FISHER 7664-93-9	11/6/2022
Sodium Hydroxide 1.25N/0.25N	GNE3-57637-CN	9/27/2019
Cadmium Carbonate, Powder	MKBF5367V	3/14/2022
Micro Distillation tubes	ENV-815190-9044-2	NA
.95 NaOH	GNE3-57639-CN	9/27/2019
Cyanide Stock Solution A - spiking/standards	GNE3-57465-CN	9/11/2019
Cyanide Stock Solution B- externals	GNE1-56947-CN	7/19/2019
Lead Acetate Test Paper	FISHER : 12/8/2016	12/8/2021
pH paper - range 12.5 to 14	HYDRION : 210114B	3/20/2020
pH paper - range 1 to 12	HYDRION : 223016	9/15/2019
Benzalrthodanine	ricca 1805f04	5/1/2019

Reason codes for data corrections: 1-reviewer error correction: 2s

Form: GN087A-28

Rev. Date: 03/19/13

13.1
13



GENERAL CHEMISTRY STANDARD PREPARATION LOG

Product: CN
GN or GP Number: AL 20669

Intermediate Standard Description	Stock used to prepare standard	Standard ization 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 5 PPM ext.	GNE3-57465-CN GNE1-56947-CN	3/28/19 3/28/19	988 1000	1.000 1	42 42	.25 N NaOH .25 N NaOH	200 200	5.00 5.00	4/17/19 4/17/19	BM BM	4/10/2019 4/10/2019
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	4/17/19	BM	4/10/2019
B	5.0 ppm CN STD		5.0	12.00	A	.25 N NaOH	100	0.60	4/17/19	BM	4/10/2019
C	5.0 ppm CN STD		5.0	8.00	A	.25 N NaOH	100	0.40	4/17/19	BM	4/10/2019
D	5.0 ppm CN STD		5.0	2.00	42	.25 N NaOH	100	0.10	4/17/19	BM	4/10/2019
E	5.0 ppm CN STD		5.0	0.40	42	.25 N NaOH	100	0.02	4/17/19	BM	4/10/2019
F	5.0 ppm CN STD	0.3	5.0	0.20	42	.25 N NaOH	100	0.01	4/17/19	BM	4/10/2019
Undistilled ICV Int.	5 PPM EXT STD	11/4/18	0.3	6.00	42	.25 N NaOH	100	0.30	4/17/19	BM	4/10/2019
Undistilled CCV Int.	5.0 ppm CN STD	11/4/18	0.4	8.00	42	.25 N NaOH	100	0.40	4/17/19	BM	4/10/2019
						0					

(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.



CYANIDE DISTILLATION LOG (SOILS- MICRO DISTILLATION)

Method: SW8469012B M

Batch ID: _____
 Autopipette ID: 43
 Balance ID: B-29

CR 20655

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	11.8	✓	✓	0.25	6	120	16:19	16:49	9/16/19	GP -MB1	0.10 ml of 5.0 mg/l (c)		RL	
2		B1				0.25										
2		S1 JC86300-3				0.25										
2		S2 JC86300-2				0.25										
2		D1 JC86300-3				0.26										
1		JC86307-1A				0.26										
1		-7A				0.26										
1		-8A				0.27										
1		-9A				0.27										
1		-10A				0.24										
1		-11A				0.27										
1		-12A				0.24										
1		-13A				0.26										
1		-14A				0.25										
1		-15A				0.25										
1		-16A				0.26										
2		S2 JC86300-2				0.24										
2		RL				0.25										
2		-3				0.25										
2		-5				0.24										
2		-6				0.26										
1		JC86335-1				0.26										
1		-2				0.25										
1		-3				0.26										

(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: SW8469012B-05
 Rev. Date: 06/8/13

Date: _____



Reagent Information Log - CN - Distillation

GP Numbers: *GP 20655*

Reagent	Reagent # or Manufacturer/Lot	Expiration date
Silver Nitrate Solution 0.0192 N	GNE12-56761-CN	6/21/2019
Magnesium Chloride Solution	gne12-56762-cn	6/21/2019
Sulfamic Acid	RICCA 1705K24	2/29/2020
Sulfuric Ac id	FISHER 7664-93-9	11/6/2022
Sodium Hydroxide 1.25N/0.25N	GNE3-57637-CN	9/27/2019
Cadmium Carbonate, Powder	MKBF5367V	3/14/2022
Micro Distillation tubes	ENV-815190-9044-2	NA
.95 NaOH	GNE3-57639-CN	9/27/2019
Cyanide Stock Solution A - spiking/standards	GNE3-57465-CN	9/11/2019
Cyanide Stock Solution B- externals	GNE1-56947-CN	7/19/2019
Lead Acetate Test Paper	FISHER : 12/8/2016	12/8/2021
pH paper - range 12.5 to 14	HYDRION : 210114B	3/20/2020
pH paper - range 1 to 12	HYDRION : 223016	9/15/2019
Benzalrthodanine	ricca 1805f04	5/1/2019

Reason codes for data corrections: 1-reviewer error correction; 2s

Form: GN087A-28

Rev. Date: 03/19/13



GENERAL CHEMISTRY STANDARD PREPARATION LOG

Product: **CN**
 GN or GP Number: **GP20655**

Intermediate Standard Description	Stock used to prepare standard	Standard ization 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	GNE3-57465-CN	3/28/19	988	1.000	42	.25 N NaOH	200	5.00	4/17/19	BM	4/10/2019
5 PPM ext.	GNE1-56947-CN	3/28/19	1000	1	42	.25 N NaOH	200	5.00	4/17/19	BM	4/10/2019
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		BM	4/10/2019
B	5.0 ppm CN STD		5.0	12.00	A	.25 N NaOH	100	0.60		BM	4/10/2019
C	5.0 ppm CN STD		5.0	8.00	A	.25 N NaOH	100	0.40		BM	4/10/2019
D	5.0 ppm CN STD		5.0	2.00	42	.25 N NaOH	100	0.10		BM	4/10/2019
E	5.0 ppm CN STD		5.0	0.40	42	.25 N NaOH	100	0.02		BM	4/10/2019
F	5.0 ppm CN STD	0.3	5.0	0.20	42	.25 N NaOH	100	0.01		BM	4/10/2019
Undistilled ICV Int.	5 PPM EXT STD	11/4/18	0.3	6.00	42	.25 N NaOH	100	0.30		BM	4/10/2019
Undistilled CCV Int.	5.0 ppm CN STD	11/4/18	0.4	8.00	42	.25 N NaOH	100	0.40		BM	4/10/2019
						0					

(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.

Batch ID: _____
 Autopipette ID: 43
 Balance ID: NIA

GP 20656

CYANIDE DISTILLATION LOG (WATERS- MICRO DISTILLATION)

Method: EPA 335.4 or SW-846 9012 M (Circle Method)

Bottle #	Block #	Sample ID	pH	S2	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		MB	12.00	✓	✓	6	6	12.0	16:19	16:49	4/16/19	GP			PC
6		B1										MB1			
6		S1 JR 86276-1										GP	0.10 ml of 5.0 mg/l (c)		
6		S2 JR 86276-2										GP	0.10 ml of 5.0 mg/l		
6		D1 JR 86276-1										GP	0.10 ml of 5.0 mg/l		
6		JR 86276-1										GP			
6		-2										GP			
6		-3										GP			
6		-4										GP			
6		-5										GP			
6		-6										GP			
20		JR 86308-1													
14		-2													
12		-3													
20		-4													
20		-5													
20		-6													
14		-7													
14		-8													
14		-9													

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.

Reviewer: _____
 Form: GN0012-04
 Rev. Date: 03/09/13
 Date: _____



GENERAL CHEMISTRY STANDARD PREPARATION LOG

Product: **CN**
GN or GP Number: **GP20657**

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	GNE3-57465-CN	3/28/19	988	1.000	42	.25 N NaOH	200	5.00	4/17/19	BM	4/10/2019
5 PPM ext.	GNE1-56947-CN	3/28/19	1000	1	42	.25 N NaOH	200	5.00	4/17/19	BM	4/10/2019
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	BM	4/17/2019		
B	5.0 ppm CN STD	5.0	12.00	A	.25 N NaOH	100	0.60	BM	4/17/2019		
C	5.0 ppm CN STD	5.0	8.00	A	.25 N NaOH	100	0.40	BM	4/17/2019		
D	5.0 ppm CN STD	5.0	2.00	42	.25 N NaOH	100	0.10	BM	4/17/2019		
E	5.0 ppm CN STD	5.0	0.40	42	.25 N NaOH	100	0.02	BM	4/17/2019		
F	5.0 ppm CN STD	5.0	0.20	42	.25 N NaOH	100	0.01	BM	4/17/2019		
Undistilled ICV Int.	5 PPM EXT STD	0.3	6.00	42	.25 N NaOH	100	0.30	BM	4/17/2019		
Undistilled CCV Int.	5.0 ppm CN STD	0.4	8.00	42	.25 N NaOH	100	0.40	BM	4/17/2019		
					0						

(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.

Expiration Date: SEE ATTACHED



Reagent Information Log - CN - Distillation

GP Numbers:

GP 20657

Reagent	Reagent # or Manufacturer/Lot	Expiration date
Silver Nitrate Solution 0.0192 N	GNE12-56761-CN	6/21/2019
Magnesium Chloride Solution	gne12-56762-cn	6/21/2019
Sulfamic Acid	RICCA 1705K24	2/29/2020
Sulfuric Acid	FISHER 7664-93-9	11/6/2022
Sodium Hydroxide 1.25N/0.25N	GNE3-57637-CN	9/27/2019
Cadmium Carbonate, Powder	MKBF5367V	3/14/2022
Micro Distillation tubes	ENV-815190-9044-2	NA
.95 NaOH	GNE3-57639-CN	9/27/2019
Cyanide Stock Solution A - spiking/standards	GNE3-57465-CN	9/11/2019
Cyanide Stock Solution B- externals	GNE1-56947-CN	7/19/2019
Lead Acetate Test Paper	FISHER : 12/8/2016	12/8/2021
pH paper - range 12.5 to 14	HYDRION : 210114B	3/20/2020
pH paper - range 1 to 12	HYDRION : 223016	9/15/2019
Benzalrthodanine	ricca 1805f04	5/1/2019

Reason codes for data corrections: 1-reviewer error correction: 2

Form: GN087A-28
Rev. Date: 03/19/13

13.1
13

Misc. Raw Data

Raw Data

Methanol Prep Log

Vial Track #:	Lims ID:	Initial Tare Wt (g)	Total Wt (g)	Weight of Sample (g)	Date Prepared	Lot #:	Prep By	Vial Desc:	Comments
	JC86043-1.3	36.6300	42.9600	6.3300				NAB	
	JC86043-1.4	35.1400	39.8500	4.7100				NAB	
	JC86043-1.5	35.2900	41.9200	6.6300				NAB	
	JC86043-2.3	36.1600	42.5600	6.4000				NAB	
	JC86043-2.4	35.2300	39.2000	3.9700				NAB	
	JC86043-2.5	36.2300	41.8700	5.6400				NAB	
	JC86043-3.3	36.0500	41.2100	5.1600				NAB	
	JC86043-3.4	35.5200	40.4400	4.9200				NAB	
	JC86043-3.5	35.2000	40.2500	5.0500				NAB	
	JC86043-4.3	35.9200	41.2400	5.3200				NAB	
	JC86043-4.4	35.0800	40.5300	5.4500				NAB	
	JC86043-4.5	35.3100	40.4600	5.1500				NAB	
	JC86043-5.3	36.7300	41.2200	4.4900				NAB	
	JC86043-5.4	34.9900	40.3800	5.3900				NAB	
	JC86043-5.5	34.8900	40.1100	5.2200				NAB	